DEVELOPING A FUNCTIONAL PATIENT SAFETY FRAMEWORK FOR TRANSITIONING HEALTH SERVICES:

A VISION FOR QUALITY MANAGEMENT IN A JORDANIAN ACUTE CARE HOSPITAL

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This thesis is submitted in accordance with the requirements for admission to the degree

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CERTIFICATE OF AUTHORSHIP / ORIGINALITY

I certify that the work in this thesis has not been previously submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text. I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Signature of Candidate

Mahmoud Alja'afreh

DEDICATION

I dedicate this thesis to my family. My wife Sana gave me extensive and continuous support in this endeavour provided me the space to think and write and took on the weight of domestic responsibilities for the family in a new country. I am also grateful to my children Tamer, Tala and Mohammad who have missed spending time with a father who has been busy with his doctoral thesis. I hope that one day they can understand and forgive me for this absence.

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ABBREVIATIONS (KEYS)

A&E	Accident and Emergency
AHCPR	Agency for Health Care Policy Research
AIN	Assistant in Nursing
AN	Associated Nurse
BP	Blood Pressure
C	Clinical
CCU	Coronary Care Unit
CGU	Clinical Governance Unit
CI	Clinical Instructor
CM	Meeting at Clinical Level
CPR	Cardio Pulmonary Resuscitation
CSB	Civil Service Bureau
CVA	Cerebro Vascular Accident
DON	Director of Nursing
Dr	Doctor
DVT	Deep Vein Thrombosis
EBP	Evidence-based practice
ECG	Electrocardiogram
EPUAP	European Pressure Ulcer Advisory Panel
FMW	Female Medical Ward
GDP	Gross Domestic Product
GI	Gastro Intestinal
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
I	Interview
ICPS	International Classification for Patient Safety
ICU	Intensive Care Unit
IDC	Indwelling Catheter
IOM	Institute of Medicine
JD	Jordanian Dinar JD = US$ 1.41, AU$ 2.32
JNC	Jordanian Nursing Council
JUST	Jordan University of Science and Technology
KPI	Key Performance Indicator

LOA	Liaison Accreditation Officer
MD	Medical Department
MMW	Male Medical Ward
MOH	Ministry of Health
N	Nurse
NDU	Nursing Development Unit
NICE	National Institute for Clinical Excellence
NPUAP	National Pressure Ulcer Advisory Panel
NSW	New South Wales
O	Observation
OPD	Out Patient Department
Org	Organisation
Org M	Meeting at Organisational Level
P	Policy
p	Page
PHCs	Primary Healthcare Centres
PHR *Plus*	Partners for Health Reform*plus* Project (USAID)
Pt	Patient
PU	Pressure Ulcer
QC	Quality Committee
QD	Quality Department
QU	Quality Unit
RAS	Risk Assessment Scale
RCT	Randomised Controlled Trial
RMS	Royal Medical Services
RN	Registered Nurse
SOP	Standard Operating Procedure
TOR	Term of Reference
UNRWA	United Nations Relief Works Agency
UK	United kingdom
USA	United States of America
USAID	United States Agency for International Development
WHO	World Health Organisation

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ABSTRACT

The purpose of this study, conducted in a tertiary public hospital in Jordan, was to identify and critically examine existing attributes that were seen to be problematic in managing patient risk. The management of pressure ulcers (PUs) was chosen as a representative exemplar to focus the research. A case study design using both qualitative and quantitative methods was used to generate an in-depth account of safety and quality issues. Data were analysed interpretatively and the findings used to develop a proposed patient safety framework for patients in the acute care sector.

The main findings include an urgent need to begin the modification of the traditional hierarchical bureaucracy within the organisation and the disciplines, towards structures and processes that promote a multidisciplinary approach to patient care. Processes such as the provision of multidisciplinary evidence-based practice guidelines to reduce variation in practice standards, the implementation of multidisciplinary progress notes in patients' medical records to prevent duplication inaccuracies and a team model of nursing care are required and included in the proposed model. Improvements in the organisational culture are likely to be achieved by engaging clinicians in organisational decision-making structures and processes and providing them with performance feedback by developing an incident monitoring system. The instability of the hospital workforce makes the achievement of cultural change extremely difficult. Changes in the employment of staff from one centralised government agency to a system that enables managers to have more control of workforce employment in their organisations, with staff themselves able to nominate where they work, are recommended. Organisational managers also require more control in how funds are allocated to their organisations to allow them to formulate budgets and identify funding priorities within their organisations. The greatest impact on improvement will be achieved if reforms are concurrently implemented.

A proposed framework incorporating these recommendations as a way to improve patient safety in acute care has been developed for countries attempting health care

transition. The framework positions the patient as central to clinical care decisions and clinical process management, and links the three key levels of the hospital together, i.e. the clinical, organisational and ministry levels, as one interconnected activity. Such an integrated framework will facilitate the concurrent implementation of the proposed new structures and processes that research findings show are at the heart of patient safety.

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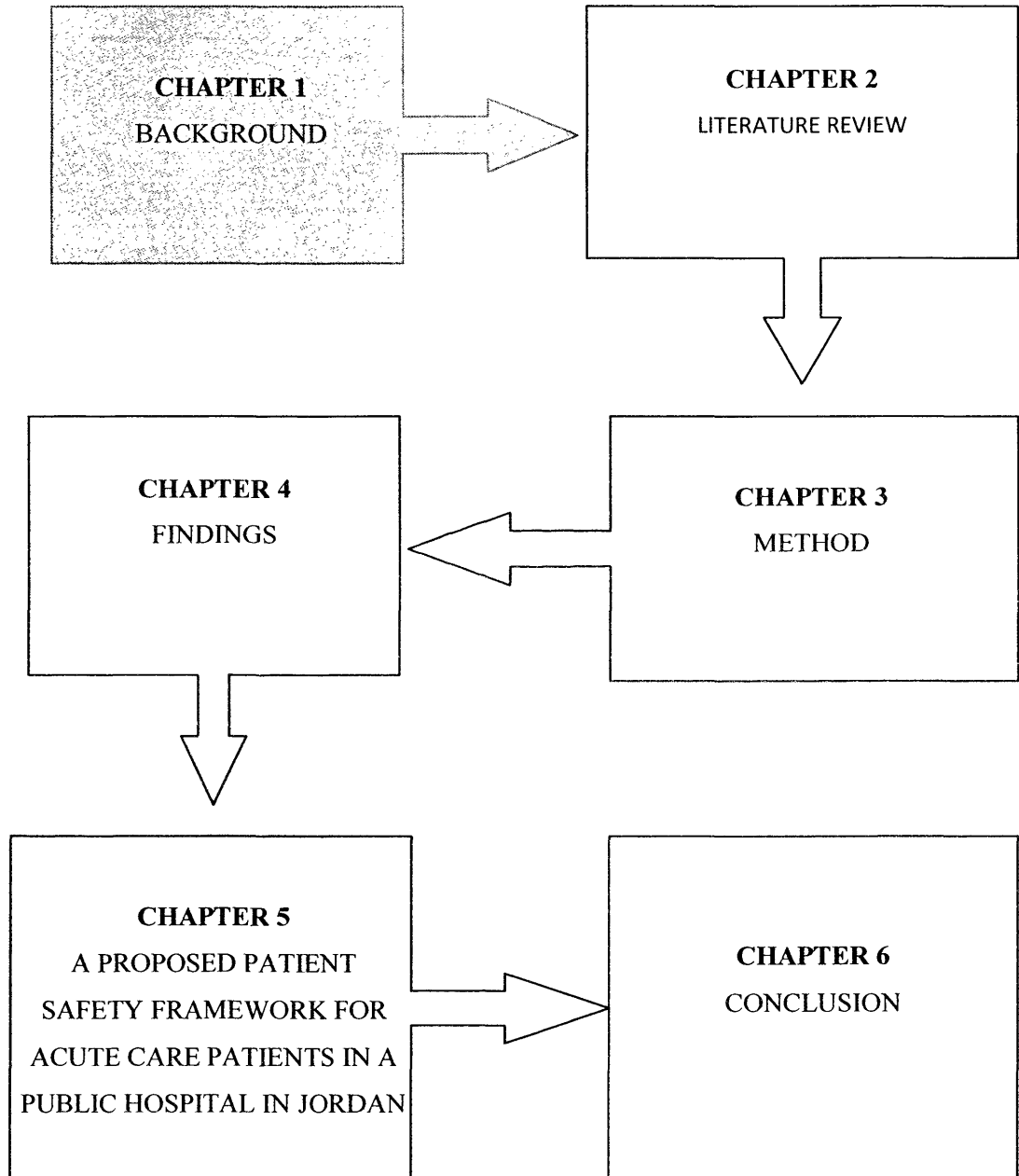
CHAPTER 1: BACKGROUND

Introduction

Jordan is one of a number of developing nations in the Middle East. As with all developing nations, the health of the population is a major focus. Strategies are currently being undertaken aimed at improving the health care system. In Jordan, national access to health and social care is a government priority, with policies calling for comprehensive and equal care for all. However, as there is little information about how inequalities and differences in the provision of services arise, it is not clear how such policies are being implemented or if they are effective. Thus, improving the quality and standard of services in acute care hospitals is a major challenge facing the Jordanian Government. The right health care policies are required to support this ambitious aim and best practice models of care are needed to effect the change. This research will contribute to the formulation of such policies by developing a best practice model of risk management. Pressure ulcers (PUs) were selected as an exemplar to improve patient outcomes that can be used as a template for other clinical case types. Before examining Jordan's health care initiatives to develop an effective health care system capable of servicing the population, this chapter will outline the background of the study including the local context, the health system in Jordan, including the Ministry of Health strategies for development, funding and health insurance and the standard of health care. The chapter will address the rationale for examining PUs, nursing in Jordan, the thesis aim and significance of the study.

Local context

In developing an appropriate health policy for Jordan, the socio-economic status and geographic distribution of the population of 5,723,000 people needs to be taken into account (Department of Statistics, 2008). The vast majority of the Jordanian population (approximately 78%) reside in urban areas or major cities. The capital, Amman, itself comprises 1.9 million people or 38% of the total population (WHO, 2003). The growth rate of the Jordanian population is 2.2% per annum; the crude birth rate was 28 per 1000 in 2008; and the crude death rate is 7 per 1000 which is similar to most developing

countries (Ministry of Health, 2008). Life expectancy at birth increased during the last three decades from 50 years for both genders in 1965 to 69 years for males and 71 years for females in 2004 and to 71 years for males and 74 years for females in 2008 (Batieha, 2004; Embassy of the Hashemite Kingdom of Jordan: Washington, 2004; Ministry of Health, 2008). Significant improvements in public health initiatives in the last 40 years, such as the availability of water and electricity to most rural and remote areas, underpinned these improvements in life expectancy. As with other countries with increased life expectancy, Jordan will experience an increasing percentage of older people in the coming years. This increase has implications for health services, as the incidence of cancer and chronic illnesses increase with age (Ministry of Health, 2007).

The leading cause of all mortality in 1997 was cardiovascular disease, including hypertension, coronary heart disease and stroke at 42% of total deaths. This category is followed by cancer at 13% and accidents at 10.5% (Khouri & Massad, 1996; National Cancer Registry, 1999; WHO, 2003). By 2008 causes of mortality changed to 34% of total deaths for circulatory system diseases, followed by cancer at 10% (Ministry of Health, 2008) indicating changing causes of death. The high mortality rate and concentration of disease especially in people over 45 years indicate the types of challenges facing the Jordanian health system. In considering the specific challenges, a major issue will be transforming the existing health system into an efficient, modern system with a focus on service access, quality of care, patient safety and resource conservation. In this respect, the World Bank reports that the health system in Jordan is relatively costly for people who do not have health insurance, and inefficient in the delivery of services, with poor geographical distribution of resources, and hence allocative inefficiency (The World Bank, 2006). Those most disadvantaged are rural populations, where high levels of poverty and unemployment are reported (Ministry of Health, 2008; WHO, 2003).

The economic status of the population can also affect health outcomes. In central metropolitan regions the economic status is higher than for the population in rural areas. This has significant implications for the population developing adequate health services capable of responding to a nation that has a stark divide between metropolitan and rural areas. The southern region is considered the least developed economically, when

compared to the central and northern regions (Batieha, 2004). Thus, there are groups of people who are most in need of improved services, specifically those living in rural and remote areas. Further, rural populations experience health and medical workforce shortages, lower utilisation rates for medical services and generally poorer health status compared to people in metropolitan areas (Ministry of Health, 2007).

Access to primary health care services is particularly important for people of rural and remote areas facing problems of limited availability and access to specialised health care services. In addition, in these areas the low socio-economic status of the population affects not only the health of the people, but also the health system needed to respond to their health care needs. In this respect, one of the significant socio-economic indicators, the literacy rate of the adult population, was reported as being 92% (96% for males, and 89% for females) in 2008. This means that at 11% the illiteracy rate for women is high (Ministry of Health, 2008). These differences in socio-economic status and literacy skills, particularly for women, have implications for the access to skills and knowledge in written form, as women are those most likely to seek out or require health services on behalf of themselves and/or their family.

The planning of health services in Jordan is the responsibility of the central government at the level of the Ministry of Health (MOH). Issues addressed here include the centralised budgeting program that makes decisions about local priorities. As well as other micro economic level decisions, such as overhead costs and inflexible working conditions have also been identified (Hijazi & Al-Ma'aitah, 1999). A permanent workforce full time workers in the Jordanian health system, unlike developed countries that have more flexible workforce arrangements, such as part-time work and casual staff. This inbuilt inflexibility affects both the cost and the quality of health services at the planning and delivery levels, and adds to the challeges facing the Jordanian health system.

In summary, challenges that face Jordan in developing a world class health system include the level of illiteracy, a highly centralised, inefficient system with urban and rural resource maldistribution, different cultures with varying attitudes to health and wellness, inceased ageing and the isolation of the rural population. This thesis is

directed towards contributing to new systems to underpin the internationally emerging quality and safety agenda, in the context of service and system health reform in Jordan, and within a framework of cultural appropriateness.

The health system in Jordan

While the health system in Jordan consists mainly of two sectors, the public and the private, these two sectors each consist of many parts. The system is fragmented and there is duplication between programs. Similar health services are delivered and managed by different bodies and with different program arrangements (The World Bank, 2004). In total, Jordan has 103 hospitals. Thirty of these are public hospitals run by the MOH. The remaining hospitals are distributed between the Royal Medical Services (RMSs), two university teaching hospitals and the private sector. The health sectors in Jordan, in terms of hospital numbers, beds, location and eligibility for services are set out in Table 1.1 (Ministry of Health, 2008).

Table 1.1: Health sectors in Jordan with the number of hospitals, bed numbers, health care centres and patient eligibility.

Health system	Public			Private	International and other non-profit agencies UNRWA$_2$	Total
	MOH	RMS$_1$	University hospitals			
Location	Metropolitan Rural	Metropolitan	Metropolitan	Metropolitan	Metropolitan	-
Hospital numbers	30	11	2	60	-	103
Bed numbers	4333	2129	1026	3712	-	11200
Health care centres	1099	-	-	-	23	1122
Eligibility for services	Everyone	Military insured, Referrals from public or private system paid for by their system	University staff, insured transferred from other sectors.	Private insured, others transferred from MOH	Palestinian Refugees	-

1. RMS: Royal Medical Services
2. UNRWA: United Nations Relief and Works Agency

The MOH provides public primary, secondary and tertiary services through a network of community health centres (primary and comprehensive) and acute health care facilities (hospitals). The organisational structure has two main strands: technical affairs and financial administration. Primary health care and acute care are the main components within technical care. This study is based on the acute care service. Acute care hospitals are the principal institutions where secondary and tertiary health services are delivered. In terms of size, hospitals provide eighteen beds per 10,000 inhabitants, and at least one health centre for every 7,000 persons (Ministry of Health, 2008; WHO, 2003).

This ratio of health care facilities per number of people is low according to WHO standards (WHO EMRO Jordan Representative office, 2002). This ratio is low compared to other countries such as Australia, UK and USA. Their ratios are 74, 42 and 33 beds per 10,000 people respectively (The World Bank, 2006). Nursing homes as public organisations for the elderly are unknown in Jordan, because they are regarded as not culturally appropriate (Ministry of Health, 2004). The elderly live with their extended families, mostly with their sons whose wives and sisters are mainly responsible for the health care of their parents-in-law as well as themselves and their children.

Public hospitals in Jordan are owned and managed by the MOH. They are an integral part of the public health services, and all strategic issues are controlled by rules set by the Jordanian Government. The hospital director or administrator has minimal control over daily decision-making about the factors related to the budget in terms of the production and delivery of health services. Control of hospitals is centralised at the MOH. Public hospitals are financed through public resources and their hospital employees are government employees.

In 2008, the total number of admitted patients in all health systems in Jordan was estimated at 828,800 (Ministry of Health, 2008). The MOH provided services for 318,032 admissions – 38% of total hospital admissions. The average occupancy rate for MOH hospitals is 69% and the length of stay is 3.2 days (Ministry of Health, 2008). Besides MOH services, the public health sector includes services provided by the Royal

Medical Services (RMS) (Table1.1), which is considered the primary health system in Jordan. Military health services, introduced in 1963, provide secondary and tertiary care to the military and security members of the armed forces and their families through ambulatory care centres connected to the 11 hospitals (Ministry of Health, 2008; The World Bank, 2004; WHO, 2003). The third sector consists of the teaching hospitals, Jordan University Hospital and the King Abdullah II Hospital that provide acute health care services for their employees and also for students from the two universities (Table 1.1). The universities developed the hospitals to support health related courses and curricula.

The private health care sector has expanded as well as the public sector, and it provides primary, secondary and tertiary care. The 60 private hospitals have 33% of the total hospital beds, in addition to the private clinics and screening centres (Ministry of Health, 2008). The private sector in Jordan is regarded as among the best in the Middle East, with the latest health technology and medical instruments such as for cardiac and laparoscopic surgery and kidney transplantation (The Centre for Administrative Innovation in the Euro-Mediterranean Region (CAIMED), 2004; The World Bank, 2004). The private sector hospitals provide six beds for every 10,000 inhabitants. The majority of these hospitals are located in the capital Amman (35 hospitals) with 13 beds for every 10,000 inhabitants (The Centre for Administrative Innovation in the Euro-Mediterranean Region (CAIMED), 2004). The private sector share of the total number of hospital admissions reached 305,623 representing 37% of all admission to hospitals (Ministry of Health, 2008). The average occupancy rate in the private sector is 53%, and the average length of stay is 2.2 days (Ministry of Health, 2008).

The fifth sector is the United Nations for Relief Works Agency (UNRWA), which provides care for the Palestinian people who are living in refugee camps in Jordan (Table 1.1). Overall, the health system is complex in terms of the public, private and military mix of resource allocation, communication, coordination and equity of access to health resources. These complexities are reflected in health funding and insurance.

Health funding and insurance

The main goal of Jordan's health strategy is to provide adequate health coverage to all people (Embassy of the Hashemite Kingdom of Jordan: Washington, 2004). Jordan spends more than seven percent of its Gross Domestic Product (GDP) on health services (Ministry of Health, 2008), and some of this funding could be directed towards addressing concerns about patient safety in the acute care sector.

Jordan is one of many countries that receive funding assistance from USAID to support many categories including health. Assistance also comes from Canada, Italy and Japan. Health resources are financed from public funding (45%) through general taxation (WHO, 2003). Other finance comes from donor assistance and World Bank loans, 43% through household spending (payroll deduction for insurance, user fees, and the purchase of pharmaceuticals) (WHO, 2003). In the public sector, 85% of the health expenditure is financed through government budget, and 15% from insurance premiums, prescription fees, doctors' fees and donations. Fifty-eight percent of the monies are spent on curative health care and 27% on prevention services and primary care (WHO, 2003).

The Jordanian Government is moving towards new public health project management. The health care system is today under reform. Many projects are being conducted by WHO and the United States Agency for International Development (USAID) for hospital restructuring and quality management (The Centre for Administrative Innovation in the Euro-Mediterranean Region (CAIMED), 2004). There are numerous USAID projects at MOH in primary and acute care settings running concurrently. These include a reward and recognition program at the primary health care centres, a national project on accreditation and quality in 17 hospitals (public, military and private sectors), an adverse events project with the WHO through the Regional Office for the Middle East involving other countries, and a project of improving health services sectors in the accident and emergency departments that is being initially applied at two MOH hospitals, AlBashir and Prince Hamza Hospitals, and then to be applied in all health sectors. All of these health sectors have different systems of health insurance.

Health insurance in public and private institutions reaches about the two third of the Jordanian population (The World Bank, 2004). Health insurance is free of charge to governmental employees and army members and their dependants. This accounts for 69% of people using the MOH and RMS hospitals. Uninsured people, 40% of the population in Jordan, can receive health services at MOH facilities at low cost (WHO, 2003; WHO & MOH, 2005).

Clearly, the previously mentioned figures about the Jordanian health system mean that MOH is more overloaded than the private sector in terms of demand and health services provided. Hence more health system issues arise. The MOH introduced a number of strategies to underpin these health care system issues. The next section will discuss these issues and strategies briefly.

Health system issues and strategies for improvement

The Jordanian Ministry of Health recognises that the way in which health services are provided and delivered to patients in acute care facilities is inadequate in terms of service planning, service quality and performance evaluation (Hijazi & Al-Ma'aitah, 1999). Problems identified have included weaknesses in human resource management linked to a high immigration rate of highly trained health professionals, insufficient funding for tertiary services and marked inequities in the provision of health care facilities (Ministry of Health, 2007). As a consequence, the MOH has implemented two main health strategies to improve the quality of health services. The first strategy is the implementation of the Quality Directorate (QD) in the MOH and the second is the implementation of a clinical instructors' program in the acute care sector.

The Quality Directorate under the organisational structure of the MOH was developed to oversee quality improvement activities in health services. The Directorate is responsible primarily for establishing and implementing quality standards in accordance with scientific principles; professional guidance and leadership, particularly monitoring systems for performance improvement in the Ministry's facilities; and monitoring the performance for all quality assurance units in MOH facilities. An additional responsibility is to assist staff to recognise and comply with quality standards in managing and providing services (Quality Directorate MOH, 2004). While quality

assurance units have been set up in public health centres (PHCs), they have not yet been introduced into all public hospitals. It is planned to introduce these units to all public sector hospitals as part of a quality improvement strategy funded by USAID. Considerably more work needs to be undertaken before this strategy has any impact on improving health care standards.

The second strategy is the implementation of the clinical instructors' (CIs) program under the supervision of the Directorate of Education and Training within the MOH. This program was initiated in 1987 with the technical and financial support of the Italian Government (Ministry of Health, 1992). It was designed to support the development of qualified professional nurses at MOH hospitals. The CI's role was to ensure the provision of continuing in-service education to nurses and to provide on the job training focused on the health care providers' educational needs. Clinical instructors were to make effective use of the human and material resources at the hospital level (Ministry of Health, 1992). As part of this program, CIs within acute care hospitals work as advanced practitioners of nursing and provide education and training to staff. Specifically, the CI role is an essential part of clinical practice and the maintenance of quality care for surgical patients in the public sector. As such, the CI's daily observation and communication with the medical teams is a central element in both quality improvement and program evaluation, as they can evaluate both patient and staff needs, and participate in service planning and management. The CIs were working as a nursing specialisation, but in 2006 the program to develop new CIs was ceased by the MOH. However, there are many specialist nurses working within the public hospitals sector who will take over the direct responsibility for maintaining practice standards and quality of care for patients. The next section will discuss the nursing profession in Jordan.

Nursing in Jordan

This study focuses on the current practices in PU prevention and management undertaken by different health professionals such as nurses within the Jordanian public acute care sector. The nursing workforce provides accessible services 24-hour a day and is key in the delivery of health care services (AbuGarbieh & Suliman, 1992). The education level of nurses ranges from high school education for an assistant in nursing

(AIN) (18 months of study and hospital training course) to an associated nurse degree (AN) (two years of study post high school) to a diploma (three to four years of post high school study) RN and a bachelor's degree for RNs (four years post high school study) (Francis, Nawafleh, & Chapman, 2005; Shukri, 2005; Sultan, 1998). Additionally, an aid nurse may have no training to six months training in a hospital-provided course (Francis et al., 2005; Sultan, 1998). Currently, there are eight Bachelor of Nursing programs in Jordan (Shukri, 2005). There are two programs for postgraduate degrees at the master degree level and one program at the doctoral level.

For the last ten years, Jordan has been working to improve the quality of higher degree programs in nursing education. The first nursing faculty in Jordan was established under the patronage of the Ministry of Health in 1953, followed by the nursing college of Princess Mona (Army college) established in 1962 (Ministry of Health, 2004). The University of Jordan is the first State-run institution for higher education in Jordan. The Faculty of Nursing was established there in 1972 and offered the first bachelor's degree in nursing. In 1982 a nursing education program at the graduate level, a master degree in nursing education, then a master of clinical nursing, was offered. A bridging program for graduate diploma registered nurses (RN) and associate degree nurses (AN) to complete a bachelor's degree in nursing was established as well (Sultan, 1998). In 2006, the Jordan University commenced a doctoral level educational program in nursing with the cooperation of several American universities. The plan was to have these two levels of clinical nursing in Jordan and cease all other nurse training programs such as assistance in nursing (AIN) and aid nurses. To date this has not occurred.

The second Faculty of Nursing was established at the Jordan University of Science and Technology (JUST) in 1986, offering a bachelor of nursing and midwifery (Sultan, 1998). In 1998, JUST offered the first master's program in the Arab world in the clinical nursing speciality of adult acute care, community health nursing, and maternity and newborn nursing. The remaining six colleges of nursing in both the public and private sectors offer an undergraduate program (bachelor's degree) over four years. One of these eight faculties also offers a bachelor program in reproductive health nursing.

Similarly to many other nations, the public view or image about nursing in Jordan is problematic (Al-Ma'aitah, Cameron, Armstrong-Stassen, & Horsburgh, 1996). Jordanians regard nurses as 'handmaidens' to doctors; selfless and not well educated (Petro-Nustas, Mikhail, & Baker, 2001). In Jordan, there is no clear collaboration between nursing institutions and the nursing council resulting in multiple categories of nurses with different titles and unclear functions (Al-Ma'aitah et al., 1996). No links or resources for communication, employment, education and publication are available between them. Currently, the licensing of nurses is performed by the MOH and a professional organisation of the Jordan Nurses and Midwives Council.

The ratio of Jordanian medical personnel per capita differs from one profession to another. For example, in 2008, there were 25 doctors, 16 registered nurses, five associated nurses, eight assistants in nursing, three midwives, nine dentists, 13 pharmacists per 10,000 people (Ministry of Health, 2008). There were 16 hospital beds per 10,000 people (Embassy of the Hashemite Kingdom of Jordan: Washington, 2004). The ratio of registered nurses for 10,000 people was increased after a number of nursing colleges were established. No ratios of professional nurse was recorded in the 1950s, with ten nurses recorded in 2004, and 16 nurses in 2008 (Embassy of the Hashemite Kingdom of Jordan: Washington, 2004; Ministry of Health, 2004, 2008). In Jordan, the male-female ratio of practicing nurses has reached 60/40 (Shukri, 2005). Jordan suffers from a shortage of health care providers such as specialised physicians and skilled registered nurses (Al-Keswani, 2008, 26 April). This shortage affects the standard of care provided because of the substantial increase in the number of patient days in hospitals and the increased demand after many private hospitals were opened especially in Amman (Ministry of Health, 2008).

It has been noted that nurses in Jordan spend more time performing non-nursing activities due to the shortage of other support staff in the health setting (Hijazi & Al-Ma'aitah, 1999). Qualified nurses apply to transfer to public health centres as they can do day time work. Day work is especially important for married females, because there are no child care facilities in most of the hospitals during the afternoon and night. In addition, there are no written policies or regulations to exchange staff between the acute care facilities and public health centres to manage staff shortages (Hijazi & Al-Ma'aitah,

1999). Despite the MOH efforts in the past ten years to motivate nurses to stay in acute care hospitals by giving them financial incentives or monthly allowances more than public health centres nurses, they prefer the lighter work of the health centre in preference to more money. Consequently, there are ongoing staffing issues with nurses in the acute care sector.

The Jordanian Nursing Council (JNC) was established in 2002. Princess Mona, who currently heads the Council, is the current patron of the organisation's nursing and midwifery services in the Eastern Mediterranean. The Council aims to develop the nursing services both scientifically, by increasing research, and practically, by organising the profession through laws integrated into the planning of the national health strategy and developing the levels of the nurses' profession (Jordanian Official Newspaper, 2002).

To sum up, there are many different nursing education programs in Jordan. These programs are providing nurses with varying levels of practice competence. Better control and regulation of these programs is required to ensure curricula are appropriate and the educational processes result in a more uniform standard of knowledge and skill proficiency in graduates. Policy that will protect both nurses and patients legally is required to support the achievement of better patient outcomes. As the population's expectations for health services increases and more hospitals are built, more nurses are required to meet service demands. The short-fall of nurses and higher demand has resulted in the standard of nursing practice across the public sector becoming inconsistent and in some cases very poor. Although the MOH has implemented a Quality Directorate to improve the situation, the withdrawal of the CI's program means there are no personnel at the clinical level to sustain the standard of practice for nursing staff. Consequently, ways to improve patient safety need to be identified. Patients in an acute care hospital are vulnerable to many risks as a consequence of being hospitalised. The example chosen for this thesis is hospital-acquired PUs, because this iatrogenic injury can be prevented or the degree of injury reduced if effective care is implemented. The patient must be protected from any risk of injury such as PU and I examine the rationale for this choice of topic in the next section.

Identifying a condition as a case study example

During the 13-year period in which I have worked in the acute care settings in Jordan as a registered nurse and clinical instructor (CI), I observed and nursed various patients with multiple health problems. In many of these cases, patients developed hospital acquired complications, including infection, slow wound healing and sepsis arising from PUs. Patients admitted with multiple trauma and fractures as a result of road-traffic accidents, head injuries, diabetes mellitus, and stroke are all susceptible to PUs. PUs are considered an unnecessary burden that brings undesirable consequences for both patients and the organisation. Patients are forced to endure additional suffering, increased treatment costs and an increased length of hospitalisation, often for a protracted period, and organisations must expend the resources necessary to care for such patients. Clearly, it is worthwhile to manage patients' health conditions more effectively so that patients do not acquire these ulcers. Hence this research will not only contribute to improving the quality of care for individual patients and patient populations, but will also impact positively on the organisation of care. Key issues, such as how to keep patients safe, how this is approached internationally, the scope of risk management as an aspect of quality management, and the use of best practice approaches in preventing, assessing and managing risks as exemplified by PUs, are discussed as foundational to this thesis.

Managing the risk of PU

Many authors and researchers have attempted to define 'pressure ulcer' (PU). It has been described as "localised/acute skin damage caused by compression, friction, external shear force and/or combinations of these" (Phillips, 1999, p.56). A PU is characterised as a local area of ischemic necrotic tissue that develops when the soft tissue over the bony prominences is compressed between the bone and an external surface for a prolonged period. PU is usually the result of impairment of the vascular, lymphatic systems of the skin and deeper tissue (Bader, 1990; Frantz, 2004; Maklebust & Sieggreen, 1991) that occurs when people lie in the one position over extended periods of time.

PUs are a significant, complex health problem that occur on an international scale. There is no single prevention or treatment suitable for all PU instances. Thus

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substantial research has been undertaken on this issue to identify proper preventative measures and management methods. To ensure patient safety, clinical practice elements should include an assessment tool to support nurses' clinical decision making in identifying those at risk of PU development.

Location of PUs

A person can have a PU in many places. Hess (2001) discussed the anatomically common susceptible sites. The locations of PUs relative to the way the patient is positioned are presented in the Table 1.2 shown below.

Table 1.2: Pressure ulcer locations relative to position

Body position	Pressure ulcer locations
Lateral position (Side)	Ear, shoulder, iliac crest, trochanter, thigh, lateral, medial and posterior knee, lateral and medial malleolus, and lateral edge of foot.
Prone position (Face-down)	Anterior iliac crest, ribs, ear, nose, chin, elbow, knee, lower leg, and great toe.
Posterior position (Supine)	Occipital bone, scapula, elbow, iliac crest, sacrum, ischium Achilles tendon, heal and sole.
Sitting position	Scapula, sacrum, ischium, sole, and posterior knee.

As reported by many authors (Bader, 1990; Maklebust & Sieggreen, 1991; Poirrier & Oberleitner, 1999) the most common locations are the sacrum, coccyx, ischial tuberosities greater trochanter, elbows, heels, scapulae, occipital bone, sternum, ribs, iliac crest, patella, lateral and medial malleoli and ankles. However, the majority of PUs occur below the umbilicus on a lower body part or limb (Clark & Cullum, 1992; Maklebust & Sieggreen, 1991). More attention should be given to assessing skin over the bony prominence of the great trochanters, heels, toes, sacrum, ischial tuberosities, elbows, shoulders, temporal and occipital region of the skull (Ayello & Lyder, 2007; Lewis, Pearson, & Ward, 2003). The sacrum is the most common site reported in many studies, associated with the coccyx in other studies (Ayello & Lyder, 2007; Bours, Halfens, Abu-Saad, & Grol, 2002; Wann-Hansson, Hagell, & Willman, 2008). The heels were the second most common site identified in a number of studies (Ayello & Lyder, 2007; Wann-Hansson et al., 2008). This means that patients, especially bed

ridden patients, should not stay without repositioning by health care staff for long periods of time to avoid skin injuries at these body sites.

Such injuries can be prevented if patients are repositioned or positioned on special support mattress (Reddy, Sudeep, & Rochon, 2006). A best clinical practice patient safety framework is needed to prevent and manage PUs to enhance the quality of care, and to provide a framework to enable consistent and continuous improvement in patient safety. In developing a best practice patient safety framework, the current context of PU management in Jordan and internationally is important to take into account.

The international situation of PU prevalence

At this time, no Jordanian data about the prevalence of PUs are collected or published. Hence, data from studies in other countries will be used to gauge the possible extent of the problem to be addressed in Jordan. The literature shows that the development of PUs during hospitalisation is a significant problem worldwide, and that the prevalence of PUs is high (Prentice & Stacey, 2001b). Some key statistics illustrate the extent of the problem. Approximately one million people in the USA develop PUs annually (Baharestani, 1999) and 412,000 in the UK (Bennett, Dealey, & Posnett, 2004). Complications arising from PUs account for 60,000 deaths annually in the USA (Thomas-Hess, 1993). In developing countries, prevalence is most probably higher than in these developed countries, although there are no data to confirm this because patient risk of injury is not identified or managed.

Treating PU is generally more costly than prevention. Treating PUs is estimated to cost approximately $6.5 billion annually in the USA (Baharestani, 1999), between £1.4 - 2.1 billion annually in the UK (Bennett et al., 2004), and $350 million annually in Australia (Klei, Maclellan, & Maclellan, 1997). Hence, gaining information about the prevalence of PUs in a Jordanian hospital is vital to inform clinicians and the organisation about the likely extent of the national problem.

Given the absence of Jordanian data, a point prevalence survey of PUs is needed to gauge the extent of the problem and this research proposes to address this situation. To obtain background information on the extent of the problem internationally, a

specialised review of the literature was undertaken (Ayello, 2003a; Ayello & Braden, 2001; Bergstrom, Braden, Boynton, & Bruch, 1995; Bergstrom, Braden, Kemp, Champagne, & Ruby, 1998; Boyle & Green, 2001; Hook, 1998; Jolley et al., 2004; Langemo, Anderson, & Volden, 2003; Pearson, Francis, Hodgkinson, & Curry, 2000; Prentice & Stacey, 2001a; Vap & Dunaye, 2000; Zulkowski, 1998). Data from the studies reviewed have been assessed and synthesised and set out in Table 1.3. The table shows the incidence and prevalence of PUs reported in the USA, UK and Australia. These data indicate a wide range in the incidence of PUs in the case of the UK of between 2% and 29%, compared with those of the USA and Australia at 3% and 11% and 5.2% and 16.6% respectively. Similarly, in terms of prevalence, the range is greater in the UK, at between 5% and 32%, than in either the US or Australia at 5% and 15% and 5% and 20% respectively. These data demonstrate that PU occurrence remains a significant but unresolved problem in these developed countries.

Table 1.3: Incidence and prevalence of PU in the USA, UK and Australia

Country	Incidence	Prevalence
USA	3-11%	5-15%
UK	2-29%	5-32%
Australia	5.2-16.6%	5-20%

These data have implications for the management of PUs in Jordan. If, as seems to be the case, the extent of the problem in these developed countries is high, including in the UK where a well-defined system to assess and manage PUs exists, then the situation in Jordan is likely to be significantly worse. While the extent of the problem in Jordan is unknown, developing a best practice model of risk management for PUs is likely to improve the quality of care not only for individual patients but also to improve the quality of care for future populations of patients to be treated in Jordanian hospitals. Additionally such a framework will assist to conserve scarce resources in the hospital.

In contrast to the desirable nursing role articulated above, and despite the large amount of nursing energy and time spent in preventing and managing PUs worldwide (Bennett et al., 2004), these activities are not commonly associated with good nursing care. Rather, the opposite is true. Nurses are commonly regarded as those responsible for PUs occurring (Hibbs, 1988; Prentice & Stacey, 2001b; Spilsbury et al., 2007). This is

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probably the case in Jordan and the current interventions taken to prevent PUs will be identified during the research process.

However, a major problem in improving quality in the Jordanian health system, and in hospitals in particular, is that data about adverse patient events are not readily available or systematically collected. As previously stated the prevalence of PUs in Jordanian settings is unknown. There is no standardised documentation of interventions, specifically nursing interventions undertaken to prevent and treat PU. The information that is in the public sector, such as that held by the MOH, is recorded in nursing notes in medical records, and this is not easily extracted for comprehensive quality improvement purposes. As in many other advanced countries, 'PU' is not a condition reportable to the Jordanian MOH. Further, adverse patient events such as PUs are not viewed in the same context as other diagnoses such as cancer or human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) that have national health centres and structured programs that standardise care delivery, documentation and reporting. To compound the problem with PUs, different parts of the health sector, including the MOH, private sector organisations, and the Royal Medical Services, have their own policies on care delivery and quality improvement and their unique ways of documenting PU care. Comprehensive information on PUs is, therefore, not available at the organisation or policy level to allow the Quality Directorate at the MOH to develop appropriate sector-wide health improvement strategies, nor is it available at the workplace level to allow the development of localised quality improvement strategies.

Jordan has an established health service and hospital hierarchies. Understanding cultures, developing supportive organisational management practices and initiating clinical management processes will be critical to achieving the systems of performance envisaged with new models of care, such as those required for effective PU management. Developing these alternative structures in Jordan with its established hierarchy will be a necessity for reform to occur. Hence, in the context of risk management and quality improvement, "safety information needs to flow from the 'top down' but equally important, from the 'bottom up' if an organisation's culture is going to support an effective 'safety culture'" (Clark, 2002, p.187). Thus, clinical structures need to be integrated with corporate structures to accomplish organisation-wide quality

improvement. Clearly, the management system in Jordanian public hospitals needs to be studied to identify the structures that are currently operating. The hospital currently has a hierarchical structure and the current situation needs to be studied to identify the potential for structural change.

At the ministerial level, the health system in Jordan is designed to develop health improvements in public primary, secondary and tertiary services through a network of community health centres (primary and comprehensive) and acute health care facilities (hospitals). The MOH, the policy arm of the health system, is currently divided into two main parts: technical affairs and financial administration. Primary health care and acute care fall within technical affairs, including this proposed research project.

Policymakers in Jordan recognise that the ways in which health services are provided and delivered to patients in acute care facilities are inadequate in terms of service quality and performance (Hijazi & Al-Ma'aitah, 1999). As a consequence, the MOH has developed a Quality Directorate within the organisational structure outside technical affairs and financial administration as a strategy to improve the quality of health services. The strategy is designed to establish and implement quality standards in accordance with scientific principles. Hence, professional guidance and leadership for managers and clinicians in the system, particularly in monitoring performance improvement in the Ministry's facilities and in all quality assurance units in MOH facilities, falls within its purview (Quality Directorate MOH, 2004). While quality assurance units have been established for some time in public health centres to address quality issues, they have been introduced only recently into public hospitals. Hospital-based quality units are planned as part of the quality improvement strategy in the acute care public sector funded by the United States Agency for International Development (USAID).

The incidence of PU in Jordan

PU prevention and treatment in hospitals is an example of quality management and is an expected challenge in the development of a high quality health system in a transitioning nation such as Jordan. In the case of Jordan, there is a need to identify processes that will enable the new quality department to function effectively to improve the delivery

and the quality of health services, and potentially to improve the health outcomes of at-risk patients in public hospitals. Using PU as an exampler, the extent of the problem may be revealed not only for PUs, but potentially for other similar conditions.

Data about clinical conditions in Jordan are not easily obtainable. The prevalence of PUs in Jordanian hospital settings is unknown. There is no standardised documentation of interventions, specifically nursing interventions, despite the prominent role of nursing in preventing or treating the condition. Notably, in the context of Jordan, neither the nursing nor the medical literature addresses PUs as an issue requiring attention. There are no published studies that document health care practices and policies relating to PU incidence, prevalence and management in any acute care setting. Significantly, there are no existing risk assessment scales currently in use to monitor patients at risk of developing PUs. Hence, this study of a model of care using PUs as a template to improve the quality of care is timely. Taking these issues into account, PU prevention and the early application of clinical management procedures that include the use of tools to identify at-risk patients and ulcer staging are essential components of such a model. This study predominantly focuses on the role of nursing in recognition of current practices that position nurses as central in PU prevention and management.

This research project seeks to evaluate the quality of health services in a Jordanian public health hospital in relation to a particular case type, PU, and to assess the type of health framework appropriate to improving the quality of patient care. The project uses diagnostic data that highlights what is happening, and identifies opportunities to inform improvements in health systems (Batieha, 2004).

A framework to improve patient safety in transitioning countries

All systems have problems and risks that need to be managed effectively to avoid harm and to minimise costs, and to be successful every system needs to resolve these problems (Ibrahim, 2000). Jordanians recognise that quality health care is important and are taking measures to improve it by strengthening the performance of the national health system to achieve better health compatible with the expectations of the population (WHO & MOH, 2005). An issue that impacts on the quality of care and the efficiency of the Jordanian system overall is the overlap and duplication between

different programs in the system (The World Bank, 2004). Deficiencies in the system need to be identified and corrected. Standardizing, streamlining and integrating all of the components of the system will therefore be a significant objective in improving quality in Jordan. Part of this will be ensuring that there is a subsystem connection within the whole system and between different levels. This research project seeks to contribute to this aim, and in doing so, focuses on identifying methods to manage patient risk to improve the quality of care at key levels in the system. The focus of the study is at three levels: first, at the clinical level, where the feasibility of introducing a patient safety framework will be assessed; second, at the organisational level, where a system to implement and evaluate the framework needs to be developed; and finally, at the ministerial level, where the cost-effectiveness of the model will be evaluated in the future. This study appears to be the first of its type in Jordan.

Aim of the thesis

The aim of the present study is to identify and critically examine the structures and processes that exist to manage patient risk in a public hospital in Jordan. PUs are used as the exemplar. Data from the study will inform the development of a framework with a best practice model of risk management for improving patient safety in transitioning countries such as Jordan.

Significance of the study

In Jordan, the nursing and medical literature does not consider PUs as an issue of concern. There are no published studies that document health care practices related to PU care in any acute care setting. Significantly, at the clinical level, there is no existing risk assessment scale currently in use to monitor patients at risk of developing PUs. Hence, the development of a model of care to manage the risk of PUs as a template to improve the quality of care generally, as is intended in this research project, is timely. Taking these issues into account, PU prevention and the early application of clinical management processes, that include the use of risk assessment tools to identify at-risk patients and PU staging are essential components of such a model and will be addressed in the research.

Presently, Jordan does not have an operational risk management system in hospitals. Such a system needs to be implemented to ensure that the patients admitted to a public teaching hospital are kept safe during their hospitalisation. In the first instance, the review of the literature will provide a comprehensive examination of the quality management systems operating in developed countries, and of the Jordanian health services, specifically those relating to acute care. Additionally and importantly, the study results will provide baseline data for future systems improvement, quality of care comparisons on key indicators and future research into quality improvement in Jordan.

While many studies on PUs have been done in Western countries over the past decade, there is no cross-cultural study to translate a model of clinical management for PUs into other settings. It is timely, therefore, to undertake this study and to consider the issues associated with developing and implementing a new model of care to assess and manage PUs in transitioning countries. The findings from this thesis could be the basis for establishing an acceptable and relevant quality management system, capable of being generalised to other clinical conditions, to other clinical settings in Jordan, and potentially to other countries in the Middle East.

This study is significant, as the findings will inform nursing practice and policy in Jordan by providing a theoretical and clinical rationale for addressing PU incidence, prevalence and management. It will assist professionals to know the actual extent of PUs, to put best practices in place to assess, manage PUs, and modify nurses' current practice. Additionally, there will be a significant organisational benefit in terms of clinical process management. The study has potential cost effectiveness advantages to the health care system by decreasing patient length of hospital stay and informing decision makers about quality management of PUs. Importantly, the study results will provide baseline data for future systems improvement, quality of care comparisons and research in Jordan.

Clearly, this study has the potential to be an ongoing process of continuous planning, implementing, and evaluating care outcomes to achieve the optimum goal of achieving effective implementation of a pressure ulcer risk management model, and grounding

practice in sequential research, applicable and transferable to other conditions for which patient safety is an issue.

Summary

This chapter has reviewed the background of the study and provided information on the Jordanian health care system. The local context, funding, insurance and strategies for improvements of the Jordanian Ministry of Health have been provided. The rationale for examining PUs in Jordan, the thesis aim and the significance of the study were also outlined.

Organisation of the thesis

The thesis consists of six chapters. The first chapter has identified the background and provided the aims and significance of undertaking this research in Jordan. The second chapter reviews selected literature on patient safety, skin assessment to identify risk and management of pressure ulcers and provides a summary of characteristics with attributes as headings. Chapter three gives an account of the method used to collect and analyse data, as well as the instruments used in the assessment of PUs in a Jordanian hospital. Chapter four presents the findings of the PU surveys and provides excerpts of the interviews and field notes to reveal the current situation in Jordan. Chapter five presents the proposed Jordanian patient safety framework and chapter six presents the conclusions drawn from the research.

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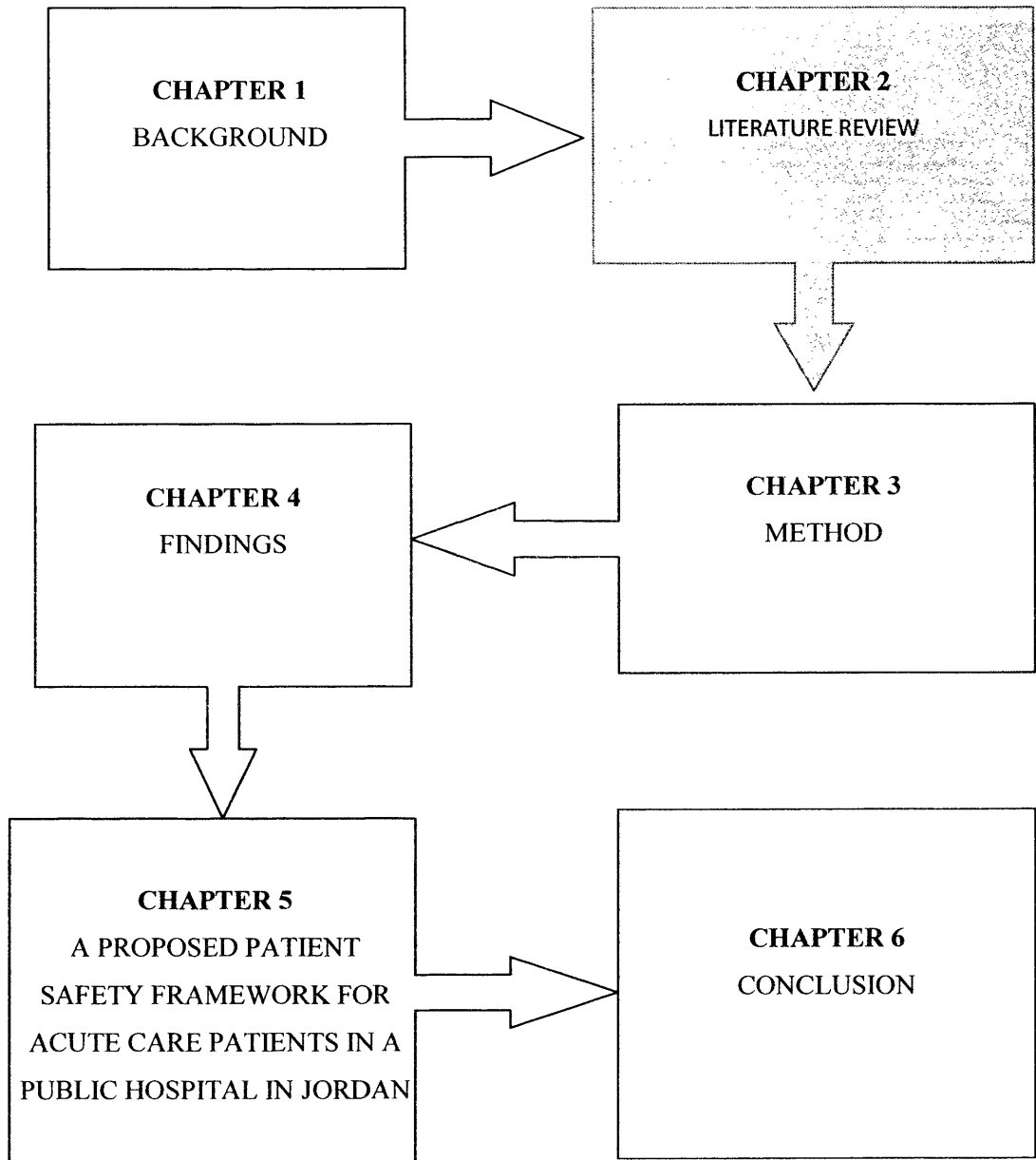
CHAPTER 2: LITERATURE REVIEW

Introduction

Effective health care in general and keeping patients safe during hospitalisation does not just 'happen' (Kohn, Corrigan, & Donaldson, 2000). Modern health care is conducted in complex, adaptive environments constituted by many different components (Palmieri, DeLucia, Ott, Peterson, & Green, 2008). It uses advanced technology in such forms as equipment, skills, processes and pharmacology (Palmieri et al., 2008). Care is carried out for patients by diverse caregivers from different disciplines with their own value systems, attitudes and practices in diverse clinical sites (Bate, Mendel, Robert, & Berwick, 2008). As health care complexity developed so has the recognition that hospitals can be very unsafe places for patients (Institute of Medicine, 2001; Runciman & Moller, 2001; Wilson et al., 1995). The World Health Organisation reports that healthcare errors impact on one in every 10 patients around the world making patient safety an "endemic concern" (World Health Organization, 2007). Recently, the concept of patient safety was defined by Runciman et al., (2009, p.21) as " the reduction of risk of unnecessary harm associated with healthcare to an acceptable minimum".

Patient safety is normally discussed in the literature as a component or dimension of the quality in healthcare management model (Institute of Medicine, 2001; Runciman, Merry, & Walton, 2007) in conjunction with other dimensions namely effectiveness, efficiency, access, appropriateness, acceptability and timeliness (Harris, 2006; Runciman et al., 2007). Efficiency indicators include the length of hospital stay, and the cost of care, acceptability, effectiveness and safety indicators include quality of life, morbidity and mortality (Harris, 2006). More recently the patient safety literature reports patient safety as emerging as a distinct healthcare discipline (apart from quality) supported by an immature, yet developing scientific framework that emphasises the reporting, analysis and prevention of medical error that can result in an adverse event occurring to patients (Bates, Larizgoitia, Prasopa-Plaizier, & Jha, 2009). Palmieri and colleagues (2008) state that there is a significant transdisciplinary body of theoretical and research literature now informing the science of patient safety.

Various frameworks concerned with health care quality, patient safety and error have emerged. For example,(Reason, 1990; Reason, 1997) Swiss Cheese Model of Adverse Events, the Integrated Framework for Safety, Quality and Risk Management in Health Care (Runciman et al., 2007, p.22); and the Health Error Proliferation Model (Palmieri et al., 2008) have been published. These frameworks have been very useful in identifying systemic factors (referred to as latent errors) that contribute to adverse events for patients, or variables that need to be incorporated into incident monitoring and learning systems. Essentially what has emerged is the "physiology of error" causation (Palmieri et al., 2008) turning away from the personal or clinician attribution approach (Martinko, Douglas, & Harvey, 2006) or 'failure to rescue' to an understanding that errors more frequently reflect an inability of health care workers to cope with multiple gaps produced by complex systems (Woods & Cook, 2002).

The system approach to error management advocates that while individual practitioners "must be responsible for the quality of their work, more errors will be eliminated by focusing on systems than on individuals" (Leape et al., 1995). Ranciman et al. (2007) in the Integrated Framework for Safety, Quality and Risk Management acknowledged that clinicians are at the "pointy end" of a model that at the broad end (organisation) often has unrecognised errors called latent errors that contribute to an adverse patient event that occurs in the workplace. According to Amalberti, Auroy, Berwick and Barach, (2005) systems thinking and proactive process improvement on the part of healthcare organisations, provides a significant opportunity for advancement because the vast majority of errors result from poorly designed systems (Cook, Render, & Woods, 2000; Reason, 2000). Furthermore, Helmreich and Davies (2004) emphasised that errors contributing to accidents were system-related rather than based in the carelessness or neglect of patients by health professionals working within the environment. The Institute of Medicine (IOM) confirmed this approach in *Crossing the Quality Chasm* report (2001, p.4) stating "trying harder will not work. Changing systems of care will". Consequently, a system approach will be taken for all aspects of the method, data collection, results, analysis and discussion in this thesis.

In 2009, the International Classification for Patient Safety (ICPS) and a conceptual framework were published following a Delphi survey of over 250 international experts (Runciman et al., 2009; Sherman et al., 2009). The main aim of this project was to

devise a uniform classification of patient safety concepts, so that information collected from disparate systems of classification could be aggregated and analysed. The research culminated in ten high level classes being identified and a listing of preferred terms and definitions for key concepts that were developed from pre-existing classifications. While this framework was unavailable when the research project for this thesis was designed, attributes used in this thesis are consistent with concepts indentified this new ICPS framework. For example, "Detection" (an action that results in the discovery of an incident) is one class in the framework (Sherman et al., 2009, p. 5) Detection processes include proactive risk assessment and counting/auditing and review of incidents. These processes were included in the literature review prior to the ICPS publication because they had already been recognised in the literature as important considerations. Frameworks published prior to the ICPS (Palmieri et al., 2008; Reason, 1990; Reason, 1997; Runciman et al., 2007) took a system's approach that is evident in the ICPS class "Mitigating factors" that has the concepts of good team work, effective communication and good supervision/ leadership directed to staff, and the availability of effective protocols, equipment, device management and documentation error correction directed to the organisation (Sherman et al., 2009, p. 6). These concepts are included in the literature reviewed but organised under different attribute headings. For example effective protocols have been called evidence-based guidelines in the process attribute and equipment and device management has been discussed under the attribute of physical resource.

Donabedian, (1966) wrote about the organisation of health care institutions in terms of structures, processes and outcomes, these dimensions were considered essential to include in any organisational analysis (Donabedian, 1966; Hofstede, Neuijen, Ohayv, & Sanders, 1990). While Donabedian's (1966) recommendations and the ICPS classification and conceptual framework provides the technical approach of patient safety, it was considered important to emphasise the cultural aspects that the technical work requires if change to patient safety in an organisation is to be achieved (Hofstede et al., 1990). For this reason, the attribute of culture as a key dimension in organisational change will also be included. The five main attributes used to organise and classify the reviewed literature are culture, structure, processes, human resources and physical resources. The literature from patient safety publications and the literature on pressure ulcer assessment, management and evaluation have been integrated under

these organising attributes. Also outcomes have not been dealt with as a separate attribute but integrated into the other five because of excessive replication of ideas when it was a separate entity.

While being mindful that the organisation needs to be considered as a whole system, recent and significant publications in patient safety undertake an analysis of the system at both the managerial leadership level, called the macro level and the clinical or micro level (Bate et al., 2008). Separating the organisation into these artificial levels promotes more comprehensive data collection processes and enables more detailed analyses and reporting (Bate et al., 2008). At the same time organisational theory argues that it is not only the processes and variables at each level that are crucial to quality but also the nature of the interactions between them (House, Rousseau, & Thomas-Hunt, 1995). These interactions have been called the meso paradigm for quality and House et al., (1995) contend that it is essential that simultaneous study of the micro and macro levels occur so that factors happening between the two levels can be identified. This approach has been taken in this thesis.

In summary, the review of the patient safety literature indicates that adverse events occur to patients because of system failures rather than personal error. Therefore, a systems approach has been adopted for this thesis but the method of House, Rousseau, & Thomas-Hunt, (1995) to consider simultaneously both the macro and micro levels (an artificial split) will be taken. Although the results of the first large-scale study of adverse events were published over 30 years ago (Mills, 1978) it is only in the last decade that health care has given wide consideration to patient safety and a significant amount of research has been published. While patient safety is still considered to be an emerging discipline, the need for a common language and understanding has resulted in the recent publication of the ICPS conceptual framework (2009). Concepts provided in the framework as well as Donabedian's (1966) structures and processes have been used to identify attributes to act as chapter organisers for the literature reviewed. Based on the volume of literature support, the dimension of culture has also been included as an attribute resulting in the five main headings of culture, structures, processes, human and physical resources. Outcomes have been integrated into these attributes.

Culture

All sub-populations in organisations, including hospitals, have their own culture often described as 'glue' that holds the workforce together and makes it responsive to change (Duffield, Roche et al., 2007). Bate and colleagues (2008) in an examination of seven case-studies of international organisations recognised as providers of excellent health care identified the culture of the organisation as an essential and central feature of their success. Braithwaite, Runciman, and Merry (2009), Grol, Wensing, and Eccles (2005), Runciman and colleagues (2007) and Tzeng and Yin (2007a) have also identified the role of an organisation's culture in maintaining outmoded work practices as well as its potential to shift practice to address quality of care and patient safety.

The cultural challenge for organising quality in healthcare is to give "quality" a shared collective meaning, value and significance within the organisation (Bate et al., 2008). In their text that presents the findings of their comprehensive research into seven international organisations known to provide healthcare excellence, the researchers identified the cultural component within successful organisations as an essential attribute effecting change. Confirmation of the importance of organisational culture was identified in the global priorities for patient safety research (Bates et al., 2009), an in-depth study conducted by a WHO working group. The third priority identified by international health care managers and other experts using the Delphi technique was to conduct research into "poor safety culture and blame oriented processes". The high priority this topic attracted from the group of thirty indicated the group's opinion of the contribution of culture to patient safety.

As noted previously, many authors have written about the contribution of culture to change in health care. Hewison (1996) described culture as systems of knowledge, attitudes, values and practice inside a health organisation, such as the nursing culture, medical culture, and cultures of the other multiple disciplines in health, such as administrative cultures. Clarke and colleagues (2004) conceptualised culture as complex patterns of meanings, ideas and symbols that should be addressed in order to understand the complex process of change, performance management and improvement. Dorazio-Migliore and colleagues (2005) took into account the organic process through which culture emerges that can be used by health professionals as a process for change.

In their view culture is the organisation that involves particular social groups that share unique, bounded and homogenous interactions that can be brought together for the benefit of the organisation. Culture is also considered a dynamic process of social and self-reflective interaction influenced by the situational context and the diverse perspectives between social groups (Clarke et al., 2004). It is neither mechanistic nor can it be imposed by directives from management (Dorazio-Migliore et al., 2005).

According to Sinclair (1997) the culture adopted by individuals, teams and organisations creates the context for professional practice and facilitation for change. Having a culture that is supportive of patient safety is therefore essential to any attempt to institute a quality or risk management system. Health professionals need to be aware of the cultural context that informs their interactions with each other and with patients to understand particular health conditions, such as PU development, and the ways that clinicians manage and patients experience them. Bate and colleagues (2008) identified successful organisations as building a shared understanding and commitment to patient safety by increasing the "mindfulness" of staff. That is staff are constantly vigilant to their personal and group standard of practice, avoiding automatic responses to guidelines or standard operating procedures (Bate et al., 2008, p.219).

Reviewing the characteristics of effective health care cultures raises the question of how such cultures emerge and develop. The literature identified the encouragement of learning, people doing more and differently and developing and sharing new knowledge, skills and expertise (Godfrey, Nelson, Wasson, Mohr, & Batalden, 2003). Acculturation of the ideal through socialization, induction and training processes that help people tune in and acculturate to the *core* values of the organisation was identified by Bate et al (2008) in their case studies' analyses. That is, the organisation needs to have core values expressed in ways that inform all members of the organisation. A notion of empowerment that genuinely nurtures and supports self-leadership at all levels of the organisation, has also been named as an important characteristic that should be fostered by managers at all levels. Personal empowerment however, does not mean that when an adverse incident occurs to a patient that the clinician should be held solely responsible and the organisational system as not contributing to the incident.

An organisational culture focused on safety is needed to shift the philosophy of error causation from the personal approach to the system approach (Palmieri et al., 2008). Public blame for clinician error and the subsequent punishment for adverse events due to error results in a punitive culture, regardless of the root causes of errors (Gibson & Singh, 2003). Lawton and Parker (2002) identified that doctors and nurses hide "practice breakdowns" and mistakes to avoid reprisal and punishment. When the root cause of error is regarded differently (systematically) the methods for managing liability and reducing further adverse events within an organisation are different (Gibson & Singh, 2003). According to Reason (2000) the system approach unearths concealed or latent errors in the organisation that contribute to the adverse event. It is rightly a preferred approach to remove the personal 'blame and shame' culture to subsequently avoid clinician reluctance to report further error and to contribute to system improvement (Palmieri et al., 2008).

Ministerial culture: philosophy of health care provision

The philosophy that underpins government decisions concerning health care provisions comes from the Health Department (Ministerial level). Staff working at this level, who are responsible for developing and transmitting patient safety and quality policies to health care organisations (hospitals), need to be philosophically committed to this direction for patient management. Otherwise, there is little interest in getting the policies sufficiently well developed, or funded, to enable implementation at the organisational level.

Health policy provides people working in organisations, involved in the planning, design, implementation and evaluation of programs and services directed at maintaining the health of communities (Brown, 2006) with direction. Policy has been considered as a 'vehicle' by which health workers participate in health planning structures and deliver high quality health care services. Policy explains how goals will be achieved and serves as a guide that defines the activities permissible for goal accomplishment (Clarke et al., 2005). Well-developed policy assists governments and the organisations within their bureaucracies to address government priorities (NSW Health, 2005a). Policy guides the adjustment of existing programs to respond more effectively to needs and supports the reallocation of resources to health initiatives (NSW Health, 2005b). Well developed

policy is said to improve interaction and collaboration between all health care levels to support more holistic approaches to health. Given the significance of health department policy, a leader (a minister in the government) is required to be responsible for the overall implementation and review of health care policy including that related to health care quality management.

Organisational quality management

To produce a complete quality management system in hospitals, it is necessary to take into account organisational and social factors as well as technical factors (Sorensen, Lloyd, Van Kemenade, & Harnett, 2005; Wilson & Goldschmidt, 1995). Quality can be a management system, an outcome, or both. Quality itself can be categorised as technical quality, service quality, outcomes quality and patient satisfaction (Wilson & Goldschmidt, 1995). A comprehensive quality management system would encompass each of these categories. The main purpose of a quality management system is to make sure that what is intended to happen to a patient actually does happen. The quality system is defined as "all activities of the overall management function that determine the quality of policies, objectives and responsibilities. It is a prerequisite for high quality and quality improvement in the health services" (Hyrkas, Koivula, Lehti, & Paunonen-ilmonen, 2003, p.3). The benefits of quality management could include the reduction of liability insurance premiums, malpractice claims (less patients harmed or killed), unnecessary tests and treatments, better use of resources that can save the organisation money (Wilson & Goldschmidt, 1995). According to Marriner-Tomey, (2009), the processes of quality measurement should be simple, inexpensive and safe for staff members and patients alike. Additionally Wilson and Goldschmidt (1995) contend that quality management improves productivity through enhanced employee job satisfaction.

Globally, "quality management has emerged as one of the strategies for organisation survival" (Turner & Hartley, 1998, p.77), although the focus on quality, even in Western health systems, is relatively new. Since 1989, approximately 70% of hospitals in the USA have developed and implemented quality programs. In Australia, the quality management sector has been slow to develop (Bartlett, Hatcher, Johnson, & Dixon, 1997) but has gained momentum in the last five years (Runciman et al., 2007).

As yet, Jordan has no system but is trying to implement one with the assistance of the USA aid/financial support and expertise. Such a system, which is proposed here to manage the model of care for PUs, could provide a template and assist the administration in public Jordanian hospitals in developing and implementing a risk management model.

Risk management strategies: supporting clinicians in developing a patient safety culture

Generally speaking, risk management is managing risks before they can have an adverse effect on patients. According to Wilson and Goldschmidt (1995) risk management should become part of the organisation's foundation. A particular program to manage risks can help protect patients and the health team by addressing all training, instrumentation, resources operation and protective equipment. The process includes identifying, monitoring, and evaluating risks (Wilson & Goldschmidt, 1995). Loflin and Kipp (1997) identify a five-step process for the administration of risk management namely: risk identification and evaluation, priority setting, design and implementation of risk control technology and periodic program evaluation. Hence, the introduction of a risk management philosophy has the ability to change the culture and clinicians' practice. If risks are properly addressed across the organisation, the number of patients' injuries can be greatly reduced (Loflin & Kipp, (1997). Therefore, organisational managers could lead the culture shift by implementing a risk management project. PU, as an example, is an ideal issue for inclusion in a clinical risk management project because the five steps identified by Loflin and Kipp (1997) are achievable by nurses with the support of managers and the their medical colleagues. The use of a risk assessment instrument can assist nurses' clinical decision making to predict which patients are at risk of developing PUs as well as the level of risk. These are the first two steps in a risk management system and achieving these is likely to facilitate the design and implementation of improvement measures in managing risk.

Identifying high risk patients and preventing and managing PUs is a quality issue in acute health care (Dawsett, 2001). In the USA, "State and federal regulators consider the development of PUs in hospital as an indicator of poor quality care" wrote (Bergquist, 2005, p.148) in a American research study of PUs in aged care. Ongoing

assessment aims to identify patients who are at high risk of skin breakdown to prevent PUs from occurring (National Institute for Cancer Excellence NICE UK, 2005; National Institute for Clinical Excellence NICE UK, 2001). Patients found to be at a high level of risk can be managed in ways that minimise PU development. Patients who have a PU or develop one can be managed appropriately to limit the extent of the injury (Australian Wound Management Association, 2001).

Prevention is widely considered the optimal way to clinically manage PUs, recognising the fact that prevention and early clinical management will generally be better and cheaper than treating or healing PUs (Wilborn, Halfens, & Dassen, 2006). Early and systematic assessment is important at the micro level to identify people who are at risk of skin breakdown to allocate resources in an efficient and cost effective manner to manage the condition at the time of admission to the facility (Gould, Goldstone, Kelly, & Gammon, 2004; Thomas-Hess, 1992; Vap & Dunaye, 2000). In association with a health professional's clinical judgement assessment during hospital admission can identify patients whose skin needs to be reviewed at regular intervals using a reliable, validated skin risk assessment instrument (Cox, Laird, & Brown, 1998) (National Institute for Cancer Excellence NICE UK, 2005; National Institute for Clinical Excellence NICE UK, 2001).

Two processes, assessment and wound staging, need to be in place within an organisation to enable the prevalence of PUs within an organisation to be determined for evaluative purposes. As an apparently negative clinical outcome, PU can be included in an incident reporting system, as well as part of a planned structural management program after defining what is going wrong, why and what can be done (Turner & Hartley, 1998, p.77).

Nurses' participation in organisational change

While having regard to other health professionals within the organisation, this thesis is concerned specifically with nursing. Nurses have a primary obligation to keep patients safe under the law, and patients' safety is part of their professional accountabilities (Ousey, 2005). The law and the profession "provide a framework in which the nurse can practice safely" in order to protect both the practitioner and the patient (Ousey,

2005, p.131). Based on a developing specialised body of knowledge, standards of care and code of ethics, nursing is increasingly in a position to exercise leadership in health care reform (Hood, Leddy, & Pepper, 2005; Mitchell, 1998). Specialisation and enhanced professional autonomy is increasing nurses' confidence and understanding of organisational management in some countries (Cuthbert, Duffield, & Hope, 1992).

Mrayyan (2005a, p.239) reported that "nurses strive to be autonomous". While, there is no single strategy to increase nurses' autonomy, the use of standardized language between nurses is one of the best strategies to be used in the health care organisation (Mrayyan, 2005a). Nurses require autonomy in their daily practices to increase productivity, promote and improve the quality of nursing care (Kramer & Scmalenberg, 2003; Mrayyan, 2005a). Nurses are gaining post-graduate research qualifications in projects related to improving health care services for patients (Jackson & Butterworth, 2007). Changes made by nurses as a consequence of these projects are making nurses more visible and accountable for their actions in developed countries (Person, 1996). "Widespread change to practice, education, and management" (Tourish & Mulholland, 1997, p.26) will work to nursing's advantage in designing and implementing new care regimes. At this time, no published literature on Jordanian nursing and nurses' engagement in new regimes of care was identified. The degree of change that can be accomplished by nurses in Jordan by introducing risk management to support the required shift in culture towards patient safety needs to be determined. However, as discussed earlier in this chapter little sustained change can be accomplished at the micro level without support from the macro level.

The philosophical stance is a pre-requisite for a high standard of health care as reflected in the decision to implement a quality management system in Jordan. Jordan needs leaders (ministers) who are philosophically aligned in their attempts to provide the population with a high standard of health care. The government has an instigated a quality unit within the MOH, quality units at public hospitals and hospital accreditation as a driver to help achieve improved health care quality. These undertakings are the result of the goals outlined in the five-year national health strategy plan (2008-2012) to improve the quality of the healthcare (Ministry of Health, 2007). Despite these initiatives, organisational cultures in Jordanian public hospitals appear to have barely changed, and it is imperative to undertake research to identify the situation.

In summary, the first attribute identified from reviewing the patient safety literature is the need for a health care organisation to develop a culture of patient safety. The characteristics of such a culture have been defined (e.g. shared meanings, symbols and values, respect for each others' disciplinary groups and mindfulness in the use of practice guidelines). A main theme that emerged from the above review is that the culture needs to develop a system approach rather than a personal 'blame and shame' approach in managing adverse incidents, so that potentially latent errors can be identified and staff encouraged to report error rather than hide it. Managers need to express an organisational philosophy of patient safety and actively participate in clinical projects. Clinicians across the disciplines should be respectful of each others' opinions and openly discuss micro and macro level issues that are known to impact on patient safety. Within this context, risk management has been identified in the literature as a proactive process that has been useful in helping to reorient cultures towards patients' safety considerations. Nurses are professionally aligned and ethically predisposed to maintain patient safety. The next section will review literature concerned with a second attribute, the structure.

Structures

The organisation of care, as presented above, is one whole, integrated, system of structures and processes that contribute to outcomes (Donabedian, 1992). It was considered essential to include organisational structure in the literature review because it features consistently in research publications on patient safety. For example, structural challenges were identified in the seven case studies analysed by Bate et al (2008) as essential considerations in the planning and coordinating of quality efforts in organisations known to provide excellent health care. For the purpose of this review, structures and processes are being artificially separated in order to consider each in greater depth. This section discusses the structure of the health care system in three parts: the structure of the nursing role at the clinical or micro level, including nursing's relationship with other professions, particularly doctors; the structure at the organisational or macro level; and the structural arrangements for care at the government/ policy level. For the purpose of this thesis structure is defined as "a formation or pattern of arrangement that furnishes the formal framework in which the

management process takes place, and hence provides an effective work-system and a network of communications" (Marriner-Tomey, 2000, p.231-244).

Structure of the clinical nursing role

In terms of clinical structure, the professions in the health care organisation are considered the 'skeleton'. Nursing is "the largest of the healthcare professions" providing a twenty-four hour/seven day a week service (Ousey, 2005, p.131). Hence, nursing positions are an important component of structure at the clinical level (Ulusoy, Smith, & Knill-Jones, 1996). Unlike other health care professionals, nurses continuously care for patients throughout their hospitalisation (Ousey, 2005). As previously identified, nurses have a value and primary position to keep patients safe from harm. In other words, "first, is the obligation to do good (sometimes referred to as beneficence) and second, to prevent harm (referred to as non-maleficence)". This means that nurses working within the organisational structure have personal responsibility to ensure their practice maintains patients' safety (Lipe & Beasley, 2003, p.230).

As the nursing role in health care develops, nurses are expected to coordinate aspects of patient care with other health team members including doctors, dieticians, pharmacists, and physiotherapists (Simpson, Bowers, & Weir-Hughes, 1996). Further, as nurses are becoming better educated and practically prepared to meet the health needs of their patients, they can assist and improve the quality of care for patients at risk of skin injury by implementing research-based evidence into locally developed practice guidelines. This professionalisation of nursing, advancing in line with other disciplines, has resulted in a developing body of evidence on which to base practice decisions (Hewison & Stanton, 2002). Tertiary level hospitals usually have teaching obligations to the health disciplines to provide clinical education opportunities for students. These practicum experiences provide students not only with the opportunity to experience how patients' illnesses are managed, but also gives them an opportunity to socialise with their own and other disciplinary groups.

As a consequence of nursing's value stance and increasing professionalism, autonomy and specialisation, nurses are devising different ways of organising their work to

improve patient care (Dibsie, 2008). This includes the way patients with PU are managed (Dibsie, 2008). For example infection control nurses, skin integrity and vascular access consultants, breast care nurses and clinical educators are just a few of these specialised positions. Specialist nursing positions are positions in the structure providing increased knowledge and experience resulting in increased the quality of patient care.

While the international literature speaks about keeping patients safe as a high priority of ethical practice, no literature from Jordan identified nurses' or doctors' roles and their responsibilities to keep patients safe. Other barriers known to impede the achievement of evidence-based practice, such as the lack of administrative support for clinicians to access computers, internet data bases, a lack of mentorship knowledge, poor supervision and limited capacity to critique research articles or undertake research projects (Flynn & Flink, 2001), exist in Jordan. I have observed from my nursing practice in Jordan that there is no organisational system to manage risk at ward level. Therefore, there is considerable scope for researching existing care structures in Jordanian nursing.

Common structural models in nursing include primary nursing, team nursing and task allocation. In the primary nursing model the care of a patient/client is managed for the day by one nurse who coordinates other nurses and schedules all tests, procedures and daily activities for a small number of patients (Potter & Perry, 2005). In a team nursing model, a registered nurse works as the team leader and supervises the care of a larger number of patients/clients. The team may consist of nurses with different levels of education (called skill mix), from registered nurse, enrolled nurse or assistant in nursing. The team leader plans and coordinates the care that is provided directly by the team members (Potter & Perry, 2005). In a task allocation model nurses are assigned various tasks to complete by a clinical nurse manager or clinical coordinator. For example, one nurse could be responsible for doing all the intravenous drug administration and another giving out the oral medications to all patients on the ward. The literature does not recommend a *most* appropriate model to support a patient safety environment because so many different factors are operating in different countries and in different contexts. While primary nursing is said to be a preferred choice in some developed countries (e.g USA), it is often an impossible model to implement in developing countries because of the smaller numbers of qualified nurses employed or

available to work in the acute care sector. Team nursing also has its critics, but it does allow for increased patient supervision by a more qualified member of the team who takes responsibility for the level of care provided while still allowing team members some decision-making capacity within the team structure. Task allocation however, goes against the autonomy of the workplace or clinical decision making and is therefore not regarded as a suitable structural model for nursing care. Using international literature as a basis for making judgements, the institutionalising processes of clinicians working together as a social group will be examined. Findings from this research may present an opportunity at a later time to implement strategies to enhance the professional role of nurses and other health disciplines by addressing the technical, social and organisational implications of quality improvements identified through the research (Sorensen et al., 2005).

Skill mix structure and nurse to patient ratios

Having a higher percentage of RNs represented in the nursing workforce is essential to prevent adverse events to patients. A major NSW nursing workload study by (Duffield, Roche et al., 2007) conducted in public hospitals focusing on medical and surgical wards examined the relationship between nursing skill mix and adverse events. The study provided evidence that an increase in the number of RNs would greatly improve patient care, for example the results demonstrated that, for every 10% increase in RNs there was a 27% decrease in 'failure-to-rescue'. A skill mix with a higher proportion of RNs produced significantly decreased rates of nursing-sensitive, negative clinical outcomes. The study found that an extra RN would reduce the incidence of PUs by 20 per 1000 patients and sepsis by 8 per 1000 patients. Further, a proportional increase in RN hours is associated with a statistically significant decrease in PUs, gastro-intestinal (GI) bleeding, physiological/metabolic derangement, pulmonary failure, sepsis and shock and failure to rescue. Patients were less likely to fall and suffer injury as RN hours increased. The presence of a nurse educator on the ward and an increased proportion of nurses working on their usual ward were associated with fewer medication errors (Duffield, Roche et al., 2007). The findings from the NSW public hospital study cited above were consistent with those identified by (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002) in a major American research project that looked, among other variables, at hospital nurse staffing and patient mortality.

As a consequence of these results from different developed countries, it could be concluded that having sufficient, knowledgeable nurses working at the micro level could be considered a pre-requisite structure for keeping patients safer during hospitalisation. However, in developing countries where different educational levels of nurses are predominant (Francis et al., 2005), a team model of nursing care may be a preferred structure to achieve improved patient safety. The structuring of relationships between the medical and nursing professions, the two dominant professions in health care, and their capacity to develop integrated care regimes, is a factor in change and to which the discussion will now turn.

Relational structures between medicine and nursing impact on patient safety

As with nursing, medicine is a key professional structure at the clinical level, and the relationship between doctors and nurses has been described as hierarchical in structure (Snelgrove & Hughes, 2000). Within this context, physicians are the decision-makers in patient diagnosis and management, with nurses working as a communication medium between the physicians and the patients (Badger, 1999; Snelgrove & Hughes, 2000). However, this traditional relationship is changing. The relationship between medicine and nursing in developed counties is reported as becoming more equal, evident in the rise of nurse speciality roles and developing nursing autonomy in areas of professional expertise (Mitchell, 1998). This situation may not be the case for Jordanian nursing despite the university level of education for some Jordanian nurses and empirical study needs to be conducted to determine the situation. Importantly, according to Wilson and Fulton (2000, p. 132) both professions have "a critical role to play in achieving quality and safety in services provided in hospitals". Therefore, it needs to be ascertained if Jordanian nurses are relating to doctors working in the Jordanian acute care sector in ways that promote collegial patient care activities. It is important to understand the changing roles between these two professions in relation to changing expectations about patient care in the context of rebalancing power between them.

Nurses are now taking more responsibility for decisions and are more accountabe for patient care outcomes (Kennedy, 2000). While doctors usually maintain the power with their decisions prioritized over nurses' decisions in admitting and discharging patients from hospital (Mrayyan, 2005b), nurses are often more in tune with the systems of care. Hence the importance of developing clinical structures that support more collaborative

relations between medical and nursing clinicians is crucial if the types of changes envisaged in the development of a quality system are to occur. Research such as by (Sorensen et al., 2005) into clinical projects designed to improve the quality of care, identified that structures at the micro level, such as health care team patient rounds, multidisciplinary team meetings, quality projects that are patient centred not discipline centred, have found to be enabling. However, the difficulty of engaging different groupings to work collaboratively should not be minimised and managers utilising structures to facilitate "multidisciplinary team" formation need to appreciate that it is just a starting point. Runciman, Merry and Walton (2007, p.70) found that despite 'strenuous attempts' being made in Australian hospitals to link clinical practice and corporate management the relations between organisational entities remain strained, mainly because organisations still tend to operate in groups defined by discipline. This creates parallel systems in which patient care becomes subservient to professional agendas.

The extent to which multidisciplinary collaboration, if it is predicated on equality, can occur in Jordan is uncertain. Although occupational boundaries are blurring in developed countries (Snelgrove & Hughes, 2000) as nurses, including those with experience and qualifications, became more vocal in patient advocacy roles, reluctance to challenge doctors' authority remains (Krogstad, Hofoss, & Hjortdahl, 2004). Jordanian nurses at this stage are highly unlikely to challenge medical dominance as their practices are directed by physicians (Al-Ma'aitah, Cameron, Armstrong-Stassen, & Horsburgh, 1999; Francis et al., 2005; Mrayyan, 2005b). The key to change in Jordan could be patients' heightened expectations of health care and hospitals' accountability for patients' care (Mrayyan, 2006). Consequently, there is some room for movement, for medical and nursing clinicians to come together to plan, deliver and evaluate care that the presaged new models require. The extent to which this can occur in Jordan needs to be studied, especially in the absence of local literature on professional relationships. Developing appropriate professional structures as the underpinning for effective risk management brings us to an examination of the organisational structures that can both facilitate and impede the type of model being outlined here.

Organisational structures impacting on patient safety

At the organisation or macro level, structure is consolidated within the organisation as a group of professionals who can deliver effective care. The structure of the organisation is a framework to provide patient care. It is also the framework to implement practice improvement. However, hierarchical structures have also been recognised as an obstacle for organisational change (Wendt & Vale, 2003). The gap between the positions of power at the top or macro level of the organisation, and health professionals often seen as at the 'bottom' or micro level of the organisation, can affect overall performance (Anderson & McDaniel, 2000; Hojat et al., 2001). The formal organisation of health care, marked by a hierarchy of authority, uniformity, rules and regulations, is a 'bureaucracy' that suitably describes health organisations in Jordan.

In the case of health bureaucracies, a division of labour occurs between managers and clinicians, and between clinical professions (disciplinary hierarchies), where the health workers specialise in one function or skill, and decisions are made at the next management level up (Wendt & Vale, 2003). This type of structuring does not facilitate decision making at the micro level, nor enable clinicians to develop a sense of self-leadership that is seen to be so important in patient safety cultures (Bate et al., 2008). This command and control style of management with the emphasis on non-clinical decisions impacts negatively on the roles, responsibilities and priorities of both clinical and administrative staff. It can fragment clinical decision-making so that objectives become unachievable, and ultimately result in conflict in the organisation (Anderson & McDaniel, 2000). Bureaucracy of this type reduces health workers' ability to contribute to organisational development, because the "vertical line" of hierarchy creates communication problems between upper level administration and direct care givers (Marriner-Tomey, 2009). Further, this separation of clinical and administrative domains reinforces the parallel separation of quality and cost management that further erodes integration, and collaboration in achieving organisational objectives (Bate et al., 2008; Gilmartin & Freeman, 2002). The type of bureaucracy most relevant to shifting organisations towards a patient centred approach is professional bureaucracy, in which considerable power resides with professionals, in this case the clinical staff (Cohen, Eustis, & Gribbins, 2003; Rivers, Woodard, & Munchus, 1997).

Robbins and DeCenzo (2008, p. 138) outline in their textbook on successful American companies, the use of visual representations of organisational structure showing how resources, departments and personnel are grouped horizontally and vertically into lines of authority, communication, delegation and decision-making. Modern literature on the organisation of successful companies identifies a flattening of hierarchical structures and active participation of employees in decision-making about production (Robbins & DeCenzo, 2008). Robbins & DeCenzo, (2008) noted that decentralised structures 'flatten' hierarchies and enable decisions to be made at the level where the decision will be implemented. In order to implement quality management in acute health care institutions effectively, the need for flatter, more democratic structures that enable managers and clinicians to interact (meso paradigm) has been acknowledged (House et al., 1995). A flatter structure can also encourage decentralised, organic styles of decision-making facilitating team work and clinical leadership by involving clinicians in organisational decisions (Wendt & Vale, 2003). This arrangement can, in turn, facilitate improved work cultures that result in better patient outcomes. Fewer managers come with less levels of hierarchy thereby enhancing decision making capacity at the micro level including how money is spent for clinical goods and services. Decentralisation and autonomy to run hospitals as suggested by the proposed structure is a trend in modern healthcare that is challenging many health care facilities. In summary, the presence of an effective organisational structure to manage patient care is an important attribute that must be considered when developing a risk management model for public hospitals in Jordan. Such a structure would allow managers to consult clinicians when planning a quality management program for Jordan directed toward hazard or injury management. The type of structures within an organisation recommended to support the implementation of a patient safety need to addressed.

Organisational governance structures concerned with quality

Abernethy and Stoelwinder (1995) and Wilson and Goldschmidth (1995) identified the need for a specific quality management committee within the organisation (the hospital) to address quality issues. This committee was conceived to be a policy, decision-making body, comprising multidisciplinary clinical and non-clinical participants of not more than 10 to 15 people. The committee's functions included reporting requirements to the ministerial level, reviewing and acting on reports from accreditation and the

international and national literature. The committee could make effective decisions about the provision of clinical care and provide summary information to other providers to enhance the health care system overall. Some Australian hospitals have developed specialist quality departments within their organisation to undertake not only a monitoring role but also as a support centre for short term working groups (clinicians and managers) undertaking policy formulation from best evidence, review of standard operating procedures and protocols, development of practice guidelines and the implementation of change project. Therefore, health team members include middle management leaders such as clinical educators/nurse specialists, nurse unit managers, department directors, directors of nursing, assistant directors and clinical directors have an effective organisational structure to effect practice changes.

Ministerial level governance structure

It is at the ministerial level that the philosophies determining the type of health care for a country or state are considered and implemented through written policies that are widely published and on some occasions ratified in the parliamentary system. The structures that will provide health care for a population are decided upon at this level. For example, in NSW the structure for health administration is through a number of Area Health Services. It was at this level that the newer concept of quality management called clinical governance was articulated and then disseminated to Area Health Services and the hospitals within their jurisdiction. Clinical governance is widely accepted as a structure with the potential to effect cultural change in hospitals (Freeman, 2003).

Clinical governance requires clinicians and administrators to take joint responsibility for the quality of clinical care delivered by the organisation (NSW Health, 2005a, p.14). This framework provides a structure that integrates clinical decision-making within an organisational framework in the public healthcare systems in Australia. The framework is normally implemented through a Clinical Governance Unit and committee structures that incorporate representative members of all health disciplines as well as managers and consumers equipped with appropriate resources (Freeman, 2002). Strategies of the clinical governance approach are in train in many Australian health care organisations to improve safety and quality management (Braithwaite & Travaglia, 2008). Therefore,

clinical governance sets the essential framework of ensuring high quality care within the organisation based on professionals skills and systems which allow all managers, professionals and patients to be sure that an acceptable level of care is being achieved (Taylor, 2002). However, Currie and Loftus-Hills (2002) caution that the critical challenge for leaders, managers and clinical staff is the essential organisational cultural change required to implement clinical governance successfully.

At the ministerial level in Jordan, a Quality Department has been implemented within the Ministry of Health. This department is small in terms of the number of people employed and depends on representatives from quality units at all ministerial hospitals to assist in the department's work. The quality committee formed from this department should have a clear agenda and policies for regular meetings and reporting system from the top to the ward level. However, it is difficult to evaluate the progress of this committee to date as there are no policy statements, no quality protocols or safety strategies published either on the MOH's web site or available in hard copy that outlined any existing structural supports for the quality agenda to date. Therefore, a relevant question will be to investigate what structures have been put in place to link the MOH Quality Department with the hospitals' quality committees? At the hospital level, I will investigate what structures exist to report the results of PU assessments from the hospital back to the MOH and vice versa.

The main point that emerged from the literature on structure is the need for specific structures throughout the organisation that support patient safety initiatives. The characteristics of these structures included 'flattened' management hierarchies to encourage supervision and leadership across the organisation and promotion of decision making at the micro level. A multidisciplinary committee working under the banner of the hospital's quality or governance unit can provide a focus for patient safety initiatives and remain vigilant and plan responses to potential error or advance events for patients. While effective, evidenced-based clinical, organisational and ministerial structures that support quality healthcare management are essential as previously identified, in order to achieve a high standard of patient safety processes known to contribute to improvements are also critical. It is the processes of care that this review will now consider.

Processes

The multifaceted nature of quality and patient safety management involves multiple processes. For the purpose of this thesis, the processes of health care are defined as the "sequence of care activities to measure patient outcome" (Bergquist, 2005, p.148). Sorensen et al., (2005, p.413) classify them into three constituent dimensions for evaluating the quality of healthcare reform, namely "the quality of technical processes, the quality of organisational processes and the quality of social relationships". The literature identified the contribution of many processes to improvements in patient safety. Those processes judged to be important in PU management in Jordan have been selected and focused upon. That is, this section attempts to integrate processes from the patient safety literature with processes used to manage PU from the nursing literature and attempts to maintain the clinical, organisational and policy levels approach previously mentioned. The review commences by considering technical processes at the micro level that need to be in place for the clinical prevention of PUs to occur.

Identifying processes that recognise when patients can be harmed (risk assessment of skin breakdown)

The literature was reviewed to identify the most appropriate ways to identify patients at risk of skin breakdown. Skin assessment to determine the risk of PU, a clinical evidence-based variable (Rycroft-Malone, 2001), has long been considered the key to the early implementation of preventive measures. The literature indicates skin assessment should be ongoing, accurate, and holistic in order to assess, predict and identify a patient's predisposing factors, and to determine a patient's risk of developing PUs (Braden & Frantz, 2004; Levine & Totolos, 1995; Thomas-Hess, 1992). Risk assessment instruments have been developed, mainly by nurses, over five decades to aid clinical judgement and quantify risk for summary evaluation. Further, risk assessment tools are designed to act as an "aide memoir" so that significant factors contributing to PU development are not omitted from the assessment thereby enhancing clinical judgement (Dawsett, 2001; Flanagan, 1993a); (Braden & Frantz, 2004; Thomas-Hess, 1992). Pancorbo-Hidalgo and colleagues (2006) in a systematic review of 33 studies of scale validation found while there was no decrease in PU incidence attributed to the use of a risk assessment scale, the use of scales increased the intensity and effectiveness of prevention interventions.

A risk assessment scale (RAS) score has a special numerical value or "cut score" that is assigned to identify the degree of risk for each patient, and the factors that are associated with PU development including general physical condition, mental status, activity, mobility, incontinence, and nutritional status (Carroll, 1993; Hess, 2001). Over many years, RASs have been developed, tested and are currently available for use (Gould et al., 2004) with at least 40 RASs clinically in use (Nixon & McGough, 2001; Schoonhoven et al., 2002). A number of researchers (Flanagan, 1993b; Lingren, Unosson, Krantz, & Ekac, 2002; Rycroft-Malone, 2001) write that the chosen assessment tool should be appropriate, valid and reliable, consistent, clear and updated, documented, and easy to access and use.

However, most of these tools are based on expert opinion or untested models, and their validity and reliability has been questioned because these tools have not been established by evidence-based research (Dawsett, 2001; Flanagan, 1993b; Papanikolaou, Lyne, & Anthony, 2007; 2002). Schoonhoven and colleagues (2002) and Haalboom, deBoer and Buskens (1999) contend that only six RASs have established validity and reliability. However, this condition has been challenged by Papanikolaou et al. (2007). The Norton and the Waterlow scales have been tested twice and the Braden scale nine times. Pancorbo-Hidalgo and colleagues (2007) determined from their systemic review that the Braden Scale showed optimal validation and the best sensitivity/specificity balance (57.1%/67.5%). However, the cut-off score of the Braden scale has been questioned (Papanikolaou et al., 2007). Langemo and colleagues (1991) recommended a lower cut-off score that others have suggested a higher cut-off point (Capobianco & McDonald, 1996). More recent evidence indicates that certain Braden subscales may be more important than others for predicting risk, such as the mobility subscale (Baldwin & Ziegler, 1998). Subsequent retesting of the three commonest tools – Norton, Waterlow and Braden by Papanikolaou and colleagues (2007) identified limitations in all three instruments and recommended that tools that better enhance less experienced nurses' judgement are required. Jordanian nurses are currently not making or recording any clinical judgements about patients' skin breakdown. While recognising the status of the current literature, I consider that nurses in Jordan require a RAS to assist in the development of their practice in terms of patients' safety. Therefore, the question arises whether the Braden instrument can be applied effectively in Jordanian hospitals to identify at-risk patients.

Identifying the preferred RAS for use in Jordan

The Braden risk assessment scale was developed in 1987 in the USA, and it provides a method for systematically assessing adults at risk of developing PUs (Ayello & Braden, 2001; Hopkins, Hanlon, Yank, & Sykes, 2000). Braden and Bergstrom's design is "based on a conceptualisation of aetiological factors related to pressure ulcer formation" (Simpson et al., 1996, p.36). The Agency for Health Care Policy Research recommended the inclusion of the Braden scale in all PUs development studies (Bergstrom et al., 1995). The instrument is implemented in many health care settings in the USA and used by registered nurses in a wide variety of clinical settings, such as medical-surgical, intensive care units, community care in elderly or long-term facilities and in black, white and Latino populations (Ayello, 2003b; Ayello & Braden, 2001; Bergstrom et al., 1995; Langemo et al., 1991; Olson, Tkachuck, & Hanson, 1998; Vap & Dunaye, 2000; Watts, Abrahams, MacMillan, & Sanat, 1998). The Braden scale has been translated into many other languages, such as German, Italian, Dutch, Japanese, Chinese, and French, and, for the purpose of this study, into Arabic (see Method Chapter). With the detailed information available from using the scale, a patient's level of risk can be determined.

In summary, the theme emerging from the above discussion is that there is a need for a system that recognises when patients can be harmed. Recognition of risk can be systematised by the use of a risk assessment scale for PU. Based on the reviewed literature and international experience, there is no evidence to support the use of a single tool in all care settings. However, of the two tools commonly used worldwide, (Braden and Waterlow scales), the Braden scale will be used in this study as it has the strongest methodological support (Papanikolaou et al., 2007). Additionally, the Braden scale is simple to use, is available in Arabic, and is used in different cultures and health systems worldwide. In Jordan, this research will study any assessment processes currently being used, including who is involved in the assessment processes and when and how the assessment is communicated to other clinicians. In order to be able to communicate with other clinicians Jordanian nurses need to learn what the stages of PU are. Being an expert in the clinical area to assess and manage PUs is not enough. Nurses need to understand risk assessment and staging of PUs as a foundation for organising and managing the ongoing patient care. More details of the Braden scale will be provided in the method chapter. Ideally, the organisational processes involving the use of a RAS

scale, in conjunction with the wound staging system, will promote a comprehensive approach to patient safety management. Processes used to assist in the quantification of patient risk and management will now be discussed.

Processes that quantify risk in order to improve management are needed (staging of PUs)

Staging is a method to survey PUs (Benbow, 1995). It is an assessment process that classifies PUs based on the anatomic status of the ulcer, by defining the depth of soft tissue layer destruction at the time of assessment (Maklebust, 1997). The stages are classified according to the degree of severity and depth of the tissue damage, or wound measurement (Andrychuck, 1998; Hopkins et al., 2000; Watts et al., 1998). The grading system identifies the location, size, shape, depth, tissue type and wound exudates (Lewis et al., 2003).

The current PU literature discusses various classification systems. These classification systems vary in how the stages or grades of the PU are described and characterise the amount of tissue damage for each PU. The American Pressure Ulcer Advisory Panel (NPUAP) proposed a four-stage PU classification system to help in the prediction and prevention of adult PUs as shown in Appendix 3.3. The stages outlined in 1989, the changes added to stage 1 definition and refinement by NPUAP in 1998 and the EPUAP staging in 1998 are shown. In 1998, the EPUAP updated the PU grading by defining the maximum depth of tissue involvement. Their stages are based on the stages of the NPUAP with some detailed clarification from other researchers (Cochrane, 1990; Trealease, 1988). The EPUAP classification system was based mainly on the NPUAP classification system. It gives a clear description of ulcer stages, and it has been accepted as a standard recommended by AHCPR for universal use (National Pressure Ulcer Advisory Panel, 1989). Furthermore, this system is based on the best available scientific evidence (Bergstrom, 1997). The researcher will use this classification system in the study to stage the PUs of patients in the public hospital who are identified as having PU. Clearly, this classification system has been developed because the ways of managing PUs at different stages requires very different resources. For instance, stage four PUs are serious and may require debridement and plastic surgery in many cases (Ousey, 2005). The organisation-wide processes used to measures quality in a

Jordanian hospital will be identified and evaluated against the reviewed international literature. The theme that emerged from the above discussion is a need for systematic processes that enable the quantification of risk so that effective management strategies can be implemented. Communication will be the next focus of the discussion.

Communication processes in patient safety frameworks

Many texts or articles concerned with patient safety issues identify communication processes as central to the provision of effective and safe care (Runciman et al., 2007). Miscommunication, at both the clinical and organisational levels, is identified as a cause or contributor to adverse events, error or omissions of care. Communication processes within disciplines and between interdisciplinary teams are both verbal and written and both with be discussed. Clinical staff talk to each other to communicate patients' status, organise and conduct care as well as socially interact (Stein-Parbury, 2005). Verbal communication is a process of sending and receiving symbols with meaning attached (Macleod-Clark, 1984). Effective verbal communication occurs when the intended meaning of the sender and the perceived meaning of the receiver are one and the same. Communication is more likely to be effective when the message is clear, concise and contains appropriate and sufficient information to the people who need it to complete work safely and efficiently (Macleod-Clark, 1984). A shared system of codes or language between the sender and receiver is required. In the complex health care environment, poor interpersonal communications and imperfect information processing is known to contribute to error (Helmreich, 2000). The patient safety literature consistently identifies the importance of verbal communication between managers and clinicians in organisational settings that are promoted through formal structures such as at quality committees, clinical project meetings implementing change processes (Bate et al., 2008) and organisational and personal performance feedback systems (Runciman et al., 2007).

Effective and efficient communication results in minimum miscommunication error (Helmreich, 2000; Sexton, Thomas, & Helmreich, 2000) a situation sought by all organisations. The communication of formal information in an organisation should be in a manner that everyone understands. The lines of communication, from where messages originate and how they travel through an organisation should be identified

(Sexton et al., 2000). This includes horizontal communications between workers or across the work group, as well as 'vertical' communication originating from management to employees or from employees up to management.

Verbal communication

Information originating from the managers, down to the middle managers and then to the clinicians is an example of vertical communication. The "vertical line" of hierarchy can create communication problems between upper level administration and direct care givers if it is not managed effectively by managers in the first instance. Robbins, Millett, Cacioppe and Waters-Marsh (1998) advocate the extensive use of vertical, lateral and informal channels to increase communication flow, reduce uncertainty and improve performance and satisfaction. What has been confirmed by many authors is that communication must not only go from the top or macro level down to the clinicians or micro but also must travel in a reverse direction. Managers need to be part of groups engaging with health professionals in improving operations by networking (Mintzberg, 2002). Managers need to be 'on the scene' to support clinicians' decisions during system change, so that they don't become frustrated when they lack the power to resolve problems or acquire resources (Sorensen et al., 2005).

An example of verbal communication between the clinicians is the handover. Nursing handover is a common practice that is fundamental to safe patient care (O'Connell, Macdonald, & Kelly, 2008). Many articles focus on shifting the informal verbal communication to formal written communication with an emphasis on removing any informal patient records to reduce the duplication of the documentation (O'Connell et al., 2008; Webster, 1999). A number of processes have been identified as important to achieve a safe clinical handover for patients. This include the need for a cross-over of staff on the two shifts, adequate time, clear leadership, adequate information technology to use for constructing a formal handover sheet that can be transferred as part of the handover process (Pothier, Monteiro, Mooktiar, & Shaw, 2005). These processes are said to maximise the likelihood that sufficient and relevant information is communicated and tasks and plans for further consistent and continuous patient care prioritised (Williams, 1998). Additionally, Clemow's research in 2006 identified significant improvement when the traditional office-based nursing handover was changed to utilizing documentation at the patient's bedside. The improvements were

not only increased accessibility of nurses to patients but also documentation improved and nurses' satisfaction increased (Clemow, 2006).

Multidisciplinary team ward rounds are another type of verbal communication that gives clinical staff an opportunity to discuss patients' safety and quality of care. Ward rounds are crucial for planning patients' care that will be performed by physicians, nurses, allied health professional and patients (Seo, Tamura, Morioka, & Shijo, 2000). A team-orientated approach has been identified as assisting clinicians improve interprofessional communication about future care planning, which is considered an important factor for improving patient care long term (Maier, Fotuhi, Seele, & Nikolic, 2008; Moroney & Knowles). Ward rounds have been regarded as a traditional forum to provide training for less experienced clinicians (Seo et al., 2000), and for teaching students (Qureshi & Swamy, 2008). Difficulties for team members in different status positions in the hierarchy to communicate effectively have been recognised. Similarities between staff in operating rooms and cockpit communication between pilots of differing status have been drawn (Sexton et al., 2000). Navigators are now trained in communication techniques so that they can convey to pilots if they see an obstacle the pilots have not recognised. Likewise, junior nurses who become aware of patient safety issues need to be able to not only communicate to doctors and senior managers but also be able to work constructively in teams to remediate the situation. As another approach to improving team communication, Morrison and colleagues (2008) introduced an electronic patient record to enable ward-round teams to adapt their formations and information sources to facilitate multidisciplinary communication during the ward round.

Clinical Documentation

Clinical documentation is a way to communicate what has occurred and what is planned to be done by the next team. Written communication processes help to minimise the risk of wrong or missing information or misinterpretation. Documentation provides patient histories for treating clinicians to follow up their care and protects staff and the organisation against litigation, as legal documents show what was done for the patient and why (Hess, 2005; Koch & Fairly, 1993; Sorensen, Maxwell, Coyle, Zhang, Patterson et al., 2001). Each patient requires a unique medical record number and a personal record of care that is maintained in the ward during hospitalisation. A patient's

progress notes should be the central record that all clinicians can use to record the care provided. Allied health professionals such as dieticians and physiotherapists should write their recommendations and interventions in the integrated progress notes (Gibbons, Shanks, Kleinhelter, & Jones, 2006). Multiple sources of recording care should be avoided not only to prevent costly duplication of records, but also to avoid errors when moving between documents. In fact, according to (Frank-Stromborg, Christensen, & Elmhurst, 2001) and (Currell, Wainwright, & Urquart, 2002) documentation is so critical to improving the quality of patient care that it is one of the accreditation indicators at the clinical level. Accurate documentation is a legal requirement of health care and medical records are a source of evidence in cases of malpractice or negligence.

In the best practice model of care for PU management the guidelines recommend that medical record documentation identify the risk factors, preventive measures, the time of the injury, grade, wound location, wound size, shape, margin and colour as well as any discharge amount (Currell et al., 2002). Other inclusions that are recommended are any signs of infection, photographs of the wound at different times, wound dressings, other nursing measures and health education provided to the patient and family (Currell et al., 2002). When clinicians make a decision about a patient's risk of injury, this decision must be recorded in the patient's medical record. Useful documentation reports the intensity of nursing interventions provided (Levine & Totolos, 1995; Prevost, 1992) and reports the management care plan for high-risk patients. Each patient has a documented score in his or her medical record or clinical chart that is kept updated from admission and then on an as needs basis depending on the patient's condition but at least once a week (Brown, 2006). Clearly, documenting the identified risk assessment is a crucial aspect that should be attended to by clinicians and followed-up by the clinical leaders at ward level. Clinical level manager has to organise and check that nurses are assessing PU risk and charting the results of treatment in patients' clinical notes. Summaries of PU numbers and stages are collected from each ward on a weekly basis and forwarded to hospital management.

Discharge planning documentation

Documentation is an important component of effective discharge planning and it is one of the organisation's care and outcome measures. Complete documentation is needed to manage the quality of care, to prevent unnecessary hospitalisation, and to ensure safe transfers and appropriate referrals for the patient post hospital care (Hess, 2005; Mrayyan, 2004). Effective discharge planning commences when the patient is admitted to hospital because it is important for all clinicians involved in the care to know the current management plans and decisions for a patient to ensure the continuity of care (Australian Wound Management Association, 2001). Hence, communication by allied health professionals, such as physiotherapists and dieticians who are part of the multidisciplinary team, their assessments and interventions need to be included in discharge records. If discharge planning is well documented from a patient's admission, then according to the research conducted by Mrayyan (2004) unnecessary hospitalisation can be prevented. From my experience as an employee in Australian health care, I consider that the development of the Jordanian health system has not reached the standard achieved in Australia. While Jordan is developing systems for improvement, I content that these are not well integrated and remain as isolated initiatives. The next section of this chapter will consider the implementation of multidisciplinary teams as a process supportive of improved patient safety.

Multidisciplinary teams

Teams are important for the health of the patient as an aspect in the best practice model. Effective teamwork is associated with high quality of care and considered an essential component of achieving high reliability in healthcare organisation (Baker, Day, & Salas, 2006; Surgenor, Bilike, & Corwin, 2003). In this context, a 'healthy' organisation would be one that accepted a negotiated model of care developed by multidisciplinary teams willing to accept the reality of a production approach to managing clinical processes, having regard to the increasing demand for care. Such shared authority for practice (Tap & Schut, 1987), will "depend on the willingness of the medical and nursing clinicians ... to accept the multidisciplinary, and hence team-based, nature of clinical service provision, and accept the need to establish structures and practices which are capable of supporting this" (Degeling, Sage, Kennedy, Perkins, & Zhang, 1999, p.177). Individuals need team support, and teams needs organisational

support to accomplish the daily work (Ferlie & Shortell, 2001). In Jordan, the teams consist only of doctors. One way of bringing other health professionals into these teams could be scheduled meetings on a weekly or monthly basis to develop practice guidelines and report the summary statistics on the patient safety cases.

Efficient communication and flow of information is essential to ensure continuity of information across all health care settings (Zajac, 2003). Therefore, teamwork communication and multidisciplinary collaboration is essential in producing quality health care (Coeling & Cukr, 2000). Team-based communication facilitate interaction-based outcomes (Ferris, Perrewe, Anthony, & Gilmore, 2000). Interaction between clinicians within a multidisciplinary team who treat patients in common, and the patients themselves, assist in sharing the knowledge that is essential when planning care. Raven and Rix (2003) have shown that most health care workers perceive that risk assessment and management is best managed by multidisciplinary teams sharing professional opinions based on their particular knowledge and sharing responsibility for decisions and outcomes. Successful medical teams in highly reliable organisations recognise that the consequences of medical error can be high, but that the actual occurrence of error should be extremely low (Baker et al., 2006).

Teamwork of this nature is vital in the case of PU prevention and management. The identification, assessment, prevention and treatment of PU injuries are a crucial safety element in acute care hospitals. When the injury is identified, the multidisciplinary team will implement the preventive measures to reduce the risk to patients (Dolynchuk et al., 2000; Granick & Ladin, 1998). At the ward level, where the patient is central, team member collaboration is instrumental to promote a healthy learning environment, through participation and cooperation that can prevent harmful injury to patients (Gerrish, 2004).

In summary, there is a need to have communication processes that minimise the risk of wrong or missing information or misinterpretation. A multidisciplinary model of care that enables clinicians to work in teams enables social and cultural interaction processes that support the development of common values, attitudes and practices. These in turn are a basis for developing common languages through which these presently diverse and differentiated cultures can communicate and collaborate.

Creating communities of learning and engagement: clinicians who understand their roles

Truly engaging clinicians in a quality improvement/ patient safety agenda so that they have a sense of ownership of the process has been recognised as a major task (Bate et al., 2008, p.72). Yet if change is to occur, it is essential that clinicians believe patient safety is their issue or their problem not the problem of the hospital's Quality Unit or of the management only. For example, at the Cedars-Sinai hospital in the USA various methods and processes for engaging doctors have been employed. These include one to one peer influence and persuasion, preserving a sense of collegiality, partnership and an atmosphere of mutual respect among professionals and persistence in maintaining a dialogue in order to reach resolutions around quality issues (Cedars-Sinai (2002) as cited in Bate et al., 2008, p.73). These processes have resulted in physician engagement in change. Characteristics of this approach include openness and trust, the creation of a safe space in which clinicians can learn from errors and 'near misses' as well as from positive achievements and experiences (Bate et al., 2008; Runciman et al., 2007) as initially discussed in the culture of patient safety (Godfrey et al., 2003). The availability of position descriptions that identify maintaining patient and staff safety as a significant component of the role is one step. Being able to learn and discuss work functions and values with like-minded clinicians and managers is also significant (Bate et al., 2008).

Role functions

Godfrey and colleagues (2003, p.163) in the Microsystems in Health Care series of articles in 2003 write that many members of clinical microsystems "do not see their own roles and the roles and functions of others as interdependent, as part of a group of professionals with an aim and a system to provide care to subpopulations of patients". These authors contend that it is important for staff to know their roles and functions and how these relate to the main purpose because staff in the clinical microsystem "make or break the processes of service delivery". When managers implement a strategy or an intended course of action it has to be interpreted within the context of practice. In this sense, the formal organisational structure is seen as an official arrangement of jobs and positions into an interactional network that defines how communication processes are to be effected and how work is to be executed (Marriner-Tomey, 2009). Organisational managers need to communicate their expectations of role functions to clinical staff, and

managers need to remain engaged in micro level projects to support clinical staff when changes in work practice are being advocated or tested. Sorensen et al., (2005, p. 413) found that when medical managers were not leading or driving the change process, this was a signal to medical clinicians to also opt out, leaving nurses and allied health clinicians frustrated. According to Clarke et al. the Chief Executive Officer/hospital director, and ministerial /national quality committee are responsible to approve, update and review plans and positions within their organisation. Executive managers have to support organisational and clinical managers in their roles as change agents and establish a system of feedback to direct the ongoing development of policy concerned with change and role functions. Evidence-based practice management and guidelines will be the next process discussed.

Evidence for best practice management

Evidence-based practice (EBP), a common term used worldwide (Tolson, McAloon, Hotchkiss, & Schofield, 2005), is described as "a problem-solving approach that incorporates the best available scientific evidence, clinicians' expertise and patient's preference and values" (Fineout-Overholt, Levin, & Melnyk, 2005, p.28). Clinicians use updated evidence as the best way to implement clinical practice, ideas and professional attitudes in the clinical work environment (Stewart, 2003). Practice evidence is derived from empirical data from research such as randomised controlled trials (RCTs), which are considered the standard for assessing the effectiveness of treatment by comparing outcomes of different treatments (Banning, 2005). Evidence can also come from professional experiences, medical records, and from standards data (Banning, 2005; Stewart, 2003). EBP is a means to reduce the gap between research and practice in clinical settings, because it integrates the providers' clinical experience with the best external clinical evidence reducing variations in treatment, including those that are less effective (Newhouse, Dearholt, Poe, Pugh, & White, 2005; Rosswurm & Larrabee, 1999).

There are a number of benefits in using EBP. Firstly, EBP can assist in ensuring that decision-making processes in the clinical area are based on available best evidence (Banning, 2005; Fineout-Overholt et al., 2005; Newhouse et al., 2005). Additionally, EBP provides health care professionals with the confidence that their clinical or

management interventions are informed by a current and appropriate knowledge base (McSherry, 2004). Clinicians engaged in using best evidence may require their skills to be upgraded during the implementation of new guidelines to reduce less helpful variations between best and current practice (Commonwealth Department of Health and Family Services, 1996; Dawes et al., 2005). EBP can also foster research-based health services in which the most reliable, valid, available and relevant information is used to make decisions about clinical practice having regard to local conditions. Consequently, there is a need to adopt a comprehensive approach to implement EBP for PU prevention and treatment (Clarke et al., 2005).

According to the literature, applying best evidence to practice can be considered as a 'benchmark', a way of describing the practicalities of treating particular conditions while having regard for the quality of care, its cost and the organisational culture within which it will be applied. EB guidelines may not be able to be implemented in Jordan exactly as described by the literature, and some flexibility must be allowed initially to establish the use of guidelines as one of the process to effect change. However, it will be important to determine who is responsible, how this should work, what is expected and to what degree social systems within the organisation can integrate (Giddens, 1984). For example, EBP for PUs should incorporate nurses and staff from other disciplines such as medicine, allied health and administration. Clinical guidelines can be developed to assist staff to co-ordinate the care. Specific clinical protocols related to the specialties of each profession that include common indicators of performance that meld the work of health care disciplines together can be developed (Sorensen, 2004). Although guidelines and pathways may be considered instruments of Western clinical cultures, as trajectories of locally developed care systems, they are as relevant for Jordan, as they are for Australian, British or American care systems.

The effective treatment of patients with pressure ulcers is an essential clinical element in best evidence practice. A large body of literature exists about treating PUs related to positioning, turning and other PU clinical care. While there is no one method or standardized treatment currently accepted by health care providers to manage PUs, PU treatment principles are generally accepted and included in guidelines. These principles are assessing wound severity, reducing pressure, friction and shear forces, wound care and debridement, managing bacterial contamination and correcting nutritional deficits

(Reddy et al., 2006; Thomas, 2001). In 1994 , the Agency for Health Care Policy Research (AHCPR), USA, published treatment guidelines for PUs that included assessment of the patient and pressure ulcers, tissue load management such as positioning and repositioning, elevation of the bed head, selection of support surfaces, moisture and ulcer care, management of bacterial colonisation and infection, including operative repair, staff education and quality improvement system (Agency for Health Care Policy and Research (AHCPR), 1994). Clearly, treatment will vary according to the care setting but will be guided by the application of these principles and the most up to date clinical evidence.

Preventative measures are the key aspects in clinical care planning that can be used to prevent a pressure ulcer occurrence. These prevention measures can be documented as guidelines available for all health team members to use to ensure high quality of care (Thomas, McColl, Cullum, Rousseau, & Soutter, 1999). The prevention of PUs can be classified in the management of predisposing factors, particularly removing pressure, turning and positioning, support surfaces, equipment or devices and nutrition (Reddy et al., 2006; The Joanna Briggs Institute, 2008b). Evidence for practice guidelines are detailed in the next section.

Managing pressure to prevent skin damage

Research has established that pressure (as a unit of force applied vertically to the body), is believed to be the most important factor in PU development (Dealey, 1997). Thus, removal or reduction of this contributing force to allow the blood to flow to the tissue is one of the main aims in preventing and managing PUs (Arblaster, 1999). The relief of pressure to prevent skin damage is well documented (Anthony, 1996). Pressure relief and reduction standards are based on Landis's (1930) experimental study. This study showed that, in an immobile body, the external pressures exceed internal capillary pressures over bony prominences. Thus, the main theoretical goal of pressure management is to reduce the tissue pressure below the capillary closing pressure of 32 mmHg (Edsberg, Nateiella, Baier, & Earle, 2001; Landis, 1930; Patrick, 1994). Excessive pressure that closes capillary blood flow can be managed by a regular, ongoing turning and repositioning regime for a patient (Reddy et al., 2006).

To reduce pressure, friction and shear forces, turning and repositioning has been considered a gold standard in clinical practices for PU patients. Regular manual turning and repositioning was officially recommended by AHCPR in 1994 for rotating pressure-prone areas to prevent PU development (Anthony, 1996; Lewis et al., 2003). It is standard practice in the care of immobilised patients, and thus it is the most common prevention method used by health care providers in hospitals (Martin, 2001; Pearson et al., 2000; Reddy et al., 2006; The Joanna Briggs Institute, 2008a).

The Nobel Qur'an provides the story of the people of the cave who slept continuously for many years (three hundred and nine years), turning over to the right and the left was the body's own defence against pressure damage. Probably what was written many years ago is related to what is now known as shifting the weight frequently whether asleep or awake as a response to sensory stimulation (Simpson et al., 1996). Turning and repositioning is recommended within the guidelines of PU assessment and prevention (National Institute for Clinical Excellence NICE UK, 2001; Reddy et al., 2006). Nowadays many authors consider it the simplest, most essential and effective method in reducing the incidence of pressure ulcer development (Arblaster, 1999). Proper position, transferring, and turning techniques are recommended by AHCPR (1994). Repositioning patients can minimise pressure on the bony prominence of the body, and prevent capillary occlusion that leads to tissue ischaemia and pressure ulcers (Sharp & McLaws, 2005). Thus repositioning will not reduce the pressure intensity, but it will reduce the duration (Clay, 2004; Phillips, 1999).

The time factor is more important than pressure intensity in the turning and repositioning duration or schedule. Husain (1953) found that low pressure maintained for long periods of time produce more tissue damage than high pressure for a short period. The optimal interval of the concept of "back round" (back, right, left side) is unknown (Arblaster, 1999; Thomas, 2001). In other words, we do not know how often the patient should be turned. However, turning every two hours is derived from controlled animal studies. Accepted clinical practice most commonly quotes "two hours" (Andrychuck, 1998; Australian Wound Management Association, 2001; Hess, 2001). According to NPUAP (1992), data do not indicate how often patient should be turned to prevent ischaemia of soft tissue, but two hours in a single position is probably the maximum duration of time recommended for patients with normal circulation and

normal skin. A qualified nurse should base the turning and positioning schedules on the outcomes of a skin inspection with consideration given to the individual's medical condition, support surface and overall plan of care (Reddy et al., 2006). Direct pressure on bony prominences and other surfaces, sensitive or previously damaged tissue should be avoided (National Institute for Clinical Excellence NICE UK, 2001; Simpson et al., 1996; Whittington et al., 1999).

However, the level of risk may determine whether frequent turning or position changes are adequate, or whether other therapeutic devices and management are required to relieve pressure.

Individual nutritional status is an important factor in both the prevention and treatment of PU development because the patient's diet should include nutrients and supplements essential for tissue restoration or to maintain tissue integrity (Bobel, 1987). Any impairment in nutritional status due to inadequate intake of nutrients and fluids can cause rapid weight loss and decreased serum albumin (Agency for Health Care Policy and Research (AHCPR), 1994). In a number of studies malnutritioned patients are considered of a high risk group of PU development (Langer, Knerr, Kuss, Behrens, & Schlömer, 2008; Thomas, 2001). For example, Bergstrom and Braden (1992) reported that low dietary protein intake is predictive of PU development in elderly people. Furthermore, the European Pressure Ulcer Advisory Panel (EPUAP) (1998) suggested that evidence-based studies found a direct casual relationship between nutrition and PU development and postulate that impaired nutrition and could influence tissue vulnerability to extrinsic factors such as pressure. Therefore, proper nutrition is essential to prevent the development of PUs and to support adequate wound healing (Ayello, Thomas, & Litchford, 1999).

Nurses have a major role in involving patients and their families in planning their treatment, care and rehabilitation programs at home, including booklets or brochures for patients regarding position, nutrition, and hygiene (Bick & Stephens, 2003; Simpson et al., 1996). The technical process would be nurses educating patients' families or carers to let them provide the patient's skin care during hospitalisation and after hospital discharge because the family members are usually involved in inpatient care in acute care hospitals in transitioning countries (Tzeng & Yin, 2007b). Turning and

repositioning can be difficult and may require a team of workers. The turning and positioning activity needs to be combined with other methods, such as speciality beds and other therapeutic surfaces to relieve the pressure effectively. The next process discussed will be the provision of written BP guidelines for all staff throughout the organisation.

Evidence-based practice guidelines

In recent years, guidelines for pressure ulcers have been established in many developed countries. These guidelines have been formulated from available scientific evidence and provide the basis for current clinical practice. There are many guidelines that categorise the prevention and management of pressure ulcers as a basic and essential recommendation. Those outlined in Appendix 2.1 remain valid and still in use (Australian Wound Management Association, 2001; Ayello & Lyder, 2007; Clay, 2004; National Institute for Clinical Excellence NICE UK, 2001; National Institute for Clinical Excellence UK, 2001b; Registered Nurses' Association of Ontario, 2005; Shekelle et al., 2001). The guidelines are a formal and essential document at the clinical area to be used by clinical health care teams. They are an aid to support practice not a "cook-book" approach. Evidence based guidelines are communicated through standard operational procedures, protocols, manual handling policy and implemented correctly at the ward level.

Performance management: outcomes of quality care

In any professional organisation such as a hospital, one of the challenges in implementing a clinical governance or patient safety model and developing supportive organisational cultures is having in place a performance framework that integrates what is done in the clinical workplace with what is managed at the corporate level of the organisation (Scally & Donaldson, 1998; Wilson & Goldschmidt, 1995; Wright, Smith, & Jackson, 1999). To do this, firstly, there is a need to develop indicators of performance (often referred to as key performance indicators, [KPIs]), both clinical and corporate, that can be rolled up from the workplace to the corporate level of the organisation (Carter, Klein, & Day, 1995). Such indicators would be used to monitor and manage performance, including summaries of results of the KPIs (Exworthy et al., 2003). For example, the numbers of stage three and four iatrogenic PUs that occurred

during the month for each department could be selected as one of the KPIs for AlBashir Hospital during the implementation and subsequent conduct of a PU risk management program. Finally, information systems are needed to provide both clinicians and managers with information on performance. Such a system would have the potential to provide data to all hospital departments from diagnosis to discharge (Degeling et al., 1999).

Other processes to monitor performance that have been implemented in developed countries include clinical pathway reviews and hospital medical records audit (Dowie & Kennedy, 2001; Woolf, Grol, Hutchinson, Eccles, & Grimshaw, 1999). Conducting surveys or research to generate hospital summary statistics to assist managers in reviewing and updating evidence-based practices has also been recommended (Registered Nurses' Association of Ontario, 2005). Other key performance indicators that might be useful for AlBashir Hospital include patient re-admission rates because of hospital-acquired PU, increased length of hospital stay and increased wound infection rates. In managing performance, no one approach is superior to all others; neither is there a single, simple, comprehensive tool that could be universally applied to all health facilities (Marriner-Tomey, 2009). A monitoring system needs to be established in Jordan, and PUs represent an ideal clinical case type from which to develop it.

Documentation in the patient's medical record can assist clinicians to detect and monitor adverse patient events during hospitalisation (Frank-Stromborg, Christensen, & Do, 2001). Patients' records provide the best source of quality information and measures of patient safety in the hospital system (Commonwealth Department of Health and Family Services, 1996) because such documentation works as evidence to support and clarify what has been done by staff (Cheevakasemsook, Chapman, Francis, & Davies, 2006; Currell et al., 2002). Thus documented entries should be consistent, factual, clear and legible (Currell et al., 2002).

Wilson and Goldschmidt (1995) and Sorensen and colleagues (2005) noted that quality control takes place at two levels: the organisation and the workface and that the one influences the other. Both groups of authors note that variations in patient outcomes or deviations from specified processes or expected outcomes may signify a quality problem. They state that an important goal of hospitals is to reduce variation and that

all strategies for improving the quality of care depend ultimately on analysing variation in production performance and resultant outcomes. Variations are undesirable because they represent risk to patients, and reduction in variation can best be achieved through structured performance benchmarking, quality improvement and outcome measurement (Wilson & Goldschmidt, 1995). Performance evaluation that measures the effectiveness in achieving work goals related to maintaining the safety of patients and staff is emphasised.

Individual performance appraisal

In order to evaluate the effective performance of clinical staff, managers need to review their staff performance according to a planned appraisal system. Individual performance appraisal is a common mechanism to appraise, recognise and document one's achievement to promote the development of clinical practice (Spence & Wood, 2007). It is a necessary process of defining job performance, measuring the actual performance and providing the staff with feedback, direction and encouragement under the criteria of effective patient care, effective teamwork, quality resources management and professionals (Bolon, 2006; Brunt, 2002). Clinical nurses' performance appraisal can be undertaken by a more senior nurse or supervisor to identify areas of performance which are well developed and areas which may benefit from further information or a structured plan to enhance their skills. (Schoessler et al., 2008; Spence & Wood, 2007) based their appraisal tool on the domain of nursing from the Benner's (1984) novice-to-expert framework with the combination of self evaluation and setting a specific goals for further achievement. However, a New Zealand research project conducted by (Spence & Wood, 2007) studied registered nurses' perceptions about the performance appraisal interview process. Nurses criticized the process as an ineffective way to improve the delivery of care because of the absence of feedback that acknowledged what they suggested. This finding suggests there is a need to design specific appraisal prompts for each profession that reflects their current role functions and outlines their practice explicitly using population-based competencies (Kalb et al., 2006).

In summary, an integrated performance management system measures outcomes at the clinical level and rolls these measures up to the organisational and ministry levels, so that everyone has the same data and is managing the same thing. Outcome measures or KPI data are required at the ministerial level to ensure a coherent plan of action for

quality improvement, and at the organisational level so that the right strategies are in place. Through such approaches it is possible then to continually review the system's structures and processes as a self-informing best practice approach to achieving desired outcomes through risk management and quality improvement.

The collection and management of patient summary data for the organisation that is transmitted to the government level

The relevant question is how does the hospital quality committee link with the ministerial level from where the resources are derived? That is, what processes are in place to report the results of all the PU assessments from the hospital back to MOH. Reporting the incidence of PU is an important attribute in assessing and managing PU. It assists health care providers to plan, manage and evaluate the quality of the care for such cases (Australian Wound Management Association, 2001). The reporting process starts at the clinical level when the caregiver discovers any injury incident. PU injuries should be reported as soon as possible following an injury. Thus it could be included in the incident reporting system, to become a part of a planned structural management program after defining what is going wrong, why and what can be done (Kiernan, 1998). Further, the organisational managers should make notification of injury or error as easy as possible for staff to report. They should make injury notification registers that are accessible and ensure all employees are aware of the injury reporting procedures. Clinical ward management should respond and act immediately upon notification of an injury to a patient by a member of staff. They should ensure that management or treatment of the injury is undertaken and minimise the potential risk causation. All details pertaining to the injury are recorded in the injury notification register and all reports (verbal or in writing) are required to be lodged within 48 hours of the incident.

In order to evaluate the effectiveness of the implementation of the evidence based guidelines and generation of a safety culture; the ministerial level requires summary statistics from all ministerial hospitals on patients' injuries. It is an essential aspect of quality care and risk management that data about PUs are collected and aggregated to monitor the incidence of PUs, to identify ways of future prevention and to provide feedback on the effectiveness of implemented practices. In the exemplar used for this

thesis, decreased PU numbers or at least a reduction in the incidence of stages three and four PUs would be a positive outcome that management strategies employed at the clinical level are effective (Flynn & Flink, 2001) and hence a positive outcome to maintain the current practices.

If statistics are not continuously collected, regular pressure ulcer prevalence survey is the most commonly used method to identify changes in incidence in Australia (Australian Wound Management Association, 2001). If high levels of cases are sustained an analysis of reasons (root cause analysis) is undertaken (Hess, 2005; Wright et al., 1999). Processes of communication from collection of the basic statistics at ward level, that is either computer or paper maintained, through a clear pathway of where data are going and feedback returning need to be systematised (Wilson & Fulton, 2000). According to (Pronovost et al., 2003) such processes when in place promote clinical staff empowerment and avoid work duplications.

The outcome desirable for patients without PUs is to reduce the incidence and prevalence of PU (Bennett et al., 2004), and for populations of patients with PUs, to reduce their severity. In collecting incidence and staging data for PUs, there needs to be a formal reporting system in place from clinicians to clinical and organisational management and policy levels. Process of care indicators for PU such as prediction and prevention, recommended by AHRQ (Bergquist, 2005), should be established, measured, reported and managed at admission and periodically. In terms of the broader organisation, the outcomes of care could be seen as including, firstly, the use of an integrated performance framework based on, for instance, an organisation-wide performance management system; secondly, the types of culture, governance and accountability mechanisms that bind a multidisciplinary workforce through collective care delivery, reporting, review and revision systems; and thirdly, the use of documentation as a common repository for clear understanding of shared and planned care. In any organisation, clear processes should be established that systematically apply standards of cost and quality. This means that "service efficiency cannot be separated from service quality; ensuring a safe environment and effective patient care cannot be considered in isolation from the resources needed and available" (Sorensen, Maxwell, Coyle, Zhang, & Patterson, 2001, p.27).

The IOM report on keeping patients safe (Institute of Medicine, 2004) identified that the above environmental structures and processes within the organisation are critical for promoting an effective safety culture. Taking all of the above themes together, to qualify as an organisation that actively manages quality, there is a need to meet the standards of quality discussed above which include managing the four components of quality and risk, encouraging system integration through a focus on the continuity of care, devising flatter organisational structures and more democratic decision making processes, devising clear clinical and management policies, documenting care accurately and clearly, and formally ensuring that these structures and processes are in place. Thus, facilitating the availability and proper management of human and physical resources to manage the risk becomes an important structural indicator of quality. The next section will be about the human resources required to deliver best practices at the organisational level.

Human resources and the provision of safe care

In health care institutions with the attributes of highly reliable organisations, personnel who are committed to the philosophical position of safety and quality are needed. One of the attributes that was identified as supporting a shift in organisational cultures (Bate et al., 2008) is the provision of managers, hospital directors, and other staff who are philosophically aligned as expressed by their values, goals and statements. However, expressing the 'right' philosophy is only part of the story. Managers also need to be directly involved and participants in change processes with staff at all levels of the organisation (Bate et al., 2008). In the international case studies of organisations known to have excellence in quality and patient safety (Bate et al., 2008), organisational managers were observed to be not only philosophically committed to patient safety and quality but also actively engaged in group activities and processes with staff working at both the macro and micro levels to change the culture. In one of the earliest reports on patient safety in Australia, Wilson and Goldschmidt (1995) identified that having staff, both managers and clinicians who were attitudinally committed to quality health care, as one of the quality measurement strategies that must be considered. To summarise, there is considerable evidence in the literature that it is essential to have managers who are committed to implementing patient safety and quality, not only by what they say and write but also how they interact with staff across the organisation.

A significant amount of research regarding safety and the features of staff working in highly reliable organisations (HROs) has been undertaken in the aviation industry (Helmreich, 2000). Two features identified in pilots who work in HROs are particularly noteworthy for health care staff, that is safety is dependent on pilots who are proficient and skilful at their work (Sexton et al., 2000). At the micro level in hospitals the focus has more commonly been on having sufficient staff (particularly nurses) to provide twenty-four hour, seven days a week care for patients rather than focusing on the proficiency and skill level of staff. WHO reported that the nursing personnel density per 10,000 population in the United States, Australia and UK is 94, 97 and 128 respectively (WHO, 2009) with a recommendation of a nurse: patient ratio based on patient dependency such as one nurse to four or five patients in the acute care sector (Wise, 2006). A nurse to patient ratio for Jordan has not been published. Moore and Price (2004) and Raven and Rix (1999) wrote that limited staff resources are one of the difficulties facing an organisation that can impact negatively on the quality of care. Similar assertions were made by Cruickshank (2003) following an investigation of quality management practice in nursing. She found that human resource management is one of the organisation's difficulties that adversely affects the quality of care.

Over the last decade there have been large and costly nursing studies undertaken on the impact of having not only sufficient numbers of nurses but also nurses who are proficient and skilful in carrying out patient care "at the bedside" (Aiken et al., 2002; Duffield, Roche et al., 2007; O'Brien-Pallas, Thomson, Alksnis, & Bruce, 2001). Aiken and colleagues (2002) in her major study in hospitals in the United States of America identified increased infection rates in patients (urinary tract and respiratory) in the acute care setting when the numbers of RNs decreased in the nursing skill mix employed. That is, it was not only that a sufficient number of nurses were employed to provide the care, but also that the nurses employed were sufficiently knowledgeable and skilled in providing the high standard that made the difference to patients' outcomes (Aiken et al., 2002). More recent research in New South Wales public hospitals (Duffield, Roche et al., 2007) has confirmed (Aiken et al., 2002) findings, by demonstrating that hospitals require sufficient numbers of proficient staff, in this case Registered Nurses working at ward level to ensure a quality of care that maintained patient safety (Duffield, Kearin, Johnston, & Leonard, 2007; Duffield, Roche et al., 2007). Having well-trained and appropriately-educated personnel, with adequate ratios of staff to patients, with

sufficient time, availability of adequate and appropriately located equipment is needed to develop effective multidisciplinary teams and autonomous professionals who can make effective decisions (Ulusoy et al., 1996).

Nurses within the multidisciplinary regimen that characterises modern acute health care, have multi-dimensional roles and responsibilities in patient care (Dealey, 1989). The most commonly cited nursing roles in this context are those of clinical practitioner, coordinator and trainer, educator and researcher (Dealey, 1989). With regard to the topic of this thesis on PU management, nurses play an essential role in identifying patients at risk of skin breakdown and have a significant role to play in both preventing and managing PUs. Further, as nurses are becoming better educated and practically prepared to meet the health needs of their patients, they can assist and improve the quality of care for patients at risk of skin injury by implementing research-based evidence into locally developed practice guidelines. As the nursing role in health care develops, nurses are expected to coordinate aspects of patient care with other health team members including doctors, dieticians, pharmacists, and physiotherapists (Simpson et al., 1996).

In order to maintain a high standard of clinical care to patients to either prevent PUs or to treat existing ulcers, proficient and competent clinical teams are required. Within the professional team, nurses are the best positioned clinicians, as they provide a 24 hour service, to intervene or implement the treatment to reduce the incidence of PUs (Maklebust, 1999). Other team members include physiotherapists whose role is in reviewing patients' mobility and daily activity status. Dieticians or enterosomal therapists play another role by assessing, monitoring and reviewing patients' nutritional status. The engineers' role is to maintain the equipment such as the electronic beds, in good working order (Dolynchuk et al., 2000).

Managing the quality of care including risk management through a quality management system will be paramount in any health system, including that in Jordan. However, visions such as this cannot be achieved by the organisation alone, but will require policy support and guidance to ensure the coherence of the overall plan, the feasibility of the strategies and the availability of resources for their accomplishment. Further

consideration needs to be given to the provision of ongoing clinical staff education. This will be the next turn of the discussion.

Provision of ongoing education for clinical staff

Education is the most effective way of reducing the incidence of PUs (Ratliff, 2005). The literature suggests that nurses need to increase and maintain their knowledge and skills in preventing and managing PUs through extra reading, advanced post-basic education, in-service education and clinical practices (Lewis et al., 2003). Nurses need knowledge regarding maintenance of skin integrity and skills in wound assessment and management (Bryant, Shannon, Pieper, Braden, & Morris, 1992). For example, nurses are responsible for dressing and wound monitoring, and they are challenged to provide wound management based on physiological principles and research findings (Dolynchuk et al., 2000). The application of this knowledge in practice for their patients is important to prevent PU development. All clinicians need to appreciate the role they can play in PU prevention (Australian Wound Management Association, 2001). Consequently, it is essential that educational programs exist to assist health care workers, especially nurses, to identify high-risk patients and stop the development of PUs (Registered Nurses' Association of Ontario, 2005). Clinical educators, nurse specialists or a patient safety coordinator can facilitate the dissemination and uptake of practice guidelines at planned education programs as well as ongoing ward-based education.

All nurses have a role as educators. This role should involve collaboration between all members of the health care team, including doctors working in clinical areas. Hence, nurses can assist other health care workers, patients and their families to understand and manage the condition through their collaboration (Lewis et al., 2003; Simpson et al., 1996). PU is often under-treated within the acute care facilities and although resources are often limited, staff education can promote better understanding of the assessment and treatment of PU (Ayello & Lyder, 2007; Dolynchuk et al., 2000).

There is no agreement on a single model that meets the educational needs for all health care personnel (Bryant et al., 1992). However, an effective model needs to include strategies of risk management, use of a risk assessment tool for skin assessment, care

equipment selection, use and maintenance of pressure redistributing equipment, repositioning policies and procedures and applying proper management (Registered Nurses' Association of Ontario, 2005). The training and education program used in health facilities by all health care providers needs to involve the patients and their families, and be updated every six to12 months (Lewis et al., 2003). The final important attribute to be included in the patient safety attributes is the physical resources to which I next turn.

Provision of physical resources

The provision of sufficient equipment and resources to departments and wards to maintain patient safety and enable evidence to be implemented at clinical level is an important attribute to be considered when applying a patient safety framework. Delivering an appropriate standard of care through planned strategies requires resources. Hospitals should have safe and functional buildings furnished with the well-maintained equipment. Additional resources are usually required to improve the quality of health care (Ovretveit & Gustafson, 2003). Formulae to work out how resources are equitably distributed are available, such as the number of occupied beds, length of hospital stay, the types of cases treated using International Classification of Disease (ICD) codes and key performance indicators achieved. Hospital administration is therefore a key participant in quality improvement strategies with adequate and well maintained physical resources that can assist professionals in their clinical tasks (Wilson & Goldschmidt, 1995). Discussion of various funding systems has not been incorporated in this review because it was judged to be outside the scope of the thesis.

The literature outlines the importance of the availability of funding systems to maintain physical resources in working order in the organisation. Capital works funding is supplied usually by government health departments and this in the case in Jordan. The sources of funding are from the government of Jordan through to the MOH and overseas aid programs. Decisions on funding priorities are made at the MOH level with limited consultation with the hospital directors. The method of funding distribution is according to funding formulae applied at government level but not publically available. The MOH distributes the funds to hospitals according to bed numbers and types of patients treated and requests from hospital managers. Bed distribution is based on

funding formulae to ensure priorities are achieved (Brosk et al., 2000). While it has been stated that it is essential to increase the health resources in Jordan (Al-Rai, 24th Nov. 2005) important gains can be made by using existing resources more effectively (Evans, Tandon, Murray, & Lauer, 2001).

Support surfaces for PU management

There are a number of resources that have been produced to assist staff when preventing and treating patients with PU and one type of resource is the use of support services (The Joanna Briggs Institute, 2008a). The main aim for using a support surface is to prevent and manage the patient's skin breakdown. Support surfaces are used in particular for bedridden patients to prevent or manage PUs (Cullum, McInnes, Bell-Syer, & Legood, 2004).

The use of support surfaces is considered a cornerstone in the reduction or elimination of interface pressures, and to reduce shear, friction and moisture (Bryant et al., 1992). The selection of the devices depends on cost and the ease of use. In various clinical settings there are a variety of support surfaces or devices used effectively to reduce the incidence of PUs. The choice of devices to relieve pressure is best made by actually measuring the tissue interface pressure between bony prominences and an external support surfaces in order to reduce the external pressure below the amount of pressure required to keep the capillary open (Simpson et al., 1996). Recently, a systematic review conducted by Cullum et al., (2005) concluded that the health sector should consider using pressure relief devices for high risk patients in operating theatres, as this appear to be associated with a reduction in the incidence of PU post operatively. The availability of patient safety measures and processes at ward level that maintains the acquisition of new equipment and repair of faulty equipment is essential.

The equipment or devices

Preventive devices can be classified into pressure relieving devices and pressure reducing devices. Many authors have discussed pressure-relieving devices which reduce the interface pressure to less than the capillary closing pressure (32 mmHg). Pressure relieving devices work by redistributing the pressure of the bony high points across the surface area of the body, reducing or eliminating the source of the pressure by

alternately inflating or deflating support surface cells (Clay, 2004; Phillips, 1999). These devices are said to enhance blood flow and restore tissue perfusion (Clay, 2004; Phillips, 1999). Research has indicated that the only devices that consistently relieve pressure on the trochanter, ischium, and sacrum are low–air loss and air–fluidised beds especially in hospitalised intensive care unit patients (Pase, 1994; Thomas, 2001). Many researchers have studied the effectiveness of pressure relieving mattresses as to whether they can fulfil the entire patients' and organisation's requirements. Clark and Rowlands (1989) conducted a survey that measured PU prevalence over a four year period and compared their findings with the availability of pressure redistributing mattresses. They concluded that the use of pressure relief equipment alone does not reduce the prevalence of pressure ulcers.

The equipment or devices used as support surfaces can be categorised into, firstly, support surfaces to manage pressure (reduction and relief), such as air or fluid support surfaces (static or dynamic), and secondly, devices such as over-lay, replacement mattresses, and speciality beds (Australian Wound Management Association, 2001; Bryant et al., 1992). The equipment should be acceptable and comfortable to the patient, conform to body weight, provide good ventilation and maintain skin at a constant optimal temperature (Clark & Rowlands, 1989; Simpson et al., 1996). Unfortunately, equipment such as specialised beds, mattresses, mattress overlays, trolleys, wheelchairs and cushions to distribute pressure away from bony prominences can be misused, or used inappropriately if the clinical staff are not well trained in manual handling. Inappropriate use of equipment can increase the risk of PU development (Queensland Health, 2007).

With regard to hospital support surfaces, the first type is the standard foam hospital mattress. There is no international definition for the standard foam hospital mattress (Cullum et al., 2005). The characteristics of the ideal patient bed as distributing pressure or providing frequent relief or constant low pressures that are acceptable and not restrictive of patient movement. The bed on which the mattress is placed should be easy to clean, maintain and operate and not impede care interventions. There should be a capacity to adjust the height, tilt and move the bed and it needs effective brakes. It is recommended that patients at-risk of developing PU should not remain on a standard

mattress, a low interface pressure support surface such as high-density foam should be used (Cullum et al., 2004; Registered Nurses' Association of Ontario, 2005).

The patient's bedside chair requires special characteristics such as the height at least 45 centimetre, with a comfortable firm surface, supporting the thighs, high back, arm rest and lumber curve (Australian Wound Management Association, 2001; Simpson et al., 1996). Wheelchairs used for less mobile patients also require a stable adjustable seat suitable for the patient's weight, a high backrest, armrests and easy to reach control wheels (Registered Nurses' Association of Ontario, 2005; Simpson et al., 1996).

In pressure reducing devices, pressure can be decreased either by its uniform redistribution over a greater area or through its rhythmic elimination (Clay, 2004; Crow & Clark, 1990). Pressure-reducing devices can make the pressure less than standard support surface but not below 32 mmHg (Patrick, 1994; Thomas, 2001). These surfaces are classified as static and dynamic. Static (stationary) pressure reducing devices produce static pressure or constant inflation with no relief, and these are designed to distribute local pressure over a larger body surface (Bryant et al., 1992; Thomas, 2001). These devices are mainly the static low air-loss systems (overlays, mattress replacements and beds). The overlay devices are applied over the surface of mattresses to reduce pressure and the cost (Clay, 2004). The Agency for Health Care Policy and Research Panel (AHCPR), (1992) reports that no specific type of pressure reducing device is more effective than another to use in the prevention of PUs. However, pressure reducing devices have been found to lower the incidence and severity of PU among various patient groups in acute care hospitals such as orthopaedic patients, surgical and oncology patients, and intensive care patients (Thomas, 2001).

Dynamic support surfaces, using electricity to alter inflation and deflation, are the pressure-induced parallel of connective tissue collagen bundles (Edsberg et al., 2001; Lewis et al., 2003). The device distributes the patient's weight by using electric air cells in the mattress in an alternating pattern of inflation and deflation, or forces air up through a layer to act like a fluid and promote uniform pressure distribution over the body surface (Clay, 2004). The dynamic support surfaces include large cell alternating pressure mattress, overlay and mattress replacement, low air loss and air fluidised beds. These types of dynamic support surfaces can be used to prevent PU formation for

moderate to high-risk patients and to treat patients with stage three or four PUs. The low pressure support system (air, water or foam mattresses) can be used for at-risk patients in addition to the redistributing overlays on operation tables and trolleys (Thomas, 2001).

In general, dynamic devices are suitable for immobile patients and repositioning high risk patients. Unfortunately, these devices are noisy, disturb other patients, have mechanical difficulties and are difficult to use (Thomas, 2001). Additionally these surfaces are expensive to purchase, maintain and repair (Thomas, 2001). All mechanical devices require effective maintenance support and these devices are no exception. There seems little point in purchasing expensive equipment if there are no resources to fund the use of the equipment or to repair damaged or broken components. Consequently, when new equipment is purchased, local engineers need to have training in maintenance by the company selling or leasing the product to ensure its sustainability.

Renewable resources: products for PU wound management

When a patient sustains a PU there are a number of interventions that can be used to manage the wound and provide evidenced-based ulcer care. Selection of the optimal wound dressing product is very important to wound management, particularly for patients with PU. Ulcers need to be covered with a dressing that maintains a moist environment over the wound to reduce pain, prevent bacterial contamination and permit the passage of oxygen (Dolynchuk et al., 2000). There is no ideal single dressing available which provides optimal wound conditions for every PU as the stage of the ulcer, its location as well as the general status of the patient needs to be considered when selecting the type of dressing product (The Joanna Briggs Institute, 2008a). Ulcer wounds require different types of products at different stages of wound healing.

It is essential to assess the patient's wound to ensure optimal wound care by selecting the treatment/ dressing that matches the need. Several types of topical wound treatment or products discussed in the literature can be used to promote healing. First, occlusive or semipermeable polyurethane dressing such as, 'op-site', 'tegaderm' and absorptive dressings are used for wound care worldwide (Weller & Sussman, 2006). These types

of dressings are permeable to water vapour and oxygen, but impermeable to fluids and bacteria, and thus enable moist wound healing. Occlusive dressings are transparent, adhesive and economic to the organisation. This type of dressing can save nursing time, dressing packs, and cleansing fluids because they can remain in position longer than traditional dressings (Bryant et al., 1992; Maklebust & Sieggreen, 1991; The Joanna Briggs Institute, 2008a; Weller & Sussman, 2006). However, moist sterile dressings need to be placed over the ulcer base only until they leak, because maceration of the tissue surrounding the ulcer could lead to further breakdown (Maklebust & Sieggreen, 1991). An example of these sterile dressing products is the hydrocolloid dressing which is impermeable to moisture vapour and gases yet allows for moist wound healing while remaining adherent to the intact skin (The Joanna Briggs Institute, 2008a). A recent study identified that 84% of patients with PU were treated with hydrocolloid dressings (Gardner, Frantz, Bergquist, & Shin, 2005). Hydrocolloid dressings are more cost effective than traditional dressings (Bouza, Saz, Munoz, & Amate, 2005; Heyneman, Beele, Vanderwee, & Defloor, 2008; Thomas, 2001). To sum up, the proper use of the correct occlusive dressing increases patient comfort, reduces pain, enhances wound healing by increasing the re-epithelisation rate up to 50 percent (Ramos-e-Silva & Ribeiro de Castro, 2002) and reducing the formation of scars (Alvarez & Childs, 1991; Patrick, 1994).

Another product, a non–adhesive dressing, has a plastic film to reduce the adherence with the wound (Thomas, 2001). For example, hydro gel dressings are three-layer hydrophilic polymers that are insoluble in water, but absorb aqueous solutions. They are considered a poor bacterial barrier, as they are nonadherent to the wound. "Alginate" is an example of a complex polysaccharide dressing suitable for absorbing wound exudates that is nonadherent to the wound bed (Thomas, 2001). Wound care can be documented in wound assessment and management charts that are part of the patient's medical record (Hess, 2005). This chart, as per best practices in NSW health facilities, should include the wound site, size, type, grade, description and drainage. Documentation of wound dressing in the wound chart should include the date, site, frequency of the dressing, progressive wound assessment using grade and appearance, cleaning and dressing used (Frank-Stromborg et al., 2001 ; Hess, 2005). In summary, it is important to apply a wound dressing over the pressure area to treat the PU and prevent further injury. Nurses' decisions to use specific wound dressing product need

to be based on evidence and knowledge of the patient and the context for optimal wound healing to occur.

The best practice care attributes with characteristics identified from the literature

The characteristics of the five attribute headings used to organise the findings of the literature review have been summarised and presented in table format. Based on my review of the literature, Table 2.1 provides the main attribute headings and the significant characteristics found in the literature contributing to each attribute.

Table 2.1: The best practice attribute headings and significant characteristics extracted from the literature

Culture
A patient-centred, patient safe philosophy is a backdrop to government's decisions and policy formulations about a population's health care. An organisational (hospital) culture in which all participants have "shared" meanings of patient safety and quality care is required. Error is recognised as arising from system failures rather than individual clinicians. Personal blame and shame systems which lead to clinicians hiding mistakes are discouraged. The application of risk management strategies is one method of supporting clinicians to embrace best evidence for practice and work to improve patients' safety during hospitalisation.
Structures
Specific structures are required throughout the organisation to promote patient safety and stop potentially dangerous variations in care. Governance structures, such as a Quality Unit or Clinical Governance Unit are focused on developing systems within the organisations that improve the quality and safety of patients. Structures that support the supervision of less experienced staff (nurse specialist positions) and structures that provide learning opportunities are required in the organisation. Multidisciplinary team structures are needed to improve patient safety and teach student health workers. Working committees with a membership consisting of managers as well as clinicians that undertake quality projects at the clinical level are important. A structure that monitors adverse patient incidents is also required to provide information to the ministerial level and feedback on performance to clinicians. Having sufficient clinicians who understand patient safety working at the clinical level.
Processes
Implementing processes within the organisation that enable patients at risk of harm (e.g. risk assessment of skin breakdown) to be identified. Processes that quantify risk to enable summary data to be collected (staging of PUs). Processes recognised as improving communication between clinicians, e.g. multidisciplinary team rounds, treating teams, centralised documentation of patients' records. Implementing processes that enable staff to know clearly their role functions and opportunity exists for feedback on performance. Processes that support learning and engagement such as clinical improvement projects. Processes that ensure evidence-based, up to date guidelines are available at ward level throughout the organisation. There is a need to evaluate the effectiveness of the care given or the outcome through an integrated performance management system that measures outcomes at the clinical level and rolls these measures up to the organisational and policy level.
Human resources
There is a need to have an adequate knowledgeable and committed staff (clinical and administrative) to provide effective and efficient care to maintain patient safety.
Physical resources
There is a need to have adequate/appropriate physical resources to provide effective and efficient care to maintain patient safety. The organisation requires systems that purchase renewable products. The organisation also requires ways to maintain equipment and resources in good working order to ensure sustainability.

Summary

This chapter presents the literature reviewed and the optimal attributes and characteristics of patient safety frameworks identified in organisations of excellence. From this review, an initial research question has been developed that asks *what attributes and characteristics of patient safety management, relative to those identified in the literature, exist for patients in an acute care, public hospital in Jordan?*

This study will identify, from research conducted in the clinical and organisational levels of the AlBashir Hospital, attributes and characteristics concerned with keeping patients safe in the acute care setting during their hospitalisation. As there is considerable potential for error or adverse patient events in the complexity of modern hospitals, PU has been selected as the exemplar which will provide the focus for the research. From reviewing the literature on patient safety in conjunction with my experience as a RN working in Jordanian hospitals, I can appreciate at this point that deficits in the model of care in Jordan are likely to be identified by this research. Should this occur, then it will be necessary to identify a framework of patient safety management that could be implemented in Jordan to improve patients' safety. There are different ways to address the issue as the literature indicates, and there is a way that will be preferable for Jordan. This research will endeavour to identify this way. Chapter 3 presents the design of the research project, data collection methods and data analyses.

THESIS FLOW

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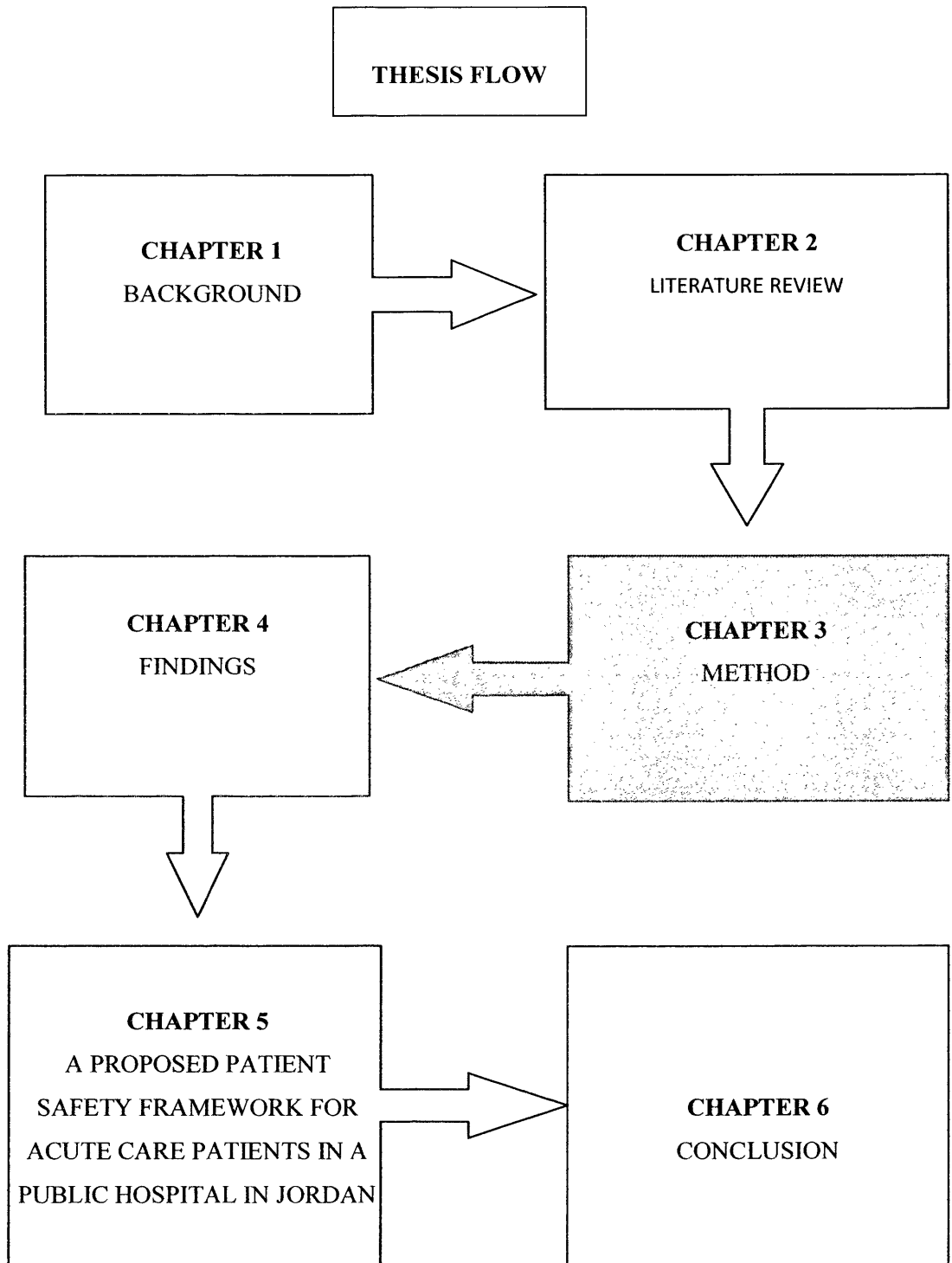
CHAPTER 3: METHOD

Introduction

This chapter describes the study design, the setting of the study, samples and participants, methods of data collection and the instruments. An overview about how the study data was managed and what kind of ethical issues arose are noted. Each of these major topics is discussed below.

Research questions

As initially identified at the completion of Chapter 2, the first research question asks *what attributes of patient safety management exist in an acute care, public hospital in Jordan?*

The specific research questions asked to answer this question are:

> *What is the **extent** to which risk is known and quantified using the example of a specific clinical case type (PU)?*
>
> *What are the **structures** that exist to manage risk in a public acute care hospital in Jordan at the clinical, organisation and ministry level?*
>
> *What are the **processes** that exist to manage risk in a public acute care hospital in Jordan at the clinical, organisation and ministry level?*
>
> *What are the **human and physical resources** that exist to measure and manage risk in a public acute care hospital in Jordan by clinicians, managers and policymakers?*

The main objectives developed to answer these questions are to identify and critically examine the

- extent to which risk is known and quantified, using the example of a specific clinical case type 'pressure ulcers'
- structures and processes that exist to manage risk in a public acute care hospital in Jordan at the clinical, organisational and ministerial levels
- human and physical resources that exist to manage risk in a public acute care hospital in Jordan by clinicians, managers and policymakers.

The second research question depends on the responses to the first question indicating that patient safety could be improved. It asks in what ways could patient care in the acute care setting in a public Jordanian hospital be modified to improve patients' safety? The modifications will be based on data collected to answer the first question and participants' responses to the second question as well as recommendations identified in the reviewed literature.

> *If the attributes identified by the first question could be modified to increase patients' safety in an acute care, public hospital in Jordan, what would be the new framework?*

The specific research questions are:
> *What **cultural change** could be implemented to monitor patient risk and manage it according to best evidence (using PU as an exemplar)?*

> *How could the **structure and processes** be modified to improve patient safety?*

> *How could the management of **human and physical resources** be modified to improve patient safety and advance the culture?*

Study design

In this research a descriptive case study methodology was used. The case study approach has a very specific and clear focus, and is bounded in that it is a unique integrated system (Stake, 2000). This approach is an appropriate method to examine system change, with the focus on interaction and organisation that allows a holistic and meaningful examination of characteristics within a real life context (Yin, 2002). The study examines the existing situation for patient safety in a public hospital using PU as a specific clinical case type. Following this examination a proposal to advance patient safety in an acute care hospital in Jordan will be formulated and presented.

A case study is considered a practice orientated field-based method focusing on the individual, the group or the organisation (Grbich, 1999). It is often used to "develop a comprehensive understanding of a construct" (Polit & Beck, 2004, p.279). As a research design, Parahoo (1997) describes the case study as a form of practice-related research that uses quantitative and/or qualitative methods in producing an in-depth analysis and description of a single unit of study. This case study employed a mixed methods approach, including both descriptive and interpretative qualitative

methodology as well as measures of PU incidence and prevalence to explore and describe the practice and quality management of PUs in an acute care setting in Jordan. This approach aimed to answer the research questions from different perspectives to obtain a richer and more holistic picture. This notion is supported by Minichiello and colleagues (Minichiello, Sullivan, Greenwood, & Axford, 2004, p.52) in that "... quantitative and qualitative methods are used to reinforce each other and so produce a comprehensive". As data collection will predominantly involve observation and interview techniques that will be interpreted by the researcher, some discussion of the interpretative methodology employed and the researcher's perspective will be declared.

Heidegger (1962) stated that understanding is an ontological condition, not an epistemological one. In plain English this means that understanding is a mode of being rather than a model of knowledge (Radnor, 2001, p. 4). The tradition of hermeneutics brings to the interpretative approach key ideas about the nature of understanding and the role of language as a medium of practical social activity. According to Heidegger for example, the typical existence of humans takes reality for granted (called Dasein) (Heidegger, 1962), which means that a person's existence and the world of existence are one with no incongruities. Radnor (2001) writes that when things become incongruous and don't fit our actuality (our understanding), we see things as objects separate from ourselves and this triggers the process of theoretical knowledge seeking. Knowing things theoretically means that we distance ourselves from the just 'being there' to a new mode of understanding (Radnor, 2001, p. 13). Understanding starts when a gap opens between the way we are already and the realm of our possibilities (Gadamer, 1993).

Conceptualising interpretation in terms of understanding (ontology) "impacts on the relationship between the researcher and the researched" (Radnor, 2001, p. 12). The practical consequence of this statement is that the researcher, as the 'research instrument', is trying to understand others through their actions and what they say. Through our language we are able to reconstruct experiences other than our own, and engage in dialogic acts with other people, an interpretive process through which we gain new understandings. Consequently, the researcher using an interpretative approach is continually making decisions about which data are to be collected, how these data are interpreted, analysed and conclusions drawn.

Radnor (2001, p.30) in a summary statement of three principles that guide research practice writes "the researcher is the research instrument who engages in a transactional process, recognising that the process is ethics-in-action". As the researcher and as a nurse in Jordan, I bring this knowledge to the research and recognise that as a major source of insights and validity checks if I recognise my subjectivity. I am aware that the expressive character of action and speech I will be watching in the hospital will often be so subtle that only a perceptive eye and an informed mind are likely to recognize their significance. The second principle identified by Radnor (2001) concerns engagement in the transactional process. The research participants and the researcher share a common culture that is they understand each other because they are all part of the health care system in Jordan. This commonality helps in the establishment of trust which is important so that participants can say what they truly believe and that the researcher can revisit and check with participants his interpretations or get clarifications. The third principle is concerned with the relationships initiated and developed by me with the research participants. I showed respect for participants and maintained confidentiality and anonymity. More details concerned with this principle are covered under ethical considerations presented later in the chapter.

To sum up, the purposes of using a case study in this context were gained insight into little-known problems, to produce an effective 'framework' of care to assess and manage PUs, and provide background data for patient safety future policies and practices. Qualitative data will be generated from participant observation of health professionals' current practices in assessing and managing patients with PUs in the case study site. Additional data will be sourced from interviews and meetings with the key health informants in Jordan, organisational managers and others health care workers. Quantitative data will be generated from assessing the incidence and prevalence of PUs in the Jordanian context that is needed to provide base-line information. The interpretive approach discussed above will be used to inform the processes of data collection and data analysis. The techniques used to analyse interpretative data will be discussed later in this chapter.

Context of the research project

The study was conducted in AlBashir Hospital in Amman the capital city of Jordan. AlBashir Hospital is a large, public acute care hospital run by the MOH. This hospital was chosen as the location to conduct the research because of its size, prominence as an acute health care facility, and range of functions. It is the main public teaching hospital for the medical and nursing schools of Jordanian universities. The health care needs of a diverse population are managed at this hospital that accepts referrals from other hospitals and treats the most complex medical cases across a range of specialities. Additionally, the complex, hierarchical structures operating at AlBashir Hospital are replicated in other public health care hospitals in Jordan. By undertaking the study in this complex environment, it was anticipated that an understanding of significant issues related to a patient safety culture in the acute care setting could be identified. This is important so the findings identified in this location will be transferrable to other Jordanian hospitals. Hence, this hospital was considered an ideal site for the case study, and from where a patient safety framework for Jordan could be developed. The MOH provided approval for me to access clinical staff and managers and review the hospital resources. Permission to undertake research of this depth could not be obtained from the army or private hospital sectors in Jordan.

AlBashir Hospital

AlBashir Hospital has between 900 to 1000 inpatient beds (refer to Table 3.1 below). The bed number was sourced from the MOH in 2007, but with the expansion and new facilities that are due to be built the new estimate is for around 1,200 beds in 2010 (Ghazal, 2008). The hospital provides services for most medical speciality cases except open-heart surgery and organ transplant procedures.

Table 3.1: Average number of beds at AlBashir Hospital in 2007 (MOH, 2007)

Department	Number of beds
Medical (Male and female wards)	87
Pulmonary diseases	60
General Surgery	106
Special Surgery	18
Paediatric Surgery	35
Burn and plastic	19
Paediatric	134
Orthopaedic	52
Ophthalmic	26
Ear, Nose and Throat	41
Nuclear medicine	34
Midwifery	182
Premature	50
ICU	27
CCU	10
Intermediate unit	24
Thalacaemia	23
Total beds	**928**

Clinical structure

The study of PU risk and incidence was conducted in the male and female wards of the Medical Department (MD). The MD was chosen because of the types of patients with higher length of stay (mean = 4.5 days). The surgical department was not chosen because of the high patient turnover (mean length of stay = 3 days) (Ministry of Health, 2008; MOH, 2007). The MD is located at the north part of the hospital site, about 50 metres from the main hospital entrance. The MD has nine divisions including: internal medicine, cardiovascular and venous diseases, nephrology, gastroenterology and liver diseases, endocrinology and diabetes, rheumatology, haematology and oncology, infectious diseases and pulmonary diseases. The medical division includes specialised teams of cardiologists, pulmonologists, gastroenterologists, haematologists and psychiatrists. The number of rooms and beds of the MD are shown in Table 3.2. In the male and female wards where the study of PU incidence was conducted there are 87 beds in total, 43 and 44 respectively. The two medical wards are separated by gender for cultural reasons.

Table 3.2: Number of rooms and beds of the MD

Ward	Rooms	Beds
Male	11	43
Female	12	44
Growth hormone treatment Room	1	1
Admission Room	1	-
Gastroscopy	4	2
Echo	1	-
Kidney dialysis	4 + 1 unit	6
CCU	1 big unit	10
Haematology	2 + 2 units	24
Pharmacy	1	-
Store	7	-
Kitchen	3	-
Clerks	1	-
Doctor offices	9 + 3 bedrooms	-
Total	**57+ 4 units+ 3 bedrooms**	**130**

Medical Department staffing

The MD manager is 'in-charge' of all medical specialities at the MOH and is responsible for all staff working in the department wards or units including doctors, nurses, department clerks, other health or non-health workers and all patients. The other MD management staff include a deputy manager, doctors in charge of all medical specialities, the MD director of nursing and two ward level 'in-charges' nurses for each shift in the two wards. The number of the MD workforce is set out in Table 3.3.

Table 3.3: Numbers and classification of all employees of the MD

Employees	Numbers
Medical workforce	
Male Specialist Doctors	41
Female Specialist Doctors	6
Male Registrar	33
Female Registrar	7
Medical officer	50
Nursing workforce	
Male registered nurses	59
Female registered nurses	34
Male Associated nurses	58
Female Associated nurses	21
Male Assistant in Nursing	4
Female Assistant in Nursing	10
Aid nurses	1
Other employees	
Personnel	1
Medical clerks	3
Nutrition	18
Pharmacy	3
Total	**349**

The staffing of the MD consists of 166 doctors and 187 nurses. The morning, afternoon, and night shifts for the male and female medical wards are staffed by forty-three permanent full time nurses. The actual numbers on shift duty daily is 17 nurses in the morning and five nurses for the afternoon and night shifts.

Participants

As outlined earlier, the study was conducted at three levels, clinical, organisational and ministerial, with the major emphasis on the clinical and organisational areas. Participants and key informants in the case study were selected using a purposive sample based on the number of interviews proportional to the number of staff in the disciplinary category. The purposive sample was drawn as follows:

- at clinical level

    The director of nursing at MD, three 'in-charge' nurses at the medical wards and two clinical instructors were interviewed. All staff and patients at both male and female medical wards were included in this study through observation of clinicians' practices with the hospitalised patients and the information they provided. All staff who participate in meetings at the clinical level were also be considered as participants.

- at the organisational (AlBashir hospital) level

  The general hospital manager and other organisational managers such as the manager of MD, director of Quality Unit (QU), hospital nursing manager, director of Nursing Developmental Unit (NDU) were interviewed. The behaviours and comments of participants who attend meetings at organisational level were observed.

- at the ministerial level

  The manager of the Quality Directorate (QD) at MOH was interviewed possibly on several occasions in 2006 to obtain her vision for health and organisational quality policies and to identify the current situation at that time regarding quality in health care. Other checking processes were carried out by phone calls or emails to clarify observations.

A total of 12 indepth interviews, five interviews at clinical level, six interviews with the key informants at organisational level and one interview at policy level were planned and carried out. Four meetings at clinical level, three meetings at orgnisational level were conducted, a total of seven meetings. This number of meeting was less than planned, because I had been informed that the Quality Committee at AlBashir was operational prior to data collection. This was not the situation when I commenced data collection. All staff working in both wards and patients at the time of the study were observed over a six month period. Medical and nursing students attending the ward for clinical experience were observed, but data on their interactions have not been included because these were judged to be outside the patient safety framework because students had an observational, rather than hands-on, role. The workforce of nurses at both wards who participated in the study is outlined in Figure 3.3 below. A record of the participants who were interviewed, the meetings attended and the observed practices of nurses and doctors over six months is provided in Appendix 3.1. An account of the researcher as practice observer in a metropolitan public hospital in Sydney is also detailed in Appendix 3.1.

Quantitative patient data for the PU survey

The number of patients who were included in a snapshot survey was obtained according to their admission to the male and female medical wards. One hundred and ninety patients were assessed for risk of developing PUs in the first 24 hours of their admissions in both wards and then reassessed subsequently over five weeks in the wards to which they had been admitted.

Figure 3.1: Nursing workforce at male and female medical wards according to daily shift allocation

Nursing workforce at male and female medical wards

Female medical ward
44 beds

Male medical ward
43 beds

27 Ns

27 Ns

Morning shift
17 Nurses
5 RN
12 AN, AIN

Night shift
5 Nurses,
2 RN
3 AN, AIN

Afternoon shift
5 Nurses
2 RN
3 AN, AIN

Morning shift
17 Nurses
5 RN
12 AN, AIN

Night shift
5Nurses
2 RN
3AN,AIN

Afternoon shift
5 Nurses
2 RN
3 AN, AIN
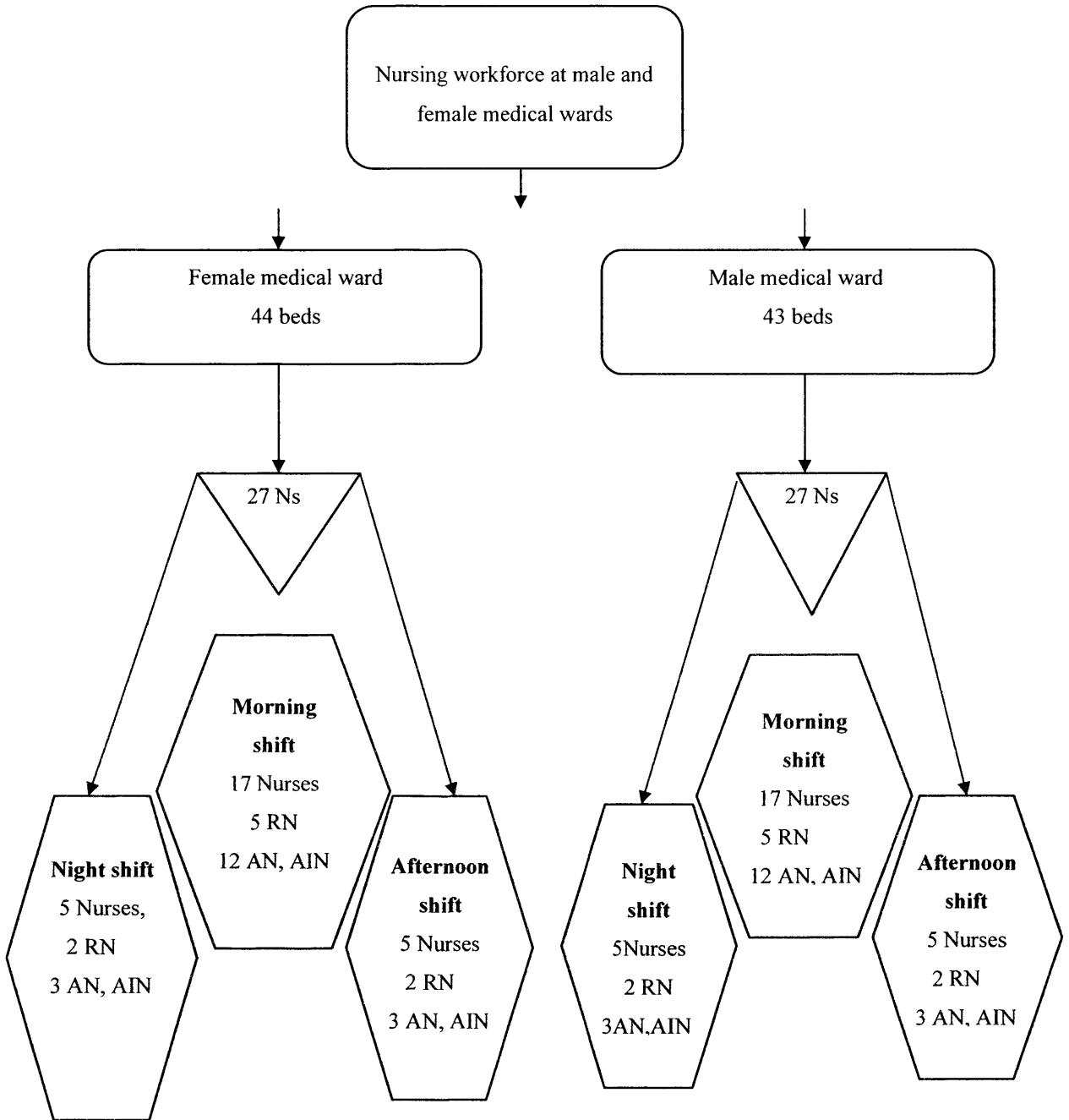
Data collection processes

The study was conducted through continuous interdependent phases in order to collect comprehensive data using different techniques. There were two main phases. The first phase was the establishment of the risk assessment instrument and the collection of PU data to determine the extent of the problem at AlBashir Hospital. The second phase was concerned with revealing the structures and processes of health care at the clinical, organisational and ministerial levels. The researcher collected data over five days a week mainly during morning shift. The phases are discussed more fully below.

Establishment phase: Entry into the field

This phase of the research began in January 2006 prior to the start of data collection. All administrative arrangements were organised at the hospital and credentials were established with key decision-makers such as the hospital nursing manager and personnel department to facilitate data collection. Accompanied by a formal letter of approval for the study to enable access to the hospital from MOH, I undertook some informal field visits prior to commencing data collection. I provided managers and potential participants with a description of the project to facilitate the data collection process.

The informal field visits with the key informants at AlBashir Hospital included the hospital nursing manager, nursing director of MD, and the director of NDU. These informal visits were conducted in the following order:

- A meeting with the hospital nursing manager was conducted to inform her about data collection, the study aim and methods.

- A letter from the hospital nursing manager to the nursing director of MD explained the process and data collection.

- An informal visit to the MD nursing director followed by a tour to the MD.

- Informal visit to the director of NDU and clinical instructors.

- Prior to data collection two days were spent with staff in both male and female wards including the MD nursing director, ward managers of the male and female wards, nurses and doctors working in the wards. This was done to make them familiar with my research undertaking.

Data collection phase

In this study, five methods of data collection were employed to obtain data from the clinical, organisational and ministerial levels. These methods are outlined in the conceptual schema in Figure 3.2.

Figure 3.2: Schema of data collection

Method	Level	Data collection
Descriptive Case study; mixed methods for data collection.	**Clinical Wards** (Male and female medical wards)	Wards data **Point prevalence & incidence survey** (five weeks at both wards). **Observational meetings**: Impromptu informal meetings at female and male wards; doctors morning report meeting; 'In-charges' of MD with the nursing staff at both wards. **Interviews**: Nurses 'in-charge' at male, female wards, and admission and stock room; clinical instructors at burn and female medical wards. **Observation of practice and field notes**: clinical assessment and risk management of PUs: observational field notes for two weeks at male and female wards. **Examination of policy documents**
	Organisation (AlBashir Hospital)	Organisation data **Observational meetings:** Task group meeting (Director of MD and accreditation project staff with the doctors); departments nursing directors with the hospital nursing manager; nursing hospital –wide committee for nursing standards. **Interviews:** general manager of AlBashir Hospital. Director of QU at AlBashir Hospital; the hospital nursing manager, director of MD, nursing director of MD; director of NDU; 'in-charges' of the MD; **Examination of policy documents**
	Ministry (QD)	Ministry data **Interview**: the manager of QD **Examination of policy documents**

Clinical data

Clinical ward-based data were collected through point prevalence and incidence surveys, observation of quality meetings, interviews with clinical staff, observation of practice, and examination of policy documents were undertaken by the researcher*. These data are outlined the collection processes below.

Point prevalence and incidence survey

A survey was conducted to identify the extent of PUs. This included the numbers of PUs and the stage of each at the study site. A descriptive/exploratory survey that assessed the current conditions in order to improve healthcare practices was undertaken (Elliott & Hayes, 2003). This survey was conducted over five weeks in male and female medical wards to obtain relevant information from a sample of 190 patients in order to provide baseline information and give an overview about the current situation. In the first week the researcher counted the current PU cases using incidence and prevalence recording sheets and a staging system (Appendix 3.2 and 3.3). PU risk was also assessed on admission to the MD admission room and reassessed weekly for the first four weeks using the Braden RAS (Appendix 3.4 and 3.5) as recommended by (Bergquist, 2005; Bergquist & Frantz, 2001). The scale used in this survey was one page long and took around five minutes to complete.

Participants or a family member signed the consent forms at the time of assessment in the MD admission room and at reassessment in the male or female wards. The assessments were confidential and any identifying features such as patients' names were changed to numbers to ensure anonymity. For cultural and religious considerations, in the case of assessing a female patient, the assessments were done in the presence of a female ward nurse or any family member.

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*In relation to translated Braden PU scale, the intention was the Arabic speaking CIs to assist with patient PU data collection. However, for data consistency, the researcher completed of forms for the population of patients included in the study and the translated form was therefore not formally used within the study. However, the translated form will be useful for Arabic speaking clinical professionals who may be involved in future quality improvement projects associated with PUs.

Observation of meetings related to the quality of care provided

Quality meetings related to the care provided were attended over six months including:

- · Doctors' morning report meetings

- · Deputy Director of the MD (Nurse) meetings with nursing staff

- . Impromptu informal meeting at female medical ward

- · Impromptu informal meeting at male medical ward

These meetings were held at the female and male nursing stations on the ward and in the MD lecture rooms. Meetings lasted between 30 and 90 minutes and were conducted by the Director of the MD and the Deputy Director of the MD respectively.

Interviews with the clinical staff

Interviews detailed the processes of patient care performed by the clinical staff. Five semi-structured interviews over approximately one hour were conducted with the clinical staff including:

- · 'In-charge' nurse of the female medical ward

- · 'In-charge' nurse of the male medical ward

- · 'In-charge' nurse at the admission and stock room

- · Two clinical instructors.

Participants were asked 12 open-ended questions. Questions were asked about teamwork, the current criteria used by the team for risk management and PU resource management (see Appendix 3.10). The interviews were conducted in quiet areas to avoid interruption, such as the MD stock room or the NDU. The venue was chosen by the participants.

Observation of practice and field notes - clinical assessment and risk management of PUs

In order to assess PUs, current practices were examined by observing the health team's daily clinical practice, noting the performance skills of the health team at the clinical level. Two weeks were spent in each selected site (male and female medical wards) for this period of observation. Consent from the MD nursing director and ward staff was

obtained prior to data collection commencement. A data collection sheet was used (Appendix 3.7) to record all observations. Additionally, field notes were kept throughout data collection, recording the activities or clinical practices, staff roles and interactions. Field notes were checked at home on the same day and then checked with at least one of the participants for accuracy within the next two days. Interviews were listened to on the day of recording. Content was written out and the transcript given to the interviewee to check for accuracy and any additional comments or modifications. Patients' medical records were reviewed along with other ward records such as the end of shift report, daily job assignments, nursing notes and documentations for patients with a PU to ascertain the extent to which assessment and management of PU were consistent. An intensive period of participant observation was completed after familiarisation with the setting.

Examining policy documents and field notes

Available clinical policy documents at the clinical (ward) level were examined and critically reviewed, to determine how the documentation compared with content recommended in the best practice guidelines. The documents examined are set out in Table 3.4 below. A follow-up visit with the quality department manager at the MOH was recorded.

Table 3.4: Policy documents at clinical level

Level	Documents available		
Clinical Wards (Male & female medical wards)	Clinical policy documents	Administration work patient policies	Work conditions staff policies
	Clinical notes and medical records documentation, nursing notes, medical progress notes, end of shift report, daily nursing job assignments. Dangerous drug action policy; daily and weekly medication request policy.	Records of meetings. Medical waste policy. Admission room policy. Patient referral policy. Quality and accreditation policy.	Job description. Roster policy. Formal uniform. Staff records policy. Punishment policy. Annual / sick leave policy. New recruited staff policy.

Organisational data

Organisational data were collected through observation of meetings concerned with the quality of care at AlBashir Hospital, interviews with managers and examination of policy documents. Each type of data collection is discussed below.

Observation of quality meetings

Over six months only three organisational meetings were attended because these were the only meetings conducted although more were scheduled but cancelled. I had the opportunity to attend these meeting after extensive daily requests and reminders to the managers to inform me when they were scheduales. These quality meetings were:

- A task group meeting (called by the MD Director with the accreditation project staff and with the doctors)

- Nursing department directors with the hospital nursing manager

- Task group meeting (hospital-wide nursing committee for nursing standards)

The three meetings covered the key quality issues that the hospital managers were concerned about at the time of data collection. Meetings were carried out in the MD lecture room, meeting room in hospital headquarters and in the NDU respectively. Meetings were audio taped after oral permission was obtained from the chairpersons from all attendees. Copies of the meetings' minutes 'if available' were requested and collected. A data collection sheet was used (Appendix 3.7) for the purpose of the researcher to make additional comments during the meeting. The meeting structures and processes were observed from clinical to organisational and ministerial levels and vice versa. Confirmation of data and field notes taken during observation of meetings was made via phone calls and emails.

Interviews with managers

Semi-structured interviews with six organisational managers were conducted including the general hospital manager of AlBashir Hospital (doctor), the hospital nursing manager (nurse), the director of the hospital's Quality Unit (doctor), the director of MD (doctor), the nursing director of the MD (nurse) and the director of the NDU (nurse). The interviews were designed to identify the relationships between policymakers and the organisational managers. Key informants were invited to participate in the study

and appointments were made for the interviews. In all interviews, a letter that explains the study's purpose, information and consent forms were given in advance to each participant. The consent form was translated into Arabic. Semi-structured interviews were conducted using 10 open-ended questions derived from the literature regarding resources, facilities, the management of patients with PUs, support management for clinical staff, communication and reporting structure (Appendix 3.8). Each interview was over one hour, audio-taped with the permission of the participant, transcribed and checked with the participant. The interview was then translated prior to analysis. The ability to communicate in Arabic was essential because English is a language used by few participants in the study. Hence, the Arabic language was used in interviews and meetings in order to develop an in-depth understanding of the cultural subtext of the discussion.

Examining policy documents

The available policy documents at the organisational level were examined in order to identify any gaps in the documentation according to the best practice attributes. These policy documents included:

· Meetings policy in terms of agenda and keeping minutes

· Draft of accreditation standards for medical records

· Draft of hospital organisation structure

· Formal nursing uniform policy

· Individual job description

· Nursing quality assurance program

· Some of available clinical policies and procedures

· Incident report policy proposal.

· Performance appraisal policy

· Records of the previous available meetings

Ministerial data

The hospital was supportive of the project. The researcher was the sole data collector for the project. The policy data were collected through two main methods: interview with a policymaker and examination of policy documents. These two data sources are briefly outlined below.

Interview with a policymaker

A semi-structured interview with the director of the QD, MOH was conducted. This interview detailed information about processes of health care from the key health stakeholders. In accordance with ethics approval, the interviewee was invited to participate in the study and an appointment was made for the interview in person and confirmed by phone before the date. An information letter that explained the study's purpose and a consent form was given to the participant in advance. The interviewee was told that participation was voluntary, that she had the right not to answer specific questions, to withdraw from the interview at any time and that her answers would be kept confidential. The interviewee was asked five open-ended questions regarding her views, perceptions and thoughts about quality and risk management policies (Appendix 3.9). The interview was one hour in duration and audio recorded. The interview was transcribed, translated and analysed.

Examining policy documents

The available policy documents at the ministry level were examined to identify the content and compare it with documentation from Health Departments in Australia. Relevant policy documents according to the best practice attributes were collected:

· MOH policy documents

· Organisational structure of the QD at MOH

· Health safety policy standards for accreditation and quality

· Performance appraisal policy

The material reviewed fell into MOH data policy documents and other health projects documents. Extensive use of accreditation standards documents was made. Clarification and further information about most of these documents was required by

the researcher and this was obtained from the director of the QD at MOH by phone and emails.

Instruments used in the research study

Four instruments were used to collect the study data:

• interview questionnaire

• observational meeting instruments

• practice observation instrument

• prevalence and incidence recording instruments

Each is discussed below.

Interview questionnaire

The questionnaire for interviews with the QD manager at MOH, the managers and clinicians at AlBashir Hospital questionnaires (Appendix 3.9, 3.8 and 3.6) respectively included close-ended questions related to the demographic data such as age, sex, designation, and experience, and four open-ended questions to guide the semi-structured interviews. An interview guide (sheet) was prepared to explore the key informants' vision related to organisation policies. The question covered the attributes of the quality and patient safety framework that was developed from the literature review.

Observational meeting instrument

A selection of meetings was attended to observe and assess meeting processes. The domains of interest for observation at the meetings that were included in this instrument are outlined in Appendix 3.7.

Practice observations instrument

A structured practice observation instrument was used in this study that outlined fields notes. This sheet (Appendix 3.10) was used in order to record the occurrence of a given action (Brink & Wood, 2001). This sheet included questions of what, why and how a particular kind of practice was done in comparison to the attributes of the quality and

patient safety framework. The researcher observed the clinical practices until the researcher recognised that the same practices were being repeated and no more new data was being collected.

Incidence and prevalence recording instrument

The Braden risk assessment scale English and Arabic version (Appendix 3.4 and 3.5), and PU assessment tool (Appendix 3.2) were used. Bilingual Australian and Jordanian experts were recruited to maintain instrument integrity and ensure equivalence of meaning between the English and Arabic version and to carry out back translations. The key variables of the Braden scale are intensity and duration of pressure, skin tolerance and supporting structures (Zulkowski, 1998). Six categories are scored - sensory, moisture, activity, mobility, nutrition, and friction/shear. The rating subscale score is from 1 to 4 for five categories; the shear/friction category has a score from 1 to 3. One is the least favourable score and four is the most favourable. The lower score indicates a patient is at greater risk of developing a pressure ulcer. The maximum possible score is 23. A score of 19-23 indicate that the patient has no risk; a score of 15 –18 indicates at risk; 13-14 is moderate risk; 10-12 is high risk; while 9 or lower indicates very high risk of skin breakdown (Ayello & Braden, 2001; Bergstrom & Braden, 1992; Braden & Frantz, 2004). The scale is internationally recognised to be used for patients in medical wards (Lindgren, Unosson, Krantz, & Ek, 2002). The Braden Scale is both a reliable and valid instrument for predicting ulcer risk. The inter-rater reliability among RNs of the Braden Scale ranges from 0.83 to 0.99, with percent agreement ranging from 88% to 100%. Sensitivity ranges from 61% to 100%, and specificity from 26% to 100% (Kring, 2007).

Reflexivity

Interpretative research is influenced by the researcher's values, perceptions and views (Jootun, McGhee, & Marland, 2009). Reflexivity is an ongoing awareness and analysis of personal involvement. This process assists the researcher to make the research process transparent, to ensure the rigour of the research and improve the data reliability (Jootun et al., 2009). Observer bias threatens the validity of observational data collected at different stages of fieldwork (Koch & Harrington, 1998) if he or she is unaware of existing perceptions and views. To overcome any bias that could arise from this

research, multi data resources were used to produce an increased understanding and as a verification or reliability technique (Cohen & Crabtree, 2008). Further, the potential for human error with observational data particularly has been noted. Hence, secondary readers of the observational data from another RN/CI at the hospital on the second day of the observation were used to minimise the researcher's impact and observer bias and to increase credibility (Cohen & Crabtree, 2008). To improve consistency or reliability and avoid misinterpretation between the observer (researcher), and the secondary reader the same form and observed data were compared for best results (Jootun et al., 2009). I continued to compare the observed data throughout the study by completing observation forms during and immediately following an observation. Once I began observations, I refined observational data on a daily basis. I maintained field notes or a research diary to increase reliability (Jootun et al., 2009; Koch & Harrington, 1998). I continued to observe in the same locations for longer periods in order to reduce the extent to which participants changed their behaviour in reaction to being observed. Although reliability is higher for records rather than abstract behaviours, observing only concrete behaviours leads to overlooking meaningful behaviour. Reliability is higher when observational checklists are used, which involve greater observer judgment and puts separate personal views and perceptions aside from the fieldwork (Jootun et al., 2009).

I used prolonged engagement in the period spent collecting data from the same group (male and female medical wards) at the study site. I persisted in observing informal meetings and staff practices over many months which enabled me to form trusting relations with staff. I interacted and developed good relationships with the participants, and as the study progressed the participants became more relaxed in my daily presence and spoke openly about their issues. I trained and worked as an RN at MOH public hospitals in Jordan, but not at the same hospital where the project was conducted. My previous experience provided insights into participants' experiences. As a PhD student, nurses viewed me as a knowledgeable nurse with whom they could discuss issues that concerned them. Hence, I believe my engagement with the participants enriched the quality of the research. I encouraged them to communicate openly and discuss problems with me by ensuring the confidentiality of the data.

Two English-Arabic translators and a registered nurse from Jordan listened independently to audiotapes to verify the translations and transcriptions. Transcriptions were saved using Microsoft Office Word software.

Ethical issues

A letter of approval from the Jordanian MOH was obtained in order to conduct the study at AlBashir Hospital (Appendix 3.11). After the proposed study design was approved, ethics approval was obtained from the Human Research Ethics Committee (HREC) of the University of Technology, Sydney (Appendix 3.12). Throughout the research study, ethical issues were considered in designing and implementing data collection methods. At the point when the research began, in early January 2006, a hospital ethics committee had not yet been established at AlBashir Hospital, and there was no mechanism for additional ethics approval to be obtained.

To avoid any other ethical issues that may have affected this study, the following aspects were given specific considerations. All data were coded for confidentiality and the content information was kept in a locked office. Only the researcher and the supervisors accessed the data that is to be kept for five years and then destroyed. Participants signed consent forms that addressed the study aim and methods and invited them to participate in the study. Whenever possible, all interview and taped data were checked with participants to confirm the accuracy of the account. Field notes were also checked with participants again to confirm their impressions of events not just the researchers. Bilingual Australian and Jordanian experts were recruited to maintain integrity and ensure equivalence of translation between the English and Arabic and to carry out back translations. As a traditional courtesy, verbal approval was obtained from the primary physicians of the patients in the medical wards.

Data analysis

Case study analysis depends on what is appropriate for the type of data collected. Data of the study were analysed according to the type of the data as follows: the quantitative data were analysed as simple descriptive statistics approach of frequencies, percentages, and means of the scores.

Qualitative data were given a preliminary review as soon after data collection as possible usually on a daily basis. Radnor's step-by-step guide to analysis (Radnor, 2002, p.71) was employed. There are six steps in this technique a) topic ordering, b) constructing categories, c) reading for content, d) completing the coded sheets, e) generating coded transcripts and f) analysis to interpret the data.

On completing a session of data collection, familiarity with the raw data was achieved by reading and re-reading the transcripts and field notes to get an initial feels for the key ideas that would become the categories. A similar process was undertaken with the tapes. These were listened to, then transcribed, checked and translated. Formatting of the text materials such as page numbers, lines and codes from the title and participants was undertaken. Sections of the text were highlighted and a raw text of categories from the transcripts and field notes was constructed (categories cluster the shared communal data). Then the initial transcripts and field notes were re-read to check that nothing had been omitted and comments from the document were added in the margins. These comments provided the coding words. Quotations from the participants were grouped using the codes. Then abstracting or brief paraphrasing of the sentences were undertaken to reduce the volume of text while preserving the core coding. In this way the key issues or concepts became apparent. Finally, two interactive processes for analysis were used. First through identifying the key issues and concepts, grouping them assists in finding the patterns. Divergences also needed to be identified and the story or narrative constructed. The second interactive process is to reanalyse, reconceptualise (deeper structure), classify relations both positive and negative and revising the narrative.

Summary of the data analysis steps

Data preparation

1. After completion the data collection I listened to the tapes, read the transcripts and notes in order to get an initial feel for the key ideas.
2. Formatting the text materials such as page numbers, lines and codes from the title and participants.

Categorising

1. Highlight sections of the text.

2. Prepare a raw text from the transcripts and field notes by re-reading (to comprehend) and writing comments and early codes of the text when completed the initial codes have been allocated.

3. Sorting the highlighted data in selecting quotations from the informants(group them into categories) and then abstract or brief paraphrase - shortening-reduction but preserving the core (coding) by identifying the key issues or concepts and themes to develop a category system.

Coding

1. Make a separate code list file for each category from different respondents- and cluster the shared commonality data.

Mapping, interpretation and the development of themes

1. Look for the relation (association) or pattern and connections between categories by linking the underlying meaning together in categories (compare columns to each one and contrast themes and concepts) - sub-themes- to provide explanation for the findings to structure the themes.

2. Check the codes, subcategories, categories, subthemes and themes.

3. Presentation of the findings and a comparison of those findings with previous work.

Summary

This chapter has described the method that was used in this study including the study design, the context of the project, the participants, data collection processes and the instruments used to support data collection. The data management, ethical issues and data analysis were discussed. The results of the data analysis are presented in the next chapter.

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                    │   THESIS FLOW   │
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┌──────────────────────┐              ┌──────────────────────┐
│      CHAPTER 1        │   ───▷       │      CHAPTER 2        │
│      BACKGROUND       │              │   LITERATURE REVIEW   │
└──────────────────────┘              └──────────────────────┘
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┌──────────────────────┐              ┌──────────────────────┐
│      CHAPTER 4        │   ◁───       │      CHAPTER 3        │
│      FINDINGS         │              │       METHOD         │
└──────────────────────┘              └──────────────────────┘
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┌──────────────────────┐              ┌──────────────────────┐
│      CHAPTER 5        │              │      CHAPTER 6        │
│  A PROPOSED PATIENT   │   ───▷       │     CONCLUSION        │
│ SAFETY FRAMEWORK FOR  │              │                      │
│ ACUTE CARE PATIENTS IN A│            │                      │
│ PUBLIC HOSPITAL IN JORDAN│           │                      │
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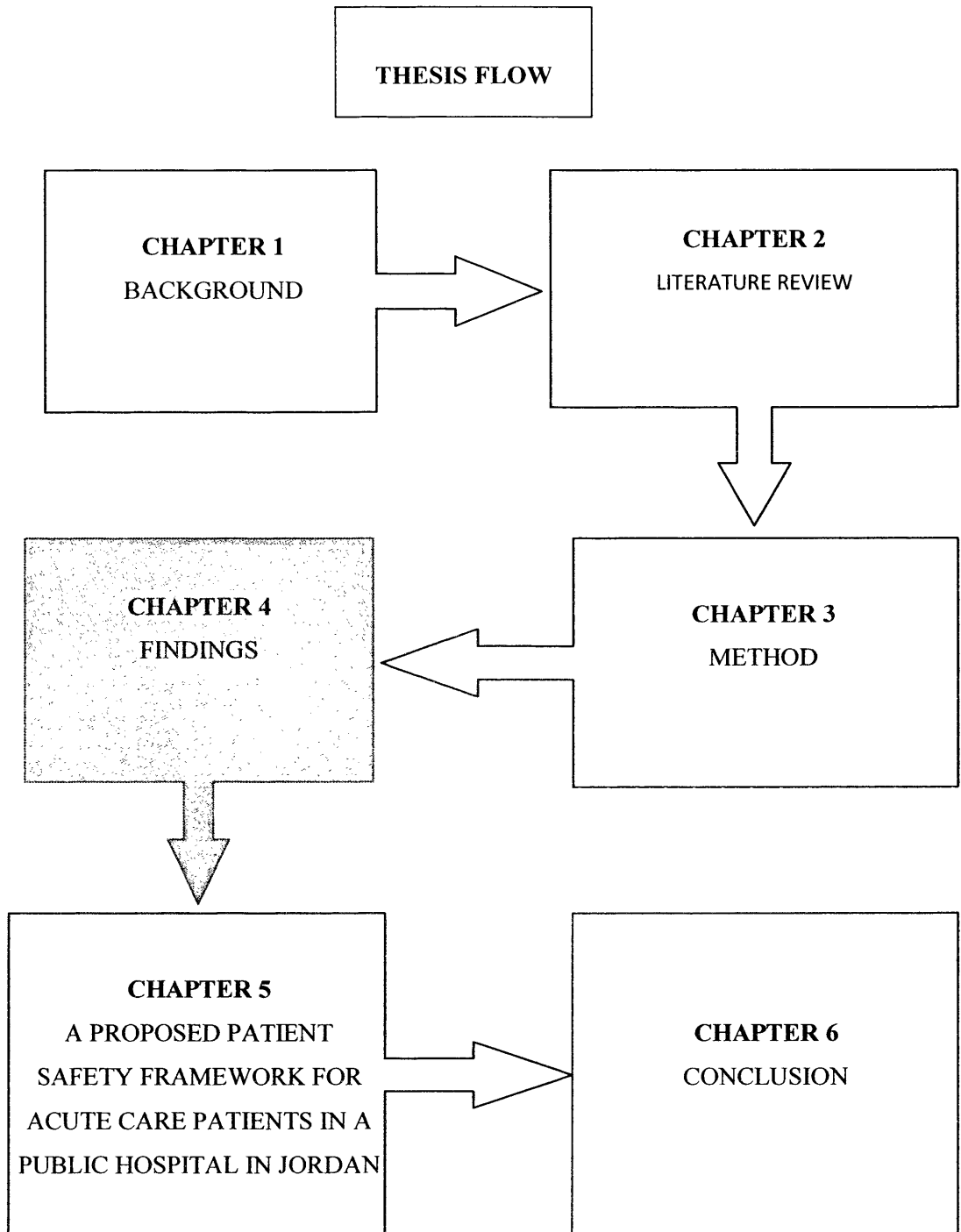
CHAPTER 4: FINDINGS

This chapter presents research findings. It is divided into two parts:

1. Quantitative findings:

- Prevalence and incidence of pressure ulcers at clinical settings.

2. Qualitative findings at:

- Clinical setting.

- Organisational setting.

- Ministry setting.

The findings are based on fieldwork undertaken in Jordan from January to August 2006. As set out in the method section, data were collected from:

- survey of the prevalence and incidence of PUs.

- interviews with key clinical, organisational and ministry staff.

- document analysis.

- observations from field notes.

Data resulting from these actions are presented below. Quantitative data were collected to answer the research question: w*hat attributes of patient safety management exist in an acute care, public hospital in Jordan?* The patient safety attributes have been used to categorise the findings using PU as the example of maintaining patient safety during hospitalisation and on which to base our interpretation of the Jordanian environment.

The first results presented, the prevalence and incidence of PUs, confirms that a problem with patient safety in the acute care setting of AlBashir Hospital exists. It was necessary to undertake this survey as no outcome data were available at AlBashir Hospital on the incidence or prevalence of PU or other parameters used to determine patient safety in the acute care setting.

1. Quantitative findings

Prevalence of PU at AlBashir Hospital

The investigation to establish if there was need for concern regarding patients developing PU commenced in 2006 with a one week snapshot survey of 190 patients in the two medical wards at AlBashir Hospital. One hundred and twenty three patients were identified as at risk of developing PU. Over five days 30 cases of PUs were identified. Eight cases had a stage 1 PU, 13 cases were at stage 2, six cases at stage 3, one case stage 4 and two cases had mixed stages. A prevalence of **24%** was estimated. Prevalence was calculated by dividing the total number of patients with PUs over the number of patients 'at risk' of PU (Thomas, 2001).

Prevalence of PU according to stages and gender

The literature indicates that when the quality of health care measures for PUs is evaluated in developed countries, it is important to identify the stage of the PU as well as the numbers of PUs. The stages of all PUs in the male and female medical wards at AlBashir Hospital are presented in Table 4.1. The table shows that at stage1 there were 8 (27%) cases, stage 2, 13 (43%), stage 3, 6 (20%), stage 4, 2 (3%) and mixed stages 2 (7%). The majority of cases were classified as stage 2. The table shows that only one patient had a stage 4 PU, but that six patients had stage 3 ulcers.

Table 4.1: The one week prevalence results of PU by stages and gender

Stage	Male Number	Female Number	Total Number	Total %	Cumulative %
1	2	6	8	27	27
2	6	7	13	43	70
3	3	3	6	20	90
4	1	0	1	3	93
Mixed	2	0	2	7	100
Total	14	16	30		100

These results are consistent with literature reports for PUs requiring more effective assessment as well as preventive measures management, as indicated by over 70% of PUs identified being more than stage 1.

Prevalence of PU according to age group and gender

In order to obtain further information about patients developing a PU, data were interrogated to determine risk characteristics. In the 30 cases of PUs, 14 (47%) were males and 16 (53%) were female. PU was found mainly in the elderly with only seven (23 %) of the cases under 60 years and 23 (77%) over 60. The mean age was 63 years. Table 4.2 shows the distribution of the cases by gender, age group and prevalence of PUs.

Table 4.2: The prevalence of PU by gender and age group from the snapshot survey in the two medical wards in a Jordanian hospital

Age group	Male	Female	Total	
	Number	Number	Number	%
<30	0	1	1	3
30-39	1	0	1	3
40-49	1	2	3	10
50-59	1	1	2	7
60-69	4	3	7	23
70-79	3	5	8	27
80-89	3	4	7	23
>90	1	0	1	3
Total	14	16	30	100

These results are consistent with findings of the prevalence of PU in developed countries in terms of age grouping and gender for people admitted to hospital with a PU (Vangilder, Macfarlane, & Meyer, 2008). Over 70% of PUs are in patients 60 years and over. Older people are at a higher risk of developing PU in the community rather than younger people (Fisher, Wells, & Harrison, 2004) and both genders are affected equally (Bergstrom, Braden, Kemp, Champagne, & Ruby, 1996). The life expectancy at birth for male and females in Jordan was estimated in 2006 at 70.6 and 72.4 years

respectively (WHO, 2006). Given these life expectancies, more than 50% of the people with PU were older than the Jordanian life expectancy. This information is particularly useful to enable high-risk patient groups in Jordanian hospitals to be targeted.

Prevalence of PU according to location sites and gender

In order to establish the pattern of PUs in a Jordanian hospital, the location of the ulcer was also investigated and compared with international information on PU location. Table 4.3 shows the location sites of 30 PUs for both genders: sacrum 13 (43%), heel 7 (24%), hip trochanters 3 (10%), calf 1 (3%) and multiple sites 6 (20%).

Table 4.3: The one week prevalence results of PU by site and gender

Site	Male Number	Female Number	Total Number	Total %
Sacrum	4	9	13	43
Heel	5	2	7	24
Hip trochanters	1	2	3	10
Calf	1	0	1	3
Multiple sites	3	3	6	20
Total	14	16	30	100

These results are also consistent with international information on PU locations.

Incidence of PU at AlBashir Hospital

The results of the snapshot survey confirmed the need to undertake a more detailed investigation. An inpatient survey was conducted over four weeks in the two medical wards at AlBashir Hospital. Out of 175 people admitted during four weeks without a PU, 106 were 'at risk' of developing PU. In 2006, over the four weeks twenty-nine patients developed PU subsequent to admission to the two medical wards. Sixteen cases had a stage 1 PU, eight cases had stage 2 and five cases had stage 3. The incidence of PU subsequent to admission to hospital was **27%** *.

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*(Incidence was calculated by dividing the number of patients with new PUs over the number of patients 'at risk' of PUs (Thomas, 2001)).

Incidence of PU according to stages and gender

The stages of new PU cases for both genders in the medical wards at AlBashir Hospital is presented in Table 4.4. The table shows that at stage1 there were 16 (55%) cases, stage 2, 8 (28%), stage 3, 5 (17%). The majority of cases were classified under stage 1 and no patient had a stage 4 PU.

Table 4. 4: The four week incidence results of PU by stage and gender

Stage	Male Number	Female Number	Total Number	%	Cumulative %
1	10	6	16	55	55
2	5	3	8	28	83
3	1	4	5	17	100
4	0	0	0	0	0
Total	16	13	29		100

Incidence of the four week survey of PUs in two medical wards according to age group and gender

A total number of 29 new cases of PUs were identified by the research in the male and female medical wards during the four week survey. Of these cases, 16 (55%) were males and 13 (45%) were female. PU again was found mainly in the elderly, three (10%) of the cases occurred before the age of 60 and 26 (90%) over age 60. The mean age was 66 years.

Table 4.5 shows the distribution of cases by gender and age group and the rate of PUs. Again a high percentage of patients was over the life expectancies for Jordanians.

Table 4.5: The incidence of PU by gender and age group from the four week survey

Age group	Male	Female	Total	
	Number	Number	Number	%
<30	0	0	0	0
30-39	0	0	0	0
40-49	2	0	2	7
50-59	1	0	1	3
60-69	6	6	12	42
70-79	7	6	13	45
80-89	0	1	1	3
>90	0	0	0	0
Total	16	13	29	100

Incidence of PU according to location sites and gender

The location site of all PUs for both genders is presented in Table 4.6. The table shows that 66% occurred over the sacrum. This finding is consistent with the international literature that the sacrum is the most effected area of the body for PU (Vangilder et al., 2008; Wann-Hansson et al., 2008).

Table 4.6: The four week incidence results of PU by site and gender

Site	Male	Female	Total	
	Number	Number	Number	%
Sacrum	12	7	19	66
Heel	2	1	3	10
Hip trochanters	0	2	2	7
Multiple sites	2	3	5	17
Total	16	13	29	100

Incidence of PU according to medical diagnosis and gender

The medical diagnosis of all patients with PUs for both genders is presented in Table 4.7. The table shows that thirty–eight percent of patients were medically diagnosed with a cerebral vascular accident commonly called a 'stroke'. These patients were 'bed bound' and at great risk of PU development. This finding is consistent with the

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international literature of the immobile patients being the most at risk of developing PUs (Russell & Logsdon, 2003; Wann-Hansson et al., 2008).

Table 4. 7: The four week incidence results of PU by medical diagnosis and gender

Medical diagnosis	Male	Female	Total	
	Number	Number	Number	%
Stroke	6	5	11	38
Multiple (stroke, Diabetes, heart diseases)	6	1	7	24
Heart diseases	0	3	3	10
Renal failure	1	2	3	10
Diabetes	1	2	3	10
Asthma	1	0	1	4
Liver cancer	1	0	1	4
Total	16	13	29	100

Conclusion

The above results confirmed that there is a problem with maintaining patients' safety in terms of patients acquiring PUs in hospital. The numbers of PUs indicate less than optimal management of patient safety. In order to place these results in context, it is useful to consider the qualitative data at three levels: clinical, organisational and policy levels and their attributes concerning the safe management of patients during acute care hospitalisation. The findings are presented in the following way. First, each best practice attribute identified in the literature is presented as a main heading accompanied by individual sub-headings with a brief description given of the attributes to introduce the discussion; second, excerpts drawn from respondents' comments that best exemplify the attribute under discussion are presented as evidence; third, an interpretation is made of the extent to which the best attribute is present in the Jordanian case and the conditions existing in Jordan within which clinical care is being delivered and patient safety assessed; and, fourth, a synthesis of the best practice attributes is made to synthesis the unfolding evidence. The next section introduces and analyse the qualitative findings, the first of the domains within which evidence is presented, namely the clinical environment.

2. Qualitative findings

Clinical environment

This section outlines the attributes of best practice relating to pressure ulcers drawn from the literature. These attributes comprise culture, structure, process, human resources and physical resources (Donabedian, 1966; Hofstede et al., 1990; Runciman et al., 2009). Each is accompanied by a set of sub-attributes where they exist, and is discussed in turn.

Culture

For best practice to be substantiated as existing, a culture of safety for patients and staff at the clinical level must be nurtured and sustained. Ideally, clinicians would practise within this culture of safety supported practically in their direct clinical work and with clinical systems that support this work. According to the literature, and for the purposes of this thesis, culture can be categorised into three sub-attributes that include: safety for patients and staff; staff knowledge about risk assessment; staff knowledge and skill in conducting best practice interventions to manage risk and the model of care that incorporates patient safety considerations (Braithwaite et al., 2009). I turn next to discuss each of these sub-attributes in turn.

Safety for patients and staff

The literature outlines the importance of having the 'right' culture at the clinical level of the organisation. Such a cultural is epitomised by an environment that assists clinicians to achieve safety for patients and for staff in practice. This environment will have a risk management strategy in place to actively reduce risk and to promote patient safety. Findings from the Jordanian case show that such an environment has yet to be established, although there are indications that some staff are aware of the limitations currently existing in the Jordanian situation and are reflecting on the changes needed to move to an environment that supports safety for both patients and staff. The first excerpt, spoken by a clinical nurse, suggests that there is an overall awareness on the part of clinical staff that a culture of safety and an environment within which to practice is not yet in place:

...who cares for this subject (patient safety) *is this important?*

Here the nurse questions the importance of patient safety as a practice. It appears not be her prime concern. It is not only nurses who are inattentive to safety concerns. Doctors also appeared not to be aware of the importance of building a supportive clinical environment. The medical officer speaking next discusses an example of potential risk to staff from needle stick injury. This excerpt suggests that not only is there no system in place to manage the risk of injury to staff, initiating, approving and implementing such a system was not within his authority. Rather, if such action is to occur it is triggered by an official letter from more senior hospital authorities:

> *One staff member complained of a needle stick injury. What is the problem? After the vaccination we have to check the 'antibodies'. The laboratory staff say we don't have any official letter to do this 'antibodies' check*
>
> OOrgDrM1 25-7-06

Developing a culture of patient and staff safety will mean that clinicians on the front line will exhibit both an awareness of its importance and evidence that actions are being put into practice. Evidence was found that these constructive attitudes and practices did exist in parts of the clinical workplace. The next excerpt spoken by a registered nurse indicates that she is aware of limitations in patient safety and articulates the correct procedure needed to rectify the limitation:

> *...The blood transfusion card should be filled out completely with full name - four names-, and the patient's name on the sample tube and the card should be identical to ensure the patient's safety...*
>
> OCNM4 24-7-06

This excerpt makes clear that this senior nurse is concerned to ensure that the right details are given for the right patient to ensure the right tests and treatment are given. My field notes record:

> Instances of unsafe practice with regard to patients and their family members that nurses did not act to deter. One example includes patients and family members using the nurses' station's sink to fill their empty bottles with tap water to use for drinking. The sink is used by staff for hand washing and cleaning contaminated medical equipment after procedures. Cross infection is a possible risk.
>
> OFMW 28-3-06

The foregoing excerpts suggest that there is little awareness among the clinical staff in AlBashir Hospital about the importance of a culture of safety and developing a clinical practice environment to support it. Neither nurses nor doctors exhibited the attitudes that suggest patient safety is a priority in their mode of health service delivery, nor are practices indicated of a concern to protect patients, their family members or treating clinicians. However, senior nursing staff at the Hospital are making connections between the systems of care and safe outcomes for patients. Senior nurses are well placed as key communicators to take a leadership role in promoting safe practices to nurses and doctors and to begin the process of putting a safe system of care into practice. Such a system would ensure that staff not only were aware of patient safety and displayed it in their actions, but that they were knowledgeable about specific aspects of care that actively contributed to a safe working environment. Such knowledge includes a capacity to assess patient risk and it is to this sub-attribute that I next turn.

Staff knowledge about risk assessment

To practice safe care, staff need knowledge about the importance of assessing risk and the capacity to put risk assessment practices into place. Specifically, the literature outlines the importance of assessing the patient's risk on their admission to hospital and continually reassessed at key times during the patient's hospitalisation, for instance, when the patient's condition changes. Further, such an assessment should be conducted based on a valid and reliable RAS. From my observations, neither a knowledge of the principles of risk assessment were known by staff nor a specific risk assessment tool used to practically assess the risk to patients of pressure ulcer. The nurse speaking next exemplifies this absence:

> ...*We do not have risk assessment. For example, the patient develops stage one, two or three* (PU) *and the management has not yet started for the patient's health issue*
>
> ICN1 18-4-06

The implication of this nurses' comment is that the initiation of active treatment of the patient's presenting condition is not begun in a timely manner. Rather, the delay in treatment appears in some cases to be long, resulting in stage one, two and even three pressure ulcers developing before the treatment is begun. In order to assist nurses to

prevent or manage pressure ulcers in this situation, clinical policies, education and training on how to implement policy would be required. Yet staff indicate that no such policy, guidelines or risk assessment instrument are available to guide clinical assessment of patient risk on hospital admission or during hospitalisation. The clinical instructor (CI) speaking next confirms the absence of these clinical support practices, while acknowledging that a problem exists and asserting the need to understand the cause of the problem and how to solve it:

> *No current criteria are used at the hospital to determine or manage risk. Indeed, we do not have anybody working on this topic currently. We need to work on the problem and we need to know how to evaluate or solve the problem.*
>
> ICCI4 23-4-06

The absence of such risk assessment policies and tools means that a plan of care for the patient cannot be devised and implemented. This absence exposes the patient to further injury and risk, unnecessarily. Even though treatment for the patient's presenting condition is delayed, there is no reason for nursing staff not to be proactive in addressing the risks for patients with pressure ulcer. The nurse speaking next is aware of the delay, and also of the absence of a clinical system to routinely assess the patient at critical points of admission and health status change and to respond to it clinically:

> *Yes, there is delay, the patient cases will develop a late stage* (PU) *and nothing was done for them - because there is no health care process available to the patient such as assessment from the beginning of the first stage* (of PU) *to prevent or manage them.*
>
> ICN118-4-06

Notwithstanding the inferred delay in medical initiation of treatment, the foregoing excerpts suggest that there is considerable scope for nurses to initiate their own safe practices by developing policies and collaborating to implement them. The evidence presented suggests that, while individuals are aware of the limitations, clinical staff generally are not and opportunities to manage risk are foregone. My field notes record:

> Instances of patients being admitted with a pressure ulcer or who acquired a PU following admission to medical department. There was no ongoing assessment. An example, based on my review of documentation for a newly-admitted patient with a pressure ulcers records the notation:
> *No clinical risk assessment or management was documented in the patient medical file by nurses, doctors or other clinicians*
>
> OMMW 12-3-06

In summarising evidence concerning this sub-attribute, the data show that no culture of safety has developed at the Hospital, either for patients or staff. However, several staff in key clinical leadership roles did articulate specific instances of problems and offered clinical solutions to overcome them. What appears to be missing here is the organisational capacity to develop clinical systems, such as routine risk assessment, to support best practice. This absence extends to a capacity for nurses to address a critical underlying barrier to prevent pressure ulcers, i.e. the apparent delay in initiating timely medical treatment. These issues will be further explored in later sections that deal with organisational issues. In the meantime, my assessment of staff knowledge about risk assessment indicates that opportunities exist for nursing staff to address the prevention and management of pressure ulcers, in terms of developing a risk assessment system aimed at improving clinical practice and patient outcomes. It is to this sub-attribute of improved clinical practice that I next turn.

Staff knowledge and skill in undertaking best practice risk management interventions

The literature outlines essential aspects of prevention and management that centres on staff knowledge and skill in undertaking these interventions to manage risk. Ideally, clinical staff who know about the various practices that are effective in preventing and managing PUs would be skilled in undertaking them and would actively put this action into place. Nurses in the wards examined did assert that they understood their responsibilities in this regard, and importantly, did distinguish nursing responsibilities from medical responsibilities in initiating risk management strategies. The clinical instructor speaking next is clear about this nursing responsibility, indeed, as the nurse terms it, their 'duty':

No need for a doctor's order for this action (to mange PU). *It is a nursing job, not a doctor's job to change the patient's position. The nurses are responsible for the at-risk patients developing 'bedsore'...it is a nursing duty...* (to prevent PU). *Yes it is our duty.*

ICN3 20-4-06

Acceptance of nursing responsibility in this regard and knowledge of risk management procedures is not sufficient to produce good quality patient outcomes. The actions that nurses perform must also be effective in actually preventing ulcers from forming and in limiting their development once formed. The importance, but potential variability in this aspect of effective nursing practice, is articulated by a clinical instructor in the following excerpt:

Not everybody working in nursing can give good quality of care. In general, the nurse should have knowledge of what this and that is, then the skill to prevent complications in addition to the readiness to work effectively - for example 'bedsore' knowledge, prevention measures, and management without any negligence.

ICCI5 26-4-06

The inference here is that some nurses are not providing the level of care that patients need to keep them safe. Not only are attitudinal and knowledge deficits barriers, so too is ineffective practice. Even though nurses speak about patient repositioning, for example, as an important aspect of patient care, they did not appear to actually do it. Importantly, however, nurses were aware of, and did articulate, their understanding that all patients were not alike in terms of their need for treatment. The nurse speaking next alludes to the different type of 'high care' that cerebro vascular accident (CVA) patients require:

...In general, the immobile bedridden patients such as cardio vascular accident patients because of their bed rest are susceptible to many complications. These types of patients need high care that currently they are not undertaking in terms of daily hygiene, positioning, nutrition and others need continuous follow up...

ICN2 19-4-06

Important here for developing a best practice model in the Jordanian situation, is the ability and readiness for nurses to categorise patients based on their risk profile and to articulate the types of care that different patients may need, in this case the 'high care' regimen for CVA patients. Yet, what is emerging in this analysis is a growing gap between nurses' capacity to articulate problems and solutions and evidence of actual

practice that nurses are responding to address them. Little evidence of basic hands-on bedside care was observed that corresponded to nurses' views about what should happen. Field notes support this view. My field notes confirm that:

Staff are neither knowledgeable about the comprehensiveness of best practice care of pressure ulcers nor skilled in managing pressure ulcers. An example concerns an observation of an RN distributing patients' medications with no information to hand about the patients' case, their plan of assessment, treatment or ongoing management.

Following the daily medical round (Sunday to Saturday) the RNs check the doctors' orders, implement them, and follow-up administrative work, such as patient discharge. The in-charge nurse assigns the daily work load according to nurse seniority. The way in which the tasks are organised is not in accordance with the principles of applying patient safety, because the AINs and ANs are not supported or supervised so as to assist them to develop competencies.

My observation of a patient (identifier number 9291005517) in the male medical ward with a sacral, stage 2 PU supports this point. The patient was incontinent of urine. I asked the AIN caring for this patient if he knew whether this patient had a PU. He responded: *"I do not know"*. In best practice terms, the AIN would be expected to know this information about the patient he is caring for. I placed the patient on his side to show the nurse the patient's PU. The AIN subsequently told the family to change the patient's position to manage the PU, rather than undertake the task himself, and the family agreed to do this. On checking the patient's file to observe nursing documentation about managing the patient's PU and ongoing risk, only a medical order to 'change position' was found.

OMMW 13-3-06

No repositioning schedule for any patient at risk was located in either ward.

OMMW and OFMW, 23-03-06 to 25-08-06

My field notes also record:
the instances of two AINs taking vital sign observations in the patients' rooms wearing gloves. Following this action, they returned to the nursing station and wrote the results in the patient files, still wearing gloves. They then drew blood samples from different patients and returned to the nurses' stations, still wearing the same gloves and not washing their hands.

OMMW 13-3-06

Respondents' comments and field notes suggest that clinical staff have neither the knowledge nor skills to conduct clinical interventions in a safe manner, or they do not care to do so. The evidence presented supports my sustained observations during the research that nurses in the two wards that were the sites of the research did not know of or apply best practice in preventing pressure ulcers, or in practicing safe infection control. Further, no member of the nursing staff on the wards, in the above example in the male medical ward, accepted responsibility for providing patients with a high standard of care. The environment of practice did not provide evidence an awareness of safe practice at ward level, either for patients, their relatives or for clinicians themselves. That is, although some nurses articulated examples of safe practice, they were not carried through. Such instances of articulation, however, were few, with the majority of nurses interviewed were unable to articulate or demonstrate an awareness of principles and practices of patient safety, and it is to a model of care that incorporates these considerations that I next turn.

A model of safe patient care

In relation to this sub-attribute, the literature outlines the type of organisation that should take place in working towards a safety culture. Ideally, clinicians would bring all the elements of a patient safety culture together in order to practice holistic, patient centred care, effectively and efficiently. As is self-evident in care and as reflected in health care literature, a number of health professions collaborate to deliver care. As I have alluded to earlier, however, the care delivered to patients appears to be fragmented between nursing clinicians, but also between nursing and medical clinicians. At AlBashir Hospital, patient care at the clinical level is planned and controlled by senior medical staff. While junior doctors are involved in following up patients' treatments according to the care plan decided by the specialist, they do not routinely order medications, major procedures or tests. As the medical director speaking in the next excerpt points out:

> *In general medications are decided by the specialist. If the patient is admitted at night, the night junior resident and the senior resident will cooperate to plan the medication schedule or to call the attending specialist for coordination, as the specialist is the 'decision maker' responsible to confirm or to change the medication.*

> IOrgDr4 23-7-06

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While, on the face of it, this procedure appears to be a safety measure, in practice the deferred medical decision making that results can cause lengthy delays in initiating some aspects of patient treatment if it depends on the presence of the specialist doctor and that doctor is not present. As our evidence earlier illustrates, such delays can risk injuries to the patient, particularly PUs. Thus, it affects patient outcomes directly and significantly impacts on the volume of nurses' work and the type of work that nurses must be drawn into, in attending to iatrogenic injury. The risks for patients and the impact on medical and nursing work is evident from the next excerpt spoken by a nurse regarding a patient with a PU:

> *If they* (doctors) *decide to do plastic surgery it will be very late... the therapeutical procedure (plastic surgery) might not be effective. For example, one day, we* (Female Medical Ward) *got a patient who had plastic surgery* (for PU)*....it (*the wound) *was very bad...full of 'mould'...*
>
> ICN1 18-4-06

According to the nurses, similar situations develop because of differences in practice between medical and surgical doctors about how patients with PU should be managed. Where this places nurses in their responsibility to manage pressure ulcers is not clear, particularly in view of the comment earlier that established pressure ulcer management as a nursing duty. What emerges from the in-charge nurse speaking in the next excerpt is that doctors themselves are unaware of best practice management of pressure ulcers and base their orders on this limited knowledge. Nurses, including, significantly, the in-charge nurse speaking in the excerpt, follow these inadequate orders:

> *The physicians only care to write in doctors' order: dressing or change position. That is what we are mostly doing...*
>
> ICN1 18-4-06

Notably, nurses were not involved in discussions with doctors about patient care or patient care planning. Rather, registered nurses, including senior nurse leaders, working at AlBashir Hospital implement doctors' orders. They appeared to practise a delegated role in patient care, rather than a primary role including managing risk that includes decision making within their sphere of professional expertise and responsibility. Nurses expect doctors to discuss patient care issues with them but, according to the nurse speaking next, doctors are not always amenable to such discussions:

Nurses may suggest to doctors any comments regarding the patient's care, but sometimes the doctors refuse that and are rushing to go somewhere. It is good to have a mutually constructive beneficial discussion.

ICN2 19-4-06

Although nurse managers seem unaware that nurses rarely repositioned the patients in the two medical wards, the Medical Department (MD) nursing director was aware that the standard of nursing care was not optimal. Her comment in an informal clinical meeting with ward nurses attests to her view:

...bedside nursing care to the patients is 'very low' ...without follow up...

OCNM1 22-2-06

Further, as I have alluded to earlier in the case of AINs and ANs, supervision of senior to junior nurses did not appear to ensure that doctors' orders were followed. Even though nurses state that they reposition patients at risk of skin breakdown, as previously stated, there is a discrepancy between what nurses say and what they actually do based on my observed practice during the time of the research. My field notes record that:

At the time of data collection, RNs did not routinely develop a nursing care plan for patients. Registered nurses working in the MD wards were allocated tasks such as medication rounds or wound dressings by the in-charge nurse (one of five RNs on the morning shifts and one of two RNs on the afternoon and night shifts). The AINs and ANs are assigned to work in one of the four-bed rooms. In their assigned room they are responsible for the basic nursing care of hygiene, patient observations and patient transfers.

In addition to their assigned rooms, they are required to perform other tasks, such as blood sugar level estimates for diabetic patients and follow-up for blood units for patients in their assigned rooms requiring a blood transfusion. In addition, the AINs or ANs must collect blood samples for pathology ordered by doctors during medical rounds.

My observations show that these staff worked without RN supervision over the six months of data collection. When I discussed an observed patient safety issue with them, they were not responsive, indicating that the issue was not their responsibility. They were observed not to make any change to their patients' care.

OFMW 4-4-06

I further observed that:
Bedside nursing care, such as changing the bed linen or

> feeding patients, was usually provided by patients' family members. An example of family engagement in patient care concerns the case of a patient's daughter asking the RN for bed sheets. The patient's daughter said:
>
> > *We (the family) need to change her (the patient's) pad (owing to incontinence of faeces) because the patient is going to the x-ray department for a CT Scan*
> >
> > OFMW 26-3-06

> I observed no supervision to ensure nurses provided care, including when ordered by a doctor. An example cites the doctor's order in a patient medical record for PU management as *"...change position every 2 hours..."* This order was not implemented by any nurse during the patient's stay.
>
> OMMW 21-3-06

Family members were repositioning patients if they understood the consequences of prolonged pressure on the body. As outlined in the next excerpt, one CI confirmed that family members provided the care, although this situation did not change:

> *The patient's family member changes the position, changes the pad, and supervises walking. That is why many things here* (at the Hospital) *have to be changed to work effectively.*
>
> ICCI5 26-4-06

Nurses may have instructed some family members about how to reposition patients, but no nurse was seen actually undertaking this educative process during observation. When asked subsequently, nurses gave a numbers of reasons why they, themselves, did not reposition patients, even when they have been instructed by a medical order. According to the clinical nurse speaking in the next excerpt, the doctors, the family and the lack of community nursing were to blame:

> *That patient was scary* (looks in a very bad condition). *Maybe they* (the doctors) *discharged her home with an infection...The patient's family can be blamed, because the family may not have enough education to follow up their patient, in addition to the deficiency of an effective care plan. So, they* (patients) *are readmitted with other complications, because we* (Jordanian people) *do not have proper home care* (community nursing) *such as nutrition, dressing and so on...*
>
> ICN1 18-4-06

The above evidence of clinicians' practice in the two medical wards during the research period revealed that nurses were not applying 'best evidence' to organise effective and efficient patient care to prevent PU. Rather, direct family engagement in patients' care

is encouraged in Jordanian hospitals, including at AlBashir. While patient involvement may be appropriate, it does not diminish the care responsibilities of clinicians or their accountability for quality patient outcomes. I take up the issue of care organisation more generally in a later section. In the meantime, I turn to the next major attribute of best practice in managing pressure ulcers, namely structure.

Structure

For best practice care, the literature stresses the importance of structures at ward level to support patient safety. The structures alluded to in the literature include regular meetings within clinical workplaces where quality of care and patient safety issues are discussed. These discussions would ideally concern clinical educators and/or specialist nurses supervising and supporting less qualified and experienced staff through, for instance, knowledge and skills transfer, to ensure safe practices. Two sub-attributes are included within this attribute, namely: meetings to discuss quality of care and patient safety; and the provision of specialist nursing positions to which I next turn.

Quality of care and patient safety meetings

The literature is clear that the meetings that allow discussion on quality of care and patient safety constitute the type of structure necessary to support a culture of quality and safety. Ideally, such meetings will occur regularly, will involve all concerned in patient care in the clinical workplace, and will primarily focus on discussing issues that arise with the aim of improving the standard of patient care, particular its efficiency and efficiency, as identified earlier in this section. Such meetings would ideally raise topics identified within this section that go to the heart of patient safety and quality. Included here are identifying and resolving nursing-specific safety and quality problems, acting as knowledge and skill transfer forums for less experienced nurses, and recommending ways in which nurses and doctors can better collaborate to improve care standards. The evidence gathered in relation to this sub-attribute is drawn from observations of meetings. No evidence was found during the study period of routine meetings taking place in the two wards that discussed quality of care or risk management. Opportunities to use collaborative discussion forums to generate ideas encourage staff participation as a means to instilling an awareness of quality and safety, allocate, action and follow-up to put recommendations into practice and to tackle identified problems of

medical/surgical medical conflict and the absence of nursing- medical collaboration were foregone. My field notes record that:

> There are no formally constituted committees or sub-committees for quality improvement operating at ward level. No practice development projects were being conducted in any wards. Meetings that were held with nurses were impromptu informal get-togethers with no agendas tabled, minutes recorded or follow-up allocated.
>
> The Department subcommittees are the closest structures observed, however no members of the ward staff have membership in these subcommittees. Only the nurse managers of the various hospital departments participate. At ward level, no formal processes were observed that enabled nurses to put forward suggestions to managers about their concerns.
>
> OMMW and OFMW, 23-03-06 to 25-08-06

Field note observations attest to the fragmented organisational structures operating at the clinical level in AlBashir Hospital. Other than patient handover meetings, no structures were observed that dealt with organisational issues with reference to the populations of patients that inhabit the wards. Without some form of regular structured meetings where staff raise issues concerning patient safety and quality, it is unlikely that the standard of care for patients will improve, or that the working environment of clinicians will alter to the extent that the literature suggests is needed. I will touch upon communication processes in a later section of this thesis, and in the meantime turn to the second sub-attribute that concerns the availability of specialist positions as a strategy to support less qualified and experienced staff gain the necessary clinical competencies.

Specialist nursing positions

According to the literature, specialised nursing positions provide the support that generalist nursing clinicians require in moving to an environment that produces high quality, safe outcomes for patients. Specifically, specialised nurses are best positioned to intervene in and implement treatment to reduce the incidence of pressure ulcers. These specialised nurses, with knowledge regarding maintenance of skin integrity and skills in wound assessment and management, can provide best care based on physiologic principles and up-to-date research findings. However, the data gathered

show that no specialised nurses' positions existed within clinical wards other than clinical instructor positions, responsible for on–the-job training and in-service education. These positions are further elaborated in a later section of the thesis dealing with organisational issues. In the absence of the specialised nursing positions, nursing managers must constantly remind the ward nurses of the tasks that need to be completed daily. This process maintains nurse dependency, discourages self-direction and adds to the burden of busy nurse managers. Not surprisingly, nurses have come to expect and anticipate this level of direction, not beginning work until they are informed of their allocated tasks. The inefficiency of this process and its burden on senior nursing staff is evident from the exasperation expressed by the MD nursing director at the start of a morning shift:

> *No need to wait for your assignment* (from the 'in-charge'). *You have to be responsible and every two should start their work together before the assignment. If we* (RNs) *forgot to write the duty distributions you will not work...what is this? ... It's unbelievable...*
>
> OCNM2, 16-3-06

Even though this senior nurse might wish for a change in nurses' attitudes and behaviour, to become more self- reliant, this is unlikely to occur without attention to the systems of care, including instilling expectations that nurses accept a higher level of autonomy in patient care decision making, as well as taking on what has been identified here in terms of nursing responsibility and accountability for patient outcomes. To do so, nurse managers will require significant organisational support to develop education systems so as to affect the degree of change required to enable RN to undertake more autonomous practice and clinical specialisation, both pre-conditions of a patient safety culture.

Even in the absence of these conditions, and senior supervision of less experienced staff, nurse managers expected that nurses would perform the tasks to a satisfactory level. As the clinical instructor indicates in the next excerpt, without supervision, appropriate patient care is at risk of not being delivered, potentially amounting to medical negligence:

> *There is no supervision by the administrators or the stakeholders of the nurses to implement the right job... so, because of the lack of continuous supervision, the PU is neglected and not even a change of position applied to patients... The*

seniors and the MD nursing could do this (supervise), *because not doing the work in a proper way can lead to medical negligence.*

ICCl4 23-4-06

As this clinical instructor indicates, the consequences of not having systems such as supervision in place is potentially a serious legal issue for the clinicians involved and for the organisation. If a court case ensues from a claim of negligence clinicians' reputations could be damaged professionally. In addition, cases of medical negligence will be ultimately costly to Jordanian taxpayers who would be funding compensation to injured parties. My field notes record that:

> It is likely that the unequal social status of the two disciplines (doctors and nurses) in Jordan has an impact on both the professional and personal roles of clinicians. Even registered nurses in Jordan lack autonomy in their professional roles. Consequently, their capacity to conduct primary care roles is limited, and they project at this stage as a doctor's "handmaiden". The doctors are not confident that nurses are able to assess patients' status accurately. The MD nursing director told the ward nurses
>> *...It is not nice, when the doctor came to my office asking for a sphygmomanometer to check a patient's blood pressure, because the doctor is not confident of your job...*
>>
>> OCNM4 24-7-06
>
> I overheard a specialist doctor tell his colleagues that
>> *...blood pressure, notes, weight, and pulse. We have to do that individually not rely on the nurses* (results)...
>>
>> OOrgDrM1 25-7-06
>
> In order to effect a change in the specialised positions, nurses need to take the initiative and demonstrate that they can provide patients with safe and effective care. Only then is it likely that doctors will afford them respect for their professional roles.

Clearly, there is an organisational imperative to establish the types of structures alluded to in the literature as a means of implementing systems of clinical care and systems that support clinical care. In this case, where the nursing team consists of those with different levels of knowledge and skills, more senior nurses must take on the responsibility to support and guide less qualified and experienced staff. At this stage of clinical standard and organisational development, it would seem appropriate for more senior RNs to work with the AINs and ANs to provide direct supervision.

To summarise evidence relating to the best practice attribute of structure, there does not appear to be any evidence of the structural support necessary to create an environment of quality and patient safety at the clinical level in AlBashir Hospital. These structures, including particularly meetings to discuss standards of care and care organisation in the context of patient safety and quality, need to be established as a first step. Included here is developing the systems of care necessary to support less qualified and experienced staff. Culture and structure are necessary but not sufficient attributes in a best practice model of care. Processes are equally important, and perhaps more so in establishing the types of relationships that underpin quality and safety in health care and it is to this attribute that I next turn.

Processes

Once structures are in place, processes must exist or be developed to connect structures into a purposeful organisation. Where, earlier in this chapter, the best practice attributes were focussed at the clinical level of the organisation, structures are organisation-wide. They include, for instance, job descriptions for clinicians and clinical support staff, performance review and feedback, best practice guidelines for staff related to clinical conditions, in this case pressure ulcer, effective written and verbal communication between disciplinary groups and availability of an incidence monitoring system, in this instance for PU. I discuss each of these sub-attributes in turn, beginning with specified clinicians' job descriptions.

Specified clinicians' job descriptions

In terms of this first sub-attribute, the literature outlines the importance of job descriptions to specify role behaviours and functions that are carried out by staff at the clinical level of the organisation. The literature indicates that these descriptions that articulate the importance of maintaining patient and staff safety as a significant component of the role are instrumental in building a safety culture. I examined documents relating to this sub-attribute that I will discuss later in this section, turning first to the comments of respondents drawn from interview transcripts. When asked about her understanding of her role, the clinical nurse speaking next was able to clearly express the role she was responsible to perform:

As a nurse, I have a great role particularly with bedridden patients, in good communication with the patients I can give psychological support, health education and some exercise if the patient's case permits that, providing proper nutrition such as fibre for constipated patients, family health education regarding diet, walking, movement activity, bathing and other personal hygiene, and proper wound dressing.

ICN2 19-4-06

Even though the nurse speaking above appears to be confident of her role, specifically those areas of nursing standards where nurses would be expected to act autonomously, nurses did not always act in a collegiate manner in informing the doctor of information that it is arguable they need to be told about. This difference of expectations arose at a nursing standards meeting, where the 'in-charge' nurse disputed the need to directly inform the doctor about a patient's abnormal pathology results:

Abnormal result ... what is the process of informing the doctor? Why should the nurse do it when it is in the patient's file?

OOrgNM3 22-8-06

My field notes record the following transcript relating to job descriptions:

I found no evidence of specific job descriptions for clinicians related to the two wards in which the research was undertaken.
OMMW and OFMW, 23-03-06 to 25-08-06

Nurses were seen to become angry with doctors for omissions and a lack of support. The information for each patient written by the doctors enables nurses, in their delegated role, to carry out patient care. There were instances when essential information that would enable treatment to proceed was missing or incomplete. For example I observed an RN and a new AIN who asked him:

How much fluid for tapping (paracenthesis) *for patient 4-4 should be given? We* (the nurses) *have to give but nothing is written in the file.*

OMMW 21-3-06

The RN (named) checked the file to make sure nothing was written and eventually contacted a doctor who came and wrote up a complete order. Equally, doctors expressed disappointment when they considered that nurses had over-extended their role into the medical domain:

Nurses are interfering in our job by requesting consultation for patients which should be done by doctors only.

OOrgDrM1 25-7-06

Here, nurses are showing the initiative by requesting a consultation for a patient that the doctor does not welcome. However, doctors showed no reluctance about judging and commenting on the standard of nursing care when they assessed it to be poor, as the medical consultant speaking next indicates:

...blood pressure, notes, weight, and pulse we have to do that individually not rely on the nurses (results)...

OOrgDrM1 25-7-06

It could be argued that the absence of specific job descriptions is instrumental in creating confusion and ambiguity between doctors and nurses about what should be communicated, by whom and in what manner that has serious implications for patient safety and quality of care. Being specific about roles and responsibilties and having these documented may reduce the uncertainty and conflict that the absence of this documentation is causing. My field notes that:

> Documents have a lack of clarity, confusion and conflict that can occur between health professionals who share the care of patients.
> The lack of clarity in the functions of the clinical role resulted in nurses and doctors disagreeing about their role functions on occasions. Nurses were observed to be dependent on the doctors for planning all patient care. Nurses appeared to be dependent on doctors' decision making because they lacked the ability to make decisions themselves.
>
> As an example from observation, nurses waited for doctors' instructions about what wound dressing products to apply. While I observed some nurses being dependent on doctors' orders before providing patient care, I observed other nurses to be reluctant to inform the doctor of changes in the patient's health status...
>
> OMMW and OFMW, 23-03-06 to 25-08-06

Flagging that this area of interdisciplinary communication is an important one to discuss and agree on, is a process critical in clinical work that can encourage nurses and doctors to develop a system between them to raise issues of importance to patients and by extension that is also important to nurses and doctors. Ideally, this communication will occur for individual patients as well as for population of patients.

In this section, I have shown that, notwithstanding the nurses' confidence in outlining her role at the outset of this sub-section, routine job descriptions are not available for nurses that detail their clinical roles and responsibilities, including as they relate to their interaction with medical staff around both patient consultations and communication of test results. The absence of specific job descriptions is further evidence that a culture of safety is not operating in AlBashir Hospital as the literature suggests.

Specific job (position) descriptions are needed to be specific about the roles and responsibilities of clinicians, both for nurses and for doctors, that these position descriptions are written and available, and that a process of discussion occurs within and between nursing and medicine about what these job descriptions should entail in relation to continuous patient care. As the functions of health professionals are discussed further in the Jordanian health quality initiative that is currently underway in AlBashir Hospital, doctors and nurses will require descriptions about what part they are intended to play in this initiative, so that the policy can be implemented as intended. Understanding the roles and responsibilities that health professionals need to respond appropriately to patient needs can also arise from a review of health professionals' actual performance and it is to the sub-attribute of performance review that we next turn.

Performance review and feedback

In terms of the second sub-attribute under processes, the literature outlines the importance of performance appraisal conducted by the nurse 'in-charge' for clinical nurses at the clinical workplace. The literature indicates that a performance review system is essential to identify those areas of performance that are well developed and those areas which may benefit from a structured plan to enhance the clinical staff skills. My field notes show that there are general annual performance reviews for clinicians but no specific criteria used.

> There is a lack of individual and specific feedback to staff about their job performance. Nurses are performance reviewed annually by the Department nurse director. This form documenting the review is then passed onto the hospital nursing manager for review and confirmation. The hospital nurse manager's performance is reviewed by the hospital director. However, the performance

> review form is a generic government form (including appearance, punctuality and wearing uniforms) from the Civilian Service Bureau with non-specific criteria. This means that the specific strengths and weaknesses of staff are not identified. Feedbacks to staff about their performance review are missing. As no patient safety knowledge deficits can be identified, therefore education and training needed to improve staff's knowledge.
>
> OMMW and OFMW, 23-03-06 to 25-08-06

Such a performance review would occur annually, although to benefit as a means of communicating feedback between supervisor and subordinate, ideally more regular performance feedback sessions may be needed. A point to consider is how these feedback sessions should occur. While the literature indicates that they be conducted formally between the supervisor and subordinate in a structured fashion, feedback can also be given at other times, for instance when the performance of the unit is being discussed, thereby allowing all staff within the clinical team to consider issues that directly relate to team performance in respect of patient care. An example of managers recognising good team performance is given from my field notes, although positive performance appears to be used here as a lever against the performance of staff that is being judged is the opposite. My field notes record that:

> Managers do recognise and comment on staff performance, both good and bad. An example concerns the comment of an 'in-charge' nurse in a clinical meeting:
>
> *I can say after an intensive observation, I found that we have three excellent staff. We will send them a thankful appreciation letter. I hope everyone will be the same, I am sure you are working hard for patient care but a number of staff do not like to do that.*
>
> OCNM4 24-7-06

Just how useful this type of exhortation to staff is without specific instances of what performance was regarded as 'excellent' and what as 'unsatisfactory' is questionable, giving rise to the need to include in a best practice model the importance of being specific to staff with examples of what is desirable performance, and what is not. In this case, it is likely that the generic performance review criteria provided by the MOH for clinicians' use limits the feedback clinicians receive about their performance and misses the opportunity for behaviour change in the desired direction.

A drawback with performance feedback at the hospital is the absence of sanctions for poor performance. If sanctions are of the type used by the 'in-charge nurse' discussions in the field notes above, staff may feel no need to improve performance because there will be no adverse consequences. Performance feedback and expectations of improvement will be weakened in the absence of clearly articulated and actioned consequences for poor performance. As noted above, performance reviews are conducted annually although the criteria used are generic rather than specific. However, within the last year the Jordanian MOH has implemented a tighter performance review process that will provide targeted feedback to staff about where performance can be improved (Dr. S. Tarawneh, personal communication, Jan. 15, 2009). Performance feedback will not be able to be used to its fullest extent without some idea of the standards that nurses are expected to reach in relation to best practice care of specific case types, in this case pressure ulcer, and we turn next to consider the availability and use of best practice guidelines as an essential element of a safe culture.

The availability of best evidence guidelines
Well defined best evidence guidelines for prevention and management of PUs by clinical staff are essential to ensure high quality care is understood, available and delivered to the patients. I examined this sub-attribute and found very limited evidence of guidelines being available to guide clinicians in the delivery of best practice pressure ulcer care. This absence suggests that, not only do nurses not use evidence based practice, they may also not be aware of what that best evidence is. The standard of nursing care and nursing knowledge is therefore called into question. The clinical nurse speaking next indicates that she does know what best practice entails, but that she does not practice it in the unit because the necessary resources are not available:

> *We do not have specialised foot boots which are used for the patient heels; currently we use sterile gloves filled with water to decrease the PU complications...it is not correct, but this is what we have.*
> ICN1 18-4-06

The nurse's comment indicates that even when there are sufficient staff to undertake patient re-positioning and usage of specific evidence-based equipment to prevent PUs, staff are unaware that this strategy, while important, is not sufficient. However, even

though she knows that it is not sufficient, she cannot do anything about it because the resources are unavailable.

Other instances of nurses not knowing what best practice entailed came to the fore. For instance, nurses didn't know about pressure-relieving equipment such as air-flow mattresses. Best practice points to the need to place patients on surfaces such as air-flow mattresses where pressure can be managed. Currently, the hospital does not provide patients with air-flow mattresses. Such mattresses are only available if patients' relatives purchase them. Even if relatives purchase air-flow mattresses, there is no guarantee that nurses will know how to use them as the clinical nurse speaking in the next excerpt indicates:

> *I don't know how to operate it* (air mattress)... *the main things we can do for the patients are* (wound) *dressing and change position.*
>
> ICN3 20-4-06

This response suggests that nurses are practicing more 'traditional' and out-moded forms of prevention, because the resources for more up-to-date care are not available, both in terms of equipment and nursing knowledge. This circumstance is not surprising, given that registered nurses are not given best practice guidelines or educational opportunity to upgrade their knowledge. My field notes record that:

I could not identify any sources of best evidence for practice at the hospital that nurses could access. The hospital library does allow clinical staff to access journals, systematic reviews or guidelines for practice-based research, but the body of knowledge is out-of-date and there is no online access to such information.

I observed an instance where a practice guideline would have assisted a junior doctor to not admit a patient to hospital for blood transfusion that was unnecessary.
The specialist doctor (named) rebuked the more junior doctor by saying:

> *The patient has chronic blood loss and heavy menstruation-no need to do B12. It is a waste of money; we are now doing this at the Outpatients' Department, so no need for admission and transfusion*
>
> OCDrM3 15-5-06

In the absence of a guideline assisting the junior doctor, there is no way that he would know when to admit and when not, other than via

---

> specialist communication such as this. Such communication may be coincidental in that there may be other instances where admission was not warranted but occurred, and the senior doctor was not present to witness and prevent.
>
> A further field note recording describes nurses attending to wound dressings without the dressing trolley being equipped with the required resources, as determined by best evidence. The nurses did not use an aseptic technique. For example, the AIN (named) used a non-sterile dressing set with normal saline and 'Betadine' to clean the wound thereby breaching sterile conditions.
>
> OFMW 4-4-06

As the above data indicate, many examples were observed where the best evidence for nursing practice was not used. Patients' wound dressings are one example, undertaken with non-sterile equipment and 'Betadine', a product that has not been recommended for some years (Thomas et al., 2009; White, Cutting, & Kingsley, 2006). The type of wound dressing products and the frequency of redressing for PU vary, based on the patients' wound data including the depth, size, site and bacterial load. Dressing products need to be varied in accordance with patients' wound healing as the safest option of care.

In contrast, however, a guideline was used for the storage and administration of narcotic or 'dangerous' drugs. These medications, usually analgesics or sedatives, require a doctor's order and two nurses to check the administration to a patient. The narcotics box containing dangerous drugs is kept at the nursing station in the female ward. This indicates that there was a guideline for dangerous drugs but none for wound dressing because of the MOH focus on staff and community safety in terms of possible drug addictions. My field notes record that:

> The following set of instructions remains with the narcotic box
> and is the closest example to a guideline identified in AlBashir
> Hospital. The instructions, signed by the MD nursing manager,
> read as follows:
>> *Read the ampoule (name, dosage) before use.*
>> *Compare the empty ampoule with the prescription and the*
>> *registration book.*
>> *Check doctor's order in the patient's medical record.*
>> *Check the ampoule before drawing up the drug.*
>> *Administer the drug in front of the ward doctor.*
>> *The prescription should be signed by the prescribed doctor*
>> *and the nurse with date and time given. Document the*
>> *disposed amount.*
>> *Register the prescription in the Narcotic book.*
>> *No crossing out of any error on the book or prescription.*
>> *Use one pen colour.*
>> *Those who refuse to implement these previous instructions*
>> *will be legally punished..."*
>
> <div align="right">OFMW 28-3-06</div>
>
> This set of instructions guides the practice of staff and helps to
> ensure that a safe procedure is adhered to, for the benefit of
> patients and staff.

Using the current system, it will take some time for clinical nurses working at AlBashir Hospital to use evidence to inform practice decisions. However, the formulation and provision of guidelines based on best evidence by informed managers is one way to facilitate changes in staff acceptance and their adoption of best practice principles and practices. Guidelines will only be effective if kept up to date and readily accessible in clinical areas and I turn next to consider the availability of effective written communication between the disciplinary groups treating patients in common in the clinical workplace.

Effective written communication between the disciplinary groups

The literature outlines the importance of documenting data and clinical decisions about the level of patients' risk in patients' medical records and other written communication between the disciplinary groups. Clear and agreed communication practices are essential for the disciplinary groups to record their assessment and plan patient care appropriately.

Health professionals communicate patient care through the medical rounds, the patients' medical records and nursing handover. This communication is necessary not only or not just at the clinical level, but also between the clinical and organisational levels of the organisation. The importance of the proper channels of communication, and the bureaucratic formality between these levels of the organisation is described by the general hospital manager:

> *Written documentation comes through the proper channels including from the direct 'in-charge' then to me for ratification. If there is any note I do not approve, it will go back to the direct 'in-charge'...and when this process is finish then to the MOH.*
>
> IOrgDr6 2-9-06

Patients' history and progress during their hospital stay are recorded in an individual file commonly called the patient's medical record. Health professionals assemble and contribute to the medical record by updating information on the patient's situation. At AlBashir Hospital the medical record file contains a patient's admission details that are completed by the medical record office on a patient's admission. Physical examination, medical history, medical follow-up, doctors' orders for treatment and a discharge summary are written by the doctors. Pathology reports, consent forms and operating theatre surgical reports are also part of the medical record. In Jordan, nurses write separate progress notes from those of the doctors on the nursing care provided in the same medical record. The patient's medication chart is signed by RNs and ANs when medications are given and the AINs complete the vital signs observation charts. It was noted that when other allied health care professionals, such as the physiotherapist or nutritionist provided treatment, this encounter was not recorded. The medical records are updated by junior doctors on a daily basis during or immediately following the medical round. The medical records may contain only minimal information such as admission details.

If this level of documentation is not included or is incomplete, it affects the clinicians' ability to comprehensively plan the patient's care and affects hence their continuity of care. This continuing problem with documentation was alluded to by a clinical instructor:

> *Yes, it is right; I notice that we still have an issue with incomplete documentation. Not everybody is writing in the correct way...We suggest having*

a constant similar design particularly at admission, but even for the physicians their assessment is incomplete.

Documentation of patients' histories and treatments is essential in a quality system and there is scope for improvement at AlBashir. However, not only is nursing documentation incomplete, so too is medical documentation. This information, for each patient written by the doctors, enables nurses, in their delegated role, to carry out patient care, yet, as the quote above indicates, such documentation is often incomplete. My field notes confirm this situation. My field notes record that:

> After examining patient files over the period of this research I concluded that the documentation of data and clinical decisions about the level of patient risk in patients' medical records was not adequate. The medical records of patients with PUs did not have any documentation of assessment, management plan or interventions undertaken to manage or improve the situation. Occasionally a doctor's order was found with PU management such as *change position or change position every two hours.*
>
> In the nursing notes, nothing was written regarding nursing's response to this order. Very rarely a note about PU treatment was made, either in the nursing report book or cardex. No additional prompt chart for position change was at the patient's bedside (i.e. who did what, when or which side or position). Nothing was recorded in the patient's medical record nursing notes. I observed that whenever patients' positions were changed it was because the family had provided this care.
>
> OMMW 23-3-06

> I further observed the following in relation to one specific patient:
> *The patient's file since admission on the 9th February still had no history of admission. All sections have been left blank, the only diagnosis is F.D* (fall down), *left leg pain. Recent progress notes written six weeks later note that 'the patient is doing well; observe left thigh pressure, no melina, abdomen soft lax, no tenderness, no oedema'.*
> The medical records may contain only minimal information as is evident in this example of a doctor's follow-up notes:
> *The patient is doing well, c/o* (complain of) *left lower leg pain, black stool...*
>
> OMMW 21-3-06

> I further observed instances when essential information that would enable treatment to proceed was missing or incomplete. For example I observed a discussion between two RNs, one of whom

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was allocated medication administration tasks:

How much antibiotics for patient 2-4 should be given? The drug dose *has not been written in the file* (medical order).

The RN (named) double checked the patient's medical record of the incomplete order and eventually contacted a doctor who came and wrote up a complete order.

OMMW 21-3-06

I observed that nursing documentation was often missing or incomplete. For instance, nurses recorded only that the procedure had been undertaken. There were no reports on the management plan, the condition of the wound, healing rate or deterioration. A typical nursing note for a PU patient was:

'*dressing was done*'

without any further description of the wound.

OMMW 12-3-06

I further observed failure to document information in the shift report, an informal end of shift written report that details the patient care delivered during the shift and what has to be done by the next shift. It was noted that some of this information was inaccurate. For example the MD nursing director spoke to the ward nurses on two occasions about the incompleteness of the shift report:

> *...yesterday I checked the end of shift report book... I want to know who wrote for10 patients NPO (nil by mouth) for Endoscopy... This is amazing. Nobody was due to go for Endoscopy? Why were those patients kept NPO? It is unbelievable; next time everybody should take care and be responsible for what they write in the report and if you don't know what to write, don't do that...*
>
> OCNM2 16-3-06

In another meeting the MD nursing director said:
> *... I checked the documentation and admission reports on the report book and found no documentation since 16-2-2006 (6 days). I will review the assignment and then disciplinary action will be given to who was responsible...*
>
> OCNM1 22-2-06

I observed that no disciplinary action was taken. Given the requirements to repeat written information in three places, it may not be surprising that the MD nursing director found that the information was not being written into the end of shift report book.

In the documentation written by nursing staff on the morning, afternoon and night shifts no mention of PU assessment or management is made. The documentation combined with the observation of nurses' work functions provide substantial evidence that nurses are not assessing patients' risk of injury. Neither are they providing patients with care that would prevent injury or treat existing pressure wounds so that there is opportunity for healing. Patient medical records are incomplete in detail and patients' progress notes are not integrated.

Examination of the three sources of nurses' documentation of patients' care revealed that assessment of patients for risk of skin breakdown was never identified. The lack of written reporting clearly means that there is an absence of clinical decisions about patients' risk management being transmitted across shifts. Nurses are writing in the nursing notes in the patients' medical records, the cardex system and in the nursing end of shift report. The fact that nurses are expected to duplicate written patient information in three places is both dangerous and time wasting. Information in one source did not always match what was written or missing from other sources. Such discrepancies could result in error or unsafe clinical situations for patients. One source of written documentation on patient care, the progress notes in the medical record, is the place where information should be recorded. The end of shift report book and the cardex system need to be discontinued. As well as accurate written documentation, effective verbal communication is also critical between the disciplinary groups and patients, and I turn next to discuss this sub-attribute.

Effective verbal communication between the disciplinary groups and patients
The literature outlines the importance of an effective process of communication or teamwork for communication of the patients' status to ensure quality of health care. My findings revealed that doctors and nurses rarely had conversations about patients and their care. Doctors mainly spoke with other doctors about patients and nurses were rarely, if ever, part of these discussions. Opinions of staff that doctors and nurses at AlBashir Hospital communicate as members of an integrated care team were not consistent with how the literature describes health care team communication. This is confirmed by a clinical nurse who commented that:

> *The physicians and nurses are not communicating as a team. If my relation with Doctor X is not good I will not agree even to work with that doctor such as in*

doctors' rounds. The nurse will say I will not do this and that for this doctor. I can implement his order or not.

ICN2 19-4-06

This personal comment demonstrates the power that nurses have to sabotage decisions of doctors they do not like. It also demonstrates a lack of professional awareness in that the nurse's action or lack thereof stems from their personal opinion of the doctor rather than from the nurse's responsibility to the patients. A clinical instructor confirmed that communication problems are not only present between doctors and nurses but that allied health professionals also do not communicate effectively about patient care:

> *We are not cooperative because each one does what he/she wants to do, not for the patients' benefit. For example, the physiotherapist will come to the ward asking who is written in his/her file needing physiotherapy. When he assesses and treats the patient he will not come back to the nurse and discuss the outcome. This is also the same for the nutritionist ...so the work will not be effective 100%.*

ICCI5 26-4-06

This excerpt indicates that the care of multidisciplinary health care professionals is fragmented, emphasising that the staff are not working and communicating effectively across the disciplines. Doctors, nurses and other allied health members work and communicate as separate professional groups: there is little evidence of verbal communication about individual patient care or of collaborative discussions about patient care decision making generally. Thus the patient is the one who suffers when 'gaps' in the team occur. The doctors appear to be expecting nurses to know, for instance, the type of wound products and treatment likely to promote wound healing. However, this is currently an unrealistic expectation of the nurses who are not knowledgeable about best practice options. Even if they were, at this stage the resources are not available to them to find out. The doctors are not working with the nurses to support patient care as health care teams.

However, there are signs of cooperation between senior nurses to develop patient care standards. Cooperation between nurses from different hospital departments was identified in the work of the nursing standards committee. The nurses acknowledged cooperation in this committee confirmed by the clinical instructor who spoke above:

> *No way to work alone to decide the care needs of a patient. The cooperation between nurses and the people around them is good. Yes it is better to cooperate*

to determine the patient's needs. Yes, we (nurses) *are able to work with diversity, seek and provide support ideas and learning opportunities with team groups...in order to prevent any complication we should cooperate and provide support ideas.*

ICCI5 26-4-06

Most nurses who confirmed that they were happy working within teams were identifying teams with other nurses rather than interdisciplinary teams. A nurse at the clinical ward expressed this view when she said:

Working together with others as a team is better...Definitely the team will give a more positive outcome. The benefits will be to all members of the health team and to the patient.

ICN3 20-4-06

This situation is confirmed in field note data. My field notes record that:

> No verbal communication was observed between doctors and nurses about patients' risk conditions such as PUs. No discussion occurred about patients' management between doctors and nurses during or following the medical rounds. The only communication concerning patients' risk assessment and management observed during the research are written medical orders to change a patient's position.
>
> OMMW 12-3-06

> My field notes also record that:
> Medical rounds are conducted on a daily basis.
> *All doctors employed in the MD of the hospital, including specialists, seniors and juniors with the medical students, attend. Observation showed that the usual process was for the doctors to stop at each patient's bedside and review the patient's chart. Very rarely did I observe a patient being physically examined by a doctor during the round. Medical staff did not speak with patients or members of the patients' families during the round. During the round a specialist might decide to change a patient's medication or order additional diagnostic procedures.*
>
> The round was regarded by doctors as a means of teaching more junior doctors and medical students. However, I noted that more junior staff and students did not ask questions during the round. During one observational period in the male ward I noted that nothing was mentioned about the quality of patients' care or patients' safety throughout the medical round. No comments or treatment decisions were made about existing wounds for patients with PUs.
>
> OMMW 23-3-06

Other types of verbal communication between nurses at the clinical wards is the handover. The handover between nurses was described by a senior nurse at the clinical ward (named) follows:

> *The report* (nursing handover) *is done by the senior of the ward* (who is always assigned to supervise the daily work at the nursing station), *from shift A* (morning) *to shift B* (afternoon) *with all staff. First in the Nurses station* (review in the report book and cardex), *then tour to all patients in the ward...handover will be attended by all staff, seniors and the director of the department...*
>
> OMMW 13-3-06

I waited on different occasions to see how handover actually happens. What happens is different to what I have been told. My field notes record that:

> The handover started about 15 minutes later than scheduled. Although the handover between the nurses is conducted from the 'end of shift report' at the Nurses' station and a physical tour of all patients in the ward (walk around), not all staff attend the complete handover process. RN (named) and senior nurse for B (afternoon) shift are the only staff to attend the handover at the Nurses' station. Nothing is mentioned by any clinicians during the whole process about patients' with PUs care or the quality of care.
>
> OMMW 13-3-06

The handover between the nurses' shifts was not well organised and lacked sufficient details about patients' care. My field notes also record that:

> At 15:00 I got the chance to observe the handover between shifts A (morning) and B (afternoon). The RN (named) using the cardex and report book in quick review, spoke to four AINs (assistant in nursing) working on the B-shift. Then she said to them:
>
> *Everyone to handover his/her room to the B-shift.*
>
> Without her being present to check what was being said about each patient, the A shift AIN handed over to the B shift AIN. Only the patient's name was checked and no details were given of what had been done and what needed to be followed up. Nothing was mentioned about PU care even though there were patients with PUs on the ward.
>
> OFMW 4-4-06

However, there were examples of effective handovers between two nursing shifts. My field notes record that:

> The quality of the handover and walk around was dependent on the nurses involved. RNs (two RN and five AN named) were moved through and checked each patient's status, the intravenous fluids, vital signs and the equipment. These nurses also asked questions when they required information.
> *What is the FBS (fasting blood sugar) for patient (named)?*
> *Is this patient still febrile? Hypertensive?*
>
> OFMW 6-4-06

There was still no information about iatrogenic injuries even when nurses provided more detailed information about patients' condition and care. The nursing handover could easily (and should) include patient safety information. The nursing handover process needs upgrading so that all nurses documenting care are equally competent to transmit important patient information.

The communication processes between multidisciplinary clinicians at the clinical wards and during ward rounds indicates that nurses and doctors work alone, even though they treat patients in common. Further, even though doctors conduct a ward round together, junior and senior doctors do not communicate freely. The communication processes were fragmented, disciplinary-specific and hierarchical, with clear unwritten 'rules' about who speaks to whom, when and about what. These rules clearly denoted when communication should not occur. Hence, patients are not getting the standard of care they expect. The literature is replete with examples of the cause of many adverse events arising because of communication breakdowns between nursing and medical staff who share patient care (Weinstein, 2006). The unsatisfactory nature of verbal communication identified through this research at clinical levels between clinicians reflects the need for new processes to be developed and applied, suggesting the urgent need for mechanisms to be found to encourage nurses and doctors, juniors and seniors to talk to each other about patient care and clinical unit processes. I next turn to the sub-attribute of incidence monitoring system for PU.

An incidence monitoring system for PU

In any culture of safety and as the basis for safe practice, an incident monitoring system to report PUs or other serious patient injuries is essential. Reporting in summary charts is an important attribute in assessing and managing PU. It assists the health care providers to plan, manage and evaluate the quality of the care for such patients. Yet my findings show that there is no incident monitoring system in AlBashir Hospital to report PUs or other serious patient injuries. The absence of documented data about patients' injuries means that no summary results exist to evaluate how safe or dangerous the ward environment is for patients. This means that improvements cannot be identified and made. This absence and its apparent lack of importance was confirmed by a clinical instructor who said:

> *There is no clear and available reporting system for PU cases; it is still considered as an unimportant area of nursing management.*
>
> IOrgCI2 9-5-06

This comment by the clinical instructor indicates that nurses don't like to report any PU because of blame from the senior managers that occurred as a result of negligent nursing management. However, a different clinical instructor viewed this role as essential for nursing by commenting that:

> *Nursing has a role in reporting as one of their main responsibilities, which can be estimated as 80% and 20% to the physician.*
>
> ICCI4 23-4-06

The absence of clinical incident reporting is confirmed by my field notes. My field notes record that:

> *Documents examined at ward level showed that there is no recording of any incidents such as in-hospital PU, falls or medication errors that happen to patients during their hospitalisation. The absence of documented data about patients' injuries means that no summary results exist to evaluate how safe or dangerous the ward environment is for patients.*
>
> OMMW and OFMW, 23-03-06 to 25-08-06

This absence of aggregated, or summary data, means that the extent of patient harm occurring in the ward cannot be documented or managed. My field notes record that:

> *At this stage it is difficult to quantify the degree of patient harm. Many medical and nursing errors could be happening but there is no incident monitoring system to quantify the number of events or their consequences for patients. If incidences were measured clinicians could be informed of the number and types of clinical mistakes and this would promote accountability.*
>
> In an informal clinical meeting of nurses the following exchange occurred. An RN said:
>
> *It is very important to know for legal accountability...*
>
> A second RN commented that:
>
> *...this is mythical. Have you seen a nurse in a court for a medical error?*
>
> The entire group responded:
> *No...*
>
> <div align="right">OOrgNM3 22-8-06</div>

The findings indicate a need for patients' PUs to be monitored at ward level so that baseline data can be collected over a period of time. Ward data then needs to be accumulated at the organisational level through an incident monitoring system that needs to be developed at AlBashir Hospital. As risk assessment processes and improved management for PU is implemented, a data collection system is required that will enable results to be evaluated and informed decisions made.

To summarise findings relating to the process attribute, there is little evidence of the process support necessary to create an environment of quality and safety at the clinical level in AlBashir Hospital. These processes, including specified job descriptions for functions carried out by staff, conducting annual performance review, the availability of best evidence guidelines for staff, an effective written and verbal communication system between disciplinary groups and an incidence monitoring system for PU are all yet to be established in AlBashir. Culture, structure and process attributes, while necessary, are not sufficient in a best practice model of care. How human resources are managed is a further important attribute to ensure quality and safety in health care and it is to this attribute that I next turn.

Human resources

For best practice care, the literature stresses the importance of human resources management to support patient safety. The human resources alluded to in the literature include adequate staffing numbers at the ward level. Data on the clinical staff provided inconsistent information. Clinical staff consistently identified staffing shortage. Therefore, considerable time was spent reviewing the perspectives of managers and staff to identify the actual situation. Nurses claim that they have insufficient time to provide pressure area care to the patients which indicates there may be an inappropriate nurse patient ratio in the two wards. In discussing this issue of staff shortages, a clinical instructor commented that:

> *Currently, we have staff or human resources shortages, yes, we have staff shortages. We can't distribute the staff number on the present patients...two RN and two assistant nurses per shift; these two practice nurses have to do bedding, vital sign observations, changing urine bags, change patient positions and so on. Can you imagine two practice nurses to look after 40 patients... it is not fair for the nurses and the patients...with the types of patients we have ...*
> ICCI5 26-4-06

Insufficient staff relative to patient load and acuity will result in a lower quality of care. When the organisational chart for nursing for the two wards is examined, the evidence indicates a varied nurse to patient ratio dependent on the time of the shift. The morning shift has 15 nurses (five RNs and 10 ANs or AINs) for 43 or 44 patients, whereas the afternoon and night shifts have five nurses (two RNs and three ANs or AINs) per shift. The numbers of nurses to patients for the morning shifts would be 1:3 ratio and 1:8 for the afternoon and night shifts. The estimated number of nurses is not based on patient acuity or patient load and it does not vary on a day to day basis.

One of the problems identified for nurse staffing at AlBashir Hospital was the constant movement of staff. The hospital had the responsibility of preparing nurses to work at the new Hamza Hospital. During the training period prior to the new hospital opening, AlBashir Hospital wards had 'extra' staff. But this situation changed when the nurses moved to Hamza Hospital. This was confirmed by a different clinical instructor who commented that:

> *we can't say we do not have staff shortages, currently we have extra nurses....but always we have nursing shortage, which can be considered*

continuous... currently these extra nurses will mowe to Hamza hospital then shortage will be present again. So, first problem is 'shortage of nurses', we assign many patients to one nurse, no time to give the proper care.

<div align="right">ICCI4 23-4-06</div>

The registered nurse who spoke earlier said of the nursing shortage that:

Now, we (MD wards) *have adequate numbers of nurses but these nurses will transfer soon to Hamza Hospital... so... then, only four nurses will work on the nurses' station to look after 43 patients at the male medical ward (1:10).*

<div align="right">ICN2 19-4-06</div>

While the nurse managers identified the situation of preparing nurses for another hospital, when they leave, there is no way of replacing them to the full complement of nurses needed at AlBashir Hospital. They did not indicate that this was not appropriate or that another way should be found to assist them to have a more stable staffing profile. There appeared to be a tacit acceptance of the situation by nurse managers. There was no indication that nurses could change the way patient care was organised to a different model or way of working as discussed earlier under the 'culture' attribute. This was the case even though nurses working in a task allocation model of care complained of work overload. A registered nurse commented on this overload this way:

So I neglect to change the position of the patients who need that because with this overload 'I cannot scratch my head'. Care is according to the resources I have got.

<div align="right">ICN2 19-4-06</div>

Some nurses recognised that a different model of care would result in the provision of improved services. However, this recognition did not result in any changes to the way care was provided. As the registered nurse goes on to say:

...CVA patents with PU need two nurses, at male ward we have 44 patients, you can't do everything ideally ... it is very difficult.

<div align="right">ICN2 19-4-06</div>

In contrast to the argument about nurse shortages, one of the CIs indicated that the issue was more about the knowledge and skills of nurses than the number of clinical nurses the wards had. That is, he believed that there were sufficient nurses, but that the newer staff lacked the necessary skills and experience:

<div align="right">150</div>

Our issue is with quality ...they (new nurses) have a Bachelor degree... we have quantity not quality (new nurses without skills or experience), so you have to start with them from 'zero'...

IOrgCI2 9-5-06

To summarise this section, it appears from my findings that nurses working at AlBashir Hospital have insufficient knowledge and skills about what constitutes a culture of safety and quality or of how to develop one. Even if there are sufficient numbers of nurses particularly on the day shift, these nurses are unaware of processes that would enable them to keep patients safe. Consequently, without better guidance they cannot apply a best evidence approach to patient care. Further, I determined that the clinical instructors were not working as on-the-job educators or to improve clinical systems, even though they were able to articulate clearly what many of the problems were that nurses were facing and that patients experienced. I observed no 'in-service' or educational sessions at ward level for staff to learn new practice evidence, to discuss performance, or to begin to recommend what changes were needed to improve the quality of patient care and nursing working conditions, or how changes might come about.

In turning to allied health professionals, it appears that the situation with staffing parallels that of nursing. Allied health professionals are in short supply. As an example of nutritionist staffing the registered nurse who spoke earlier commented that:

The patient nutrition criteria are absent here (AlBashir Hospital), *because the nutritionists don't have any role in the health team. For example, sometimes I write to them (nutritionists) for some patients' high calorie diet but the meal will be served as an ordinary meal...*

ICN1 18-4-06

Further, patients requiring physiotherapy on a daily basis were not provided with this service as a registered nurse confirmed:

The physiotherapists are coming to look after the rehabilitation of the CVA cases only..., but only for the hands and legs rehabilitation to the CVA patients
ICN1 18-4-06

Field notes confirm this situation with regard to allied health staffing. My field notes record that:

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> In terms of nutritionists and physiotherapists working in the MD, the nutritionist is not employed by the MOH but works through a private company. The MD nurse manager was not consulted about the role functions of the nutritionist nor was there any position description available that would assist nurses to understand how they could work cooperatively with the allied health professionals.
>
> A physiotherapist is assigned to follow up the patients in the MD wards, however, he is not always available to patients and because of his workload, he is only able to spend a few minutes with each patient. The work of the physiotherapist did not appear to be well planned or coordinated in the ward.
>
> OMMW 12-3-06

My field notes show that this situation was similar for administrative personnel. My field notes record that:

> In addition to the shortage of allied health professionals employed at the hospital, there were no reception or ward clerks available in either the male and female wards. Consequently, many of the administrative non-nursing activities such as visitors' inquiries about doctors are provided by nurses.
>
> OFMW 27-3-06

> As a further example of nurses performing administrative duties, I observed that if a staff member or patients' family are looking for a patient's location in the ward, they will ask first at the nurses' station at the admission room (first room on that level). If staff there do not know, the person will next be sent to the nurses' station or to check the patient listing of names. Such activities, all unnecessary disruptions to clinicians and the work they should be undertaking with patients, could readily be performed by a competent receptionist or ward clerk.
>
> OMMW 22-3-06

In summary, the main issues identified from the findings regarding nurse staffing is that a different model of providing care to patients rather than the task assignment model currently in use, is urgently required. It is possible that a team model would be a more appropriate way to organise nursing care at this point in time. Also a team model would enable RNs to supervise the work of the AINs and ANs which is necessary if the standard of care they provide is to move towards improved quality and patient safety. As suggested by the CIs, nurses require practice guidelines and some educational sessions to help them implement a safer and better level of patient care. In addition, nurse managers should accept a very limited number of new nurses to train for other locations, in order to reduce the transient nature of the total work force. Further to

staffing, clinicians need equipment and resources to deliver appropriate care and I turn next to discuss 'physical resources' as an essential attribute of a safe culture.

Physical resources

For best practice care, the literature stresses the importance of the provision of appropriate and adequate physical resources at ward level to support patient safety. The application of patient safety philosophy requires the provision of appropriate and adequate resources. The ward level data indicate that some resources were not available to clinicians. Specific permanently-required equipment was not available on the wards. Some available items were in poor working order and considered by clinicians to be unreliable. However, data also showed that some items, particularly renewable items, were used inappropriately by clinicians. Two sub-attributes are included within this attribute, namely: adequate physical resources are available and well maintained to ensure patient safety; and adequate renewable resources are available and appropriately used to ensure patient safety, and I turn next to discuss each of these sub-attributes in turn.

Physical resources are well maintained

The literature outlines the importance of the availability of well-maintained resources (equipment) to assist staff when preventing and treating patients with PU to ensure quality of care and patient safety culture. The organisation has a general shortage of equipment at the ward level. Excerpts extracted from interviews with the clinical staff at both medical wards support this finding. Firstly, the clinical staff outlined the type of equipment they do or do not have to ensure patients' safety. As a registered nurse comments:

> *We (medical department) do not have any resources that are required in PU management such as the specialised mattresses. We have only dressings, even the pillow is provided by the patient's family. No mechanical lifter or sliding sheets for repositioning of the PU patients to decrease the friction... they* (managers) *said this costs too much, who will pay or supply?*
>
> ICN1 18-4-06

This was confirmed by other clinical staff and a further example of unavailable equipment to be used for PU came from a registered nurse who spoke earlier who said that:

> *We don't have equipment to use for PU patients. No mechanical lifter or sliding sheets. The cleaners, porters and the family in addition to the nursing staff assist us in patient lifting from bed, trolley, or place to place. We have a pillow 'shortage' with the patients using their own pillows from home. Even with the bed sheets if we want to do bed making every day it is not enough; if we change a patient's bed once it will be great... yes there are cases that need more linen but we change them at the sacrifice of other patients. We can tell this patient your bed sheet is clean and then no need to change.*
>
> ICN2 19-4-06

Further instances of equipment shortages are given by a registered nurse who spoke earlier that:

> *Air mattresses are very useful but not available...There are some with a number of patients, that are bought from outside... it is supposed to be available which can help with changing position, but no gel, alcohol, drying equipment for massaging, dressing equipment, and even if you want to do bathing to the patient, no proper bathing room... we have one bath room used by all patients - 44 patients - at the ward. So if these basic resources are not available... what more can I say?*
>
> ICN3 20-4-06

Bedside rails are another example of the unavailable equipment needed for patient safety, as the MD nursing director indicates:

> *...Yes, unavailability of the bedside rails will make a health issue; we even have a shortage of the proper chairs for patients to sit down on. We have plastic fragile unsafe chairs not suitable for patients' use particularly for obese patients who will fall if they use these chairs, in addition to the beds and so on...*
>
> IOrgN1 8-5-06

Yet another example of shortage of equipment for these patients who are immobile and bedridden and who are at risk of falls, is the need for side rails, as the nurse speaking earlier indicates:

> *These bedrails are not available to most beds..., not all beds, according to the patient' case, because I think we have got 10 side rails for both wards...Yes, we used it for some unconscious and disoriented cases also not best practice.*
>
> ICN2 19-4-06

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Further, clinicians listed other basic equipment in short supply, a clinical instructor commented:

> *Resources such as equipment are not available 100%. For example, we don't have good autoclave so how will I do good wound dressing? No proper beds moving up and down for patient positioning and even the available beds are very bad, and no air mattresses for prevention measures.*
>
> ICCI5 26-4-06

This circumstance was confirmed by observation. My field notes record that:

Weighing scales are not available at the clinical wards. This issue was raised in a quality doctors' meeting, where a specialist said to a resident doctor:

> *Doctor (named), you write in the patient's medical record, I did not weigh the patient because there is no body weight scale.*
>
> OOrgDrM1 25-7-06

My field notes also record that:

There was no lifting machine to use for heavy or unconscious patients. Ward staff call many people to give a hand in lifting, even in turning the patient's position which is always done by the patient's family, with no sliding sheets available. The daughter of a patient once asked the nurse (named) to give her a hand in turning the patient (named) to change her pad and position after the dressing because the daughter said:

I have a prolapsed disc and I can't do that alone.

OFMW 26-3-06

My field notes also record that:

Another kind of equipment shortage that has impact on patient safety in terms of the infection control is given. For 44 patients the female ward has six oral thermometers, one stethoscope and one sphygmomanometer used by all staff (doctors, nurses, students and others).

OFMW 27-3-06

In the male ward five oral thermometers are available for all patients. The dirty bed linen is kept in a broken 'hamper' without cover in the staff room.

OMMW 12-3-06

There are further shortages in pathology equipment:

An example is a discussion between a specialist's doctor (named) and an RN (named) about the unavailability of PT, PTT tubes. They told the patient to do the test outside of the hospital (in a private

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> laboratory). The nurse confirmed to the doctor that:
>
> *Administration knew that no tubes are available, so the patient has to go to a private laboratory to do that test.*
>
> OMMW 13-3-06

The above findings indicate that there is a general shortage of equipment at ward level and that this situation is well known by hospital administration. The above examples of equipment shortages are needed to be addressed by the managers at the organisation and MOH level to provide the required quality and safety health care to patients. I turn next to discuss a related sub-attribute of renewable resources.

Adequate renewable resources appropriately used

The literature outlines the importance of availability of physical resources such as wound dressing products. Where a PU has occurred, there are a number of interventions that can be used to manage the wound and provide proper ulcer care. Wound dressing types are very important to wound management, particularly for patients with PU. Clinical procedures such as wound dressing to PU patients are attended by the nurses. The wound dressing is done with available resources, but dressing trolleys were not available to use for patients and the staff use the patient's portable dining table with opened containers or dressing equipment. In relation to managing dressings, a clinical nurse commented that:

> *...I want to say that the main thing the nursing are doing to 'such' (PU) patients are dressing, and change positioning, but still we suffer from shortages of dressing equipments...*
>
> ICN2 19-4-06

Yet another registered nurse commented that:

> *The simple basic equipment to use for PU patients are not available. Our wound dressing is done 'socially' because what we are doing currently 'is not dressing' - no 'esou-derm', which can be used and left on the wound until healing occurs. Yes not available.*
>
> ICN3 20-4-06

In addition to equipment shortages as identified above, a further issue is the inappropriate use of those resources that are available in both clinical wards. This situation is well known by the general hospital manager who comments that:

It is true. Currently we have interest in everything ...I think these things (resources misuse) also can be managed. When I met the head of the departments I said we have basic resources but need effective use of these by staff at our hospital.

OrgIDr6 2-9-06

What is not clear is whether staff are complying with this directive and how it is being monitored. Staff in the wards, in this case a clinical instructor, echo the general manager's comment with their own comments that:

The available basic resources such as gloves and gowns are misused (not used for the patients for the right purposes. For instance, these resources used for cleaning by cleaners)...

ICCI5 26-4-06

Further, my observations confirm this equipment misuse. My field notes record that:

> The misused of resources such as ward stock during the weekend are of concern by the in-charge. The RN (named) who assigned stock for the department was replacing the items in stock that had been used during the weekend (Friday and Saturday in Jordan). She said:
>
> *It is unbelievable. They used 500 sterile gloves and 500 disposable gloves, two gallon of alcohol. It is too much. We should keep less quantity for them to use for the next time. ..I know that they used alcohol to wash their hands not for the patients and the gloves are used by the cleaners to clean the wards.*
>
> OFMW 26-3-06

My observations of equipment misuse continue.

> The following inappropriate use of resources was observed in both clinical wards. For example, my field notes record:
>
> *...A family member came to the nurses' station to fill a bottle of water from the sink. She asked the nurse to give her some 'sterile' gauze to clean her mother's peri-anal area after she opened her bowels. I further record that "...the nurses are using sterile Foley catheters as a tourniquet for blood samples, and doctors and nurses are using the gauze to dry their hands after hand washing particularly after the round, examining patients or doing any procedure.*
>
> OFMW 27, 29-3-06

Yet another observation confirms this equipment misuse. My field notes record that:

> AN (named) opened a 'sterile surgical silk suture pack' to play with the thread and the needle while he was sitting on the top of the nurses' station desk...
> The hospital is using ambulances to transport the patients from the ward to the X-ray department.
>
> OMMW 15, 22-3-06

The above examples of inappropriate usage of the current resources suggest that resource use should be reviewed and methods to resolve this issue need to be discussed at the line management level. In addition to resource misuse is the issue of the maintenance of physical resources that is not being done in a timely way, if at all. This issue was raised by a clinical instructor who commented that:

> *Our problem is in delay in reply to any issue such as delay in maintenance process with many requests and more than one contact channel to repair anything.*
>
> ICCI4 23-4-06

My observations confirm this situation of delay in resource maintenance. My field notes record that:

> Doctor (named) complained about the quality of resources in one meeting. He said:
>
> *If I don't have a good quality "sphygmomanometer", where is the quality and accreditation? If you ask for an 'ECG' or 'chest X-ray' you have to wait for five hours.*
>
> OOrgDrM1 25-7-06

I observed that other staff also complained of this situation with regard to equipment maintenance.

> The MD nursing director and the clinicians at both wards complained to me in a number of situations about the maintenance issue in medical equipment such as repairing a sphygmomanometer, bed, autoclave, equipment, trolleys and wheelchairs. Another complains about the non-medical equipment maintenance such as the department lift and patients' room windows.
>
> OMMW 12-3-06; OFMW 27-3-06

Yet more examples of equipment malfunctioning were observed.

> Performing a CPR (cardio pulmonary resuscitation) was observed in the female ward. The nurses used the portable suction because the

> suction bottles and connectors in most rooms are out of order. The nurses noted that the nursing department director has asked many times officially but new ones have not yet been bought.
>
> OFMW 29-3-06

The above issue also needs to be assessed and managed carefully by the organisation managers to ensure quality and patient safety. In summary, there is a general shortage of equipment at ward level, equipment maintenance is not regularly attended to and many instances of inappropriate resource use have been recorded. This suggests that the provision of appropriate and adequate physical resources needs to be reviewed. The next section synthesises the key aspects in the patient safety attributes and availability at the clinical level discussed above for a comprehensive review.

Presence of key attributes of best practice care at the clinical level in the case study site

The Table 4.8 below presents the best practice model attributes and availability in the case study site at the clinical level. This table is divided into five main categories according to the attributes namely: culture, structures, processes, human resources and physical resources with their sub-attributes in order to compare them to the case study site in Jordan.

Table 4.8: The presence or absence of best practice model attributes and availability in
AlBashir Hospital at the clinical level

Best practice attributes	Present/ absence/ issue	Comments
Clinical culture:		
Safety for patients and staff	✓?	Little awareness among the clinical staff.
Staff knowledge about risk assessment	×	No documented risk assessment using a valid risk assessment scale available.
Staff knowledge and skill in undertaking best practice risk management interventions	×	Clinical staff have neither the knowledge nor skills to conduct clinical interventions in a safe manner.
A model of safe patient care	×	Nurses were not applying 'best evidence' to organise effective and efficient patient care to prevent PU.
Structures:		
Quality of care and patient safety meetings	×	No evidence was found during the study period of routine meetings taking place in the two wards that discussed quality of care or risk management.
Specialist nursing positions	✓	Clinical instructor positions present.
Processes:		
Specified clinicians' job descriptions	✓?	General job descriptions present.
Performance review and feedback	✓?	General annual performance reviews for clinicians present without specific criteria used.
The availability of best evidence guidelines	✓?	Very limited evidence of guidelines being available to guide clinicians in the delivery of best practice pressure ulcer care.
Effective written communication between the disciplinary groups	✓?	Patient medical records **incomplete** Duplicate written patient information
Effective verbal communication between the disciplinary groups and patients	✓?	Communication processes fragmented, disciplinary-specific and hierarchical.
An incidence monitoring system for PU	×	Absence of aggregated or summary data to monitor the PU incidence.
Human resources:		
Adequate staffing numbers	✓?	Task assignment model.
Physical resources:		
Physical resources are well maintained	✓?	Specific permanently-required equipment not available on the wards. Some available items in poor working order and considered by clinicians to be unreliable.
Adequate renewable resources appropriately used	✓?	Renewable items used inappropriately by clinicians.

Legend: ✓✓ = fully developed, ✓ = present in a limited degree only, × = absent,
✓? = present but there is an issue

Conclusion

The first part of this chapter has presented the findings of the study at clinical wards. The findings showed that the numbers of PUs indicate less than optimal management of patient safety. A safer culture for patients and staff has yet to be established. No documented risk assessment using a valid risk assessment scale was observed. Structural changes to support the development of a patient safety culture have been implemented but are overlaid on an existing hierarchal structure. No evidence of structural support of quality and patient safety is evident. Further, there is no policy or protocol document regarding PU assessment or management. Neither is there a description of risk management systems in the position descriptions of senior management either for nursing or medicine. .

Processes are inadequate to achieve desired change effectively and efficiently. Clinicians were observed not to practise in accordance with a culture of patient safety. Nurses did not assess patients' skin for PUs. The nurses implement the doctor's order for care such as a wound dressing or change of position. Change of position is frequently neglected and attended to by the patient's family. No documentation of care is contained in the patient's notes. There is no reporting mechanism of PUs from ward level to upper levels of management at department, hospital or MOH levels. Further, no meetings at the hospital appear to occur with terms of reference concerned with the quality of care provided to patients or with risk management.

The adequacy of staffing of AlBashir Hospital is contentions. Inadequacies in the human resources management regarding application of a patient safety culture have been observed and reported. Inadequate physical resources are available to maintain a high standard patient care and where available they are misused. While this section has recorded shortcomings at the clinical level, it is often at the organisational level that changes need to be made, and it is to this level that I next turn.

Organisational environment

Health service organisations must support clinicians if they are to achieve best practice standards as the literature describes. Included here is the need to develop systems to manage clinical processes through which desired outcomes can be produced. This section presents findings of qualitative research relating to the organisation of care obtained from an analysis of interviews and field notes. This analysis attempts to answer the research question: *What are the existing attributes of the quality and safety framework in an acute care, public hospital in Jordan?* I present my analysis of the organisation of care, in the same format as that used for the preceding section, the clinical environment. As with the clinical environment, I will consider attributes of patient safety extracted from the literature, and apply them to acute care in a public Jordanian hospital. As with the previous section, these attributes will be considered under the headings of culture, structure, process, human resources and physical resources. Sub-attributes are considered where these have been identified. I discuss each of the attributes in turn.

Organisational culture

Best practice needs to be underpinned by a safe organisation culture. Ideally, the organisation must provide a backdrop against which the attributes of a hospital attempting to implement a safety culture can be implemented. In the case of Jordan, the United States Agency for International Development (USAID) continues to work with The Jordanian MOH to develop a quality and safety culture in Jordanian hospitals. USAID also continues to fund the Partnerships in Health Reform projects (Brosk et al., 2000). This work incorporates the introduction of a national accreditation project for Jordanian hospitals that is driving the implementation. The first hospital accreditation inspections were conducted in 2005, and since this time public hospitals in Jordan have worked to improve the quality of health care for patients in their organisations. When interviewed about the progress of implementation, the quality manager at the Jordanian MOH indicated that a quality and safety culture had been successfully introduced in primary health care centres in Jordan. However, establishing a quality and safety culture in large organisations such as the public hospitals was proving to be a more difficult situation, as the quality manager at the Jordanian MOH indicates:

We are striving to build 'a suitable culture' at hospitals. The problem is with the physicians, staff shortages, turnover, quality committee, and other administrative issues. However, the most important thing I reckon is developing a 'culture' of quality awareness...Hence, we need now to transfer this type of work (i.e. that in the primary health care centres) *to the hospitals.*

IPDr1 7-8-06

Evident here is the multidimensional nature of a suitable culture that will need attention to a range of issues simultaneously. The quality manager clearly identifies these issues, which range across the organisation. Even though a safer culture for patients and staff has not yet been implemented in the Hospital, the concept is familiar and its achievement is being cultivated at the hospital. The extent to which awareness of the concept is recognised and embedded in the organisation was described by the MD manager:

If you mean 'safe' as in 100% 'safe' it is very difficult to answer.

IOrgDr4 23-7-06

The MD manager's difficulty in answering this question or providing examples of this awareness is further evidence that hospital managers struggle to foster a new culture that focuses on quality and safety. This view is reinforced by the response of the hospital nursing manger when asked if the hospital provides a safe and healthy environment for patients and staff who says:

In general no. I can say 70 %, and we are working hard to raise this percentage.

IOrgN3 16-5-06

When asked where this estimation came from the manager responds with examples of impediments to achieving a safe culture:

For example, physician errors at the operating theatre, infections, drug administration errors, blood transfusion errors, falls and others procedures can be classified under quality and safety issues.

IOrgN3 16-5-06

She identifies a range of adverse events that must be addressed if a safe culture is to be achieved, although doing so will be hampered by the absence of data on critical incidents.

The failure of the organisation to attend to basic safety measures to create a safe environment is noted by the MD nursing director:

> *No, it's not a safe environment. The windows are without safety or falls protectors which can lead to patient danger. Maybe the patient is conscious and walks normally but not safe...Recently, a psychiatric patient threw himself from the window.*
>
> IOrgN1 8-5-06

According to the literature, and for the purposes of this thesis, culture can be categorised into two sub-attributes that include: firstly, leadership and governance and, secondly, manager autonomy which I discuss next.

Leaderships and governance

The literature outlines the importance of leaders or managers having a vision and philosophy of safe patient care by engaging all staff in planning healthcare and evaluating the outcomes. However, while managers express commitment there are problems implementing a patient safety culture. AlBashir Hospital commenced implementing a quality and safety culture in 2001. In 2006 the general manager acknowledged that a quality and safety culture was central to the accreditation processes:

> *Currently, we are at the first step, we are trying to develop a patient safety culture as a requirement for accreditation.*
>
> IOrgDr6 2-9-06

Turning this vision into a reality is difficult. There is some distance to go before all members of the organisation understand the changes required. In the manager's view, disciplinary silos are part of the problem:

> *We concentrate on that* (safe culture) *and to be honest with you, I can say 'each and everyone is working separately'; the nurses, doctors, administrators are working separately.*
>
> IOrgDr6 2-9-06

The vision may be clear, however, its implementation is not, and the motivation of the staff to take practical steps to change attitudes and practices is not yet present. What is missing is the means to turn vision in to action. The manager suggests that to do so:

> *We need to develop the spirit... the staff need to develop the work by using the 'spirit of teamwork'. This should be done in cooperation of all 'in-charges': the*

administrator, doctor and the manager in order to provide the best and ultimate services at the hospital...yes, ...they should use it as a common language. That is what we want, the spirit is available but we don't have the mechanisms to implement work processes.

<div align="right">IOrgDr6 2-9-06</div>

The general hospital manager is unsure of the processes to effect the changes that are being called for by international collaborators. He expects his vision for patient quality and safety to be taken up by staff and he recognises what he aspires to achieve. He appreciates that he has the good will of managers within the organisation to engage in the change process.

While there is a willingness of the health care professionals to change and improve the quality of health care, the practicalities of how to achieve the extensive change required have not been realized. The accuracy of the general manager's assessment that the spirit is present but the knowledge is lacking is echoed by the Hospital's nursing manager when discussing her attitude to and understanding of reform: She talks about a daily checklist of staff uniform and their punctuality, ward environment in terms of rooms cleaning, and ventilation, availability of resources such as curtains, beds and infection control measures such as hand washing and sharp containers. The hospital nursing manager said:

> *You know this checklist supports the quality programs* (Appendix 4.1 example of daily quality checklist for hospital wards). *At the end of their tour* (Accreditation committee) *they will send me their notes or comments. If these comments need administrative follow up or are related to the cleaning and maintenance company I will write a formal letter to the department manager and to the general hospital manager to review the comments and correct all the negative points.*

<div align="right">IOrgN3 16-5-06</div>

Here reform is a transaction. It does not extend to understanding that reform entails transformation of attitudes about how health care should ideally be delivered and the practices to accompany it. With respect to the accreditation process her comments indicate limitations in her understanding of what is needed in system culture change.

My observation in an organisational meeting supports the above comments. My field notes record that:

> The hospital nursing manager gave me a chance to speak during a meeting of the 'in-charges'. I asked her about the quality and safety culture. She was unable to articulate the philosophical shift needed. She expressed a more pragmatic position and provided copies of new patient assessment forms designed by the nursing managers for nurses to apply across the hospital:
>
> *We have 'work overload' thus our policies should be designed and evaluated correctly at the patient and staff performance level. Thus if our policies are not good, our performance will decrease and the quality also.*
> OOrgNM2 2-8-06

While the hospital nurse manager is right about the need for good policies, she doesn't speak at all about the types of processes required to effect change. This means her words indicate to the 'in-charge' nurses in the organisation that she is not clear about what she needs to do and what processes need to be implemented to change the culture. Clearly, a cultural vision is verbalised by managers but it is in the very early stage of adoption. To do so will require managerial autonomy to affect needed change to actively manage the organisation.

Manager autonomy

To run the organisation safely, managers need to have autonomy to implement the new structures and processes. The literature outlines the importance of managers understanding what processes need to be employed to implement a safety culture. My analysis highlights examples of unsafe care, however, even though managers recognise and accept the need for a different way to work, they are unsure of what processes to employ. Staff are likewise unsure of how to effect change and wait to be directed by managers who themselves are without autonomy to direct change activities.

Not all managers take responsibility to make the required changes to run the organisation safely. The MD nursing director identified the reason for poor quality care as the unsafe environment not attended by hospital management:

> *The current issue is when you ask the organisation management to fix any department health issue, the only excuse for not to supply what you need is that they are waiting to move to the (new) building. Our problem is that we are in a critical period (transient period) to a new building for the medical department,*

IOrgN1 8-5-06

The hospital hierarchy expects clinical staff to respond to directives from managers without supervision or additional education. The managers do not indicate by their words that they appreciate the processes needed at organisational level to enable clinical staff to change their practices. The expectation is that if staff are told to change they will do so without problems.

The staff provided reasons for their perceptions that the culture was unsafe, principally as a consequence of insufficient staff for the numbers of patients being treated in the general (open) wards. Each nurse working in the ward is allocated tasks, and if these are not completed the lower standard of care in the ward reflects on all the staff working there. Managers have told the ward nurses that the ICU nurses who work on a one to one patient ratio provide effective nursing care, but that ward nurses do not have such a good standard. The ward nurses say that the work standard and culture of quality and safety depends on all the ward nurses working together at the same high standard. If one nurse has a lower standard, all the other nurses in the ward are similarly classified by management, according to the nurse speaking next:

Yes, this is an open ward and every one working here is depending upon each other to follow the patient care needed.

ICN3 20-4-06

My field notes support this view.

Observation at the study site showed that there was a lack of understanding of how to achieve a quality and safety culture. The hospital nursing manager in a meeting with the 'in-charge' nurses focused on the nursing care goal and said:
We need to improve the current level otherwise there will be a punishment goal. But our exact goal is to improve, guide and motivate the service or the patient care.

OOrgNM2 2-8-06

Her response is to threaten punishment if improvement

> does not occur. This response is not consistent with a patient safety culture in developed countries, where personal and professional accountability is expected from nurses.

In conclusion, a safer culture for patients and staff is being cultivated at the hospital. A cultural vision is verbalised by managers but it is in the very early stage of adoption. Managers also express commitment but there are problems implementing a patient safety culture. The next section discusses the structural changes that have been implemented to date in support of a quality and patient safety culture as a major attribute of best practice in managing PUs.

Structure

For best practice care, the literature stresses the importance of formal organisational structures for quality and patient safety. The structures alluded to in the literature include provision of an organisational structure that supports a culture of patient and staff safety across the organisation. The specific organisational structure would ideally concern clinical governance and subcommittee structures in the organisation based on evidence for best practice. Two sub-attributes are included within this attribute, namely: first, the specific structures to implement a quality and patient safety system, and, second, structural changes to support the development of a patient safety culture which includes a quality unit, nursing development unit, quality committee and nursing committee as a condition of accreditation to which I next turn. I first present an analysis of the organisational structure of AlBashir Hospital to enable an appreciation of the complexity of the hospital before turning to an analysis of respondent comments.

Specific structures to implement a quality and patient safety system

The literature outlines the importance of the presence of an effective organisation structure to manage the care. The structure to be included in the best practice attributes has less levels, i.e. a flatter structure to implement quality management and ensure patient safety effectively. AlBashir Hospital is the largest (928 beds) acute care and principal referral teaching hospital in Jordan. However, the infrastructure of the hospital buildings is very old, as the hospital opened in 1954. Each department has a separate building and these are geographically isolated resulting in fragmented services.

The excerpt following from the general hospital manager indicates the size and complexity of the workload at AlBashir Hospital:

> *AlBashir Hospital is the largest hospital in Jordan and in the entire region in terms of the area and beds available. AlBashir Hospital covers 153 Dunum (1 Dunum = 919 square meters), 928 beds initially and with the extra building currently there are more than 1000 beds. There are 650 patient visits daily to the Outpatients Department, 1,000 daily consultations in the Accident and Emergency Department, and 6,000 patients' visits to the hospital for laboratory tests, x-rays, scans and a range of procedures each day. We have a huge number of surgeries with a complete (range of) specialities.*
>
> IOrgDr6 2-9-06

In addition to the large number of inpatient beds, the hospital also provides a range of outpatient, diagnostic and emergency services to a very large number of people daily. A brief overview of the services indicates the importance of this hospital in the Jordanian health care system.

The hospital has specialised laboratories, a nuclear medicine department, radiology department, and specialised teams in surgical, ear, nose and throat, gynaecology and obstetrics, paediatric, dermatology and orthopaedic as well as a pharmacy department. Most of the specialist facilities and clinical support services, including diagnostic group services such as haematology, radiology and pathology, are available. These specialist units are shown in the hospital's organisational chart at Figure 4.1. that was developed by the quality unit manager. This chart has a long professional line that has been organised according to managers' accountabilities. It does not identify the ward structures.

Figure 4.1: Organisational structure at AlBashir Hospital

Organisational chart at AlBashir Hospital
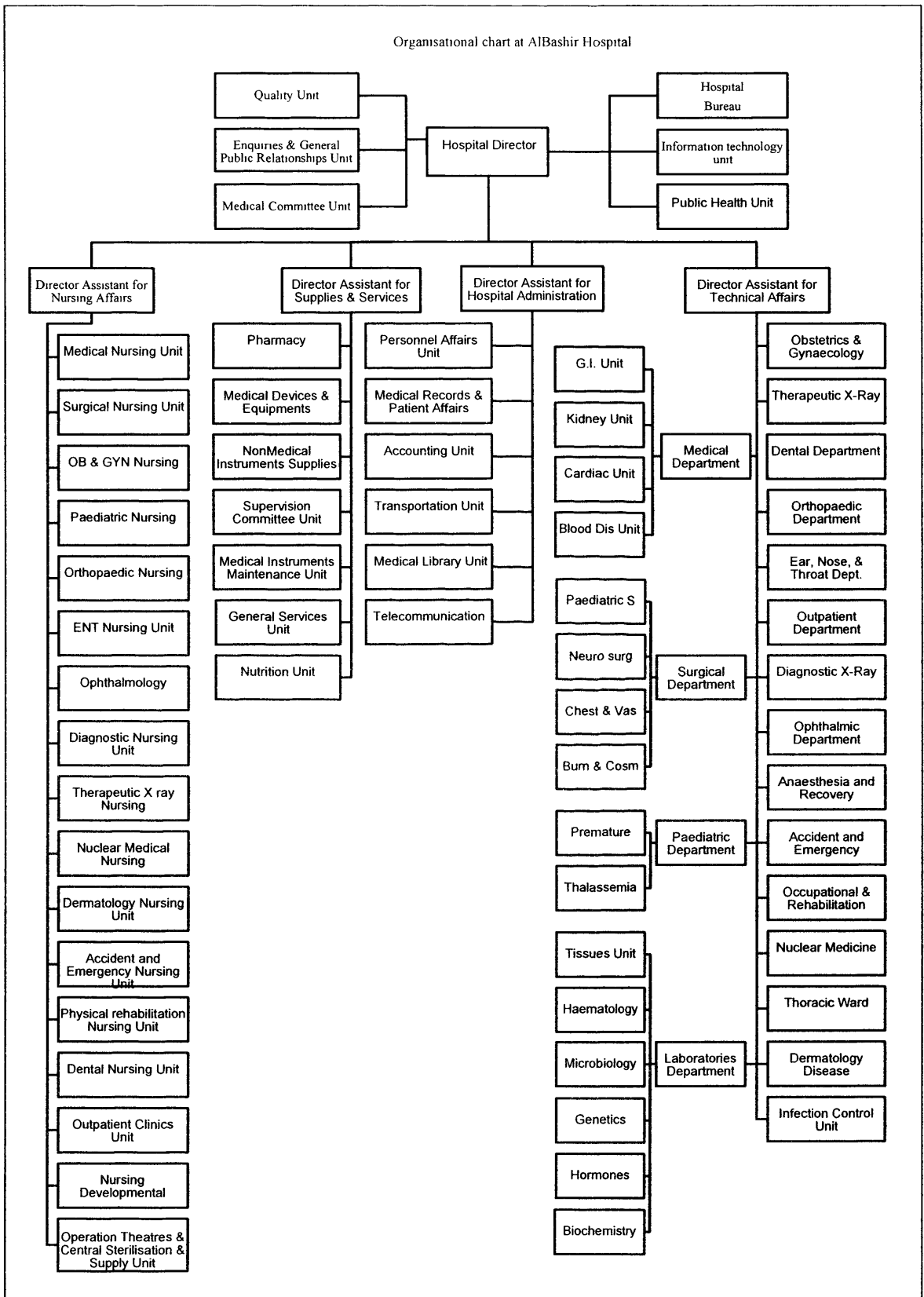
The hospital structure is hierarchical and organised along professional accountabilities as identified in Figure 4.1. In addition to the management positions shown – the first and second levels of management, each department has a medical and a nursing manager whose positions are not identified on the chart. Therefore, I developed a second chart, Figure 4.2, showing the management lines of accountability for the medical wards.

Figure 4.2 provides the structure of the Medical Department (MD). The MD has a medical director and director of nursing in addition to a nurse 'in-charge' for each ward and a medical 'in-charge' for each speciality. This means each department may have additional 'in-charge' nursing positions which amounts to a fourth line of management. The hospital nursing manager reported that she follows up daily with the MD nursing director to appoint a senior nurse to the unpaid 'in-charge' position for each ward in the MD:

> *For example, when there is around 100 patients at the MD I have to instruct the MD nursing director to assign one 'in-charge' nurse at the male side and one at the female side to work with her.*

<div align="right">IOrgN3 16-5-06</div>

Figure 4.2: Medical Department ward structure
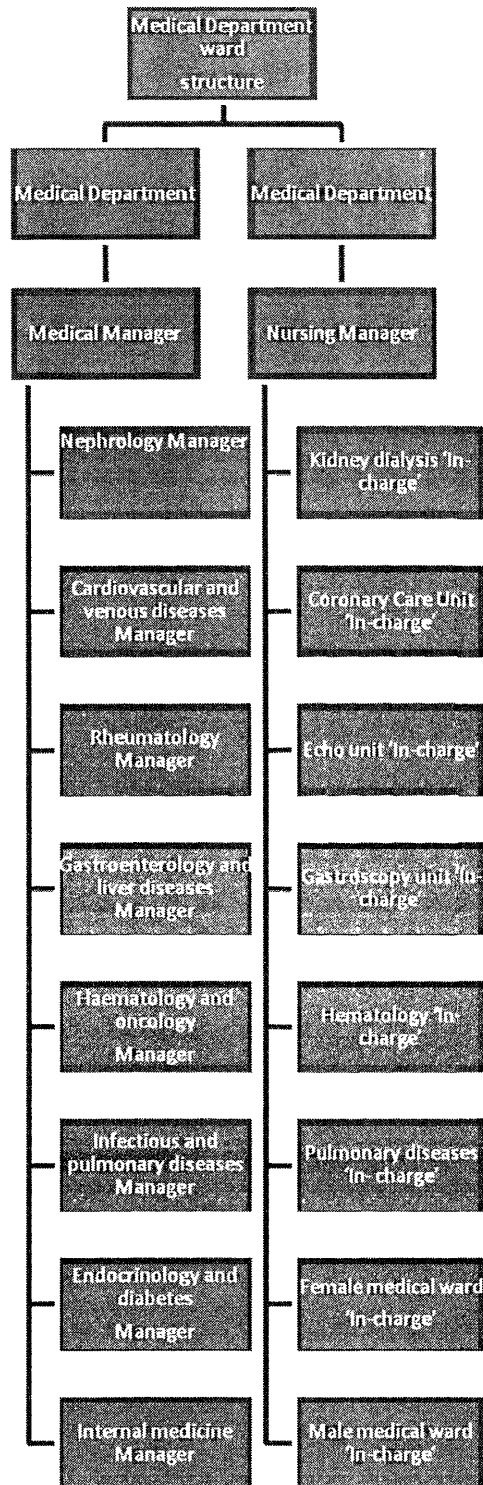
To summarise evidence relating to the best practice attribute of structure, there does not appear to be any evidence that the current structure is designed to create an environment likely to enhance quality and patient safety at AlBashir Hospital. Rather, the complex structure of the organisation will prolong the change processes. However, structural changes have been implemented to support the development of a patient safety culture.

Structural changes

Structural changes have been introduced into Jordanian hospitals that parallel the Clinical Governance Units (CGUs) prominent in hospitals in the USA, Britain and Australia (Johnstone & Kanitsaki, 2008). Evidence of this philosophical stance of the MOH are the structural changes at hospital level with the introduction of CGUs. In Jordan these units are named Quality Units (QUs) and they have been established with the express purpose of developing quality health care in acute care settings.

Quality Unit

According to the literature, quality programs including quality departments with committees (working groups) and policy formulated from best evidence into practice, can work as an effective decision maker and information exchange forum to enhance the health care system. The QUs at the MOH hospitals have coordinators (directors). Coordinators are chosen by the hospital director using the criteria and duties classified from the Quality Department (QD) at MOH. The manager of the QD at the MOH outlines how staff are selected for these positions:

> *We send a letter to the hospitals with detailed instructions and conditions to choose and the hospital directors will write officially to us the names. It is not our responsibilities to choose the names. We determine that the 'criteria are okay that classify the tasks and duties required from them. Then they* (hospital directors) *choose them'.*
>
> IPDr1 7-8-06

The director of the QU at AlBashir Hospital previously worked in the primary health care project for quality improvement of health services located at the primary health care centres. Having been successful in this position, the MOH has relocated him to AlBashir Hospital to implement a quality in health care culture as he explains:

The Quality Unit was established in 2005. I have been assigned from the Minister of Health in 2005 to work at this unit. We started exactly on September 2004 but it opened officially in early 2005 as a small unit.

IOrgDr5 21-8-06

The purpose of establishing a QU at AlBashir Hospital is to establish a quality system, for the purpose of being accredited by external reviewers in the future as the unit director explains:

Yes, our intensive efforts are for 'accreditation' including 'quality, improvements and communication.

IOrgDr5 21-8-06

The QUs at public hospitals consist of a medical director who will be the coordinator between the hospital and MOH, and several other staff members as the QD manager at the MOH explained:

The critera for staffing (the Quality Unit) should be a physician, nurse, pharmacist and any two health workers such as any one holding a hospital administration degree from physicians and nurses, medical records...

IPDr1 7-8-06

These staff are charged with introducing a culture of quality and safety into the organisation. Yet despite the MOH criteria, at AlBashir Hospital the QU director confirmed that he had worked alone for several years, and had only recently been given additional staff positions:

Since two years I am working by myself....These staff working with me are new...The team consists of one nurse and me since a month ago, now they brought us a doctor and one administrative person.

IOrgDr5 21-8-06

This is an example of planned structural change that has taken several years to realise. In addition the director confirmed that the Unit's staff were unfamiliar with the concept of a quality and safety culture and that he had to educate them about their work:

Also at the hospitals it is very difficult to work with staff that need to understand the required work. You need people to know what you want. The most important problem is that the people do not understand the work that should be done in the right way according to the 'guidelines and rules'.

IOrgDr5 21-8-06

The QU Director words reflect that hospital staff generally are unfamiliar with the concept of patient safety and quality in health care. Subsequent to the establishment of the quality unit, other structural changes have been made. The quality unit is working separately from the Nursing Development Unit (NDU) which was established for nurses' development. The nursing development unit will be discussed next as it is an important structural component that could be imperative in effective cultural change.

Nursing Development Unit

In addition to the Quality Unit, AlBashir Hospital has a Nursing Development Unit (NDU) that structurally supports the quality management program. This unit existed prior to the QU. The director of the NDU, a nurse, notes that:

> *The Clinical Instructors (CI) program was established in 1989. The CI program established in cooperation between the MOH and the Italian Government and most of the MOH hospitals have CI units. This unit at AlBashir Hospital was established in 1992...We were around 23 CIs, but currently we are seven - me, my deputy and one CI in surgery, medical, burns, orthopaedic, and paediatric departments.*
>
> IOrgCI2 9-5-06

In its initial inception, the role of the CI was to be an 'on the job' trainer and nurse educator. Unfortunately when the funding from the Italian government ceased, the program closed. Although the NDU still exists, the role of the CIs and the way they work has changed over time. Currently, the role of each CI assigned to a hospital department is determined by the department not the NDU director. The CI role is not understood or well defined by other managers at the hospital and most CIs now have changed role functions. A clinical instructor said that he should work as a nurse educator but he does not do this because:

> *The roles are written on paper only, not effectively applied. The Nursing Council of Jordan established a role policy or job description. The MOH has also established many points to each profession like tasks assigned but not applied effectively.*
>
> ICCI4 23-4-06

Clinical instructors have defined educational roles that are not practised mainly it seems because of staff shortages. Trust and work motivation affects the CI and they are not participating in hospital committees where they believe they could assist the

implementation of a quality and safety culture. In this request a clinical instructor commented that:

> *The administrators don't know exactly our role; they understand what we are doing or can do. So, this is why we are not included to participate in some committees. CI should be the responsible person at the infection control committee, scientific or research committee, and quality assurance because we are qualified and trained for such purposes. We are excluded from these committees and it is given to the 'in-charges' or other staff to determine our work.*
>
> ICCI4 23-4-06

The potential role that CIs could play in helping to improve the quality of patient care doesn't appear to be recognised by either nursing or medical managers. According to the NDU director:

> *From 1998 to 2003 clinical instructors were working under my technical and administrative responsibility; the situation changed in 2003. Now, every clinical instructor is under his/her head nurse's responsibility.*
>
> IOrgCI2 9-5-06

This change in authority means that the CIs fulfil whatever role the head nurse decides upon on day by day basis. The CIs working at ward level stated they were overloaded. One CI working as a clinical nurse, providing health education to the patient and family and nursing students noted that:

> *The managers assign us to organise, look after, train, and distribute the nursing students and the newly recruited staff in the hospital departments, patient assessment and problem solving, in addition to the ward staff supervision. My role is not to ... supervise what the staff are doing but to improve their quality of care. But they* (the managers) *have doubt about our role* (ability to improve the quality of care).
>
> ICCI4 23-4-06

This is the role they should ideally be doing. However, another clinical instructor (CI5) described the barriers that they confront:

> *Yes, sometimes you have to finish your work first, and also you need more supplies to do your role properly because not everything is available...The environment is not suitable to do our role at the ward; we need more funds, and personnel, ability to educate the patients such as updated knowledge in articles about patient medication. We do not have policy like that* (evidence based).
>
> ICCI5 26-4-06

In this respect, the director of NDU noted that:

> *Everyone should work according to his/her speciality...but with us no, for example, I have critical care speciality, why look for an easy job as administrator? I have to concentrate my work on patient care to implement what I've learned in my study upon the patients not to avoid this job (bedside) nursing care to move to another job.*
>
> IOrgCI2 9-5-06

The purpose of establishing the NDU with a role for CI staff was clear according to the NDU director but this has not been implemented at the organisation or the ward level. Their roles as an in-service educator and on-the-job trainer at the clinical areas need to be reviewed as available CI positions quality and nursing initiative committees represent the existing components of the quality and patient safety movement at the hospital.

Quality Committee at AlBashir Hospital

Committees were formulated before the accreditation system was introduced. The Quality Committee was established in May 2006 to improve the quality services at the hospital. The committee started with six members identified as local quality coordinators who would work with the director to supervise and work on quality improvement projects throughout the hospital (Appendix 4.2). According to the QU director:

> *The Quality Committee members at the hospital consist of me as a director of the quality unit to be a meeting decision maker and note taker and other members from all departments...At the beginning we used to have a committee member from each ward but the project recommendation was that the 'standards' for the hospital committee should consist of 9-10 members but 14 or 15 are not acceptable. Therefore, from the first evaluation recommendations were to decrease the number of committee members. So we changed to have the main committee represent the main departments (surgical, medical, gynaecology and obstetrics) at AlBashir Hospital.*
>
> IOrgDr5 21-8-06

Projects selected and being undertaken by sub-committee members have focused on both patient and staff issues. At this stage there are no projects concerned with PU or falls. During the data collection period, only two introductory meetings were conducted and these meetings will be discussed under process later in the section.

Further, there are the anonymous complaints and improvement committee and the research ethical approval committee although these are not currently functioning. These committees are still working according to the managers, but at data collection I could find no notification or record of meetings, minutes or outcomes. The nursing committees established prior to accreditation have now ceased.

Nursing committees prior to accreditation

The nursing committee is a separate committee established to assure the quality of care delivered by nurses at the ward level. The hospital nursing manager articulated that:

> *There is a committee especially for nursing called the quality assurance committee.*
>
> IOrgN3 16-5-06

At the start of the committee's establishment the members worked well, according to some staff. They prepared many evaluation sheets for the work of the department under the hospital nursing manager and NDU director's supervision. A copy of some of these sheets, such as the daily evaluation sheet for the admission rooms, operation theatres, Accident and Emergency, and one called 'daily checking form for general wards' were collected for review. The evaluation of the wards was done by a committee of three members assigned by the hospital nursing manager for evaluation through clinical visits to the wards, according to the monthly program prepared by the hospital nursing manager. At the end of the month, all the members meet and discuss the visits and evaluation results with the hospital nursing manager. A copy of the key performance indicators list was collected for review. The monthly inspection includes 'in-charge' handovers, uniforms, if patient forms are completed, progress notes, observation charts, intra venous orders, cleaning, oxygen, suction, emergency trolley and linens (Appendix 4.3). Nursing quality assurance committee exists according to the director of the NDU:

> *Yes, there is a committee and I am one of the members. For the quality assurance we have a special checklist for the wards such as general, theatre, A&E, OPD, and admission rooms. These checklists are designed by the committee members especially for nursing. We tried to add members such as infection control coordinator but yes nursing only.*
>
> IOrgCI2 9-5-06

About the nursing quality assurance, the hospital nursing manager said:

> *We formulate this committee* (nursing quality assurance committee) *and it is fixed. They have different dates and times and at the end of each month we have a meeting to check which department has got negative points. When I got the report...we changed some of the old general checklists to a special checklist for each ward such as orthopaedic ward and ICU. The special checklist was made after many meetings of the quality assurance committee. I determined to the committee everything... When I receive the comments reported by the quality assurance committee I will pass it to the general hospital director in a formal letter for correction and the administrative issues I will follow up for correction.*
> IOrgN3 16-5-06

This committee was working until early March, 2006 when it ceased. The hospital nursing manager explained the reason for this:

> *We are busy with accreditation, quality and so on.*
> IOrgN3 16-5-06

The hospital nursing manager did not explain why the quality committee had stopped working. She noted that:

> *it is on hold because of staff shortages so we have had to reformulate these subcommittees after I received the fixed staff list from the head of the departments, then the processes of tours, lectures, and meetings to the nursing, doctors and the other health team working at these departments.*
> IOrgN3 16-5-06

However, the MD nursing manager criticised the performance of the nursing quality assurance because:

> *It is a cheating committee. They will give the mark personally...It is silly, honestly, it depends on friendships. If you have a good relationship with the committee members they will give you a very excellent report. If the relationship is bad even if your department is excellent they give you a bad report.*
> IOrgN1 8-5-06

The committee members used criteria specifically developed for the quality assessments of ward staff performance. When staff were given poor performance evaluations, they responded that the reports were personally directed. This indicates that the processes may need revision in how the evaluations are undertaken. The processes were not well established and staff argue that there is bias.

Clearly, the structural changes to support the development of a patient safety culture that have been introduced are overlaid on an existing hierarchical, complex organisational structure of the AlBashir Hospital. As noted above, this complex structure will prolong the change process. The meetings and all terms of reference have been defined but are not really working in practice to manage the quality of care. Therefore, the nurse managers need different processes to proceed to implement a patient safety culture.

Processes

Effective processes to develop safety for patients and staff at the organisational level should be in place. Managers' should also practise in accordance with a culture of patient safety. The sub-attributes of processes that will be presented are: managers with position descriptions that specify the vision and skills to change the existing culture, well formulated performance review of managers according to role functions, systems for the identification and development of best evidence guidelines, effective written and oral communication between managers and clinicians and systems to collect and manage patient summary data for the organisation. Managers with position descriptions that specify the vision and skills to change the existing culture will be presented first.

Manager position descriptions

In terms of the first sub-attribute under processes, the literature outlines the importance of having managers' job descriptions specify role behaviours/functions at the organisation level. The literature indicates the availability of specified position descriptions that identify maintaining patient and staff safety as a significant component of the role. A position or job (as it is called in Jordan) description is the designated work for each staff member in the organisation. Job descriptions are written documents containing expected performance behaviours, reporting processes and performance evaluation criteria.

It is essential that with each clinical area staff are clear about managers' expectations of their work functions. Job descriptions provide a starting point. In this respect, the general hospital director said about his position:

It burdens me with more responsibilities...the position is not an honour but it is a mandated position...., as you know no more financial benefits with this position. Second day maybe they will change me back to my normal job particularly at MOH, but at other ministries if you are upgraded you will not be lower down like at MOH.

IOrgDr6 2-9-06

This quote indicates that there are no clear role function criteria for a top level manager such as the general hospital manager. The position in health is more junior than in other ministries and the general hospital manager appears to be doing it reluctantly. Further, there is no stability in the managers' position to let the new assigned manager implement his plan of care.

Little guidance or direction comes from the top level of the organisation as a clinical instructor pointed out:

...here, we don't have or follow a special job description...

ICCI5 26-4-06

The participants at the ward level focused on the job description of everyone in the health team to be responsible for decreasing conflict between professionals. One registered nurse said:

Everyone in the health team should know his/her role at work... everyone should know what to do for the patient's benefit... every member will know the exact role to work on.

ICN2 19-4-06

Ward nurses claimed that the nurses do not have any responsibility for patient care because they have no ability to participate in planning the care for their patients. According to one registered nurse:

The nurses do not have an effective role in management. The doctors are the ones who write orders and we are implementing them; contrary to what is happening in other countries..., still we did not reach the level to discuss patient cases with the physicians and to suggest what we can do. Like the physicians between themselves...what the doctor will write at the patient file, we have to implement as it is ... according to the doctors' order.

ICN1 18-4-06

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Doctors also do not have a written job description. Juniors are working according to orders from their senior doctors and specialists or group leaders. When asked about the doctors' roles or job description the MD manager said:

> *All doctors know what they have to do and if there is any issue I tell them verbally.*
>
> IOrgDr4 23-7-06

Observation supported the absence of job descriptions as a means of allocating and positioning tasks. My field notes record that:

An example of non-nursing activities that make overload or extra jobs for the nurses is supervising other staff such as cleaners. Nurses are requested to check the cleaners' personal appearance and to follow up that they are wearing uniforms. The hospital nursing manager said to the 'in-charges' in one meeting.

> *This is your responsibility as your numbers are more. I can't work as a supervisor to each one. You see everything at the wards, so if you notice anything is abnormal (inappropriate gesture); please correct that because each one reflects his /her personal appearance. For example, I as a patient can't accept you to attend to me in this bad appearance. In these things you should work with your staff.... we have a role with cleaners by talking with them, giving them guidance, instructions and teaching because most of them have a "low I.Q.". So everybody should be responsible, and all cooperate in order to improve the current situation at the hospital in general, and specifically the nursing performance.*
>
> OOrgNM2 2-8-06

My field notes further record that:
Nurses indicate that there is a lack of clarity between nursing or medical tasks. For example, nurses were unclear if a procedure such as inserting an indwelling catheter (IDC) was a nursing or medical responsibility as nurses discussed the procedure in their 'nursing standard meeting':

> 1st RN ...*I think the nurse/midwife does that* (inserting an IDC).
> 2nd RN ...*We can say that it is the doctor's job but the nurses do it.*
> 1st RN ...*Even if it is the doctor's job, if we raise*

> *this issue, it will become a nursing job...*
>
> OOrgNM3 22-8-06
>
> The point of this discussion is that on this particular ward there is a lack of clarity about which clinicians will undertake a specific procedure. Obviously either a doctor or a nurse should be competent in undertaking catheterisation. The concern here is that without formal guidelines, procedures can be left unattended because no staff member takes responsibility. Normally catheterisation would be considered a nursing responsibility. Nurses need to clarify what they will do as part of this work. This may not be the ease in Jordan, but the exchange between the two RNs indicates that nurses are unclear about their clinical functions. The lack of clarity indicates that the managers need to assist to clarify nurses' functions in relation to their medical colleagues.

> My observations further identify that:
> Both medical and nursing staff were on occasions unclear about their role functions. No written job descriptions for doctors, nurses, allied health staff or technicians were located at ward level and written, specific role functions were not readily accessible. The job descriptions such as for nursing staff have been developed at the MOH but are 'hidden' in managers' offices at the hospital (Appendix 4.4). Requests to view these documents (job descriptions) did not produce any results.
>
> Alternatively a job description could be known by the staff but an employee does not adhere either consciously or unconsciously to what is written there. There were mixed responsibilities according to the job description understood by staff of the daily duty of care. The responsibilities of different health professionals can vary according to the place of work and a person's expertise. The other health care professionals are working under their managers' instructions. However, during the data collection period the staff in daily contact with patients were doctors and nurses. It was very difficult to observe other professionals such as nutritionists or physiotherapist to complete understanding of the functions of other staff in the MD.

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Performance review of managers

In terms of the second sub-attribute under processes, the literature outlines the importance of a well formulated performance review for managers according to the role functions at the organisation. The literature indicates that availability of performance review systems that identify areas of performance which are well developed and areas which may benefit from further information or a structured plan to enhance the clinical staff skills practically assist in improving safety and quality standards.

The organisation is required to maintain standards. To meet these standards, an organisation should provide high quality care to every patient and to ensure a safe environment is in place. This needs appropriate qualified staff with the right skills mix to meet the patients' needs for health care and safety purposes. According to the MD manager:

> *I would like to say to everybody here without any swearing or anything I knew at what time he/she is coming on duty. Honestly and in a very simple way I knew about the performance of any colleague on duty.*
>
> OOrgDrM1 25-7-06

In regard to work ethics or value statement, the hospital nursing manager voiced her view of health service priorities in an organisational meeting:

> *All of us have to cooperate for the public benefit. We are not looking for any personal benefit. We are looking to the patient who is our main goal.*
>
> OOrgNM2 2-8-06

While this vision is a first step to putting the patient first, actual processes are needed that enable clinicians to enact change. My observations reinforce this view, that managers are able to articulate a philosophy of care, but cannot design and implement a strategy of change. In this regard my field notes record that:

> Performance assessment is a bureaucratic routine rather than a purposeful strategy of organisational change. Staff performance is reviewed according to annual report results prepared by the Civil Service Bureau (CSB) for all staff working in government (public) sectors in categories according to staff qualifications (Appendix 4.11). This performance appraisal (annual reports in Jordan) does not specify the role or functions of staff members. Rather, it is a standard assessment

form (Appendix 4.12). Managers at the work level appear to evaluate clinical staff then forward the report to their higher manager and then to the hospital director who approves and signs it and then forwards it to the MOH. The staff are then informed of the result. This performance appraisal process does appear to be re-shaping the behaviour of clinicians in line with the manager's philosophy articulated above.

Clearly, all acute care hospitals are required to maintain standards as a reference point for comparison and evaluation. To meet these standards, services should provide high quality care to every patient in a safe environment to meet patient's individual needs. The organisation should also ensure that appropriately qualified staff with the right mix of skills are available to meet patients' needs. Organisations that meet these standards gain accreditation; those that don't are subject to sanctions.

A system of standards development

Implementing best practice guidelines to prevent and manage PUs to ensure high quality of care in the organisation is well defined in the literature. Pressure ulcer treatment guidelines are essential for healthcare institutions to ensure that all patients receive optimal standards of care and control risk factors to ensure better systems of health care delivery. No evidence was detected of a system operating in the organisation to identify and develop standards to ensure that patients are treated according to best practice. I turn to excerpts to support this conclusion in the absence of data on the standards.

In reply to a question about how the organisation ensured that patients were not harmed or injured, for instance, by a pressure ulcer, the MD manager replied that:

> *This question should be answered by you. What you will offer us... we need to establish a specific policy for patient safety. We are currently at the beginning, and we need to develop 'a plan' for 'patient safety'.*
>
> IOrgDr4 23-7-06

This manager understands the important of quality as based on a policy or specific plan for patient safety, however, as with the hospital nursing manager above, this manager either does not know or is unable to implement the necessary processes to achieve a cultural shift in workplace practices. Nursing managers freely discussed the

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development of practice guidelines as the means by which to shift work cultures. However, very few copies of guidelines were available, even though managers had previously indicated that such documents were available. Those that were obtained were not up to date or able to be readily accessed by ward sttaff. If managers are to use guidelines as a means of culture change, the strategy will need to be rethought. For example, nurses are required to complete a nursing care plan for patients and to complete assessment forms as accreditation requires to improve the quality of care. The MD nursing director articulated this expectation:

> *I mean when you do best evaluation of your patient, the patient will improve through the better care provided in terms of my follow up and reassessment and handing over of the patient cases according to the care plan. I should know what my previous colleague did in the care plan and then I have to continue the same plan in order to improve the quality of patient care provided.*
>
> OOrgNM2 2-8-06

However, no guidelines are available about how to complete a care plan that would assist staff to do this properly nor were there educational sessions that would help staff engage in this new way of working. Clearly, nurse managers know what is required but they do not know how to go about doing it. Similarly, managers know about good nursing care for patients with PU, as the clinical instructors' manager describes:

> *The nurses should concentrate on positioning, other precautions such as placing a pillow between the legs, bathing, personal hygiene and massages.*
>
> IOrgCI2 9-5-06

Again, best practice processes can be articulated but this articulation is not supported by the availability of best evidence guidelines. Further, I conclude that even if a policy or standard had been developed by nursing management, this would not change the behaviours of nurses at ward level who similarly articulate best practice knowledge that is not enacted in practice. Best practice is not only predicated upon have in place best practice guidelines, it is also dependent on disciplinary groups who share patient care communicating effectively, as the next section discusses.

Effective written communication

The literature stresses the importance of documenting patient status data and clinical decisions about patients' level of risk in medical records and other written communication between the disciplinary groups. Good communication practices between disciplinary groups is essential, for instance about patients' health status assessments and patient care planning in patients' medical records. I consider next the processes operating within the organisation to describe and operationalise effective written communication about patient care.

As I illustrated earlier in relation to performance appraisal, a hierarchical system of communication operates in the organisation. The MD manager must report to the MOH up through the hospital; he cannot communicate directly:

> *With the MOH no, we cannot report or communicate, only through the hospital administration.*
>
> IOrgDr4 23-7-06

The bureaucratic style of formally communicating patient care needs through a hierarchy is evident in this comment from the MD nursing director:

> *Actually, we have three directions in reporting patient care information; first, internal to the department supply officer to provide the wards with equipment such as bed sheets, beds, bed lockers, and uniforms; second, to the head of the department, and third, to the hospital director. I write to the hospital nursing manager and then she reports or writes to the higher administrative position, to the hospital director who then reports to the MOH.*
>
> IOrgN1 8-5-06

My observations support the level of control evident in this reporting and communicating style. My field notes record that:

> While less experienced doctors have some opportunity to voice their opinions at the daily morning meeting of their departments, nurses working at the clinical level have a very limited capacity to participate in decision making about the quality of patient care. Only the 'in-charge' nurses are able to communicate directly with their nursing manager and nurses cannot communicate with the department manager without first obtaining the nursing director's permission. An 'in-charge' nurse told the nurses that:
>
> *If anyone has any problem with the doctors or anybody you have*

> *to inform the nursing manager or her deputy to meet* (the department manager), *because he will not meet any staff member without the 'in-charge' 'O.K'.*
>
> OCNM4 24-7-06

This formal hierarchical system of communication directly affects the care of patients, as my observations record. My field notes record the following:

> Observation of the processes of communication between the various departments of the hospital showed that problems arose frequently in patient information transfer. One example concerns the timely receipt of a patient's test results which could be delivered more efficiently via an IT network. Normally it takes at least 24 hours before the paper copy of a pathology result is returned to the ward. A specialist screamed loudly at a junior resident doctor in a morning report meeting:
>
> *Where are the* (pathology) *results? We have to do something for this patient.*
>
> OCDrM3 15-5-06

A further example recorded in my field notes concerns inter-departmental referrals for consults between doctors. My field notes record that:

> When the consultant doctor arrived at the ward to perform the consult she could not find the patient she was expected to examine. She reported this situation in a doctors' meeting:
>
> *We received a consult that nobody knew how to read. When our doctor went to the ward asking for the consultation, the resident said: 'we have this patient, but he is not the one who needs the medical consultation.*
>
> The patient who required the consultation could not be identified by staff working on the ward. The consultant doctor then went to see the deputy manager of the MD and told him the situation:
>
> *I came to see your patient who needs our consultation but the resident who wrote the consultation doesn't know which patient. The resident doctor answered 'so, you don't want to see the patient? She replied: 'why are you talking with me like this? I am talking with you as a colleague. I will not see the patient until you know the patient who needs the consultation. Write a correct consultation and I will come to see the patient'*
>
> OCDrM3 15-5-06

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This example of inaccurate communication suggests that patients may be denied timely assessment and treatment that may put patients at risk. While the process for inter-department consultations is quite clear, the inaccurate completion of the request form has resulted in a waste of time and effort. My field notes go on to record:

> That some of the doctors present thought the meeting to introduce the form and how to complete it was unnecessary, because the form was designed by the MOH and was therefore not open to discussion or question. The doctors must follow instructions and complete the form as stipulated if the hospital is to gain accreditation. A doctor (named) illustrated this by saying:
>
> > *...all right, we don't need to discuss this; they are ready made forms that we must follow.*
> >
> > OOrgDrM1 25-7-06
>
> These quotes illustrate that doctors are not engaged in the hospital's quality processes in an optimal way. They have no opportunity to critique the MOH requirements and this has led to a degree of disenchantment with the quality process.

The culture at the hospital appears to be one of blame rather than openness and accountability, where clinicians have little freedom of action to engage with change and quality improvement in relation to their own practice which flows on from senior to junior clinicians. My field notes reflect that:

> The senior medical staff blame more junior doctors for omissions in patients' care and in the medical record and their lack of accountability for what they are doing. While there were many instances of blaming observed, the following excerpts illustrate the extent and tenor of the situation. A specialist doctor screamed at the resident doctor during a medical round in the ward in front of many observers.
>
> *Why and how to admit this patient without doing PR* (per rectum exam) *to rule out bleeding? Is the history written in the file? What you are doing in your BC duty* (afternoon and night shift). *This is not acceptable.* There was no response from the resident doctor who continued to look at the patient's file.
>
> OMMW 22-3-06
>
> I also observed at the daily medical meeting senior medical staff rebuking more junior doctors. A specialist said to a junior doctor:

> *Doctor (named), you are always attending the morning report and in these reports we are always reminding you about when and why to give blood transfusions... we have been discussing this subject for three or four months.*
>
> OCDrM3 15-5-06

Communication between the doctors and nurses reflects a similar pattern of blame and conflict. These formal and hierarchical communication processes occur between the three organisational levels of health care and impede effective communication at all levels of the organisation.

Effective verbal communication

The literature outlines the importance of having an effective process of communication, especially between managers and clinicians to ensure quality of health care. Regular structured meetings are important processes through which this communication between staff occurs. My research findings revealed, however, that issues related to quality management are dealt with coincidently as part of meetings designed for other purposes. These meetings are conducted through committees. Three main committee meetings are convened in the hospital to manage hospital affairs, namely the quality committee meetings, the departments' daily medical meetings and the nursing head of departments' monthly meeting. These meetings incorporate discussion on issues relating to accreditation and quality patient care but not all the discussions at these meetings relate to quality. I turn to discuss each of these communication forums as they relate to consideration of quality issues in the wards and in the organisation.

Quality Committee (QC) meetings

As noted above, this committee was introduced to manage the quality process in the organisation. As my findings show, the meeting is structured, routine and well organised, as the director of the QU outlines in the following excerpt. What is evident from this respondent's comments is the level of control that senior members of the organisation present in the meeting exert:

> *Meeting agenda is prepared by the decision and note taker (QU director) who prepares the agenda contents, meeting place, date, time, etc.... We* (committee members) *determine who will talk or discuss this or that subject, who will be*

responsible for the coordination for this, how long this will be; dialogue style at this session is 'discussion or presentation'. Then the decisions at the end of the meeting are made by me (the decision and notes taker) in consultation with other members.

IOrgDr5 21-8-06

This comment suggests that the uninvited input of others is not encouraged. Who contributes, what they will talk about, the length of time they are given for comment, if allowed to speak, is determined by the QU Director. Significantly, the QU director and members of the meeting decide the outcomes of the meeting, excluding others from participating in decisions and hence from ownership of the outcomes. My field notes record further examples of how this level of control is maintained. My field notes record that:

The director of the QU refused permission for me to attend the QC meetings. The one-way flow of information and the imposed nature of decisions are reflected in the comment of the QU director that:

I write memos to staff about the decisions made at the QC meetings.

IOrgDr5 21-8-06

On searching, I could find no memos relating to the agenda items from the QC on any bulletin board in the hospital. I asked the director of the NDU if I could read her copy of the minutes. These documents reported that only two meetings of this committee had been held, neither of which contained decisions or discussions about quality assurance (Appendix 4.5 and 4.6 a copy of the minutes). Quality improvement appeared to be occurring with nursing staff at the department level only.

As the findings show, quality initiatives are evident in one group of clinical staff only. There appears to be little or no connection between the activities undertaken by nurses at the clinical level and the quality structures at the organisational level. Limited attention appears to be given to quality at the organisational level, and even though there is an intention to communicate quality decisions taken by senior members of the organisation to those in clinical units, this did not occur regularly or routinely. Staff appear to have limited input in to the processes established to support quality initiatives and received limited guidance on the organisational strategies to improve quality with which they could link.

Doctors' morning meetings

The doctors from each section of the medical department meet formally each morning to discuss patients' issues. The meeting is chaired by the manager of the medical department who also determines the agenda. I attended one of these meetings, and record observations made in my field notes as follows:

> I observed that:
> More than 50 doctors attended one of the doctors' meetings. If a quality issue was raised, the manager of the department spoke about the situation generally, principally to inform the more junior doctors about the concern. If the issue is personal, the manager indicated to me that he would phone or speak with the particular doctor individually. Issues of concern raised during my attendance included doctors coming late for their shifts or finishing early. Doctors' absence from duty had an impact upon the quality of health care being provided, and the departmental manager dealt with the concern by stating that he would report any doctors in breach of their duty directly to the general manager of the hospital for disciplinary action (as sanctioned in the Civil Services Law, see Appendix 4.7). The manager set out his method of managing problems that arose as follows:
>
> > *In my daily work any problem I have with you (the doctors), I report to the hospital manager. That means I am not ready to talk to any doctor by saying I will forgive any mistake at this time. No, never, at all. At first, a number of you know that I had punished them (I won't mention name), but I will not use that procedure of punishment (again).*
> >
> > OOrgDrM1 25-7-06

This example of what is discussed at the doctors' morning meeting supports findings from the QU meeting that decisions about operational issues are not taken at the operational level. Routine operational matters are not dealt with by the departmental medical manager, but are referred on to a more senior level that has implications for the medical clinician's leadership role. The manager appears to have attempted to manage the problem of doctors' absence from duty when it first occurred, through a method of punishment (not stated), but subsequently refers such matters up the hierarchy. While it is not clear what has caused this change, questions arise as to whether the medical manager has the delegated authority to manage routine staffing issues that arise within the medical department and his managerial authority to manage operational issues more generally within the department. By referring routine departmental matters on, this

manager loses the opportunity to develop his authority within his department and to gain confidence and loyalty in managing departmental staff or departmental outcomes generally.

Nursing department directors' meetings

Nurses have a more formal structure for their quality meetings, in that meetings are specially convened to discuss quality issues as they concern patient care. The hospital nursing manager meets the 17 departmental nursing directors monthly (see Appendix 4.8 for TORs). This communication process of nurses around quality issues contrasts with the more informal process of medical staff discussed above. The Hospital nursing manager formally states the purpose of such meetings as follows:

> *For the monthly meeting with the nurse directors of the departments, we prepared in advance the points we will discuss with the cooperation of the director of the NDU who will inform the people by phone. If there are any new points from the departments they will be added to the agenda as emergency topics, because many times without any coordination we discuss new topics, in addition to the review of the previous meeting results and planning to the next meeting. Always I am enforcing the meeting members that I want to listen to your comments because also sometimes their policy at their department maybe not effective.*
>
> *...also, regarding the departmental nursing staff they have to meet with the head of the department. I told them to send me their meeting schedule so that I can attend some of it in order to decrease or brake the barriers or fear between clinicians and managers...*
> *...Further, our organisational meeting may be through the meeting with the hospital director to discuss any nursing issue or to share in the organisational structure.*
>
> IOrgN3 16-5-06

These comments illustrate nursing's more structured and integrated approach to managing quality issues. By holding the meetings regularly, nurses come to know of their existence, understand how current issues are dealt with and how new issues are added. What becomes evident from this quote is that the nursing director is aware of the barriers in communication that exist between clinical levels in the organisation, and has taken steps to overcome this barrier, by being present at nursing meetings. Importantly, she spans the boundaries between clinical nurses, middle nursing management that she represents, and senior hospital management, bringing issues of importance from the clinical workplace to the level at which decisions are made. As

with the nursing directors' meetings, meetings with the hospital director are also formal, regular and routine, as the departmental nursing director indicates:

> *Yes we have a meeting on the 10th or 15th I think monthly but sometimes in an emergency or urgent situation such as for disasters our meeting planned with the hospital director will change, particularly if there are important points from the MOH. We don't know about the meeting agenda before the meeting. The hospital nursing director will contact the director of the NDU who will contact all the nursing department directors to tell us about the date and the time of the meeting only.*
>
> IOrgN1 8-5-06

Ordinarily, this committee discusses accreditation requirements, nurses' uniforms, attendance at work, staffing requirements and nurses' annual leave, and implements new documentation in order to improve the standard of care, such as the new patient assessment form (Appendix 4.9). As the nursing director alludes, these more routine matters are put aside in the event of an emergency, although members of the committee are informed about the meeting arrangements only, not the agenda, thus leaving them unable to prepare to address the topics to be discussed. This contrasts with the process for managing more routine matters, as the nursing director indicates:

> *We know what we want to discuss before the meeting. Everyone talks about his/her issue or topic at the meeting. The hospital nursing director listens to all of us then we try to find the solutions or if she has a solution she will suggest it to us. After the meeting, the hospital nursing manager will send the meeting contents to us to read and if agreed to sign it...the result of the meeting will be sent to you as a memorandum.*
>
> IOrgN1 8-5-06

Notwithstanding this description of an ideal departmental nursing meeting, this is not the actual procedure that is in place as my observations show.

> During the nurses meeting the chairperson such as the hospital nursing director forwarded to the attendees instructions, new directives or complains such as uniforms compliances and annual leave requests.
>
> OOrgNM2 2-8-06

Communication between nurse managers can be testy. The example below instances a nursing manager's communication style when discussing the quality of documentation. The A&E nursing director loudly interrupts the meeting, and is responded to by the

hospital nursing manager in a manner that is both patronising and lacking professionalism:

> *O sweetheart, if you are discussing me in this way, how will your staff implement this new decision regarding the documentation and record keeping at A&E?*
>
> OOrgNM2 2-8-06

The outcomes of this committee are reported directly to the general hospital director and, in turn, nursing directors inform the department managers about any new policy or modifications coming from the general hospital director. However, from my observations and review of the minutes of meetings, it appears that the report back from the departmental nursing director to clinical staff is communicated verbally during morning handover. Thus, there is no record of the meeting processes in the form of agendas or minutes that clinical staff can refer to, resulting in possible miscommunication of information and fragmentation of effort if messages are incorrectly relayed, to staff, or if the message from nursing directors to their staff differs between wards.

The quality sub-committees at ward level were not functional during the six month period of my observation and I have therefore been unable to assess their effectiveness. If these subcommittees had been in existence, they would have given clinicians the opportunity to engage more directly in the change processes and for the process to be more coherent if sub-committee effort had been directed to implementing top level decisions and reporting back on the results. My findings indicate that where there is a motivated person interested and able to support committee functioning, such as the departmental nursing director, these processes are maintained. Where such a person is absent, so too are quality processes, such as the quality sub-committees. Motivated staff are useful in developing such processes, but staff move and relying on individual people is not a sufficient strategy to keep quality processes going. An alternative process that enables clinicians to engage more directly in change is required and senior staff must therefore build responsibility for maintaining these processes directly into managerial roles.

In summary, my review of the meeting processes revealed that there is an issue with the organisation, documentation and transparency of quality meetings being held. Issues

include when the meeting, are time-tabled, how agendas are formulated, incomplete or non-existent record of meetings, discussion outside the agenda topics, failure to follow-up activities and outcomes. No standard operating procedures were identified during data collection that could facilitate a high standard of processes for general or quality meetings at organisational or clinical levels.

Clearly, meetings at the hospital are lacking in efficiency and effectiveness. This dilutes the quality processes and prevents the degree of focus required to achieve change in the most effective way. I turn next to the sub-attribute that relates to a system to collect and manage patient summary data as a means of evaluating improvement in patient care.

System to collect and manage patient summary data

The literature outlines the importance of an incident monitoring system to report serious patient injuries, including, for instance, pressure ulcers. Reporting on performance using summary charts is an important attribute in assessing and managing PU and improving clinical performance as it assists the health care providers to plan, manage and evaluate the quality of patient care. My findings show that at the time of data collection, there was no system in place to monitor patient incident data that would include in-hospital falls, wound infections or PUs. In order for a quality and safety culture to be implemented effectively, staff at ward level will need to understand how to identify and record patient incident data accurately. Staff are able to attend to such recording, and the organisation can implement incident reporting systems, as evidenced by the system that presently records and reports infectious diseases. However, such systems are only in place for 'special processes' such as AIDS or communicable diseases, as the MD nurse manager indicates:

> *With these types* (a communicable diseases and AIDS (Acquired Immunodeficiency Syndrome)...*we have a special process. First, we call the hotline at MOH when there is a HIV (Human Immune Virus) case, my deputy or I will call doctor (named) or Miss (named) at MOH at the AIDS information centre. Second, we report to the infection control coordinator* (hospital nurse named) *who then reports to the public health officer at the hospital headquarters and then this person reports to the AIDS centre.* IOrgN1 8-5-06

The system described here is sophisticated and integrated at all levels of operation, allowing for monitoring and reporting communicable diseases. However, it is time-consuming and hierarchical, requiring a manager to write a formal letter with a copy of the pathology result to the hospital public health officer, then reporting it to the MOH. This takes both responsibility and data away from the operational area that must respond to the problem as the MD nurse director indicates:

> *Regarding the communicable disease we consider all patients have infectious disease until the opposite is proved, such as meningitis if it is bacteria or viral. If it is viral we deal with the patient normally, and if it is bacteria we have to report it in a formal letter and fill a special form, then send it to the public health physician (named doctor) and a formal letter attached with a copy of the laboratory result, then the public health officer will report to the MOH.*
>
> IOrgN1 8-5-06

This example indicates that there is already a system in place to report performance, but the system is fragmented and inefficient. In response to my question about the use of the organisational structure for reporting and other communication processes, the QU director confirmed the importance of the structure as a communication device:

> *Yes it is used in 'reporting lines' and communication process because all of my work depends upon this 'structure'.*
>
> IOrgDr5 21-8-06

Even though the QU director confirms the importance of structure through which to communicate up and down the organisation, the ability to produce performance data is limited. Computer availability is also limited for staff at the clinical level that flows on to incompleteness in performance data. The general hospital manager has noted these limitations in the information technology system at the hospital, attributed to the MOH, as behind the standard of other ministries (IOrgDr6 2 09 06).

The QU director is specific about the limitations:

> *Small department are limited to such information as number of visits and other simple statistics. ... We have not yet got a networked I.T. system for staff emails and other quality activities. As an example, the King Abdullah 2nd Award program sent us a questionnaire to complete for 300 employees by end of this month. ... I asked everyone to fill the questionnaire in on a floppy disc ... if we had emails it would be easier.*
>
> IOrgDr5 21-8-06

Even when new systems are purchased and staff trained, clinicians cannot be guaranteed that they will benefit. A respondent noted that when new computers were recently acquired for hospital clinicians, they went to the administration instead (IOrgN3 16 5 06).

In summary, my findings show a lack of information systems to collect and manage patient summary data in the organisation that can be used for accountability purposes by the government level or for patient planning purposes at the clinical unit level. My evidence shows that there is little evidence of processes to practically support a culture of quality and patient safety at the organisational level in AlBashir Hospital. Managers position descriptions do not specify the vision and skills needed to change the existing culture; performance review of managers is not well formulated according to their role functions; implementation of a system for the identification and development of best evidence guidelines is not occurring; effective written and verbal communication between managers and clinicians does not exist; and there is no system available to collect and manage patient summary data in the organisation. I turn next to consider the human resource management issues in relation to the organisation of clinical care as part of a best practice model of care in both resourcing services and ensuring appropriate skills are present to allow clinicians to improve quality of care.

Human resources

According to the literature, human resources management is important to support patient safety that includes, particularly, adequate staffing. To introduce this section, I firstly outline in the table below the number of employees at AlBashir Hospital and their professional background or work location, before going on to analyse the staffing situation at the hospital.

Table 4.9: Employees at AlBashir Hospital by professional group or work location

Employees	Numbers
Medical workforce	
Doctors	666
Registered nurses	383
Other nurses*	496
Sub-total	**1545**
Technical workforce	
Radiology	74
Pharmacy	78
Laboratory	71
Medical records	56
Accounting	58
Human resources	10
Security	100
Housekeeping	455
Food services	153
Maintenance	70
Other Employees	333
Sub-total	**1458**
Total	**3003**

*Other nurses = Associated nurses, Assistant in Nursing and Aid Nurses

The Table 4.9 shows an equal distribution of staff over clinical and clinical support roles. Included here is a medical workforce of doctors and nurses, that includes four levels of nurses, namely registered nurses, associate nurses, assistants in nursing and aid nurses. While the table reports a large workforce of 3,000 people, this number may be inadequate relative to the large number and dependency of patients and the skill levels of employees.

It is self evident that organisations must have adequate staff numbers to provide adequate patient care, and that organisational managers are responsible for staffing policies (Adams & Bond, 2003). Further, staff must be sufficiently knowledgeable about a patient safety culture and capable of contributing to it if such a culture is to develop. I turn next to analyse interview data to provide a perspective of staffing adequacy from those interviewed as part of this research.

The general hospital manager is certain that the hospital has a qualified staff that are not overloaded. His view is that:

We have a huge qualified medical, nursing and technical staff. With all of these qualified staff who have high qualifications, we are proud of them. This qualifies them to deal with the patients in a good way regardless of the workload.

IOrgDr6 2-9-06

This comment suggests that the hospital is able to fill positions as needed; however, research findings suggest that the process for staff recruitment at MOH is not as easy as the general hospital manager's comment would lead us to believe. The hospital cannot hire staff directly, but must be included in a planned process that includes other public sector organisations such as the MOH and the Civil Service Bureau (CSB) who are responsible for recruitment in all public sectors in Jordan (see Appendix 4.10). According to a study undertaken by Partners for Health Reform *plus* Project (PHR Plus USAID) the ability of a hospital manager to 'vary labour inputs' is non-existent. 'Hiring staff' is a matter of MOH policy (As-Sayaideh, Shafei, Dwayne, & Muhtaseb, 2002).

The MD manager puts the issue of staffing adequacy into context. He acknowledges shortage of qualified staff, including doctors, nurses and other staff needed to be engaged with risk management strategies:

In fact and to be honest with you there could be some shortages in certain professions. Of course I mean shortage of 'the qualified'. Maybe if these staff are available our situation will be better...the most important issue we have is physician 'shortages', but in general we don't have concrete problems. Only the physicians' shortages - and well trained nurse shortages.

IOrgDr4 23-7-06

The medical director comes to admit the shortage of qualified staff gradually. Initially, there was only a shortage of physicians. Subsequently trained nurses were included in the shortages. The comment by the hospital general manager and reluctance of the medical manager to acknowledge staff shortages suggests that this is a sensitive issue that requires deft handling. The difficulties that appear to be involved in voicing staffing problems and thus being able to rectify them lead me to conclude that this situation constitutes a major barrier to the hospital achieving a high standard of quality care.

Managers identified the high staff turnover as the main reason for staff shortages. Significantly, there appears to be a high percentage of resignations following training of newly recruited staff according to the hospital nursing manager, which also appears to be related to the low rate of in-country pay, compared to the levels that nurses in particular can expect if they work overseas:

> *Continuous new recruitments and staff turnover to travel overseas, these all affect good quality. New recruited nurses will work for not more than one year, and then resign to work overseas because of the current low pay rate. So we have to train a new nurse from the beginning.*
>
> IOrgN3 16-5-06

Work overload is a further reason for the loss of clinically qualified nurses, particularly to administrative work, according to the MD nursing director:

> *The medical department is overloaded. I can't classify medical patients in the right way - six patients need one nurse. At the surgical ward the ratio is 4:1, theatre and ICU are 1:1. But our medical wards no; 90% of our medical patients are critical and need ICU or CCU. So our classification should be changed at least to 2:1.*
>
> IOrgN1 8-5-06

This situation of critical staff shortages was reinforced by a clinical nurse who said of practice that:

> *Yes, there are barriers affecting effective care, which include physicians' shortages, and other staff shortages. At the female ward we have 44 patients and sometimes only one RN on duty.*
>
> ICN2 19-4-06

Gender is a further human resources issue that includes a shortage of female nurses and the socially inappropriate use of male nurses in female wards. According to the hospital nursing manager this situation has led to a pattern of nurse shortages, in particular:

> *This means the high turnover of male nurses – we have not enough female nurses - affects quality.*
>
> IOrgN3 16-5-06

According to the director of NDU qualified nurses are not used where they are most needed, transferring to health centres where the work is easier:

Another issue is with the married female nurses who try to transfer to health centres...where the work is more easy. We have qualified staff who we should use correctly to give us better results.

IOrgCI2 9-5-06

Nursing management is aware of the issue and is trying to improve the situation, but according to the MD nursing director this is not a simple task:

I wrote a formal letter to the stakeholders about the female nurses' shortage. Recently recruited male nurses to work at the female ward create a cultural issue in my department. In our society, these male nurses are absolutely not socially accepted at the female ward. To solve this issue, I assigned them to work at the morning shift to be accepted gradually with the female university student nurses then to afternoon shift only and to leave all the female nurses on the night shift. I mixed female nurses with male nurses when possible so the female nurses will do the female procedures which need privacy but the male nurses can do procedures such as observation, dressing, IV injection, IV cannulas and Ventolin nebuliser.

IOrgN1 8-5-06

The data above suggest that there is insufficient well qualified nurses and doctors to establish a high standard of patient care, that includes taking account of the social relationships in Jordan that restrict intimate interaction between men and women, specifically the use of male nurses in female wards. Establishing a patient safety culture in the hospital is also hampered by a lack of knowledge in the staff recruited about patient safety and quality issues that is not aided by the high turnover of staff, principally attracted to higher paying health services overseas or to the private sector.

As well as being poached by Arabian neighbour countries and the private sector and losing staff by transfer to other public health facilities, internal instability in the public health system in Jordan is a further contributor to staff shortages, with regular fortnightly or monthly resignations, as the MD nursing director indicates:

I think staff are not stable currently because of transfers. Since last year and this year since January all new staff recruited go to Hamza Hospital. We don't know who will stay here and who will go to Hamza Hospital (newly opened public hospital)...

IOrgN1 8-8-06

Despite the hospital directors' reassurance about an adequate workforce, there is considerable evidence of staffing instability in both the medical and nursing professions. Consequently, it is difficult to establish change in the health care culture

with continuous staff turnover. Ways to encourage staff to remain at the hospital for longer periods need to be determined to establish an effective and stable workforce. As well as human resources, staff also need physical resources to care appropriately for patients, discusses in next to section.

Physical resources

For best practice care, the literature stresses the importance of allocating appropriate and adequate physical resources by the organisation to support patient safety. The implementation of a patient safety philosophy requires appropriate and adequate resources. Adequate service structures and buildings undertaking like functions are essential for good patient care and patient safety. Two sub-attributes are included within this attribute, namely: the control and provision of funding to purchase new physical resources including renewables; and adequate resources to maintain and repair equipment so that equipment remains functional.

However, as the data show, budget appropriateness and allocation systems do not adequately support these outcomes. Further, within AlBashir, there is a distinction made between who provides the funds and who sets the standards.

According to the QD manager at MOH:

> *Funding of the current projects is by MOH and America via USAID in terms of technical and financial supports.*
>
> IPDr1 7-8-06

This 'control' of the funding by the MOH has the effect of taking autonomy away from hospital managers about what they can manage and how they allocate resources. This includes the budget for hospitals. The hospital manager's budget is limited and was described as 'pocket money'. According to the general hospital manager:

> *The budget is approved according to the country's government budget in general including MOH (health directorates and hospitals). At the MOH they know each department has a budget according to the budget plan. There is no special budget for AlBashir Hospital, but they know the limits of my budget 200 JD (Jordanian Dinar) monthly.... If we want more than the allocated amount we have to write to the MOH.*
>
> IOrgDr6 2-9-06

This quote shows that the hospital manager has limited budgetary authority, with budget limits decided at MOH level (As-Sayaideh et al., 2002). That is, hospital managers take what is given, rather than ask for what they require. The hospital requires considerable refurbishing to bring it up to a modern standard. The hospital building itself is very old, and the medical department is located in the oldest building at the hospital. There is no centralised oxygen or suction or paging system or call-bell system. The effect of the building structure on clinical practice was raised by the hospital nursing manger who said:

> *Sometimes there are issues that are not in our hands such as the building structure, the current old building structure ... also department structures, which are fragmented or far way affect the delivery of patient care; it is very annoying to us...it affects the process of communication, reporting, care given by other departments such as X-Ray and laboratories... patients suffer waiting for transportation to go and come back in winter and summer...*
>
> IOrgN3 16-5-06

This fragmentation in the department's location makes communication difficult and wastes clinicians' time. The organisation has little control over the funding allocation and priorities are decided at MOH level not at hospital level. Further the limited data available as a basis for decision making make decisions about where resources are spent or what resources are needed, difficult. Hospitals need to be able to plan for physical and staffing resources in the short, medium and longer term and having little control over planning and budgets increases the barriers to aligning resources to patient improvement. I turn finally to discuss the availability of adequate physical resources to enable staff to implement a patient safety culture.

Availability of physical resources

The literature outlines the importance of availability of well maintained resources (e.g. equipment) to assist staff in preventing and treating patients with PU, for instance, to ensure quality of delivered care. As with the budget for capital works, the organisation has a general shortage of equipment at the ward level. In this regard, the hospital nursing manager said:

> *The nursing staff have to work with the available resources to give the best quality of care ...there are many things we need ... such as shower chairs, wheelchairs, and other simple and necessary equipment. It is possible to write a letter to the MOH but no guarantee they will answer. The MOH has priority to*

supply according to the budget, and if they have the funds they will supply. We (hospital managers) *will try to write to them and if they respond it is OK. If not possible this year maybe next year and so on ...*

<div align="right">IOrgN3 16-5-06</div>

While the manager may write and request needed equipment, there is no guarantee that it will be provided. Not being able to plan for needed equipment in a particular timeframe not only affects the care of patients who need care, but also discourages staff from expecting that their needs will be met, leading, possibly, to disinterest in improvement at best, and cynicism at worse. Managers do, however, look to a time when they might be resourced to the developed countries level:

> *The hospital can provide the basic resources as much as they can ...because with our current resources this is the maximum of what we can do. However, I wish we will be like the other developed countries in this subject.*

<div align="right">IOrgDr4 23-7-06</div>

Not having the needed physical resources may actually aid in developing a safety and quality culture by spurring on advancement in other areas, as the QU director implies:

> *As you know now we believe that the present resources are not enough, so the only solution we have is to improve the current quality services provided.*

<div align="right">IOrgDr5 21-8-06</div>

Obtaining necessary equipment and consumables is made difficult by hospital supplies, such as beds, wheelchairs, medications and other renewable resources (gloves, syringes, cotton...) being kept in a storage area at the MOH. Hospital staff must go to collect their orders according to a weekly or monthly schedule. This lack of availability of resources when they are needed limits the quality that clinicians can provide to patients, and in the case of pressure ulcers, as the QU director indicates:

> *We need more resources for our hospital such as special mattresses for 'bedsore' cases.*

<div align="right">IOrgDr5 21-8-06</div>

My field notes support respondent comments above about availability of resources.

> Hospital mangers are well aware of resource shortages, but they do not like to raise this issue in every meeting. For example, the MD manager said:
>
> *I would like to say that our meeting today is for accreditation and definitely a discussion door will be opened, but I don't like*

<div align="right">205</div>

> *anybody to say I have a shortage of for example, ECG machine,
> ECHO machine, and stethoscope...*
>
> OOrgDrM1 25-7-06

> Staff always request resources from the MOH in the routine
> process. For example, an 'in-charge' said:
>
> *We all, with the doctors and the hospital manager, wrote a
> letter clearly requesting equipment such as the 'emergency
> trolleys, oxygen, suction and ECG' - these are all important to
> 'save a patient's life'. If they supply us with these basic things
> we will ask for the rest of our requests. It is great to have 'four
> complete emergency trolleys'.*
>
> OCNM4 24-7-06

The equipment referred to in the box above was supplied to AlBashir Hospital from MOH but without any clear criteria regarding the distribution of the physical resources between the hospitals. Just when and on what basis equipment and resources are distributed is not clear, again indicating that managers and clinicians are unable to plan care around equipment and consumables being available. As the hospital nursing manager indicates:

> *It is enough to cover the basic needs, but we need more in order to improve the
> quality of care.*
>
> IOrgN3 16-5-06

For staff and patient safety a manual handling technique should be in place but no lifters are available to use. For example, as the hospital nursing manager indicates:

> *If there is an obese patient nurses alone used to move this type of patient and
> sometimes you need from 3-4 people to do that, and this is very difficult
> particularly for female or pregnant nurses.*
>
> IOrgN3 16-5-06

The manager is aware of the resources that are needed but are unavailable that included:

> *Bed sheets, disposable gowns and plastic aprons, creams for backrub, oils, and
> other equipment for dressing, pillows, linen, blanket...*
>
> IOrgN3 16 5 06; ICCI4 23 4 06

Provision of funding to maintain physical resources in working order

My data also revealed further issues concerning the maintenance of equipment, in that there appeared to be no formal process for requesting maintenance or repair of

equipment. No priority system was evident through which equipment that is urgently required can be repaired or fixed first, as a CI indicated:

> *Our problem with the communication process is delay in reply to any issue such as maintenance process with many requests and more than one contact to repair anything...*
>
> ICCI4 23-4-06

The accuracy of equipment readings thus becomes a more serious problem for patient care, as the hospital nursing manager explains:

> *'This equipment is not showing the correct reading which affects patient care'.*
>
> IOrgN3 16-5-06

The manager must go personally to seek new equipment from the resource and hospital supply officer. A clinical instructor noted the difference between health sectors, and the unequal situation in which the public sector is placed:

> *There is a big difference between the private sector which has a clear system and governmental sectors. There are many things hard to get* (in the public sector). *For example, if there is equipment out of order it is disaster; you can't repair or substitute it.*
>
> ICCI5 26-4-06

A further example is given in the case of ICU. A clinical instructor explains:

> *We have a big resources issue. For example, at the burn ward, since six months... we report four to five times in formal letters that we need to repair the ICU monitor which is out of order...Hence, we can't admit patients on a ventilator without a monitor...so ....we have a problem... because we don't know if this patient is alive or not.*
>
> ICCI4 23-4-06

The following field notes supported the interviewee comments above.

Patient outcomes are affected by poorly functioning or maintained equipment. For example, a specialist (the head of the GI department) said:
 	
    no trust in any of our lab (laboratory) *result. We double checked with private laboratory outside the hospital such as 'Midlab' and the result is not the same. This is not only for the B12* (level) *but also for all investigations.*
 	
        OCDrM3 15-5-06

I further record a clinical nurse saying in one clinical meeting: *The sphygmomanometer, if they supply us with one; they want it to work for thousand years! A named nurse*

> replied that ....*all equipment is donated from patients or others.*
>
> OCNM4 24-7-06

> I further record:
> An example of maintenance issue is the department lift (used for patients only). There are three patients for portable chest X-ray. The nurses called the department, who said send the patients on their beds because the machine is too heavy to transfer through the lift.
>
> OMMW 22-3-06

The above examples of equipment shortages need to be addressed by the managers at the organisation and MOH level to provide the required quality and safety health care to patients. Inadequate physical resources are available to maintain a high standard of patient care. Further, there is inadequate equipment maintenance at the hospital. These findings have implications for the engineering department and for hospital management. The engineering department may require a review of its processes and outcomes to ensure basic equipment at ward level is maintained. The above issue also needs to be assessed and managed carefully by the organisation managers to ensure quality and patient safety. Therefore, the allocation of appropriate and adequate physical resources implementation needs to be reviewed. I now draw this section together by summarising the key aspects in the patient safety attributes and availability at the organisational level.

Presence of key attributes of best practice care in the case study site at the organisational level

The Table 4.10 below presents the best practice model attributes and availability in the case study site at the organisational level. This table is divided into five main categories according to the attributes including: culture, structures, processes, human resources and physical resources with their sub-attributes in order to compare them to the case study site in Jordan.

Table 4.10: The presence or absence of best practice model attributes and availability AlBashir Hospital at the organisational level

Best practice attributes	Present/ absence/ issue	Comments
Organisational culture:		
Leaderships and governance	✓?	Managers express commitment but there are problems implementing a patient safety culture.
Managers autonomy	✓?	Cultural vision is verbalised by manager but it is in the very early stage of adoption with limited autonomy to run the organisation.
Structures:		
Specific structures to implement a quality and patient safety system	✓?	The structures changes that have been introduced are overlaid on an existing hierarchal complex organisation structure of the AlBashir Hospital.
Processes:		
Manager position descriptions	×	No clear role function criteria for top level manager.
Performance review of managers	×	The current performance appraisal process does not appear to be re-shaping the behaviour of clinicians in line with the manager's philosophy articulated.
A system of standards development	×	No evidence of a system operating in the organisation to identify and develop standards to ensure that patients are treated according to best practice.
Effective written communication	×	Inadequate, formal and hierarchical communication.
Effective verbal communication	×	lacking in efficiency and effectiveness.
System to collect and manage patient summary data	×	No system in place to monitor patient incident data that would include in-hospital falls, wound infections or PUs.
Human resources:		
Adequate staffing	?	Contentious and unstable.
Physical resources:		
Provision of funding to maintain physical resources in working order	?	little control over the funding allocation.
Availability of adequate physical resources	?	Inadequate, poorly maintained and there is lack of continuity of renewable resources.

Legend: ✓✓= fully developed, ✓= present in a limited degree only, × = absent,
✓? = present but there is an issue

Conclusion

The second part of this chapter has presented the findings of the study at the organisational level. The findings show a safer culture for patients and staff is being cultivated at the hospital. A cultural vision is verbalised by managers but it is in the very early stage of adoption. Managers also express commitment but there are problems implementing a patient safety culture. Structural changes to support the development of a patient safety culture have been implemented but are overlaid on an existing hierarchal complex organisation structure of the AlBashir Hospital. This complex structure of the organisation will prolong the change process.

Regarding process attributes, there is less than an optimal pattern of communication in implementing a patient safety culture within the hospital. Inadequate, or dominantly formal and hierarchical communication processes between the three organisational levels of health care impede effective communication. Meetings at the hospital are neither efficient nor effective. Moreover, there is lack of professional group role (job descriptions) clarity and a systemic lack of well-specified well-formulated performance criteria and review. Further, there is a lack of systems to collect and manage patient summary data for the organisation and transmitted to the government level. Finally, processes to implement new evidence for practice were not evident.

The adequacy of staffing of AlBashir Hospital is contentions with no stability of the workforce evident. The organisation has little control over funding allocation. Inadequate physical resources (equipment) are available to maintain a high standard of patient care and to provide optimal patient safety. Physical resources are poorly maintained and there is a lack of continuity of renewable resources. Having such systems and resources in place is not a matter solely for the organisation, but is also a result of having the right policies in place through which programs are developed and resources allocated. We turn next to consider the policy context within which quality and safety are being promoted.

Ministerial environment

This section outlines the attributes of best practice relating to pressure ulcer drawn from the literature. These attributes comprise culture, structure, process, human resources and physical resources. Each is accompanied by a set of sub-attributes. The findings are presented according to these attributes. Culture is the first major attribute that will be discussed.

Culture

For best practice to be substantiated as existing, a culture of safety for patients and staff at all levels must be nurtured and sustained. Ideally, policymakers would practise within this culture of safety with policies to practically support their direct work and with systems that support clinical care. According to the literature, and for the purposes of this thesis, culture can be categorised as a patient-centred philosophy that underpins government policies relating to health system reform as reflected in decisions about health care management.

Patient centred philosophy

The literature outlines the importance of adopting a culture of safety at ministerial level to be reflected at clinical and organisation levels. Such a culture is epitomised by an environment that assists managers and clinicians to achieve safety for patients and for staff in practice. This environment will have a quality management strategy in place to actively reduce risk and to promote patient safety. Findings from the Jordanian case show that such an environment has yet to be established, although there are indications that some early stage projects exist in the Jordanian situation and are reflecting changes needed to move to an environment that supports safety for both patients and staff.

In Jordan there is recognition of quality of health care in the acute sector through development of a quality health care system by MOH. MOH has strategies to bring about this new situation. Data for this section are based on an interview with the policymaker at MOH level who is responsible for implementing quality strategies in the hospital. At interview, the interviewee made clear that her effort and focus was in primary care health centres rather than acute care. Quality in acute care settings is in an early stage of policy development, principally establishing quality units in hospitals

implementing an accreditation system to support the health care delivery. The excerpt that follows establishes the policymakers' vision:

> *The policy makers are concerned with factors affecting patient safety in order to classify, treat and then improve them. Because the legal or judicial part cannot be changed, the MOH uses the judicial side (as a change strategy) such as penalty or suspension from work. The important thing is to repair these factors and apply them to control improvement by decreasing conflicts between the health workers.*
>
> IPDr1 7-8-06

This quote is illuminating in highlighting the problems with health system reform as conceptualised by the policymaker. Here, conflict between health workers is the principal problem, with the solution seen to lie in strategies of punishment to bring about compliance. It appears that this strategy is favoured because the MOH has legal powers to apply sanctions and punishments for non-compliance to 'factors' that affect patient safety. Other than a general ordering of these factors through classifying, treating and improving them, it is not clear just what the aims of a patient safety system are, how they will be achieved and how and why health worker conflicts risk achieving them.

Jordan, like other countries, is working continuously to establish policies to define workable ways of achieving best practice. Currently initiatives are in train to establish a re-licensing or accreditation system so that health organisations can develop and maintain standards that support high quality care to every patient within a safe environment with appropriately qualified staff with an appropriate skill mix to meet patient needs. This concept of accreditation is new for Jordanian health care facilities. I go on to discuss the process of accreditation at AlBashir that incorporates the many aid-based health projects introduced to the Jordanian health system. In relation to accreditation, the policymaker remarks that:

> *In 2002, a national accreditation program was established through the Partners for Health Reform Plus (PHR Plus) in health sectors funded by US Aid.*
>
> IPDr1 7-8-06

The accreditation system begins with a project titled PHR (partnership health reform) that simply prepares staff, as the policymaker describes:

The 'accreditation system' let us say it is started late 2004 and early 2005 as a preparation period for the 'culture' to the hospital directors about the 'accreditation'. The second project was the PHR Plus which is for accreditation, medical records improvements, team work, drug and pharmacy system through storing system, classification prescriptions and everything regarding drugs and cost containment...

IOrgDr5 21-8-06

In Jordan, hospitals are classified according to the progress of their achievement of accreditation, including AlBashir. The policymaker describes the process:

Last year we achieved first place in accreditation at the MOH level and 4th place for the whole of Jordan. This means we are the best (with) not much needed for the next step. We are on target designing, forming committees, implementing and achieving a small percentage (3%) of all policies...nobody believed that AlBashir Hospital would get first place.

IOrgDr5 21-8-06

The policymaker notes that because of these first stage results people trust the hospital, and staff have become motivated to continue with the initiative.

A standards development process began in early 2006 titled 'PHR Plus', developed with cooperation of all Jordanian health sectors to implement standards based on a classification of 'base, core and stretch' goals contained in a design plan and gradually implemented via practice policies. Significantly, the standards list safety and prevention of pressure ulcers as core standards of nursing responsibility (p25, code *NS.9.5 Safety* and p80 code *NS.10.7 Skin care and prevention of pressure sores*). This broad standard identifies the goals but fails to detail who, what, when and how the standard will be implemented. A policy manual does exist, however it is out of date and incomplete. It does not contain all relevant MOH rules, regulations and policies, including the hospital's health insurance policy, nor changes to hospital management positions. Hence, compliance with implementation is a problem at the clinical and organisation levels. Any breach of the directives results in disciplinary action based on the policies and procedures because, despite written memos, relatively few people working at the clinical level are aware of the importance of complying with the policies. Thus, non-compliance of these internal policies and procedures may contribute to poor management, for instance, of PUs because of staff non-adherence to the standards and failure to promptly and formally report on potential patient risk. At the organisational level, nursing priorities emphasise second order issues, such as complying with the

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uniforms policy, particularly managing the non-compliance of nursing staff, as the hospital nursing manger explains:

> *The nurses should follow the guidelines of wearing a white uniform with dark coloured trousers (black, dark blue or grey); no other colours are accepted.*
>
> OOrgNM2 2-8-06

The data outlined above show that awareness and practice of the culture of safety are in very early stages of development in acute care settings. Nonetheless, several staff in key clinical leadership roles did articulate specific instances of problems and offered clinical solutions to overcome them. What appears to be missing here is the organisational capacity to develop clinical systems, such as prioritising patient safety systems including routine risk assessment, to support best practice. This absence extends to a capacity for nurses to address a critical underlying barrier to prevent pressure ulcers, i.e. the apparent delay in initiating timely medical treatment. Thus, opportunities exist for MOH staff to address the prevention and management of pressure ulcers as the standards set out that now need to move to the next step of developing prevention and management systems to improve and evaluate clinical practice and patient outcomes. This will require that structures are in place through which resources can be allocated to begin to develop systems that support patient safety aims.

Structure

The best practice care literature stresses the importance of structures at ministerial level to support patient safety. The structures alluded to in the literature include a well-defined organisational structure of quality units at ministerial level to coordinate and direct effort around quality of care and patient safety. I have mapped and undertaken a critical review of the quality structures at the policy level of the organisation's structure based on information provided by the QD manager. The structure of the organisation's quality directorate is set out below in Figure 4.3. The figure shows a fragmented organisational structures operating at the MOH ministry level.

Figure 4.3: Organisational structure of the Quality Directorate at MOH
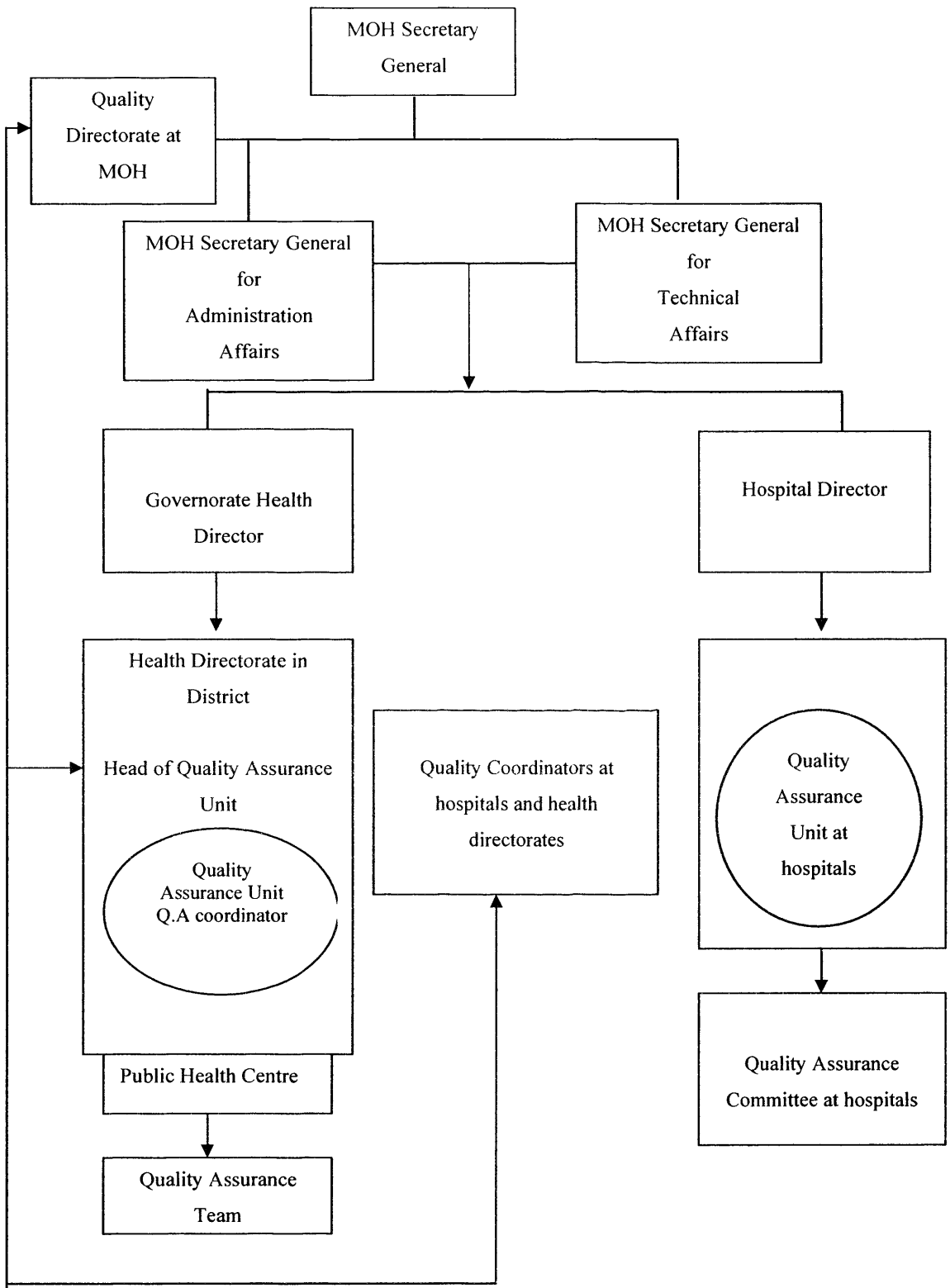
The QD organisational structure at MOH was obtained from the QD manager. The QD manager has direct contact with the MOH Secretary General upward and with QU directors as coordinators at the hospitals and the health directorates through their general directors (hospital directors and health directorate directors). This hierarchical way of indirect daily contact and reporting affects development of connected structures and implementation of smooth processes designed to ensure quality and patient safety. The sub-attribute identified in the literature relating to structure is discussed next, namely specific quality department structures at ministerial level and quality unit meetings.

Specific quality department structures

In order to develop a patient safety approach, it is crucial to have approved and written policy in place. Even though the MOH has established structures in the form of quality units, my review of QU policies revealed a significant deficiency relating to management of PUs. In Jordan, there is a broad interest in patient safety and quality and risk management and this is reflected in the initial priority given to safety and quality issues at MOH that includes, particularly, infection control in the form of protocols and guidelines at hospitals. The general hospital manager articulated this vision in the excerpt following:

> *There is broad interest in safety and quality at MOH. We have now a quality directorate established recently I don't know exactly when. Currently we at AlBashir Hospital have more interest in this subject, for example we concentrate on patients, escorts, visitors and environmental safety and each one inside this hospital. The administration and the staff should ensure their adherence.*
>
> IOrgDr6 2-9-06

After the initial concept of quality was established by the MOH at ministry level of the hospital via the Quality Department, quality as an activity of care delivery was first introduced via primary cares medical centres as the QD manager outlines:

> *There was a project between the MOH and USA. They (the American staff) established an Internal Control Directorate and a unit called quality development that did not continue for more than 2-3 months, then the subject was dropped until 2003 when the MOH established this directorate by recruiting staff who worked in 'quality' into a project called the Primary Health Care Initiative, concerned with primary health care centres (PHC).*
>
> IPDr1 7-8-06

As the above quote indicates, the MOH's QD was the initiating structure for quality in acute care. The QD manager outlines the role of this department as follows:

> *Our directorate role is 'strategic planning' to guide and direct the quality units...all relate to primary health care. The most important thing we got from these projects was "the culture of quality and awareness" ... the Americans concentrated on training they trained many famous names in quality... indeed they established a central directorate for control and quality assurance at MOH called the quality department.*
>
> IPDr1 7-8-06

The quality project was not introduced into acute care hospitals as it was in primary care. The QD manager gives the reason for this difference:

> *At hospitals we did not introduce 'quality projects' because we introduced accreditation, which is one of the quality tools to establish a quality system to the hospitals.*
>
> IPDr1 7-8-06

So as to get more details about the quality system at the MOH I had planned to critically review and examine clinical operational procedures, organisational strategies and ministry policy documents. However, my document analysis of policies and practice standards and quality policies was limited. A list of available policies at MOH level was requested from the policymaker but not received even though I contacted the person on numerous occasions. I reviewed those documents that were available and pertinent to the subject of this thesis as constituting a process of systematic data collection and to assess the extent to which practice is based on extant policy. However, those documents reviewed were not sufficiently detailed to give explanations for the questions being developed, for instance in this section that attempts to assess the link between policy and practice. The documents obtained and reviewed are set out in Table 4.11 below.

Table 4.11: Contact list regarding data collection follow up between Sydney and Jordan

Date	Who	Through	Comments
Dec 2006	Dr Safa (Quality Directorate Manager, MOH)	Email	Asking about the policy documents list of what is available, results of second evaluation of Accreditation particularly AlBashir Hospital, and any clarification about the accreditation standards.
Dec 2006	MOH and AlBashir hospital websites.	Internet	Nothing was found regarding any policy documents. The websites are not up to date.
Early Jan 2007	Dr Safa	Mobile call	Reminding her of the documents I asked at least the policy document list.
Mid Jan 2007	Dr Safa	Mobile call	Reminding her of the documents and giving her a fax number to send the document to, if they cannot be sent by email. She indicated these documents included MOH policy documents such as: *Organisation structure of the QD at MOH* *Health safety policy for the next 5 years* *Accreditation policy* However, only the QD organisational structure (outlined above) and the standards draft for Accreditation were sent.
22 Jan 2007	Dr Safa	Mobile call	Executive summary of the outpatient utilisation and satisfaction survey of OPD patients in all MOH hospitals only sent. Dr Safa's email note indicated that she will keep on sending the other materials, none of which have been received to date.

The response and clarification given by the policymaker does not suggest a clear well-established structure or process through which quality and particularly accreditation are being established as the basis for a safe culture for patients and staff. The analysis of the documents that I received on the QD organisational structure and standards draft are discussed in the preceding section and the health safety policy for the next five years is the general Jordanian health strategy (available on the MOH website), and the executive summary of outpatient utilisation and satisfaction were not related directly to my thesis and therefore not discussed. I turn next to discuss the meetings held of the quality units at ministerial level.

Quality Unit meetings

The literature is clear that meetings that allow discussion on quality of care and patient safety constitute the types of structure necessary to support a culture of quality and safety. Ideally, such meetings will occur regularly at the ministry level in order to discuss the reports from the hospital's quality unit and hence agreement on any developed policies. Regular meetings of all hospital representatives are also important to assess, plan, coordinate implementation of and evaluate care given at the ward levels.

The QD manager at MOH reported that monthly meetings occurred. However, no evidence was found during the study period of routine meetings taking place at the MOH that discussed the quality unit even though the QD manager insists that:

We discuss all these matters at the monthly meeting in our directorate.
IPDr1 7-8-06

No meetings occurred in three months during which I waited for the QD manager to notify me of details to attend the quality unit meeting. I infer from this that quality meetings are not held regularly at the MOH level that calls into question the effectiveness of the process through which quality and safety initiatives are being implemented in the organisation, specifically in clinical workplaces.

Other than quality projects at the primary health care centres, no well developed structures were recorded that dealt with acute care issues with reference to the populations of patients in particular case types, such as PU in acute care. To summarise evidence relating to the best practice attribute of structure, there is not sufficient evidence to conclude that the structural supports necessary to create an environment of quality and patient safety at the MOH are in place to transfer resources, capacity and skills to acute care hospitals. I conclude that the QD meetings intended to discuss, develop and update standards of care and care organisation in the context of patient safety and quality need to be rearranged and better defined. I turn now to consider the processes at the ministry level that would establish the types of relationships that underpin instituting a culture of quality and safety in health care.

Processes

Once effective structures to develop and investigate policy to drive health care services structures are in place, processes must develop to connect structures as a purposeful organisation by linking the structures in a meaningful way. Established processes are needed between government ministries and health delivery organisations to communicate policy and standards to receive summary data from hospitals on patient safety issues as the basis of decision making for further improvement. Included here are managers with position descriptions that specify the vision and skills to change the existing culture, performance review and feedback, system for the identification and development of best evidence guidelines, effective written and verbal communication

between managers and clinical groups, and systems to collect and manage patient summary data for the ministerial review level.

Managers' position descriptions and culture change

In terms of this first sub-attribute, the literature outlines the importance of managers' position descriptions that specify role behaviours and functions that are carried out by managers at ministry and organisation levels. The literature indicates that these descriptions that address the priorities, adjust existing programs to respond more effectively to needs, support the reallocation of resources to health initiatives and improve interaction and collaboration between all health care levels to support holistic approaches to health. In view of the comment by the policymaker at the outset of this section reporting ministerial data, it would also include managing the conflict that appears to exist between health workers and that became the subject of the policymakers' actions to implement quality initiatives. I examined this sub-attribute but found insufficient documents to examine it adequately, thus relying on respondent comments from interview transcripts to assess the extent of its existence. I firstly asked the QD manager about her understanding of her role that she was able to clearly express in terms of her responsibilities:

> *My role is to ensure a quality system is well developed at MOH. I am supervising all MOH quality units to work for accreditation at this time...*
>
> IPDr1 7-8-06

This focus on quality calls for a change in the role of health providers. The MOH representative at AlBashir Hospital clarified and defined clear roles and responsibilities of managers according to the general hospital manger:

> *Managers have large responsibilities to understand and be ready to support and follow this (evaluation) up. Through my meetings with the heads of departments I found initiatives outlined in circulars and simple notes to their staff of doctors and other workers and even though this is their work, I sent thank you letters to them to support their work.*
>
> IOrgDr6 2-9-06

However, managers' attention to their roles and responsibilities is not always as their more senior managers expect, as the infection control manager noted:

> *I am sorry to say that our infection control 'in-charge' is in a deep sleep; she believes her duty is in the office not at the clinical level. Her role should extend*

to train a number of staff in surgical, paediatric, premature and nursery wards,
I tried to cover most of the staff to train them when I was in her position before.
This training, field visits and work in process were on hold with this manager

What is notable here is that neither manager quoted in the excerpts immediately above were able to articulate the vision and skills necessary through which they or the subordinate managers about whom they speak would be able to reflect upon what constituted a safety culture.

The absence of specific manager job descriptions is further evidence that a culture of safety is not operating in MOH as the literature suggests. Specific job (position) descriptions are needed that are written, specific and available for access about the roles and responsibilities of managers that align with organisational objectives. As the functions of health professionals are discussed further in the Jordanian health quality initiative that is currently underway in AlBashir Hospital, managers will require descriptions about what part they are intended to play and how they are expected to exhibit their vision and skills to implement a safe culture. In a process of culture change, roles and responsibilities will evolve as strategies are implemented, reviewed and adjusted. Thus performance review and feedback are critical processes through which this evolution is charted and used as a mechanism to align and realign the direction of change and its aims.

Performance review and feedback

In terms of the second sub-attribute under the attribute 'processes', the literature outlines the importance of performance appraisal conducted by managers at the ministerial levels of senior staff in the organisation about negotiation of and adherence to performance objectives, and so on through the organisational hierarchy. The literature indicates that a performance review system is essential to identify those areas of performance that are well developed and those which may benefit from a structured plan to enhance staff managerial and clinical skills. Performance appraisal can be affirming of performance, however, in general, hospital performance and the quality of care delivered to the patients did not satisfy managers, as the MOH policymaker alludes:

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The problem is with society's understanding (of quality of health care) and who is asking, what we have to do, where we going, and who will work it. This will affect our performance – in contrast to Australian society - they are excellent... I believe in the quality in Australia.

<div align="right">IPDr1 7-8-06</div>

Although referring to society in general, the policymakers' comments are broadly directed and reflect uncertainty about the purpose and direction of change, who will implement it and how it will be done. In moving to discuss how such a culture will be implemented she states that:

We need initiatives, motivation, good reporting and communication. The patient should be a participant in the treatment process. We need to accept the problem we have with patients without shame and the doctor has to believe in this role at least to follow our instructions. If this happens we will succeed.

<div align="right">IPDr1 7-8-06</div>

As alluded to earlier, compliance to MOH directives is identified as a key factor in implementing a quality system. However, no policies exist to reward staff for effort, but rather conflict and non-compliance feature as barriers to success that are responded to with punishment as a clinical instructor describes:

One of the barriers to apply the required management is that we don't have a reward and punishment policy and if we do have one, it is not effective because it is not applied correctly... all staff are treated the same; excellent staff are not rewarded... The hard worker and non-worker have the same salary at the end of the month...There is no control of the staff to motivate or reward them. We always discuss this issue with the 'in-charges'. Motivation should be present continuously.

<div align="right">ICCI4 23-4-06</div>

This comment by the clinical instructor indicates that clinical staff, as with the policymaker and managers, accept that a means of motivating staff to greater effort is important in shaping the direction and extend of change. However, although there is a policy that is enacted, although not written, it does not differentiate staff performance and therefore misses the opportunity to reward role models as an organisational strategy. Motivation is a regular topic of discussion at nurses' meetings, but an effective policy and related practice have not been developed as a central element of a change strategy. My field notes record instances that support this conclusion.

> With regard to filling in job satisfaction questionnaires by two RNs, as I was observing at the nursing station, the deputy

<div align="right">222</div>

> came to the ward and gave two questionnaires about job
> satisfaction at AlBashir Hospital as required for accreditation
> to two RNs. Laughingly, the RNs said "REDA?" meaning
> satisfaction (and which is also the same word for a male name
> in Arabic.) Who and where is `REDA'? 'No need to fill it in'.
> They asked an AN to fill it in blindly. He did so after asking
> some questions about their salary, transfer to the medical
> centre, university qualification and so on. One word was used
> to fill in most of the questions (i.e. excellent or happy). One
> RN said you will destroy us; I need them to transfer me to
> medical centre.
> They did not take this questionnaire seriously, which reflects a
> lack of awareness of accurately recording and evaluating
> progress, attitudes and practices.
>
> OMMW 20-3-06

Performance feedback is not a central strategy of change management. It will not be able to be used to its fullest extent without the vision and skills of managers to develop a workable system of job allocation and performance feedback, and staff acknowledging, accepting and fully participating in the importance of such a system. Part of a change management strategy that focuses on quality will have at its core the adoption of a system to identify, develop and implement best evidence guidelines.

Identifying, developing and implementing best practice guidelines

Well defined best evidence guidelines for prevention and management of PUs are essential to ensure high quality care is understood, available and delivered to the patients. The ministerial quality committee is responsible to approve, update and review such clinical policies within their institution. I examined this sub-attribute and found very limited evidence of guidelines being available to guide clinicians in the delivery of best practice pressure ulcer care.

The organisation recognises the importance of using evidence based guidelines such as the standard precautions or protocols at clinical level. There is limited evidence of use, notwithstanding an instruction from the MOH to the organisation that best practice guidelines be applied at the clinical level. In reply to a question about whether a system existed to identify and develop best practice guidelines, the QD manager replied that:

At this time, no we don't have a special system...

IPDr1 7-8-06

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Thus, as a basic first step, the MOH has to establish and implement such a system. The chance of success in implementing a system is called into question, however, in view of the numerous complaints made earlier in this section about the non-compliance of staff with ministerial rules and regulations, and there is no indication that this non-compliance would change in relation to a new system of guidelines. In this regard, the policymaker interviewed at the ministerial level believed that:

> *Our problem is with the non-compliance by staff such as with the new rules for smoking at MOH facilities. This can be the same for any new evidence.*
>
> IPDr1 7-8-06

My field notes support the view of the policymaker.

> Smoking is a habit practiced by many staff at AlBashir Hospital. Smoking is prohibited at most of Jordanian health facilities, and there is a new circular about smoking at the facility. Staff appear to be disregarding this prohibition. Smokers are not fined, despite smoking bans introduced some time ago at the MOH. At the clinical level nurses can request porters not to smoke but not patients, visitors or doctors. In an observation at the female medical ward I recorded an RN sitting on the nursing counter, smoking and laughing.
>
> OFMW 4-4-06

> Nurses' request of porters not to smoke does not always work.
> I further observed on the male medical ward a porter smoking in the nursing station that was discussed by staff members:
> An RN told the porter: *it is prohibited to smoke here. There is a danger for some patients who are asthmatic and there is oxygen here. Why you are smoking here?*
> He smiled and said: *'Forget it'.*
>
> OMMW 22-3-06

The MOH does institute fines for smoking; however, the proceeds from these fines should not be used as a means to raise revenue. Rather, they should be imposed and collected as a patient safety strategy as a means to prevent risk to smokers and potential smokers and to educate staff and patients about reducing risks to patients' lives.

In relation to designing standards and policies about quality, this initiative commenced at the AlBashir in 2005 and implemented in early 2006. This represents a considerable volume of work, as the quality unit director notes:

At this time we developed 19% policies from the total we should develop...covering current jobs or functions at the hospital..., 19% of the total - more than 1000 standards.

IOrgDr5 21-8-06

Even though MOH staff are conscious and proud of their achievements in developing standards as they have done, they are only still at the very early stages of planning and instituting routine practice among clinical staff to implement best practice guidelines will take time. Convincing staff that guidelines are essential in informing clinical practice as it applies to patients will take a concerted effort by the organisation in view of the laxity of staff in applying evidence to their own behaviour, reflected in their propensity to smoke. In support of this view about the challenge of implementing best practice standards, my field notes record that:

> There is an issue about who writes new policies or guidelines, e.g. internal hospital units or higher institutions.
>
> In an organisational meeting, the following debate occurred between four RNs:
>
> RN1: *I think we (nurses) need a written guidelines policy such as for PU from the MOH.*
> RN2: *no, I think it is an internal decision*
> RN1: *We need something written; it can be a written hospital policy.*
> RN3: *I don't think so; it should come from the higher nursing council.*
> RN4: *no, it is internal policies from the AlBashir Hospital not legislation for the whole Jordan level.*
>
> OrgNM3 22-8-06

The literature cites many examples of the formulation and provision of guidelines based on best evidence by informed managers as an effective way to facilitate change in staff acceptance and their adoption of best practice principles and practices. However, guidelines will only be effective if kept up to date by the quality committees at the hospital and MOH levels and made readily accessible in clinical areas.

Effective written communication

The literature (Runciman et al., 2007; Stein-Parbury, 2005) outlines the importance of having clear written communication from the quality department committee at the

ministerial level constituted by members of quality units in all ministerial hospitals. Ideally, such a committee should have a clear agenda and policies for regular meetings and a reporting system from the administrative level of the organisation through to the ward level about policies, standards and procedures that support quality as the basis of a safe culture. My data show that staff from the MOH communicate formally with hospital managers through letters and circulars. The content of these communications may be policy changes, directives for practice or special instructions. Hospital managers receive these communications and put them into practice, without question, as a hospital department manager informs a group of doctors during a meeting:

> *The communication to follow any instructions is mainly produced at the MOH from a higher manager and subordinates have to comply with it...or ready made from headquarters and as I have just transferred it to all of you.*
>
> OOrgDrM1 25-7-06

A hospital nursing manager describes a similar process:

> *Regarding the MOH's circulars, directly when it arrives the administrative clerks will pass it to me. Then I will make a memorandum to all departments such as training courses, ministry's new instructions for any procedure, scientific days, and nursing council advertisements such as training courses. We will coordinate them properly. There is a special signature book to be signed when the memorandum is received.*
>
> IOrgN3 16-8-06

The MD nursing director agrees that this is an appropriate process as reported by other managers when she says:

> *If there is a circular from the MOH, it arrives in administrative affairs who distribute it to the stakeholders such as hospital director, hospital nursing manager, then it goes to the departments' directors then a copy of the memorandum and the circular will be made available to staff via the bulletin board.*
>
> IOrgN1 8-5-06

My data show the communication between the MOH and the organisation is hierarchical missives produced at the MOH level and distributed down the hierarchy through a formal process until it reaches staff at the clinical level. My field notes further support this process of organisational communication:

> If the MOH correspondence is concerned with policy or instructions for new procedures, the document will be photocopied unchanged and placed on staff bulletin boards in each department. If the MOH correspondence is concerned with training courses, a memo will be written and displayed on

> the bulletin boards. Bulletin boards are located in the doctors'
> meeting rooms and in the nursing stations in wards. The
> secretary who works for the department manager puts up new
> circulars and removes old ones for the doctors' benefit. The
> 'in–charge' maintains the nursing bulletin boards. Bulletin
> boards do not necessarily result in optimal communication with
> clinicians because staff may neglect to read them or they may
> fail to adhere to them, even if they do read them.
>
> An RN complained to the 'in- charge' nurse about this method
> of communication: *Only yesterday I saw the announcement. I*
> *was off duty for two days and before that I did not see the*
> *announcement.*
> The 'in charge' said: *It is your fault, sorry I can't help you, go*
> *to the administration and ask …*
>
> <div align="right">OCNM2 16-3-06</div>

> In some instances clinicians are required to sign that they have
> read an MOH circular, as in this example given by the hospital
> nurse manager regarding nurses' uniforms:
>
> *The previous MOH uniform instructions will be recirculated, so*
> *please make sure that all nurses sign this circular…I will not*
> *accept any nurse wearing red, green or yellow and the 'in*
> *charge' will be responsible.*
>
> <div align="right">OOrgNM2 2-8-06</div>

This formal mode of communication is effective in conveying official information such as new policies and procedures, from the MOH to the hospital organisational level. However, at the hospital clinical level the use of memos and bulletin boards to convey information can result in clinicians remaining uninformed and being blamed if this is the case. My field notes also record that:

> Important clinical information on bulletin boards, i.e. giving
> third generation antibiotics and the daily listing of patients'
> names, may be placed with a range of other items such as
> nurses' duty schedules, doctors' educational programs and
> administrative advertisements. In all this material clinicians
> can easily miss reading important clinical announcements.

As well as accurate written documentation, effective verbal communication is also critical between the disciplinary groups and patients and I next turn to this sub-attribute

Effective verbal communication

The literature outlines the importance of an effective process of communication between the policymakers, managers and the clinicians to ensure quality of health care; however, I was unable to gather data regarding this attribute at the ministry level because my case study observation focused at the hospital as the main case study site. I turn next to the final sub-attribute under processes, namely a system to collect and manage patient summary data for the ministerial level.

System to collect and manage patient summary data

In order to ensure culture of safety a system to collect and manage patient summary data at the ministry level is essential. Reporting in summary charts is an important attribute in assessing and managing PU. It assists the policymakers to plan, manage and evaluate the quality of the care for such patients. Also it will assist to evaluate the effectiveness of the implementation of the evidence-based attributes. Therefore, the ministerial level should have summary statistics for all ministerial hospitals. In this case decreased PU numbers should be the positive outcomes from the ward level. The findings show that there is no incident monitoring system between MOH and the acute care hospitals to report PUs or other serious patient injuries. The absence of documented data about patients' injuries means that no summary results exist to evaluate how safe or dangerous the ward environment is for patients. Hence, improvements cannot be identified and made.

However, for accreditation requirements the incidence report was introduced by assigning an incidence report officer at the hospital departments. A quality unit officer discussed this requirement in detail with the doctors in a quality meeting saying that:

> *An incident is a case or condition outside the scope of the operational routine that would affect or threaten the health of staff, patients, visitors and students under training or others that may happen in the hospital or in the hospital grounds.*
>
> OOrgDrM1 25-7-06

In discussing a form to record incidents the quality unit officer went on to say that:

At the bottom of the form there is a very important statement that 'this form is one of the accreditation certificate requirements at AlBashir Hospital and used only for quality improvement not for any other purposes (i.e. not to be given to police or others). It cannot be taken outside the quality unit, and the incident should be reported within 24-48 hours'.

<div align="right">OOrgDrM1 25-7-06</div>

Just how useful this form is in relation to quality improvement is not clear, in view of its official status within the accreditation and its restricted use for quality purposes.

To summarise findings relating to the process attribute, there is little evidence of the process support necessary to create an environment of quality and safety at the MOH level. These processes include position descriptions for managers specifying vision and skills to change the existing culture, performance review and feedback, a system for the identifying and developing best evidence guidelines, effective written and verbal communication between policymakers, managers and clinical groups and a system to collect and manage patient summary data for the ministerial level.

Human resources

For best practice care, the literature (Bate et al., 2008; Wilson & Goldschmidt, 1995) stresses the importance of human resources management to support patient safety. Only one sub-attribute is listed under this heading, namely adequate staffing numbers allocated by policymakers that I briefly discuss. Effective allocation of adequate staff levels can occur through employing effective managers, hospital directors, and other staff who are philosophically aligned with and capable of implementing change as identified by government as needed to both deliver and manage care and to ensure patient safety and organisational change. As I have already discussed this attribute under the Organisation section earlier in this chapter, I will not duplicate discussion here, and I turn to consider the final attribute, namely physical resources.

Physical resources

For best practice care, the literature (Ovretveit & Gustafson, 2003; Wilson & Goldschmidt, 1995).stresses the importance of providing buildings that are safe and functional and providing major items of furniture and equipment, and funds to pay staff. These resources will be used for the clinical care to improve the quality of health care

according to a formula to work out that resources are equitably distributed such as number of beds and length of stay. Two sub-attributes are included within this attribute, namely: provision of funding to maintain physical resources in working order, and adequate physical resources to enable ministerial policy-makers to implement a patient safety culture.

Providing funds to maintain physical resources in working order

The government's annual budget is the source for funds for health services in Jordan, supplemented by donations from developed countries such as USA. In describing the allocation of funds, the general hospital manager described the process as follows:

> *The United States Agency for International Development (USAID) funded 21 centres and different MOH hospitals, Royal Medical Services ... and Jordan has provided 15 million JD (Jordanian Diners) to update beds and medical equipment. I have been nominated as chairperson of a committee to develop purchasing priorities for equipment...However our priorities are for diagnostic x-rays because of the current updated global technological development in this field and we are trying to follow this up with digital developments. Therefore from these 15 million, 10.5 million will be for x-ray equipment to hospitals.*
>
> IOrgDr6 2-9-06

This quote by the general hospital manager as a member of MOH policy committee makes clear that the Jordanian budget alone is not enough to support the development of a patient safety culture in Jordanian hospitals. Hence, donations in terms of technical and financial support are provided by developed countries. These developed countries supported a number of projects at MOH such as a policy project to engender hospital autonomy to encourage managers to accept responsibility for managing their organisations, as the quality unit manager alludes in the next excerpt:

> *The (USAIDS) introduced the PHR system in hospital autonomy project to decentralise AlBashir Hospital by giving hospital managers more power in hospital planning and staff budgeting. This system was used for around two years but then stopped because it was unsuccessful.*
>
> IOrgDr5 21-8-06

Just why the project was unsuccessful is unclear. However, in view of the very controlled and hierarchical approach to organisational management initiated and directed by the MOH, it might reasonably be assumed that the levels of support needed for managers to tackle the very extensive challenges described in these findings may not

have been present. Trust and preparedness to use trial and error approaches that allow mistakes and learning from them do not appear to be sufficiently well developed in the Jordanian situation. This quote confirms my previous discussion in the section under Organisation earlier that the budget remains planned and allocated by the MOH with limited control given to hospital managers. This is also the same situation in relation to physical resources to which I turn next as the concluding sub-attribute of my findings chapter.

Adequate physical resources

The literature outlines the importance of allocating adequate physical resources to assist organisations to implement prevention and treatment strategies for patients with PU to ensure quality of care and a patient safety culture. The allocation, distribution and decision-making around purchases occurs at the MOH level. This causes a problem with equity of resource distribution among the hospitals in the Jordanian health system, as each hospital likes to be considered as the best in order to attract more resources. In this regard, the policymaker noted that:

> *We did change the number of hospitals being accredited ... because each hospital wants to be the best, which is an issue. Even though we made this change the issue hasn't cleared up yet.*
>
> IPDr1 7-8-06

This competition to be the best affects the way work is done by the clinical staff as a clinical instructor indicates that:

> *We are working in a governmental organisation, which means you will not get what you need if you ask. There is no way to ask for a purchase request. Conversely, in the private sector they have more freedom to ask for what you need. We need 100 years to get what we need through a purchase request at the governmental hospitals...I mean our management process depends on the bureaucratic system, because we are a governmental organisation, not a hospital owner to provide you with what you want.*
>
> ICCI5 26-4-06

The above findings indicate that there is an issue in supplying the equipment at ward level and that this situation is well known. The adequate allocation of physical resources needs attention to ensure that clinical staff have the type and amount of equipment that they need to deliver high quality, safe care. This in turn will mean that

managers must be given a greater say in identifying and prioritising equipment purchases, and in advocating for the levels of resources that the organisation requires. This changing role for hospital managers will change the power relations between them and MOH policymakers that will need to be accompanied by a purposeful strategy of hospital manager empowerment, if the outcomes of the earlier attempt are not to be repeated. The above issue needs to be addressed by the policymakers at MOH level and managers at the organisation to provide the required quality and safety health care to patients to maintain safety culture. This suggests that the allocation system of appropriate and adequate physical resources needs to be reviewed.

Conclusion

The third part of this chapter has presented the findings of the study at the ministry level. The findings show that in Jordan there is recognition of quality of health care in the acute sector through development of a quality health care system by MOH and introduction of projects such as accreditation. However, it was in an early stage of development and hence a safer culture for patients and staff has yet to be established. Structural attributes do not appear to be prominent in organisational change and therefore health services lack the structural support necessary to create an environment of quality and patient safety at the MOH and transferred to acute care hospitals. The QD structure exists but limited meeting processes to discuss, develop and update standards of care and care organisation in the context of patient safety and quality constrain their effectiveness.

As my evidence suggests, processes are also inadequate to achieve the desired change in organisations effectively and efficiently. There are limited established processes between the government and health delivery organisations to communicate policy and to receive summary data from hospitals on patient safety issues as the basis for decision making to underpin change management strategies. Staffing levels are determined by other governmental departments, not solely by the MOH or health care organisations, with the staff allocation system being based on bed numbers and organisational status. This system encourages misdistribution and bias about what is needed. Funding and physical resources are available to maintain patient care from governmental budgets which may not be sufficient to support the standard of care envisaged by the MOH, and

that requires further support from donations from other developed countries. The findings set out in this section are summarised as key attributes of best practice care and their presence in the case study site for ease of comprehension.

Presence of key attributes of best practice care at the policy level in the case study site at the ministry level.

The Table 4.12 presents the best practice attributes and their presence in the case study site at the ministry level. As with the foregoing discussion, the table is divided into five main categories of attribute: culture, structures, processes, human resources and physical resources with their sub-attributes in order to compare best practice to the case study site in Jordan.

Table 4.12: The presence and absence of best practice model attributes and availability in AlBashir Hospital at the ministry level

Best practice attributes	Present/ absence/ issue	Comments
Ministerial culture:		
Patient centred philosophy	✓	Currently initiatives are in train to establish a re-licensing or accreditation system. Awareness and practice of the culture of safety are in very early stages of development in acute care settings.
Structures:		
Specific quality department structures	?	No clear well-established structure or process through which quality and particularly accreditation are being established as the basis for a safe culture for patients and staff.
Quality units meetings	?	QD meetings not well arranged or defined to discuss, develop and update standards of care and care organisation in the context of quality and patient safety.
Processes:		
Managers' position descriptions and culture change	?	Absence of specific manager job descriptions.
Performance review and feedback	×	Performance feedback is not a central strategy of change management.
Identifying, developing and implementing best practice guidelines.	✓?	The organisation recognises the importance of using evidence based guidelines such as the standard precautions or protocols at clinical level. There is limited evidence of use, notwithstanding an instruction from the MOH to the organisation that best practice guidelines be applied at the clinical level.
Effective written communication.	✓	The MOH communicate formally with hospital managers through letters and circulars.
Effective verbal communication	?	No sufficient data collected
System to collect and manage patient summary data	×	No incident monitoring system between MOH and the acute care hospitals to report PUs or other serious patient injuries.
Human resources:		
Adequate staffing numbers allocated by policymakers.	?	No allocation control by MOH or the organisation.
Physical resources:		
Providing funds to maintain physical resources in working order.	?	Inadequate with some donation.
Adequate physical resources	?	Controlled at MOH level

Legend: ✓✓ = fully developed, ✓ = present in a limited degree only, × = absent,
✓? = present but there is an issue

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Chapter summary

This chapter presented the research findings at the three levels. The above findings presented in four sections include quantitative findings in the first section and the three subsequent sections presented the qualitative findings as clinical findings, organisational findings and ministerial findings. The first research question was addressed in this chapter namely:

What *attributes of patient safety management exist in an acute care, public hospital in Jordan?*

The specific research questions are:
What is the **extent** to which risk is known and quantified using the example of a specific clinical case type (PU)?

What are the **structures** that exist to manage risk in a public acute care hospital in Jordan at the clinical, organisation and ministry level?

What are the **processes** that exist to manage risk in a public acute care hospital in Jordan at the clinical, organisation and ministry level?

What are the **human and physical resources** that exist to measure and manage risk in a public acute care hospital in Jordan by clinicians, managers and policymakers?

A summary table that outlined the presence of key attributes of best practice care in the case study site was presented (at the end of each section). The next chapter is a proposed patient safety framework for acute care patients in a public hospital in Jordan that answer the second research question:

If the attributes identified by the first question could be modified to increase patients' safety in an acute care, public hospital in Jordan, what would be the new framework?

THESIS FLOW
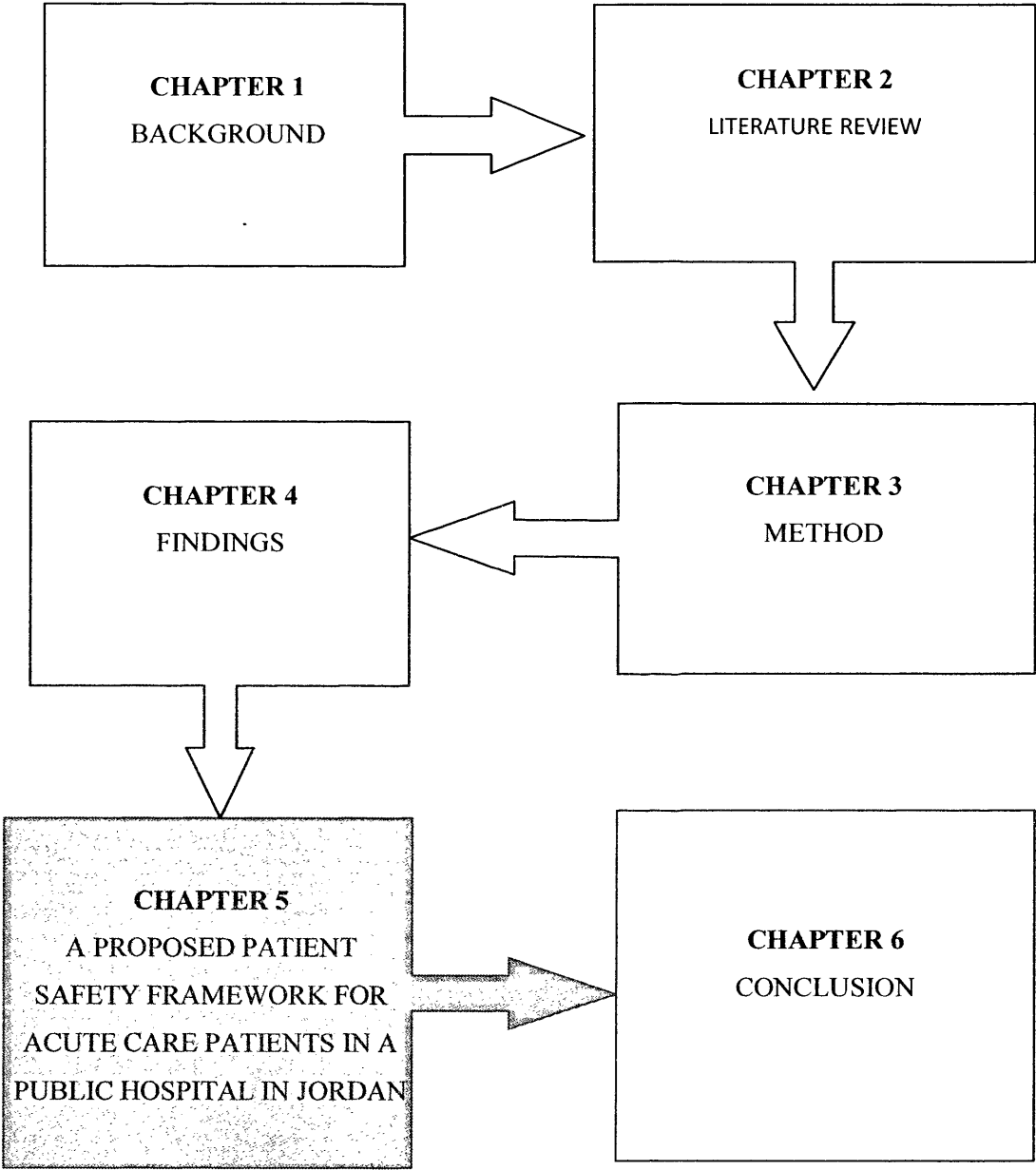
CHAPTER 1

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CHAPTER 5: A PROPOSED PATIENT SAFETY FRAMEWORK FOR ACUTE CARE PATIENTS IN A PUBLIC HOSPITAL IN JORDAN

Introduction

This chapter brings together the findings from the previous chapter and presents ideas about how to address the issues raised in that chapter in term of implementing a patient safety framework in Jordan. This chapter will answer the question: *If the attributes identified by the first question could be modified to increase patients' safety in an acute care, public hospital in Jordan, what would be the new framework?* In the last two decades, the Jordanian health care system has made significant improvements in patient care at the primary health care level. However, improving the quality of health care delivery in the acute care setting remains one of the main challenges facing health care workers in Jordan (The World Bank, 1996).

Jordan has a problem with the quality of patient care and currently there is no guiding framework; there are different ways to approach it; and there is a 'best way'. What then is the best way for Jordan and what is needed to implement it? There is a need to introduce a framework of patient safety in a systematised quality management approach. This presents a challenge having regard to the environment described earlier in this thesis. To successfully implement a patient safety framework of care such as that described for PUs in an earlier chapter, and how care is organised and managed, become key considerations in how well it will be embedded as a routine of care. Once a patient safety framework of care is developed, systems need to be established to implement it as it is intended to be implemented and operationalised. Such implementation is neither haphazard nor automatic.

Implementing a patient safety framework of care is complex, and intended to be implemented by an autonomous, responsible and diverse workforce, "depending upon mutual knowledge which is drawn upon by participants as interpretative schemes to make sense of what each other says and does" (Giddens, 1993, p.166). In the case of

health care, such mutual knowledge is best contained in guidelines and pathways through which clinicians understand their part in the care process and respond accordingly, having regard to the myriad care sequences and interdisciplinary professionals involved. For PUs, such a framework will be evidence-based, and will involve nursing and other disciplines such as medicine, allied health and administration working together, with common goals and actions agreed. Although the framework described throughout this thesis may be considered instruments of Western clinical cultures, as trajectories of locally developed care from admission to discharge, they are as relevant for Jordan, with its unique social and clinical cultures, as they are for Australian, British or American health care systems.

Patient care is a 24 hour a day activity. If there is any defect in the continuity of the care at the clinical areas, patient safety will be affected. Proper arrangements regarding the care between hospital departments should be present to ease the delivery of care to patients. The managers' support of the efforts by staff to implement and improve the continuity of the care will motivate them to improve the way the care is delivered to their patients. Discharge planning, such as for bedridden patients, could reduce the readmissions that result from an ineffective care plan which is carried out mainly by physicians. The hospital staff, including managers and clinical professionals, should acknowledge that the patient is the important person to deal with at the health care facility. Hence, extra care from doctors and nurses is needed as well as organisational support. The hospital staff emphasis must rest on daily patient care, staff collaboration and cooperation in working together for the patient as the main goal of care.

A framework of clinical process management is needed in clinical areas for governance purposes, having in mind that both resource conservation and the quality of patient care are at the heart of clinician and organisational accountability (Sorensen, Maxwell, Coyle, Zhang, & Patterson, 2001). In any organisation, clear processes should be established that systematically apply standards of cost and quality. This means that "service efficiency cannot be separated from service quality; ensuring a safe environment and effective patient care cannot be considered in isolation from the resources needed and available" (Sorensen, Maxwell, Coyle, Zhang, & Patterson, 2001, p.27). However, in seeing health care as a production system, care should be taken to

find the line between what care can be systemised and therefore subject to efficiency methods, and what must be tailored to the needs of individual patients. Thus, a patient safety framework for Jordan should be flexible and should work as a template to guide not only the implementation of new models of care, but also the improvement of clinical care processes. Therefore, remodelling care delivery requires changes in organisational commitment, values and beliefs of all those involved in the health care process.

Solving the problem of pressure ulcers as an example of patient safety will not be easy. The foregoing chapter suggests that there is a need to plan an effective strategy to improve the delivery of quality health services to improve costs and to improve the health outcomes of at-risk patients in public acute care hospitals in the MOH in Jordan. To this point, the literature reviewed has focused on the technical and organisational attributes that support implementation of new models of care, particularly as they affect clinical and administrative workplaces and that I have taken as the basis for the examination and presentation of findings. Tables 5.1, 5.2, 5.3, 5.4 and 5.5 present a summary of the best practice attributes identified in the literature compared with the presence or absence of these attributes at the three of levels examined at the case site namely the clinical, organisational and ministry levels, as described in the previous chapter. I now move to discuss the identified gaps and possible strategies to address them. In doing so, I present the best practice attributes and their presence or absence in the organisation, together with comments on their weaknesses, strengths and gaps in the study site. Two ticks indicate that the attribute is fully present; one tick indicates that the attribute is present; a question mark indicates that there is some uncertainty in assessing the presence of the attribute; a cross indicates that the attribute is absent.

Table 5.1: Cultural best practice attributes compared with their presence or absence in the study site

Best practice attributes	Present/absence attribute			Weaknesses/strengths/gaps
	Clinical	Organisation	Ministry	
Culture:				
Safety for patients and staff	✓	×		Some awareness among the clinical staff of importance of patient safety strategies.
Staff knowledge about risk assessment	×			No documented risk assessment using a valid risk assessment scale available.
Staff knowledge and skill in undertaking best practice risk management interventions	×			Clinical staff has neither the knowledge nor skills to conduct clinical interventions in a safe manner.
A model of safe patient care	×			Nurses were not applying 'best evidence' to organise effective and efficient patient care to prevent PU.
Leaderships and governance		✓		Managers express commitment but there are problems implementing a patient safety culture.
Manager autonomy		✓		Cultural vision is verbalised by manager but it is in the very early stage of adoption with limited autonomy to run the organisation.
Patient centred philosophy			✓	Currently initiatives are in train to establish a re-licensing or accreditation system. Awareness and practice of the culture of safety are in very early stages of development in acute care settings.

Legend: ✓✓= fully developed, ✓= present in a limited degree only, × = absent, ✓? = present but there is an issue

The data above show that there is some awareness of the importance of patient safety strategies at the three levels examined in the organisation, but staff lack the knowledge and skills to develop and implement strategies, and to overcome the barriers that implementing such strategies will inevitably bring. Hence, aligning action with awareness is a priority for Jordan. The data indicate that this may be possible. The

presence of a patient-centred philosophy and activity around accreditation maybe a precursor to developing best practice approaches to patient safety of the type that will be developed and discussed in this chapter. There are implications for managers gaining the necessary autonomy to respond to clinical workplace issues and taking decisions directly about patient care and supporting systems. This will include developing integrated documentation to guide, record and report on clinical performance.

5.2: Structural best practice attributes compared with their presence or absence in the study site

Best practice attributes	Present/absence attribute			Weaknesses/strengths/gaps
	Clinical	Organisation	Ministry	
Structures:				
Quality of care and patient safety meetings	×	✓?	✓?	No evidence was found during the study period of routine meetings taking place in the two wards that discussed quality of care or risk management. QD meetings not well arranged or defined to discuss, develop and update standards of care and care organisation in the context of quality and patient safety.
Specialist nursing positions	✓			Clinical instructor positions present.
Specific structures to implement a quality and patient safety system		✓?	✓?	No clear well-established structure or process through which quality and particularly accreditation are being established as the basis for a safe culture for patients and staff. The structures are present but changes that have been introduced are overlaid on an existing hierarchical complex organisation structure of the AlBashir Hospital.

Legend: ✓✓ = fully developed, ✓ = present in a limited degree only, × = absent, ✓? = present but there is an issue

As outlined in the table above, structures are also present at the three organisational levels examined, but they were hierarchical and fragmented, and did not align with health care needs. Having such structures as clinical instructor positions and meeting processes are important, but they must be structured in such a way so as to support the patient safety framework. Meeting processes need to be developed through which patient safety issues and supporting systems can be discussed and established. Similarly,

structures and processes are needed through which to implement accreditation standards.

Table 5.3: Process best practice attributes compared with their presence or absence in the study site

Best practice attributes	Present/absence attribute			Weaknesses/strengths/gaps
	Clinical	Organisation	Ministry	
Processes:				
Specified clinicians' job descriptions	✓?	×	✓	General job descriptions present No clear role function criteria for top level manager. Absence of specific manager job descriptions.
Performance review and feedback	✓?	×	×	General annual performance reviews for clinicians present without specific criteria used. The current performance appraisal process does appear to be re-shaping the behaviour of clinicians in line with the manager's philosophy articulated. Performance feedback is not a central strategy of change management.
The availability of best evidence guidelines	✓	×	×	Very limited evidence of guidelines being available to guide clinicians in the delivery of best practice pressure ulcer care. The organisation recognises the importance of using evidence based guidelines such as the standard precautions or protocols at clinical level. No evidence of a system operating in the organisation to identify and develop standards to ensure that patients are treated according to best practice. There is limited evidence of use, notwithstanding an instruction from the MOH to the organisation that best practice guidelines be applied at the clinical level.
Effective written communication between the disciplinary groups	✓?	×	✓?	Patient medical records **incomplete.** Duplicate written patient information. Inadequate, formal and hierarchical communication. The MOH communicate formally with hospital managers through letters and circulars.
Effective verbal communication between the disciplinary groups and	✓?	×	?	Communication processes fragmented, disciplinary-specific and hierarchical lacking in

patients				efficiency and effectiveness.
An incidence monitoring system for PU	×	×	×	Absence of aggregated or summary data at the clinical level to monitor the PU incidence. No system in place to monitor patient incident data that would include in-hospital falls, wound infections or PUs. No policy practice link with incident monitoring system between MOH and the acute care hospitals to report PUs or other serious patient injuries.

Legend: ✓✓= fully developed, ✓= present in a limited degree only, × = absent, ✓? = present but there is an issue

As my findings show, it is in the area of processes that the absence of systems is most evident, together with fragmentation of those systems that do exist. Here, I found that there is an absence of clear communication throughout the organisation about roles and responsibilities. Performance appraisals, while conducted, are not aligned with job descriptions and therefore fail to achieve the desired results. Little guidance is available to clinicians to assist them to plan care based on evidence, for instance via clinical practice guidelines. Further, communication processes within the organisation are inadequately developed. As well as a general lack of clinical pathways and protocols, documentation in patient medical records is substandard, multidisciplinary communication is traditional, hierarchical and 'siloed', and significantly for clinical practice improvement, there is a general lack of information systems to produce the types of data on which performance can be evaluated and improvement based, and on which standards can be developed.

Table 5.4: Human resource best practice attributes compared with their presence or absence in the study site

	Present/absence attribute			
Best practice attributes	Clinical	Organisation	Ministry	Weaknesses/strengths/gaps
Human resources:				
Adequate of staffing numbers	✓?	✓?	✓?	Task assignment model used to guide the current staffing. Contentious and unstable staffing at the workplace.

Legend: ✓✓= fully developed, ✓= present in a limited degree only, × = absent, ✓? = present but there is an issue

Although there appears to be adequate staffing, as our data show, many of the staff positions at the hospital are destined for transfer to other facilities, without

arrangements made for replacement at AlBashir. Further, the present method of staffing is not well supported by staff and is not conducive to good, consistent patient care.

Table 5.5: Physical resource best practice attributes compared with their presence or absence in the study site

Best practice attributes	Present/absence attribute			Weaknesses/strengths/gaps
	Clinical	Organisation	Ministry	
Physical resources:				
Physical resources are well maintained	✓?	✓?	×	Specific permanently-required equipment is not available on the wards. Some available items are in poor working order and considered by clinicians to be unreliable, inadequate and poorly maintained; there is lack of continuity of renewable resources. No allocation control system by MOH or the organisation.
Adequate renewable resources appropriately used	✓?	✓?	×	Renewable items used inappropriately by clinicians.
Providing funds to maintain physical resources in working order			×	Little control over funding allocation. Inadequate with some donations.

Legend: ✓✓= fully developed, ✓= present in a limited degree only, × = absent, ✓? = present but there is an issue

Physical resources, while present, are inadequate to undertake the types of tasks that clinicians are called on to undertake. Those that are present are controlled at the ministry level and not by the clinicians who provide the direct care. Further, equipment is poorly maintained and often used inappropriately by clinicians. Systems to order, maintain and track use of equipment and consumables is urgently needed.

The foregoing analysis of the strengths, weaknesses and gaps between the attributes of a 'best practice model' of PU management and those operating in Jordan allow me to conceive of a framework within which to conceptualise strategies for change. I set out this framework in Figure 5.1 below. What needs to occur is the development of a feasible, achievable patient safety framework of care based on best practice attributes as articulated to shift health care attitudes and practices towards a culture of patient safety. This cultural shift needs to have a 'non-hierarchical' structure with clear identified components to guide the action at the organisation. To ensure the structures and processes are in place and applied there is a need to have an adequate knowledgeable and skilled staff equipped with appropriate and adequate resources. As my figure

shows, an initial shift in understanding is needed about the importance of a culture of patient safety through which structures, processes and resources can be developed to support the implementation of a patient safety framework.

My findings of the strengths, weaknesses and gaps between a 'best practice model' of PU management and those operating in Jordan allow me to conceive of a framework within which to conceptualise change. I set this framework out in Figure 5.1 below. What is needed is a feasible, achievable patient safety framework of care to shift attitudes and practices to a culture of patient safety as the figure represents.

Figure 5.1: Conceptualising of proposed organisational change of functional quality and patient safety framework of care fit for Jordan
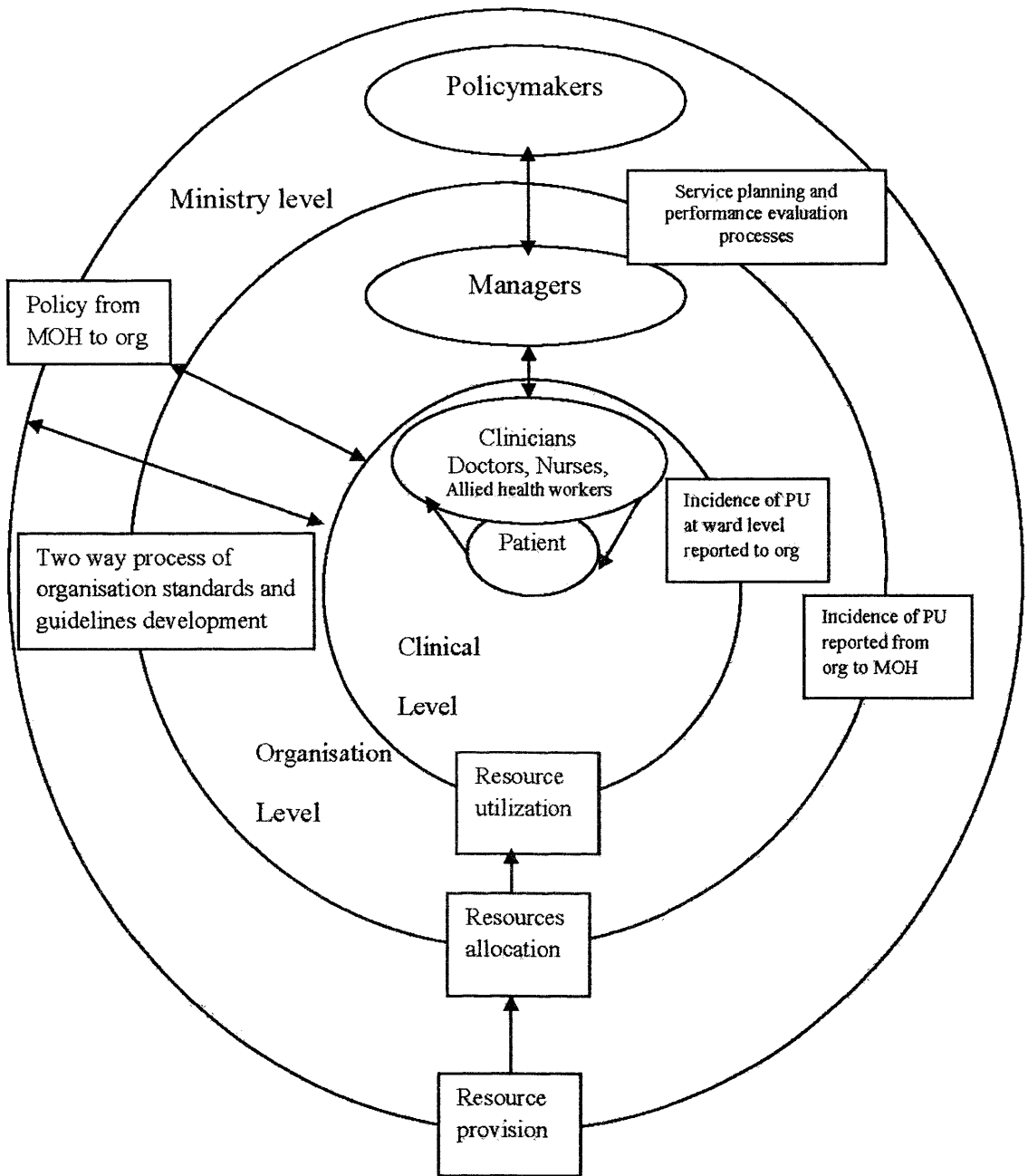
Legend: direction of arrow ➔ shows direction of reporting/communication

As Figure 5.1 indicates, the patient is at the centre of healthcare activity located at the Clinical level, with health care delivered by doctors, nurses and allied health workers as part of a collaborative multidisciplinary team. Managers at the organisational level support clinicians' activities through collaborative work on developing standards and

guidelines of care and reporting quality of care and patient safety performance throughout the organisation, that is between the clinical and organisational level and ultimately to the policy level. Policymakers at the ministry level develop the broad policy framework of the healthcare organisation, particularly in providing resources that are allocated by healthcare managers and ultimately 'consumed' by clinicians and patients at the clinical level. Importantly at this level, service planning processes are generated in conjunction with healthcare managers, accompanied by performance evaluation processes based on data generated by healthcare managers working together with clinicians. With this model in mind, I next turn to present and discuss the strategies that might comprise a proposed patient safety framework for acute care patients in a public hospital in Jordan. The strategies proposed are based on my analysis of the strength, weaknesses and gaps identified in Tables 5.1, 5.2, 5.3, 5.4 and 5.5 above and my conceptualisation of a patient safety framework in Figure 5.1 The strategies will be presented at the three key levels of: clinical, organisational and ministry.

Clinical environment

Culture: Strategies to support clinicians change the culture

Professional clinician groups form cultures, and understanding what motivates people and how they can be supported to work together to achieve common objectives is the key to a cultural shift. For the purposes of this research, I considered how different subcultures could come together, to agree on the problems, to identify, negotiate and agree on solutions and work collaboratively to achieve social integration across the organisation. This collaboration includes patients within the clinical units. By developing this type of clinical and corporate culture the objectives of patient safety and quality of care can simultaneously and routinely be managed. I identify one strategy to change the clinical culture towards one focused on patient quality and safety exemplified by PU patients that includes assessing risk as a strategy to support cultural change and ensure patient safety.

Assessing risk

An overall philosophy of care is vital in providing a framework for effectively minimising PU occurrence. The first vital care strategy is to have a proactive approach to PU minimisation. This means not waiting for a disaster to occur before acting, but instead taking a leadership role and being committed to a preventive program. Ward based project groups should discuss clinical cultural change such as the introduction of a risk assessment approach to PU for all new admissions to the ward. There is a need to adopt a risk assessment scale to detect at-risk patients, and as a staging system. The group discussion should include when this is to be done and determine who will be able to do the risk assessment. All patients should have an individual risk assessment that includes identifying diagnosis, current medication, nutritional status, sensory deficits and previous history that may alert staff to an increased potential for PU. The prevention of PUs is a core function of health care provision. However, clinicians are often confronted with competing demands that overshadow this need, resulting in disabling and expensive pressure ulceration for patients.

Application of safety measures in the clinical areas is an important aspect to ensure patient safety. This could be applicable in the presence of a model of care to use for patients such as PU patients including using a risk assessment scale. A risk assessment process at the clinical level with results reported to the organisation level needs to be introduced across the organisation. A PU policy standard or guidelines must be developed and implemented through the quality committee. The newly developed PU prevention and management standard/practice guideline requires ratification by the QC. For example, introduction of the Braden risk assessment scale to the staff at the clinical level is essential for the PU model of care. This would be feasible using continuous education and training workshops with cooperation of clinical instructors at the NDU.

Many RASs have been developed but their validity and reliability have not been confirmed by research. However, several scales have been tested and these are recognised internationally. The RASs originated mainly from Europe and North America. This means that the developed countries are more aware of the importance of addressing this issue to ensure safety practices at the health care facilities than developing countries such as Jordan. The Norton and the Waterlow scale originated from UK, and the Gosnel, the Braden, and Knoll scale from the United States

(Australian Wound Management Association, 2001; Hess, 2001; Schoonhoven et al., 2002). These tools are the most widely used, and frequently addressed in the literature. The Norton, the Braden, and the Waterlow scales are viewed as a standard of reference for their reliability and validity in clinical practice and are recommended for use in several practice guidelines (Hess, 2001; Pancorbo-Hidalgo et al., 2006; Schoonhoven et al., 2002).

It is evident that the Braden scale is used in many settings worldwide (Bergstrom et al., 1995; Hamilton, 1992; Schoonhoven et al., 2002) and would be an appropriate risk assessment instrument for PU risk in Jordanian hospitals. It is applicable to use in acute care setting particularly in general wards (Gould et al., 2004; Schoonhoven et al., 2002). The literature review chapter discussed this predicting scale in detail. The information regarding predicting performance of the Braden scale in assessing pressure ulcer risk varies according to populations and setting conditions (Brown, 2004). It is considered to have greater validity and reliability than other commonly used scales such as the Norton or the Waterlow (Gould, Kelly, Goldstone, & Gammon, 2001; Kring, 2007). The Braden scale could be used in conjunction with clinical judgement (Brown, 2004), with other scales such as the Norton scale (Hopkins et al., 2000), or combined with frequent skin assessment practices(Van den Bosh, Montoye, Satwicz, Durkee-Leonard, & Boylan-Lewis, 1996). The main limitations of the scale are its restrictions for use by registered nurses only, and poor identification of the levels of risk within the scale (Simpson et al., 1996). This raises the question as to which tool is best suited for use in Jordan to classify pressure ulcer patients.

Many researchers have discussed which tool to use in particular populations or clinical settings. The common selection criteria about which tools to use include: simplicity, usefulness, convenience, reliability, and cost-effectiveness (Vap & Dunaye, 2000). Also, the tool needs to be measurable and appropriate to clinical settings (Bick & Stephens, 2003). The National Pressure Ulcer Advisory Panel (1989) identified characteristics of clinical screening tools that include predictive validity, and ease of use. However, a particular population or clinical setting might need more than one scale to capture all relevant aspects (Clay, 2004). The Braden scale was used in conjunction

with the RAS staging system in this study, as per previous discussion in the literature review and method chapters.

Nurses appear to be the best qualified among health care disciplines to intervene to reduce the incidence of PUs (Maklebust, 1999), because they play a vital role in PU management. For example, nurses are responsible for dressing and wound monitoring, and they are challenged to provide wound management based on physiologic principles and research findings. Thus nurses need knowledge regarding maintenance of skin integrity and skills in wound assessment and management (Bryant et al., 1992). The applicability of this scale to Jordan will be discussed later in the implementation section in this chapter. Nonetheless, the above components of cultural strategies of the patient safety framework need structural strategies that will be the next topic of discussion.

Structures

Ward level structure to support a patient safety culture

The concern about structure at the clinical setting is to reduce barriers such as hierarchy and inflexibility (Braithwaite et al., 2009; Nicholls, Cullen, O'Neill, & Halligan, 2000). Reducing hierarchy and inflexibility will be essential to achieve the acceptance, inclusiveness and autonomy implied in new framework of care. The structural strategies under this section are: re-organising the model of nursing care to support a cultural change, re-organising the nurse to patient ratios to provide better coverage over 24 hours, ward based practice development mini activities, NDU clinical champions' positions, multidisciplinary team formation and programs to educate patients' carers that I go on to discuss.

Re-organising the model of nursing care

There is a need to change the model of nursing care to attempt to move the RNs away from a task allocation mentality. I propose a team nursing model in which each RN is responsible to guide and supervise a specific number of ANs and AINs assigned to work with him or her. RNs will need to engage with activities of daily living and be responsible for the standard of patient care for his/her allocated team. Nurses need to

remove themselves from the nursing station and spend more time with patients. Project supervisors should change their responsibilities and accountabilities and put more senior nurses 'in-charge' of the less qualified nurses to supervise the care (Duffield, Roche et al., 2007). On return to Jordan I will work initially with the department nurse directors to inform them why it is essential to introduce team nursing in order to improve patient safety.

Re-organising the nurse to patient ratios to support cultural change

There is a need for new models of nursing organisation to be applied to achieve the total work load. One model is a 'nurse hours per patient day' model that classifies a ward into various staffing groups to direct acuity measures (Twigg & Duffield, 2009). This is a priority for further service improvement due to the demand for multidisciplinary team development at the hospital. Currently one nurse is responsible for more than ten beds, which is less than ideal when the patient acuity is high. Managers need to know about the amount of nursing care each patient requires. For example, an unconscious patient diagnosed with cerebral vascular accident may require a high amount of nursing care each shift whereas a patient with hypertension would require minimum nursing care (Duffield, Roche et al., 2007). The nursing work for the 44 patients in the ward is the total acuity of patients. In order to share the nursing work equitably patients with the highest acuity need to be distributed across the nursing team. Further, long term potential remedies would be more staff employed for more patient beds including changing work descriptions of staff to full, part time or casual.

Ward based practice development mini activities

Projects that engage clinicians so that evidence is used to formulate interventions will be conducted in each ward. The first project will be concerned with PU best evidence management. Therefore, a practice development mini activity at ward level for improving PU will include implementing the guidelines for risk assessment and PU management that have been developed by the Quality Committee. The CIs working as the initial clinical champions will be required to assist other nurses to learn the best evidence assessment and interventions in the first instance. Then staff will require bedside support and encouragement to implement the required change. As the change occurs, the CIs need to continue to work with the staff to discuss any problems and

barriers to implementation that staff identify. It would normally take around six months for staff to adopt a new approach to their work (Foster et al., 2007; Lockhart & Bryce, 1996). During the implementation, the CIs should discuss the changes with medical and allied health staff so that they are aware of them.

NDU clinical champions positions

Development of practice on PU risk assessment and PU management according to international best evidence should be undertaken in ward based mini activities with the facilitation of clinical instructors working as the initial clinical champions. Clinical instructors at the NDU will work as clinical champions on daily staff supervision, observation, education and training. The processes required to undertake this mini activity will be at least a one hour weekly meeting on the ward in which all nursing staff participate so that the assessment and management processes for PU will follow evidence-based guidelines. For example, when repositioning patients, nurses will be required to inspect patients' skin for changes in skin colour such as a red spot which does not go white when pressed after half an hour of pressure relief, and is considered a PU stage one. This action should be done at every intervention and reported and evaluated for prevention effectiveness.

Multidisciplinary team formation

When nurses are engaged in the development of their practice, other health professionals will be invited to participate to form effective teams in implementing best practice evidence (Braithwaite et al., 2009) regarding managing PUs. Other health professionals who may be invited in team formation are dieticians and physiotherapists. Dieticians should be involved in patients' care to ensure patients are getting good nutrition and hydration. Physiotherapists need to participate in effective patient care through regular visits for assessment and management planning with the health team. The above team members have to communicate together about the patients' conditions in their daily meeting to ensure patient safety. The team need to build trust in reciprocal relationships by finding matching groups who like to work together to ensure best communication (Braithwaite et al., 2009).

Program to educate patients' carers

Clinicians, particularly nurses engaged in practice development mini activities have a major role in involving patients and their carers in planning their treatment, care and rehabilitation programs at home. Carers' education may include practical training sessions with nurses as they provide bedside care. Booklets or brochures for patients and their carers regarding positioning, nutrition, and hygiene (Bick & Stephens, 2003; Simpson et al., 1996) and a pictures program for illiterate carers will be developed by the CIs so that carers have a memory aid at home. The above two main strategies under culture and structure need another equal and essential attribute of processes to which I next turn.

Processes

Clinical processes

After ensuring structures are in place, processes that are the most useful to support and sustain the change must be developed and nurtured. The process strategies include: providing clinicians with specific feedback during a performance review, sustained implementation of ward based mini activities starting with PUs, the use of evidence based guidelines, documentation and reporting of care in patients' medical records, development of patient care plans to promote continuity of care, communication by application of team work and a data management reporting system for PU (including numbers and stages). I discuss each of these framework process strategies in turn.

Providing clinicians with specific feedback during a performance review

In any professional organisation such as a hospital, one of the challenges in implementing governance models and developing supportive organisational cultures is having in place a performance framework that integrates what is done in the clinical workplace with what is managed at the corporate level of the organisation. To do this, there is a need to develop indicators of performance, both clinical and organisational that can be rolled up from the workplace to the corporate level of the organisation. Such indicators would be used to monitor and manage performance that includes benchmarking results.

There is a need for a communication system, both verbal and written, through which clinicians in the workplace can communicate to managers, including for instance, expectation of roles and responsibilities and reports of performance. This implies that information systems are needed to provide both clinicians and managers with information on performance. The performance reviews should have specific performance components/standards such as identification of technical practices knowledge and skills need, written and oral communication skills, personal education and training development, leadership, decision making, problem solving and clinical judgment and action plan, goals and quality required for current and future tasks. The performance process should be applied according to the two processes outlined below.

First: staff self-appraisal. At the end of the appraisal period, staff appraise their own performance against the key performance areas, targets and pre-identified behaviour. Information on these issues is provided in an appraisal format. The staff also write their self-evaluation reports and hand them to their managers. Second: analysis. The manager reflects on the performance of the staff, and identifies the factors which facilitated or hindered the staff's performance. The manager then calls the staff for a discussion to better understand his or her performance and provides counselling on further improvements. During this discussion, appraisal records (such as notes, observations and comments) are exchanged. The manager then gives a final rating and recommendations regarding the developmental needs of the staff. These are shown to the staff and his or her comments are recorded on the appraisal form. The appraisal form is then transmitted to the personnel department for the necessary administrative action. The personnel or human resource development department uses these forms for identifying and allocating training, rewards and other activities.

Sustained implementation of ward based mini activities starting with PUs

Education that occurs within the practice development project is a most effective way of reducing the incidence of PUs. In this respect, training and support for those at the front line of care by the CIs and the managers are also critical factors for success in implementing new models of care (Sorensen, 2004). Nurses, as well as the multidisciplinary team, require knowledge of the assessment factors. The application of this knowledge for their patients is important to prevent PU development. All health

care personnel need to appreciate the role they are required to play in PU prevention. Consequently, it is essential that clinicians learn evidence-based knowledge during practice development sessions or other specialised educational programs. There is a need to apply an effective model that meets the educational needs for all health care professionals. The most effective model is probably the program which includes strategies of risk management including the use of a valid, reliable risk assessment tool, skin assessment and care equipment selection, use and maintenance of pressure redistributing equipments, repositioning policies and procedures and applying proper management. This training and education program as a practice development route used in health facilities by all health care providers needs to involve the patients and their carers and to be updated every six to twelve months (Lewis et al., 2003).

The literature suggests that the ultimate goal is to locate a clinical champion to each ward, who continues to ensure the PU care remains at a high level by maintaining staff knowledge and skills in preventing and managing PUs through extra reading, advanced post-basic education, in-service education and clinical practices (Lewis et al., 2003; Walsgrove & Fulbrook, 2005). In brief, the nurse could serve as an educator, facilitator, resource and researcher. However, nurses in many other countries, including Jordan have a very limited understanding of how to apply these roles, particularly research findings if retrieved or available to them through electronic databases or library facilities. Hence CIs are available and needed at ward-based levels to facilitate the development and ongoing functioning of the practice development projects until the nurses have reached new levels of professionalism.

Therefore, an aspect of this project is a need to maintain ongoing education for follow up and evaluation after each performance review is undertaken. This education would be in addition to the ward-based project in case some members of the ward are new or have not participated in the practice development project. Ward in-service education frequently conducted during the crossover of staffing between the morning and afternoon shifts, is common in Australian hospitals (Braithwaite et al., 2007). This may not be the best approach in Jordan. Initially, planned educational sessions for clinicians will be proposed of no longer than 50 minutes, organised and conducted at a central location close to the wards.

Evidence-based guidelines

After the risk assessment, patients identified as high risk should be placed on a management program to avoid PU injury. Managing the quality of care of PU patients such as processes of regular re-positioning and using support surfaces requires evidence-based practice to guide the staff at the clinical level. The guidelines or Standard Operating Procedure (SOP) such as discussed in the patient safety attributes in the literature review or Australian clinical practice guidelines developed by the Australian Wound Management Association (Australian Wound Management Association, 2001) can be introduced to the QU committee for adoption and ratification. A copy of these guidelines needs to be in each ward, easily accessed by all staff and used as a basis for learning in the practice development project on PU.

Documentation and reporting

In Jordan, care undertaken by nurses is documented infrequently. Hence, improvement in documenting care would be a major and important practice change. Nurses have an important responsibility to record complete information about the patient's condition as complete documentation is vital to understanding the extent of a patient's problem and the health care response. Nurses should document patient's progress in the continuation or integrated multidisciplinary team notes of the patient's medical record. I will recommend that the number of reports currently written by nurses cease, including use of the cardex system and the shift report book. Nurses should observe changes, ensure documentation of all pressure area prevention strategies is completed promptly and correctly in the progress notes. The correct documentation has to support the intensity of nursing interventions provided, as is required in ulcer assessment, description, staging and comprehensive nursing care (Levine & Totolos, 1995; Prevost, 1992). Inaccurate documentation of care by clinical nurse needs to be identified by managers and staff notified to amend the situation.

Handover

Clinical handover, the transfer of the responsibility for patient care from one team to another, is an everyday part of acute care hospital life to maintain quality of care. Therefore, there is a need for systems and programs to encourage clinical handover practices to assist the health team members in hospitals. This includes overlapping

shifts between rostered staff to ensure enough time for handover, information technology systems to ensure proper information, and compliance of attendance by all staff to hear patient status reports on at least their attended patients.

Communication by application of team work

Team work can also be effective in improving the work environment and designing ways to work better. Teams can participate effectively in the process of change. Therefore, in multidisciplinary care planning, the care plan should, if possible, be formulated by a collaborative team including a medical practitioner, nursing and allied health practitioners such as physiotherapy, and a family member if possible. This collaborative team must work with the patient and for the patient (Collins-Nakai, 2006). It is valuable to have input from all sources and to ensure all departments such as cleaning, kitchen and resources supply staff are aware of policies relevant to patient safety. The applicability to implement this in Jordan will be presented later in implementation section in this chapter.

A data management reporting system for PU

The collection of accurate and valid data and the collaborative development of objective clinical indicators would provide a good basis for continuous quality enhancement. Linking all hospital departments through a patient health record system will allow faster access to patient information which will lead to more responsive and informed treatment, and thus will help improve patient care planning, care quality management and workforce utilisation. This system requires adequate health service infrastructure, as PU monitoring would be only one of a number of KPIs that a patient safety culture is developing.

At MOH there are specialised centres collecting data. However, at the hospital there is no established centre for data management to look after specialised issues such as infection control, diabetic control, medical procedures, AIDS, and tuberculosis. Patients with a pressure area should have a pressure area incident form completed and for part of the data management system. This form should be a summary report at ward level that is completed and sent to the QC or the QU at the hospital weekly then to the QD at MOH each month. One RN 'in-charge' has to be responsible for this task, who is

accountable to the nursing department director. Usually only the serious incidences of PU would be reported to the MOH such as stages three or four, as this could be too great a burden for Jordan initially if all PU stages were reported. Consideration may need to be given to not reporting stages 1 and 2 above the hospital level.

The reporting system could be written by filling in a form or documentation in a reporting book such as between nurses' shifts which can be used for PU cases, falls and other reportable conditions. The form should be available on all wards. The pathway of where/who the form goes to, is also required. This reporting should be according to formal performance actions and outcomes. There is a different structure of reporting dependent on need and purpose: i.e. formal reporting, informal patient care and multidisciplinary reporting such as between nurses and doctors. Reporting lines need to be both upward and downward through the organisational structure.

To sum up, focused quality activities are needed. Quality activities aimed at identifying risk factors will aid in early detection of problems and the subsequent implementation of preventive measures by analysis and policy monitoring. Analysis of incident reports can identify that a particular patient is developing a PU as a result of the identified risk factors. This will assist in putting preventive strategies in place. The infrastructure to promote quality needs a champion to be the leader, teams to support care activities, ongoing data gathering and feedback and planned analysis of each ulcer occurrence. The quantitative results indicate that PUs are at a higher level than would be expected if a patient safety model was being utilised at AlBashir Hospital. Therefore, it is important to understand why patients are not being managed as safely as they should be. A reporting system for PU is therefore very important. There is a need for special performance requirements or implications included in the reporting system for managing PUs at ward level. The above strategies under culture, structures and processes need people to deliver the required care to ensure quality and patient safety, therefore human resources are critical and will be discussed next.

Human resources

There is inadequate experience in basic human resource development issues like recruitment of personnel in hospitals in Jordan. No annual plans exist. Most of the

employee data are not maintained or up to date. Because of the high burnout of many senior health staff and middle nursing managers, the lower-level or unexperienced staff become first line managers as they are offered opportunities to take up managerial roles when they are not well prepared for them. As a result, senior managers have extra duties in controlling, teaching and supervising these new nurse managers. The nursing shortages as indicated in the data collected is clearly not a result of a shortage of people but of changes in the demand for nurses in different and more acute care organisations as the health system in Jordan reorganises. It is vital to have enough staff to remain committed to improvement in the quality of the health system accompanied by clear standards, roles and education to provide safe and effective care. As there are no penalty rates for RNs, it could be useful to decrease the number of RNs on the morning shift and move one RN to the afternoon shift. After receiving proper education from nurses, families can assist with patient care such as repositioning. Further, the ward clerk position is currently absent at the ward level. This issue adds extra daily non-nursing work that uses time that should be spent for patient care. Hence, a remedy to address this issue should be organised and implemented.

A study by Mrayyan (2004), to explore the perception of Jordanian head nurses of variables that influence the quality of nursing care, showed that human resources and non-human resources (time and supplies) were those that most influenced the quality of nursing care. Jordan suffers from a shortage of health care providers such as specialised physicians and skilled registered nurses but it also suffers from a shortage of physical resources, and this shortage affects the quality of care provided. I next turn to discuss the physical resources as an essential strategy that should be included in the proposed framework to ensure safe culture.

Physical resources

Managing the resources allocated to the health system is an important aspect to be included in a patient safety model. This includes acquiring mattresses and mechanical lifters, for example. Patients at high risk should be placed on a pressure relieving mattress. There is a need to develop a system to purchase support surface devices or equipment gradually in a few quantities at the beginning to be allocated between all hospital wards and then quantities gradually increased.

Renewable equipment to manage PU

If PUs are allowed to develop they can become enlarged, deepen and become prone to infection. Early intervention is necessary. One of the reasons PUs develop in at-risk patients is because the skin becomes less tolerant to pressure and more susceptible to breakdown. Therefore, there is a need to maintain the condition of the skin, leaving it soft and supple by using skin creams. The management of PU varies by organisation, with many types of skin and wound management and care products used to promote healing. There is no optimum treatment. A management protocol can be recommended in practice. Therefore, the distribution of the resources at hospital level will need managers to follow up at clinical level to guide their direction of proper usage according to patients' care needs. I will turn next to present strategies at the organisational level, with solutions to implement them in Jordan presented later in the implementation section of this chapter.

Organisational environment

Organisational culture

In terms of the broader organisation, the outcomes of care should include the attributes (culture, structures, processes, human and physical resources) of a patient safety framework. To ensure consistency across the organisation, all departments should be considering issues aimed at preventing and minimising risk to prevent the serious outcomes that PUs may have for patients. The patient safety framework requires essential components to be functional within the organisation. The organisation requires a reporting system in place to identify clinical outcomes and assessment of risk, using a valid and reliable scale to identify patients at risk of injuries and best evidence interventions to manage PUs. In order to develop the 'right culture' in the organisation, effective management including clear guidelines and polices and adequate resources are also required to ensure implementation. In the context of risk management and quality improvement, "safety information needs to flow from the 'top down' but equally important, also from the 'bottom up' if an organisation's culture is going to support an effective 'safety culture'" (Clark, 2002, p.187). The main task for this research will be to identify what is a practical, possible and acceptable framework in Jordan. With this

scenario in mind, this framework intends to be a comprehensive patient safety framework appropriate for Jordan that connects clinical and organisational activities.

The existing health management culture in Jordan has established traditional methods of clinical practice that maintain separation between decision makers and decision implementers, between medical and nursing staff, and between corporate and clinical managers. The MOH in Jordan is working currently with US aid agencies to implement quality health care in the public hospital system to overcome these separations. In order to drive the changes required, structural changes in hospital organisations have been introduced. Quality Units have been established in hospitals including AlBashir to shift the hospital culture from the more traditional medical models of care towards a more patient centred approach. McSherry (2004) suggested that the organisation could focus on nurturing the whole system to create a working environment and culture in which excellence can flourish. The creation of such working environments is consistent with quality improvement, and the cultural shift is the lever for system change.

The accreditation process has been introduced as a 'driver' through engagement of staff, and the management at AlBashir Hospital in preparing for external reviewers to accredit the hospital. Accreditation is currently the strategy that the Jordanian government favours to improve the quality of care throughout the system. Although currently each institution maintains its own standards, the Jordanian MOH has recently announced the introduction of accreditation to a number of public, private and military hospitals to test its applicability.

Together with accreditation there is a need to support the professionalization of nursing and interdisciplinary teams. Nurses are functioning mainly in a delegated "handmaiden" role to the doctor and rarely work autonomously (Lumby, 2001). However, there are two levels of nursing (AN and AIN) that require supervision of their work functions by Registered Nurses. Reorganisation of the model of care to team nursing and educative support should assist in this transformation. Subsequently, as different health care professions work together on clinical projects to improve patient safety more team work (interdisciplinary teams) will occur and address the separation between the clinical professions in the health sector.

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To sum up, a safer culture in Jordan is being cultivated with an accreditation strategy and hence needs encouragement and support to maintain what is being done to ensure cultural safety. The next section discusses the organisational structural strategies.

Structure

Currently, a hierarchical structure of hospital management and established health services exists in Jordan. This represents a significant barrier to achieving the types of integration being advanced in the literature as central to quality management. Understanding cultures, developing organisational structure and moving to the types of environments that support integrated processes will be critical to achieving the levels of performance envisaged with new models of care. However such cultural shifts will not be achieved over night or even over years, but perhaps over decades. Flatter structures are evolving, but they take time, and developing alternative strategies through which reform can take place will be a necessity. Pragmatically I consider that it is best to work with existing structures such as the Quality Unit and Nursing Development Unit on refining processes using PU as the topic.

Quality units

Quality can be assured through appropriate processes implemented properly. As yet, Jordan has an initial system. Such a system would assist in developing and implementing the proposed model of care for PUs in Jordan, as a template for clinical practice improvement, and to monitor performance. It would create the systems and environment to support high quality services and improve patient health (Hyrkas et al., 2003). The Jordanian MOH has established clinical governance structures at organisational level via the QUs. Therefore, I anticipate working with the QU director to implement processes that will more effectively engage clinicians in a culture of change. This will include the above strategies described at the clinical level.

Nursing Developmental Unit (NDU)

While the NDU exists in a structural sense, the functions of staff of the unit have been changed over time. Revision of staff roles will be considered in the processes section below. Next I turn to consider communication structures in terms of subcommittees.

Subcommittees

Working subcommittees of the QU are required to provide a systematic way to communicate and implement change. Some of these working committees need to be permanent. For example, a policy and guidelines working committee is required to produce evidence-based guidelines for clinicians working at ward level. Also an outcome monitoring system needs to be developed and implemented for the hospital. This working committee would be set up to undertake this change and then cease to function. Likewise working committees are required to review job descriptions and role functions and performance review criteria.

Clearly, the existing organisational structures at AlBashir can be utilised and further developed to ensure quality and patient safety. Existing processes are inadequate at this stage to achieve the desired change effectively and efficiently. Hence strategies to ensure processes are in place for quality and patient safety are needed and these will be discussed next.

Processes

Processes that support quality care implementation at the organisational level are essential to ensure a patient safety culture. The processes that are an essential component of a patient safety framework include a specific job description process, performance review process, communication process, outcome monitoring, incident monitoring process and guidelines for practice process. Each of these processes is discussed below.

Specific job description

Senior executives at the MOH, including all medical personnel, are responsible for hospital staffing. Criteria for the selection of a health professional to a managerial position may not exist and the selection process may not be undertaken. Consequently, hospital managers who lack management experience and/or qualifications are appointed by the MOH. The MOH also provides job descriptions to hospitals for all staff but these are very general and not always current in terms of what functions a person is actually doing at work. Thus, within the organisation, the roles and functions of health professionals as managers and/or clinicians were not always understood as presented in

the Findings Chapter. The lack of clarity of functions for a position needs to be improved so that all hospital employees are well aware of their role and their accountabilities. The doctors' role is to admit, treat and discharge patients. Their roles are professionally autonomous, their clinical decisions drive both hospital inputs (admission of patients) and outputs (patients' discharge). Doctors manage the clinical demand and supply the clinical services through the manager who is also a doctor. They are generally clear about their function as a medical health professional but they may have little understanding of organisational patient safety issues and the need for interdisciplinary communication about patient care.

Alternatively, nurses have less clarity about their role functions. They try and hold the system together but they have no authority (Duffield, Kearin et al., 2007). The three levels of nurses employed at AlBashir lacked responsibility and accountability for patient care. Nurse managers control and lead staff in their departments. The top level gives the orders and the nurses in the rest of the organisation follow. This traditional type of command and control, hierarchical system is not equipped to deal with highly technical, complex and contingent health issues that arise in modern health care institutions (Collins-Nakai, 2006).

I propose that the working committee implemented by the QU will write new nursing job descriptions that elaborate the role functions of the three levels of nursing at AlBashir. These new position descriptions are required to help nurses assimilate the changes in role functions required of them working towards a patient safety culture. Nurses will require opportunities to learn new ways of working, and be provided with managerial support to change. The introduction of EBP will represent a significant shift in responsibilities in terms of changing the practice of potentially reluctant clinicians. The committee will also be expected to follow up the implementation of the new role functions and evaluate if the proposed changes can be implemented to a satisfactory level. Barriers to the successful implementation of change need to be identified and managed in a timely way.

Performance reviews

There were major gaps in the findings in relation to performance management. The review system that currently exists is problematic because position criteria are general and not sufficiently specific to give organisational staff useful feedback on their performance. Criteria for performance for hospital staff need to be developed. Clinician managers will be expected to conduct performance reviews with doctors and nurses to identify how they are managing the desired changes in practice at ward level. Therefore, they will require education about how to undertake performance reviews in ways that facilitate changes in staff behaviours in the desired direction.

Outcome monitoring of KPIs

Outcome monitoring is a key process in improving the quality of care because of the data that can be produced and hence redirecting the practice of both clinicians and managers. In order to maintain the quality monitoring system, development of the roles and responsibilities of each staff member is crucial. The KPIs need to be understood by staff and managers with a clear link with the standards that drive the performance measurement. The KPIs have been integrated into staff performance agreements in order to make each staff member aware of how their work contributes to the organisational philosophy of care. The establishment of an employee's performance agreement is based on a discussion between an employee and their manager in which they discuss and agree the results and targets to be achieved for the forthcoming year. The production of such data will require budgeting support. Measuring outcomes for PU incidence and prevalence will be the initial step in KPI monitoring.

Communication processes

There is a major disconnection between the corporate and clinical levels. Therefore, collaboration between managers and clinicians within the organisation is important in terms of sharing their knowledge through mutual questioning about the information they need from each other, what managers expect and what clinicians need (Rosswurm & Larrabee, 1999; Stewart, 2003). Managers will need help to let go of their authority/ power and let clinicians make decisions. Hence, health professionals will experience more open communication, and higher participation in decision-making at the organisational level that should improve relationships within the organisation, and assist

to embed processes, such as accreditation, as a means to improving quality, and on which Jordan is about to embark.

Data management and incident monitoring

Information about PU is essential to addressing quality of health care practices. It should be employed to inform the clinicians and the organisation to monitor progress and to evaluate outcomes at all levels. Managers have a responsibility to ensure that policies are acceptable and are used appropriately. Clinical professionals are responsible for ensuring that data about PU incidences and stages are recorded completely and accurately in the available system. PU incidences should be part of the general incident monitoring system within the hospital. This is a MOH responsibility and when I return I will discuss implementing an incident monitoring system with policymakers.

Guidelines for practice

New processes are required to implement a patient safety framework such as guidelines to guide clinical practices. Fineout-Overholt and colleagues (2005) identify an essential strategy for implementing EBP at the organisational level to create a culture that fosters EBP to integrate research findings into clinical practice. If this strategy is essential, then a first step is for existing managers (both doctors and nurses) at AlBashir who are unaware of evidence based practice, to be educated about it. At the organisational level, there is a need to equip staff with adequate time, money and technology, such as computers and Internet access, to implement EBP in order to systematically review available evidence and appraise the evidence in terms of its validity, applicability and performance outcomes (Dawes et al., 2005). However, this will take many years. In the meantime a committee with access to evidence based literature need to identify existing guidelines, modify them as required for use in Jordan or develop guidelines for ward use. The guidelines working committee identified in the structure will be responsible for identifying new evidence, producing guidelines for ward use, reviewing and updating them at least annually.

The integration of health professionals' clinical judgment with the current best evidence during clinical decision–making are very important aspects in the delivery of good care. Quality care requires staff awareness and understanding of the importance of this concept (evidence based practice) and the availability of required resources to facilitate the process. The process of how the new evidence for practice is communicated between the organisation and clinical level is presented in Figure 5.2 below.

The figure shows the development and implementation of policy guidelines based on best practice evidence are performed by the Quality committee at the Quality Unit through the following process as depicted in the figure. Following identification of new practice evidence by staff of the QU, a process to formulate practice guidelines is required (a, c). Similarly, clinical staff can also identify new practice evidence and convey this information to the QU (c, b). In this case, the clinical level identifies evidence for PU management to apply at this level. Hence, new guidelines need to be published and accessible for clinical staff's use at ward level. Existing guidelines need to be reviewed at least on an annual basis and updated if necessary (d). Further, maintaining records of new policies and their status is essential (e). Education/ training of clinical staff about the new practice guidelines will also be required (f). To ensure the above process is applied correctly there is a need for a system to purchase new equipment and maintain existing equipment (g).

Figure 5.2: Diagram representing the processes needed to get new evidence for practice applied in the clinical environment
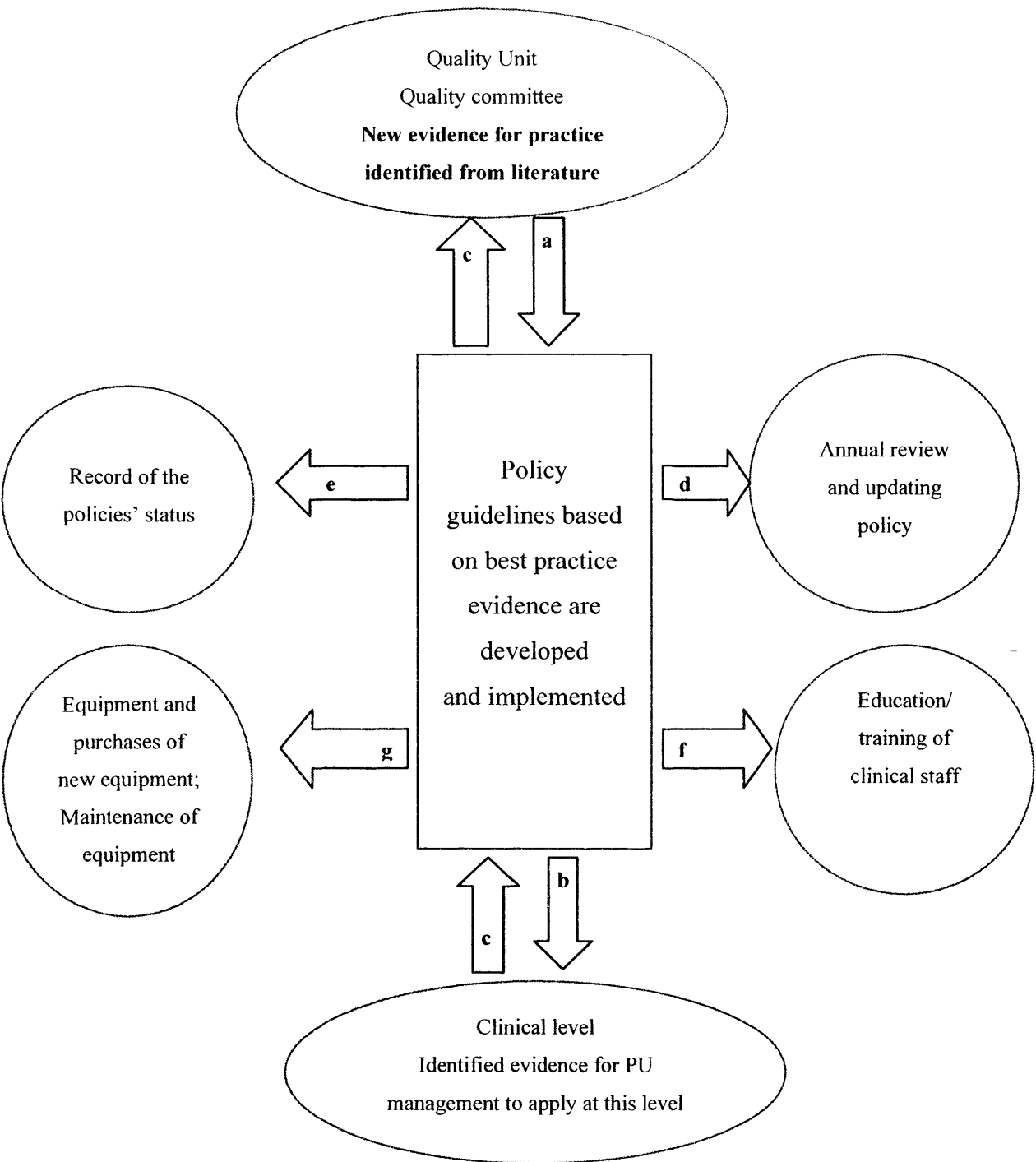
a: Following identification of new practice evidence by staff of the QU, a process to formulate practice guidelines is required.
b: New guidelines need to be published and accessible for clinical staff's use at ward level.
c: Clinical staff can also identify new practice evidence and convey this information to the QU.
d: Process developed to review and update policies with any new evidence annually.
e: Maintaining records of new policies' status.
f: Process organised for clinicians to be educated about the new practice guidelines.
g: Existing processes for the purchase of new equipment and the maintenance of existing equipment.

In conclusion, the framework strategies under processes include a need to design a new job description with proper review and feedback, guidelines for practice need to be developed and proper communication processes and a data management system. I next turn to consider the human resources strategies as a major component in the quality and patient safety framework.

Human resources

Stability of hospital managers

An additional difficulty in embedding cultural change in a Jordanian public hospital is caused by the frequent reassignment of hospital senior managers to new positions at other hospitals. Such early reassignment means that managers have little opportunity to see through the changes they have implemented at a hospital before they are moved on to another location and position by the MOH. The new manager may have a different vision and philosophy, abandon existing policies and introduce new structures, policies and processes. When managers are effective, they should be given sufficient time to implement their vision and then evaluate the impact of change on the organisation.

Reducing staff turnover

Turnover in clinical staff needs to be investigated and measures taken to redress the rapid staff turnover as it is destabilising to the organisation. It is particularly difficult for an organisation to establish a new organisational culture when new staff have to be continuously recruited and educated. Therefore, it is important that the reasons for staff turnover be identified and addressed by management. Incentives to encourage staff to remain working in the public sector need to be reviewed and a new formula implemented. Clinicians also need to take on a more autonomous professional role in the acute care setting. Additionally, for managerial stability, managers' compulsory turnover needs a fixed policy for the position appointment from the MOH.

In summary, the issue of frequent reappointments of hospital managers should be addressed and turnover in clinical staff needs to be investigated and measures taken to

redress the rapid staff turnover. I next turn to the physical resources strategies as the last attribute of the organisational environment.

Physical resources

The general hospital manager's budget is limited by the MOH. This limitation could impede implementation of required hospital resources. The MOH needs to increase the hospital manager budget to maintain and purchase patient safety resources through the QU committee who can revise and update the equipment according to the guidelines and procedures. Organisation managers also need to monitor closely the correct usage and maintenance of the resources with regular staff training and education.

This chapter has presented the strategies at the organisational level namely, culture, structures, processes, human and physical strategies in the proposed patient safety framework for acute care patients in a public hospital in Jordan. These strategies at the clinical and organisational environment need policy development at the ministerial level to which I turn next.

Ministerial environment

This thesis focuses on the case study site at two main levels discussed above namely the clinical and organisational levels. I will not discuss strategies of proposed solutions at this level in the same way the above two levels. In Jordan, policy is designed at the upper level and because I will work with the QD manager at the MOH to implement this framework as a second stage of my doctoral work, I will present this section as generalised recommendations only.

An effective organisational system is required to underpin the implementation of an evidence-based framework of care that recognises that it is people who deliver care. Hence, developing the type of culture that supports such implementation is a crucial factor to successful application. A safety culture needs to be in place. The environment is equally important and has a major impact on the staff and patients as well as the quality of patient care and safety by providing safety, security and comfort. Safe environments can be fostered by a well-designed and secure physical environment. The environment should provide opportunities for a range of social interactions between

clinicians and managers. Hence managers should have control of such processes through funding delegation rather than being controlled from the top policy level.

To deliver the desired outcome in Jordan the following are needed: policy from the MOH for adoption in Jordan, policy in place to manage PU safely, policy in place to risk assess on admission, processes in place to document risk on admission, review documentation for treatment plan, PU chart with observation incorporated in chart (general) at bedside, terms of reference for quality committee and chart from MOH integrated with clinical documentation. However, these policies when developed need a follow up system by managers to ensure 'right' implementation and application at the organisation and clinical levels. Such policies should be accessible or seen as public and central by all staff. Staff members are responsible for these policies after they sign that they have read them, and receive an education about interpreting them, if necessary.

High quality of care is about creating opportunities for staff to respond appropriately and utilise their abilities. Care should be flexible and responsive to the patients' need. Hence staff knowledge and skills should be maintained through a staff development education and training system in patient safety and adequate support and supervision. Accurate prevention strategies such as assessment is paramount for the prevention of an actual unsafe situation arising. A system for an accurate and detailed assessment of each admitted patient is vital for the development of a tailored care plan for the at-risk patient and any changes in condition should be thoroughly investigated.

In terms of relational and collaboration strategies, behaviours may arise as a result of staff member's difficulty in communicating, an inability to make themselves understood by others, or an inability to follow the top policy level instructions. Communication between managers, clinicians and patients should focus around sound understanding and skilled application of appropriate written and verbal communication tailored to the required needs and abilities to ensure patient safety. To ensure collaboration, managers should treat clinicians as an equal partner in what is happening, consulting and working with them. A thorough understanding of the clinicians' needs by managers is an important consideration and, on the other side, staff should have a comprehensive understanding of their roles and responsibilities in their daily care. The focus of their care should be on maintaining the patient's safety.

To sum up, strategies to ensure a patient centred approach at the policy level are needed. There is a need to reduce the environmental impediments, ensure adequate structures and processes are in place and allocate proper staffing equipped with adequate physical resources. Understanding the importance of these attributes of a patient safety framework is the initial part of the process. The next section discusses the feasibility of implementing strategies in Jordan.

Implementation

Developing a framework of patient safety is only one stage of creating a patient safety culture capable of delivering safe and reliable patient care. Such a framework also needs to be implemented. In this section, I consider the issue of implementing some of the essential sub-attributes of the patient safety framework and shifting to a culturally-aware environment in the hospital to which I can contribute. This section presents a number of solutions observed or suggested by the participants at the case study site as possible implementation approaches to resolve some of the patient safety issues identified. In the preceding sections, I have presented the 'blue print' of a patient safety framework and I turn to discuss suggestions and initiatives raised by staff in interview that would support and facilitate its implementation.

Changing the culture

Firstly, there is awareness at the top level of the organisation that adverse events can be prevented, suggesting a philosophy and commitment to patient safety as the QD manager at MOH points out:

> *The importance of patient safety is the result of global studies.... that there are 48,000 deaths 'all over the world'. The present studies claim that 50-70 percentage of the 'adverse events are preventable' and this is the important thing to us to work on.*
>
> IPDr1 7-8-06

Yet, at this time no project for improvement in PU prevention and management has been proposed in Jordan. However, the general hospital manager for AlBashir Hospital is keen to develop a PU project that could serve as a template for other patient safety initiatives:

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If we plan for the quality of care provided to the patients in terms of PU risk management, we will have data or information about these kinds of patients. So we can assign who, when and where to retrieve these data. If we do so, you will have data about the case numbers and then you plan the work by using the current international evidence based management such as dressing in order to decrease the length of stay at the hospital.

<div align="right">IOrgDr6 2-9-06</div>

This statement shows that there is capacity in the workforce to plan to implement a patient safety system. Generally, managers at AlBashir Hospital agreed on the implementation of a PU guideline, specifically adopting an instrument for PU risk assessment and ongoing management. The QD manager at MOH indicates:

·   *I can say to you honestly, we are welcoming your idea by saying to you, 'please come and work with us'... we are ready at any time for your project to work on and apply, do not hesitate to come and ask me when you come back.*

<div align="right">IPDr1 7-8-06</div>

At this stage although the Quality Unit has been functioning for several years, much remains to be achieved. The main reasons for the slow change to achieve quality health care is that managers and clinicians responsible for driving the change are unfamiliar with many of the processes that would optimise the shift in the culture that is required. The patient safety framework described in the literature represents an ideal that countries such as Jordan can strive for; just as other, more developed health systems are striving. This approach will be new territory for Jordan. A review of the literature about professional cultures in Jordan brought forth no published works. This indicates that this work is in its infancy in Jordan, but, as the MD manager alludes, there is goodwill to work on changing the clinical culture:

This idea will be accepted and welcomed from everybody and all staff are ready to practice it without any problem because of the 'goodwill' which is present between all health sectors.

<div align="right">IOrgDr4 23-7-06</div>

Processes to support quality care implementation are still in the early phases and managers working at the organisational or administrative level verbalise some understanding but have not yet shifted the clinical culture. Even the director of the QU acknowledged staff members in the organisation do not appreciate the extent of the change required. Additional processes are needed to effect change at the clinical level. The QU director's experience with introducing change into primary health care centres

has not helped him change the clinical culture at the hospital. He has now realized that his staff members need to work with clinicians to influence change. However, he was unable to identify processes, such as practice development projects, that would influence change for nursing. His focus has been on large projects such as a unique patient identification number, patient medical record and staff identification badges. He articulates his 'big picture' view as follows:

> *(There is) not much particularly at this stage because first you have to improve the big work. The staff working with me start now to go everyday to the clinical levels.*
>
> IOrgDr5 21-8-06

While it is important for managers to express their agreement about the need for change, this is not, by itself, a sufficient strategy. Managers need to know the optimal processes that will facilitate change but at AlBashir managers have not undertaken additional education to help them understand how change might be best effected. At this stage the responsibility to improve the hospital sits with the Quality Director. However, he needs the support and assistance of other managers at the hospital to optimise such an extensive change program and to move his focus to the level of clinical practice. At this stage a clinically-based project will be useful in establishing processes, such as the implementation of practice guidelines that are currently absent.

Improving clinical processes

The nurse managers recognise the need to improve the quality of clinical care. However, like the medical managers they are unfamiliar with processes that will help change nurses' behaviours and continue to use threats and negative sanctions to effect change. Improved PU management is seen by nurse managers as a good starting place because of the basic nature of patients' skin care. They consider this is a change in which all levels of nurses can participate and the evidence for effort (reduced numbers of PUs) will be visible. The hospital nursing manger and the NDU director expressed agreement about implementing and applying a new model of care for PUs. According to the hospital nursing manager:

> *It is good idea to have a new model of care..., we need to know if the patient developed PU in or outside the hospital, and then how to prevent and manage it.*
>
> IOrgN3 16-5-06

The QU director agreed that PU management would be a useful place for nursing to improve its standards in prevention and management.

The NDU director agreed to support and assist in supervising nurses to learn how to use the RAS (risk assessment scale) and PU care management via the CIs or other hospital staff who normally supported educative processes for nurses. She agreed that the formulated, evidence-based tool and guidelines could be used by nurses to assess patients' skin:

> *Yes, it is important, easy, and clear not complex; the nurse can read it and discuss the required management with the team to improve the patient care through prevention measures.*
>
> IOrgCI2 9-5-06

Similarly, when asked about the possibility of using a risk assessment process, a clinical instructor suggested including it in the admission process:

> *Yes, it is simple, useable, easy and applicable to apply ...because each category has a clear description, which will be easy and clear to do quickly by any nurse on the admission of a patient.*
>
> ICCI5 26-4-06

Clinical nurses also support implementation of an RAS, as one nurse says:

> *The subject of 'bedsore' is very important and surely applying this scale will decrease many issues related to patient complaints, and could assist nurses in their work, so they have to know how to manage this problem...*
>
> ICCI4 23-4-06

Agreement to implement a risk assessment scale to identify patients likely to develop pressure ulcers was given from the management level to the clinical level. While I am aware that it will not be easy to change nurses' practice, this initial confirmation of the usefulness of risk assessment is a promising start.

Devising improvement mini activities

Processes to support quality care implementation are still in the early phases and managers working at the organisational or administrative level verbalise some understanding but need additional processes to effect further changes at ward level. The early phase mini activities include: outpatient department appointment on the

improvements in the quality of care provided to the patients, patients' medical records system, triage system in A and E department, wearing the hospital's (I.D) badge by hospital staff to prove the identity for complaints and security purposes is an additional project being implemented. A proposal for introducing a complaints procedure that involved hospital management placing complaints and improvement boxes in each department would also be considered.

These activities indicate that improvements are underway but these projects have been the work of the QU director. These projects were identified by the director and have usually not involved the staff working collaboratively with the director to effect change. The above activities were introduced as an accreditation requirement but not completed during my study, and I did not observe, for example, any clinician wearing the hospital badge. The QU director's opinion that there was evidence of improvement was not shared by all medical or nursing staff. One doctor criticised the current quality projects as unsuccessful when he said:

> *If you want to have quality, you have to improve the present situation* (ward bed management). *You can't look at your patient at the 'floor'* (ward level) *when the patient should be in the 'ICU'*
>
> OOrgDrM1 25-7-06

He wanted his patient to be cared for in the ICU but there were no available beds. So the patient had to receive care on the ward. The doctor was concerned that the level of care on the ward was not adequate to safely care for his patient.

A further problem with the above activities is that they do not have a time frame, outcomes or key performance indicators as ways of determining how successful they are in shifting the hospital culture towards a quality and patient safety one. There are no staff managing these projects. There is evidence that the hospital is achieving change with these activities designed to improve the quality of health care for patients. The pace of change could be accelerated with better processes in place and progress and accountability ensured by having a delegated staff member responsible for activity outcomes.

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Communicating through teams

As identified in the best practice attributes communication, especially between treating clinicians, is critical to patient safety. Respondents discussed the types of health care teams needed at AlBashir Hospital. As a clinical nurse suggests, work performance could be made more effective if particular team members were included in patient care discussions that would comprise, for instance:

> *The physician (general and resident), nursing (RN and AIN), physiotherapist, nutritionist, respiratory (chest) therapist, and it could be in addition to pathology technician to collect cultures. This team can work as a whole chain when they meet and design any work policy to assist to have effective work.*
>
> ICN3 20-4-06

The diversity in this specialised team with staff skills and readiness to manage such cases was a factor that respondents supported. A nursing respondent supported this diversity by indicating that:

> *The diversity and readiness will improve the health care process ...yes; it could provide support ideas and learning opportunities with the team group, the benefits maybe more if, for example, my cooperative relationships are good with all health team members so I can get the support and learning opportunities with the team groups not working separately to satisfy managers' monitoring process.*
>
> ICN2 19-4-06

These comments are from nurses: the nurses might be happy to work in a team. However, other professional such as doctors may not want to work as a team, thereby setting up problems by suggesting team building at this early stage. It would be feasible to involve some doctors in the practice development projects. Doctors need to agree with the guidelines that are formulated and that should be multidisciplinary. In the initial stages, it may be feasible to include doctors in committees for guidelines, job descriptions and developing an incident monitoring system. This will assist them to talk to nurses about these issues. Nurses also have to act professionally and to be treated that way by medical colleagues. Until the ward nurses become more professional in their role functions, the doctors will not work together with them as a team.

Managing data

In order to assess and manage issues such as PU, the staff suggested a number of solutions, an example of which included establishing a practice development unit or

centre to report, record, communicate, assess and manage PU and other issues as articulated by a clinical nurse:

> *Yes, I mean these types of patients need a specialised, trained, health team working at a special unit..., or need a special policy to work. A special system to follow the work also is needed... yes, we need like this centre to supervise and follow up this issue.*
>
> ICN3 20-4-06

This suggested unit may not be an appropriate solution, because there is a need of staff involvement in developing better practice at ward level. However, it is an indication that there are good ideas being put forward to improve the way data are managed. It is essential to include the nurses in attending/participating in ward/organisation meetings to discuss such issues and this nurse's view gives encouragement that nurses are willing to be involved. All nurses should be skilled in giving PU care, and the hospital nursing manager supports this possibility when she says:

> *Currently, we do not have a reporting system for the PU cases, but if we adopt a system which is important to have, I think it should be through the infection control unit.*
>
> IOrgN3 16-5-06

Indeed this could be the way that it is established initially, although there may be other approaches that can be considered in discussion with the clinical teams who would use the system and the data. There is a need to integrate PU as part of an existing reporting system. Eventually PUs should be part of a general system reporting to the MOH about incident monitoring of all adverse incidents.

Physical resources

Physical resources are a problem at the hospital as the findings indicated. Special mattresses such as water or air filled mattresses are not available. As the general hospital manager alludes, this situation may not change significantly in the immediate future even though the possibility of funding is suggested:

> *The necessary funds for best patient services can be supplied by the MOH at this year or on the next budget...they can supply the very necessary equipment (such as two bed mattresses) at the beginning, or even overlays to be swapped between the patients...Yes, we can say within our resources availability of a very necessary number and I don't think the MOH will refuse to provide us with that.*
>
> IOrgDr6 2-9-06

The issue of mattresses is further discussed by the MD manager who notes that:

These types of mattresses are available in the developed countries... We are in need to use it, but nurses definitely must do the practice of other management such as change position.

OrgIDr4 23-7-06

However, as the hospital nursing manager indicates, this issue might be resolved by decreasing the length of stay:

The nurses can follow the patient case automatically in designing the care plan in order to decrease the patient's length of stay at the hospital because all of these are extra cost to MOH and the government.

OOrgNM2 2-8-06

The difficulty of providing sufficient physical resources for adequate patient care is outlined by the hospital nursing manager who suggests what is needed, namely:

First the cooperation between the physicians, nurses, patients' families, second follow up their treatments, communications, and other management such as positioning. All of these things need the required resources...the available one is in less quantity, and mostly we asked the patients' families to assist in providing some resources such as air mattresses.

IOrgN3 16-5-06

Clearly, hospital management look to the patient's family as assisting in providing some resources such as air mattresses if they can, according to the people's financial situation. The hospital nursing manager indicates this:

Yes air mattresses are unavailable. So the patient's families will buy it if they can, because it is expensive (cost around 200 JD) *and most of these patients who need it are the old age group.*

IOrgN3 16-5-06

Some family members are better able to provide resources such as mattresses as the MD nursing director indicates:

Some patients (who have excellent financial support) can provide special mattress or equipment; if we ask them to provide it, we will guide them to the right equipment according to their financial ability.

IOrgN1 8-5-06

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Some family members also concur with this view as the family member speaking next indicates:

> *We were used to change our mother's position regularly at home. After she was admitted to hospital we bought an air mattress overlay and we are still looking after her not the hospital staff.*
>
> OFMW 29-3-06

Not all patients are assisted by their family members, necessitating staff to collect funds to assist patients, if their need is critical, as the MD nursing director indicates:

> *For one homeless patient we contacted the hospital administration that she needs extra support; we asked for shampoo, body powder, nothing we got so we collect some money to buy for her from our own pocket.*
>
> IOrgN1 8-5-06

Attracting donations from patients and their carers is one solution to assist the hospital to increase their physical resources, but there are problems in doing so. The MD nursing director blames the MOH bureaucratic processes for causing problems with the donations and suggested making this process easier for patients, their families and relatives or other organisations when he said:

> *One patient died, the family want to donate his wheelchair. The bureaucratic process affects this donation; they have to contact the MOH and use a long process. They can't donate directly to the ward.*
>
> IOrgN1 8-5-06

Therefore, there is a need to set up an easy process to accept donations of decontaminated equipment for use by other patients. However, in the absence of physical resources, including donated resources, nurses are used to fashioning simple equipment to manage the risk of PU as this clinical nurse indicates:

> *We are at the wards...maybe creative in managing risk, for example, use pillows and change position of bedridden patients such as PU and DVT patients using sliding sheet. This (sliding sheets) can be made here at the hospital by the hospital tailors in a simple design, or can be supplied by MOH in a cheap commercial offer or bid.*
>
> ICN1 18-4-06

It is evident in AlBashir that nurses must improvise to assist patients wherever they can when physical resources are unavailable. Nurses and the patients' families accept this situation. This improvisation is being transferred by teaching relatives how to assist in

turning and repositioning patients, for example, by using various pressure relieving aids such as pillows and getting patients out of bed as quickly as possible to prevent DVTs and hypostatic pneumonia, the complication of prolonged bed rest.

In summary, it is likely the resources will improve when the new buildings are ready that will assist to implement some of the strategies identified. However, even if new buildings are provided, all new equipment will not automatically be acquired. The processes also need to be change. Part of this change will be adequately equipping the hospital with resources but as I have repeatedly found, change will come initially by accepting a patient safety culture and working to change the attributes and practices of clinicians and managers to achieve it.

Summary

This chapter discussed the feasibility of implementing a proposed patient safety framework in an acute care hospital in Jordan. As the data show, there is a level of awareness and acceptance throughout the organisation of the importance of patient safety and a readiness to implement quality and safety activities. However, the organisational mechanisms, and skills and knowledge of healthcare workers are not yet present to allow the vision to become an embedded reality. There remains an urgent need for a cultural shift in understanding what constitutes patient safety in the organisation, as well as in establishing the structures, processes, human and physical resources to accomplish it at the clinical level, supported by systems and resources at corporate level and by the development of appropriate supporting policy at policy level. The concluding message is that it is possible to implement the blue print. The above comments give a signal that the framework will be accepted. The resource constraints may be resolved if packaged appropriately. Improving patient safety is not solely a technical issue, and the project will be modified through 'trial and error' activity as staff engage with the reality of developing systems and processes that can ensure quality and safety of patient care. In the final chapter, I will draw the findings and strategies together in the form of a conclusion and indicate the implications that arise for Jordanian health care services in implementing the type of patient safety framework that has been outlined in detail in the foregoing chapters.

THESIS FLOW

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BACKGROUND

CHAPTER 2
LITERATURE REVIEW

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CHAPTER 5
A PROPOSED PATIENT
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PUBLIC HOSPITAL IN JORDAN

CHAPTER 6
CONCLUSION
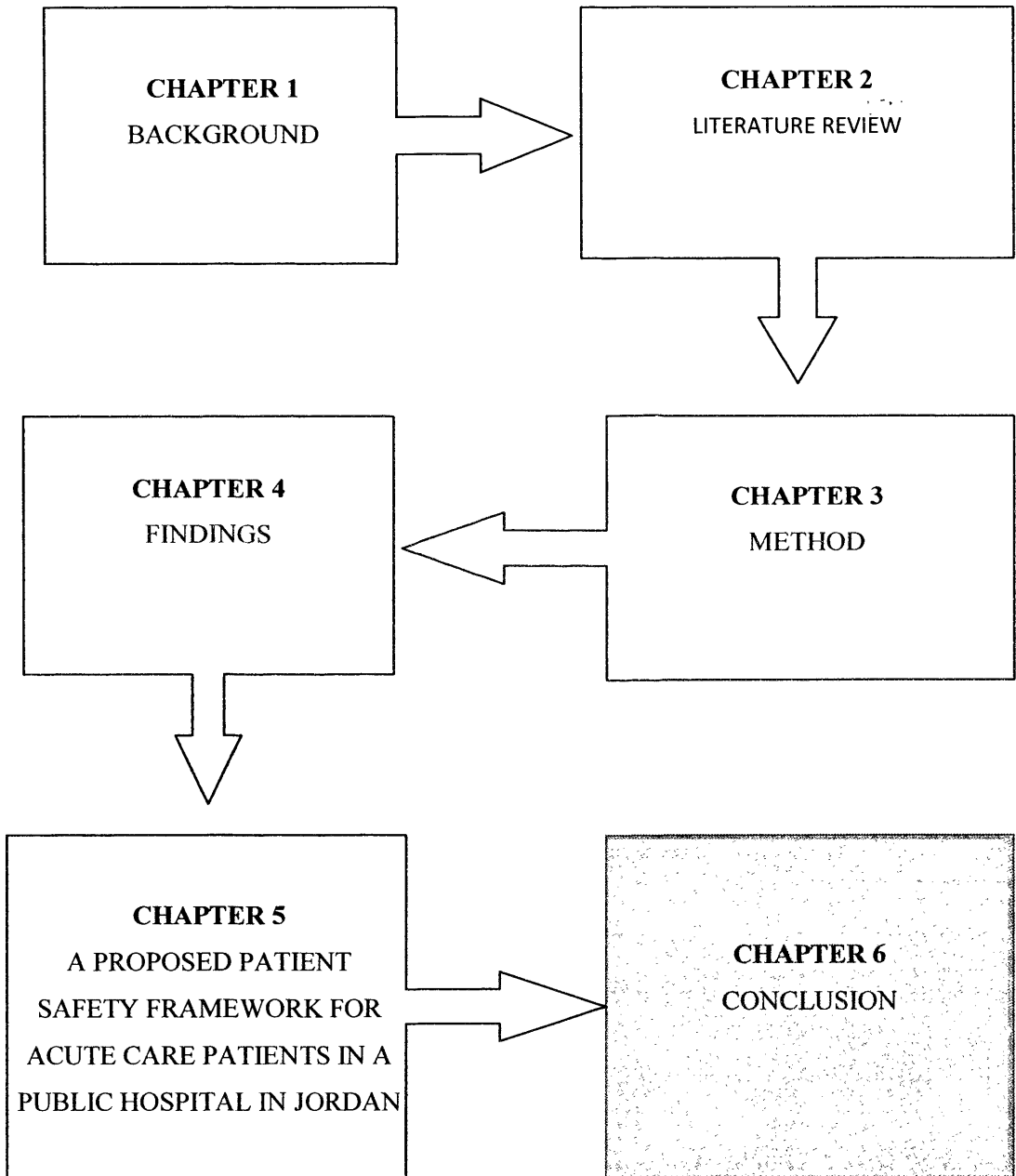
CHAPTER 6: CONCLUSION

Introduction

This chapter describes the main themes and recommendations extracted from the findings of the study and draws them together as conclusions. It also outlines the limitations of the study.

Themes and recommendations

This thesis was undertaken because of my concern as an RN working in the public health care system in Jordan, that patients were injured as a consequence of being treated in the acute care sector. As a nurse I considered that the development of PUs, a patient injury that can be prevented or minimised, could be managed better in Jordanian hospitals. This research journey commenced when I understood that the effective management of PUs could act as a template for other safety issues that threaten the quality of patient care during hospitalisation. Whereas I started this process considering that the problem belonged to nurses working clinically, I now recognise that patient safety issues are the consequences of 'failing' systems organisation wide. Themes generated from the clinical, organisational and ministerial findings of the study are presented in this conclusion, revealing implications for all three levels of the Jordanian healthcare system.

An initial theme with implications for the MOH is that *policy in Jordanian health care is a top down instrumental process, imposed on health services rather than organically developed by those in the workplace for whom a patient safety culture and practices is most relevant.* The traditional approach of hierarchical health bureaucracies has been to formulate policy and send this on to hospitals to implement. The likelihood of success in getting policy implemented in the workplace is increased markedly when it is developed and implemented by clinicians and managers themselves, that is those most affected by the policy. It will be a major change for this to occur in Jordan. Staff at the ministerial and organisational levels will need goodwill and the capacity to utilize structures and processes that have been identified in this thesis with known potential to change the workplace culture.

As the literature enumerates for the health systems in developing countries (e.g. Benner, 1984), the findings reiterate the theme for developing countries: that *'disciplinary hierarchy' is replicated in professions in the Jordanian health care system.* The implication of this situation is that power, authority and decision-making reside with the senior members of professional groups with subordinate personnel unable to take decisions without reference to seniors. As identified from the literature, if a successful patient safety culture is to be implemented, even the most junior members of staff must be able to recognise patient safety issues *and* be empowered to contribute meaningfully in the management and resolution of these issues. I recognise that it will take a long time for the disciplinary hierarchy to break down in Jordan because of its deeply embedded nature in healthcare over many years. However, with the increasing professionalization of health care workers, particularly nurses, change will occur over time. This change can be accelerated by the implementation of quality projects that involve the different disciplinary groups learning to work together for the benefit of patients.

To do so, within the organisation (AlBashir Hospital) *clearer delineation of clinician and clinical manager roles and responsibilities is required with specific reference to strategies and accountabilities for patient safety.* The roles and accountabilities of staff members at all levels must be explicit. This normally means roles and accountabilities are documented and accessible to staff. This change is recommended to support a shift in emphasis from less important considerations that take priority (i.e. the colour of uniforms worn by nurses) to more significant priorities such as the quality of the care provided to patients on a daily basis.

It follows then that managers need to address the hierarchical nature of communication and reorient the unilateral downward flow of information and decisions. Senior managers need to support clinical managers' autonomy (for all disciplines) to make decisions within their sphere of responsibility and empower them to develop capacity in this regard. The increasing engagement of managers and clinicians in quality projects will improve communication from the clinical level, through the organisation to the ministry. As the responsibilities of clinical and organisational managers change, so too will their roles, bringing in more of a boundary spanning capacity to link operational and strategic levels of the organisation, specifically strategies to improve patient safety.

Thus, a systematic approach to preventing, managing and reviewing adverse patient incidents is required so that individual clinicians are not blamed for errors in patient care. Organisational managers will be required to learn and embrace new structures and processes and work with clinicians to change the culture of the organisation towards one of trust and openness. Quality projects conducted at ward level with managers as well as clinicians can assist staff in formulating a new culture and set new organisational goals in which all staff are participants. Workplace data on adverse incidents should be collected within an organisational system of patient summary data, then conveyed to the ministerial level for evaluation and feedback, as the mechanism for setting the direction for improvement within the organisation.

Several themes were identified within the human resources' attribute that would impede such a strategy. *Firstly, hospital managers have no control over the employment of staff working in their organisation.* Employment of health care staff is untaken by the Civil Services Bureau (CSB). The decision about where (in the organisation) these staff will work is made by Ministry of Health staff. While hospital managers have the capacity to comment on the performance of staff employed by the Bureau, they have no authority to either directly employ or dismiss staff from their organisation. Hospital managers require more control over staffing if a more stable and appropriately skilled workforce is to be achieved. Without increased stability in the staff profile at AlBashir Hospital, it will be almost impossible to achieve the shift in the organisational culture that is being proposed.

Related to this theme is the circumstance that *staff have no choice in the selection of the organisation in which they will work.* People whose applications are approved for employment are assigned a working location, a process that often results in dissatisfaction. Consequently, dissatisfied staff may remain employed in an organisation for very limited periods before they seek alternative employment. The frequent turnover of staff presents a difficulty in stabilising the organisation, motivating staff to improve performance, and changing the work culture. The situation is compounded in teaching hospitals like AlBashir by having to train staff for other hospitals either within or outside Jordan, resulting in cycles of over or under supply of staff which again impacts on organisational stability and on the capacity for cultural transformation. Therefore, a new decentralised system for the allocation and

management of staff in hospitals is required that enables hospital managers to have control over staffing. Such a system will give staff options to choose from available vacancies in hospitals, thus fostering job satisfaction.

Also associated with organisation effectiveness is the circumstance where *physical resources are allocated from the MOH with minimal organisational control over the amount allocated or how it is spent.* A new system for the allocation and management of physical resources for hospitals is required that enables hospital managers to have some measure of control over resource funding and how it is spent within their organisation. That is local managers should develop budgets reflecting the organisation's priorities. Specifically, hospital administration must implement a system that can maintain and repair expensive equipment in a timely manner, so that it can be quickly returned for use in the workplace.

Turning to another key theme, *members of different disciplines working in clinical areas provide patients with care that is not communicated effectively to other disciplinary groups.* As the findings show multidisciplinary teams do not exist at AlBashir Hospital. Processes such as medical patient rounds are conducted with no other health professional group represented other than doctors. Structures and processes, such as multidisciplinary rounds, known to increase interdisciplinary communication are urgently required. The Quality Director at the hospital can help facilitate improved interdisciplinary relations through quality projects and a multidisciplinary guideline development committee, as well as the introduction of multidisciplinary patient rounds and the implementation of a new policy on conducting rounds.

More specifically, *nurses require a new model of care to maximize their potential to keep patients safe.* The current model of nursing care used throughout AlBashir Hospital is task allocation. For the reasons identified in the findings, this model is not an optimal way to deploy the skills sets of the three levels of nurses employed. A team nursing model of care is suggested to achieve improved supervision and guidance of less experienced and less well-trained staff to facilitate higher standards of practice. Registered nurses will be required to lead these teams, giving up their task focus of "control of medication rounds and IV therapy" to participate more fully in patients'

care. For this to happen, RNs must be educated and mentored to embrace the proposed change. Therefore the new model will be introduced slowly and systematically starting with the two medical wards. The nursing team leader will participate in the multidisciplinary rounds for the patients for whom they are responsible. Team nursing will allow more autonomous practice thereby obviating the need for task allocation by seniors and enabling nurses to make decisions about appropriate care in the absence of senior staff. A change in the model of care will also require nurse managers to consider the current shift allocation of nurses. A better balance of staff particularly between the morning and afternoon shifts will be required to implement effective team nursing.

The image of nurses as "powerless handmaidens" to the doctors is still maintained in Jordan. Qualified nurses in Jordan are now highly educated professionals. The findings of this thesis indicate that nurses, despite the educational qualifications they now receive from Jordanian Universities, have apparently not been able to change traditional hospital practices involving nurses. Instead, new nurses are being socialised into conformity with the existing systems. Qualified nurses working in the two medical wards did not act autonomously, but responded to delegated authority, mainly from doctors, for decision making in their areas of professional expertise. The nurse managers and NDU staff urgently need to consider how they can best assist the qualified nurses working at AlBashir Hospital to become more professional in their behaviour, to develop leadership capacities to improve the standards of care patients are entitled to receive.

In this endeavour, the *review and revision of workplace documentation of care by nurses is urgently required.* Currently, nurses record information about patients in three different locations: nursing notes, the cardex system and the shift handover book. This is problematic because not only was the content of information different in each different location, it was often inaccurate. Integrated progress notes that all clinicians write in as part of a patient's medical record are urgently needed. One formal record of patient care is the best way to ensure a complete and accurate account. Any entry into a patient's progress notes needs to be signed and dated by the attending clinician.

Significantly, *no guidelines for practice based on best evidence are available in the clinical areas and no structure or process to provide such guidelines exists.* The

development of multidisciplinary guidelines based on research evidence is required to support clinicians working at the clinical level to implement best practice recommendations. As clinical staff have no access to computers in Jordan at this time, it is recommended that a multidisciplinary committee be formed to review literature and develop practice guidelines that are available to all staff at ward level. Staff will require education in the use of guidelines that can be incorporated into the quality projects conducted at ward level. Education and training are key components to successful implementation and maintenance of the change strategy. Data collected at ward level (e.g. PUs) can be analysed and reviewed and provide a starting place for such projects.

Limitations of the study

There are a number of limitations to the study. First, as a researcher, I continued to grow and learn throughout this study. I did not appreciate at the start of the thesis the scope of the project that emerged as data were collected and compiled. I was initially limited by my clinical background and hence, not having the perceptive to appreciate the importance of qualitative data collected at the organisational and policy levels and how the three levels interconnected. A second limitation is that the study may be difficult to replicate because of the bounded nature of the case examined and its context. Further, documents that were said to exist within the hospital and the ministerial levels when the research was planned were not forthcoming when requested. However, the triangulated nature of the study has overcome this limitation to some extent.

Summary

The themes identified here will be used to support the implementation of a patient safety framework to manage patients at high risk of or with PUs in the Jordanian hospitals. Based on these themes, changes will be put in place concurrently at the organisational and clinical levels. This will be a different approach for Jordan and for AlBashir Hospital; that is to simultaneously implement a clinical project on improving the management of PUs as well as putting in place the organisational structures and processes to support such a project.

Organisational mangers will be supported to learn new ways of communicating with staff between and within disciplines as well as between the organisational and clinical

levels. An organisational incident monitoring system for serious PU events will be established, initially so that clinicians can receive feedback and monitor the effectiveness of the PU project and subsequently for the organisation and policy level to review performance and progress. It is accepted that these changes will continue over time and new projects will be developed to support the move towards a safer clinical environment.

For enduring change to occur, the Jordanian MOH staff must be involved in improvement projects and committed to achieving a more patient centred health care system than currently exists. Only then will the resources essential to support patient safety issues at the organisational level be relevant and forthcoming. Until that time I will continue to work with and mentor nurses in Jordan towards increasing their professionalism and responsibility for keeping patients for whom they care in hospital, safe.

This thesis sought to apply an organisational perspective to the problems of patient safety and quality. By doing so, the interconnections that need to be made in the system of care to avoid risks to patients and staff were fore grounded, in this case for PUs. However, the method of inquiry and framework for patient safety developed based on the findings of the research can be readily applied to any health care organisation and for all case types using the template developed in this research study. While many shortcoming in clinical care of patients with PUs were identified at AlBashir Hospital many opportunities were also presented for improvement that these research findings, together with best practice attributes identified from literature, can augment to develop a functional patient safety framework for Jordanian hospitals, and possibly beyond.

APPENDICES

Appendix 2. 1: Pressure ulcer management guidelines

Policy	Guideline application
Avoid pressure for confined to bed patients.	- Use smooth linens free of wrinkles, loose clothes, shoes and socks. - Use moving aids such as 'monkey pole', or a pull-up-rope. -No suggestion to use one type of pressure reducing device as being more effective than others, but generally, for at risk patients, use a low pressure support system (air, water, or foam mattresses), and replace standard foam mattresses with static pressure reducing mattresses (high density foam) if applicable. For moderate to high-risk patients use dynamics support surfaces: large cell alternative pressure relieving mattresses, low air loss bed, air fluidised bed and other redistributing system. - With using pressure relieving devices continue to use repositioning, and body turning, or mechanical turning frame, and head of the bed 30 degree.
To reduce contact between the bony prominence and the support surfaces.	- Use pillows, pads, cotton blankets or foams wedges. - Use high-density foam block/vascular boots, and release pressure of the heel by elevating the lower extremities on a pillow. - Massage over bony prominence is not recommended and should be avoided because there is evidence that strong massage can cause breaking of capillaries and deep tissue trauma.
To provide comfort and decrease friction.	- Use sheepskins.
Devices impede blood circulation causing tissue ischaemia.	- Water-filled gloves, doughnut-type devices or rubber or inflatable ring-shaped cushions. These should not be used as pressure relieving aids. They may relieve pressure in one area but increase pressure in the surrounding area.
Manual handling.	- Use lifting devices such as slide sheets, slings, sleeves or mechanical lift to move patients, and not to leave the device after use under the patient.
Avoid pressure for patient is out of bed (confined to chair).	- Use wheelchair cushions, heel pressure relieving devices and seat cushions, in addition to frequent push-up. No recommendation to prefer using any type of the seat cushions out of another. - Limit the time of sitting on a chair or bedpan, because it impedes the circulation.

Appendix 3.1: Participants with schedule of data collection and data codes

Type of data	Location	Data code	Participants	Duration	Date
Clinical data					
Point prevalence and incidence **survey**	Male medical ward Female medical ward	MMW FMW	Patients at both wards	5 weeks	22-01-2206 – 28-02-2006
Observation Impromptu Informal (**meeting**)	Female medical ward	OCNM1	MD nursing director, Deputy, 'in-charge' nurse, morning staff RN=3, AN=15	30 mints	22-02-2006
Observation Impromptu Informal (**meeting**)	Male medical ward	OCNM2	MD nursing director Deputy, night staff, morning staff-	30 mints	16-03-2006
Observation (**Meeting**) Doctors morning report	Lecture room medical department	OCDrM3	48 medical doctors Chairperson:(MD manager deputy and quality coordinator)	60 mints	15-05-2006
Observation (**Meeting**) Deputy of MD director with the nursing staff at male and female wards	Lecture room at the medical department	OCNM4	55 nurses from all shifts including the MD nursing director Deputy (chairperson) and in charge nurses at male, female and CCU.	70 mints	24/7/2006
Interviews	Female medical ward	ICN1	RN 'in-charge' nurse at the female medical ward	50 mints	18-4-2006
	Male medical ward	ICN2	RN 'in-charge' nurse at the admission and stock room for the Medical ward	60 mints	19-4-2006
	Male medical ward	ICN3	RN' in-charge' nurse at the male medical ward	60 mints	20-4-2006
	NDU	ICCI4	RN CI at the burn ward	80 mints	23-4-2006
	Male medical ward	ICCI5	RN CI at the female medical ward	60 mints	26-4-2006

at AlBashir Hospital	Male medical ward	OMMW	Staff at MMW	5 hours	13/03/2006
	Male medical ward	OMMW	Staff at MMW	5 hours	14/03/2006
	Male medical ward	OMMW	Staff at MMW	5 hours	15/03/2006
	Male medical ward	OMMW	Staff at MMW	5 hours	16/03/2006
	Male medical ward	OMMW	Staff at MMW	5 hours	20/03/2006
	Male medical ward	OMMW	Staff at MMW	5 hours	21/03/2006
	Male medical ward	OMMW	Staff at MMW	5 hours	22/03/2006
	Male medical ward	OMMW	Staff at MMW	5 hours	23/03/2006
	Female medical ward	OFMW	Staff at FMW	5 hours	26/03/2006
	Female medical ward	OFMW	Staff at FMW	5 hours	27/03/2006
	Female medical ward	OFMW	Staff at FMW	5 hours	28/03/2006
	Female medical ward	OFMW	Staff at FMW	5 hours	29/03/2006
	Female medical ward	OFMW	Staff at FMW	5 hours	4/04/2006
	Female medical ward	OFMW	Staff at FMW	5 hours	5/04/2006
	Female medical ward	OFMW	Staff at FMW	5 hours	6/04/2006
Organisational data					
Observation (Meeting) Manager of medical department	Lecture room at the medical department	OOrgDr M1	55 doctors plus QU staff: Dr Asia Odwan, RN Lamia Hadad and Mr Majdi Chairperson: Dr Yousef Nu'imat (The head of MD) /Dr Michael	60 minutes	25-7-2006

Observation (Meeting) Nursing directors of departments with hospital nursing manager	Meeting room at the Head quarter/ AlBashir Hospital	OOrgN M2	20 Nursing directors of hospital departments plus the hospital nursing manager and the Deputy	75 minutes	2-8-2006
Observation (Meeting) Nursing hospital-wide committee for nursing standards	NDU/ AlBashir Hospital	OOrgN M3	8 RNs ('In-charges') Chairperson:RN Ezzieh Subaih (Director of the NDU)/RN Hiam Dababneh ('In-charge' of the Dermatology clinics)	60 minutes	22-8-2006
Interviews	Nursing director of MD office	IOrgN1	Nursing director of MD	60 minutes	8-5-2006
	NDU	IOrgCI2	RN CI Director of the NDU	45 minutes	9-5-2006
	Hospital nursing manager office	IOrgN3	Hospital nursing manager	60 minutes	16-5-2006
Interviews	MD manager office	IOrgDr4	MD Manager	30 minutes	23-7-2006
	Quality Unit	IOrgDr5	Director of Quality Unit at AlBashir Hospital	80 minutes	21-8-2006
	General Manager of AlBashir Hospital office	IOrgDr6	General Manager of AlBashir Hospital	70 minutes	2-9-2006
Ministry data					
Interview	Manager of Quality Department at MOH office	IPDr1	Manager of Quality Department at MOH	50 minutes	7-8-2006
Sydney experience					
Researcher Practice Observation	Canterbury hospital NSW	RBOP	Researcher best observed practice	20 hours	July 2007
Researcher working as RN	Regis Delphi House NSW	RCE	Researcher clinical experience	Full time	September 2007

Pressure Ulcer Assessment Tool

Patient Name:..........................
Medical File Number:.................
Age:....................
Sex: Male   Female
Smoking: Yes   No
Weight (Kg):...............
Date.../.../
Time:...........
Diagnosis:..............
Department (Hospital unit or ward):............

Number of Pressure Ulcers:..........

Location (site):
-Sacrum   (   )
-Heel   R   L
-Trochanters   R   L
-Ischium   R   L
-Others:.............

Stage:
Stage 1:(   )
Stage 2 :(   )
Stage 3 (   )
Stage 4 (   )

Shape:.......... **Size:**..........

Skin Colour:.........

Skin Temperature:
-Warm (   )
-Cool (   )
-Normal (   )

Type of support treatment:...............

Severity and Value judgement:
-Bad (   )
-Deep (   )
-Large (   )
-Small (   )
Other ....

Appendix 3.3: Staging system

PU staging system

Stage	NPUAP (1989)	NPUAP (1998)	EPUAP (1998)
Stage 1	Non-blanchable erythema of intact skin, the heralding lesion of skin ulceration. In individuals with darker skin, discoloration of skin, warmth, oedema, induration, or hardness may be indicators.	Pressure ulcer is an observable pressure related alteration of intact skin whose indicators as compared to the adjacent or opposite area on the body may include changes in one or more of the following: skin temperature (warmth or coolness), tissue consistency (firm or boggy feel), and/or sensation (pain, itching). The ulcer appears as a defined area of persistent redness in lightly skin tones. The ulcer may appear with persistent red, blue, or purple hues.	Nonblanchable erythema of intact skin. Skin discoloration (red, bluish/black) that stays for more than one hour after removing pressure.
Stage 2	Partial thickness skin loss involving epidermis, dermis, or both. The ulcer is superficial and presents clinically as an abrasion, blister, or shallow crater.		Ulceration of epidermis and/or dermis (blister).
Stage 3	Full thickness skin loss involving damage to, or necrosis of, subcutaneous tissue that may extend down to, but not through, underlying fascia. The ulcer presents clinically as a deep crater with or without undermining of adjacent tissue.		Ulceration involving subcutaneous fat, superficial ulcer. Skin destruction without cavity, tunnelling, tracts, or undermining.
Stage 4	Full thickness skin loss with extensive destruction, tissue necrosis, or damage to muscle, bone, or supporting structures (e.g. tendon, joint, capsule). Undermining and sinus tracts also may be associated with stage 4 pressure ulcers.		Extensive ulceration penetrating to muscle, bone, or supporting structure, deep ulcer. Skin destruction with cavity, tunnelling, tracts, or undermining.

SENSORY PERCEPTION Ability to respond meaningfully to pressure –related discomfort	**1.Comletely Limited:** Unresponsive (does not moan, flinch, or grasp) to painful stimuli, due to diminished level of consciousness or sedation. OR limited ability to feel pain over most of body surface.	**2. Very Limited:** Responds only to painful stimuli, cannot communicate discomfort except by moaning or restlessness. OR has a sensory impairment, which limits the ability to feel pain or discomfort over half of body.	**3.Slightly Limited:** Responds to verbal commands, but cannot always communicate discomfort or need to be turned. OR has some sensory impairment, which limits ability to feel pain or discomfort in one or two extremities.	**4.No Impairment:** Responds to verbal commands. Has no sensory deficit, which would limit ability to feel or voice pain or discomfort.	
MOISTURE Degree to which skin is exposed to moisture	**1.Constantly Moist:** Skin is kept moist almost constantly by perspiration, urine, etc. Dampness is detected every time patient is moved or turned.	**2.Very Moist:** Skin is often, but not always moist. Linen must be changed at least once a shift.	**3.Occasionally Moist:** Skin is occasionally moist, requiring an extra linen change approximately once a day.	**4.Rarely Moist:** Skin is usually dry, linen only requires changing at routine intervals.	
ACTIVITY Degree of physical activity	**1.Bedfast:** Confined to bed.	**2.Chairfast:** Ability to walk severely limited or non-existence. Cannot bear own weight and /or must be assisted into chair or wheelchair.	**3.Walks Occasionally:** Walks occasionally during day, but for very short distances, with or without assistance. Spends majority of each shift in bed or chair.	**4.Walks Frequently:** Walks outside the room at least twice a day and inside room at least once every two hours during walking hours.	
MOBILITY Ability to change and control body position	**1.Completely Immobile:** Does not make even slight changes in body or extremity position without assistance.	**2.Very Limited:** Makes occasional slight changes in body or extremity position but unable to make frequent or significant changes independently.	**3.Slightly Limited:** Makes frequent though slight changes in body or extremity position independently.	**4.No Limitation:** Makes major and frequent changes in position without assistance.	
NUTRITION Usual food intake pattern	**1.Very Poor:** Never eats a complete meal. Rarely eats more than 1/3 of any food offered. Eats two servings or less of protein (meat or dairy products) per day. Takes fluids poorly. Does not take a liquid dietary supplements. OR is NPO and / or maintained on clear liquids or IV's for more than five days.	**2.Probably Inadequate:** Rarely eats a complete meal and generally eats only about half of any food offered. Protein intake includes only three servings of meat or dairy products per day. Occasionally will take a dietary supplements. OR receives less than optimum amount of liquid diet or tube feeding.	**3.Adequate:** Eats over half of most meals. Eats a total of four servings of protein (meat, dairy products) each day. Occasionally will refuse a meal, but will usually take a supplement if offered. OR is on a tube feeding or TPN regimen which probably meets most of nutritional needs.	**4.Excellent:** Eats most of every meal. Never refuses a meal. Usually eats a total of four or more servings of meat and dairy products per day. Occasionally eats between meals. Does not require supplementation.	
FRICTION AND SHEAR	**1.Problem:** Requires moderate to maximum assistance in moving. Complete lifting without sliding against sheets is impossible. Frequently slides down in bed or chair, requiring frequent repositioning with maximum assistance. Spasticity, contractures or agitation leads to almost constant friction.	**2.Potential Problem:** Moves feebly or requires minimum assistance. During a move skin probably slides to some extent against sheets, chair, restraints, or other devices. Maintains relatively good position in chair or bed most of the time but occasionally slides down.	**3.No Apparent Problem:** Moves in bed and in chair independently and has sufficient muscle strength to lift up completely during move. Maintains good position in bed or chair at all times.		

Braden Scale Scores: **Total Score =**

    1 = Highly Impaired.

    3 or 4 = Moderate to low impairment

    Total points possible: 23

    Total Score:

    Risk predicting Score: 16 or less

    NPO: nothing by Mouth, **IV**: Intravenously, **TPN**: Total parenteral nutrition.

    Source: Barbara Braden and Nancy Bergstrom copyright, 1988

Appendix 3.5: Arabic copy of Braden Scale

الفئه	المحدود (1)	المحدود (2)	المحدود قليلاً (3)	غير محدود (4)	العلامه
الادراك الحسي/العصبي المقدره على الاستجابه بنايه لعدم الراحه بسبب الضغط	1.محدود كلياً: عدم الاستجابه (التأوه،يجفل،يمسك)للمثيرات المؤلمه بسبب نقص الوعي او المسكنات او محدودية الشعور بالألم في معظم انحاء الجسم.	2.محدود: يستجيب فقط للمؤثرات المؤلمه. لا يستطيع التعبير عن عدم الراحه الا من خلال التأوه او التململ.	3.محدود قليلاً: يستجيب للأوامر الشفهيه ولكن لا يستطيع دائماً التعبير عن عدم الراحه او حاجته للتحرك او عنده خلل في بعض الحواس التي تحد من مقدرته على الشعور بالألم او عدم الراحه في جزء او جزئين من أطراف الجسم.	غير محدود: يستجيب للأوامر الشفهيه. لا يوجد عنده عجزفي الحواس التي تحد من القدره على اللفظ بصوت عن الألم او عدم الراحه.	
الرطوبه درجة تعرض الجلد للرطوبه	1.رطب باستمرار: الجلد محافظ على رطوبته باستمرار تقريباً عن طريق التعرق،البول،الخ.درجة الرطوبه تفحص كل مره يتحرك او ينقلب فيها المريض.	2.رطب: الجلد لين(رطب) ولكن ليس دائماً.الشراشف يجب تغييرها مره واحده على الأقل كل ورديه.	3.رطب أحياناً: الجلد رطب أحياناً بحاجه لتغيير الشراشف مره واحده أضافيه في اليوم.	4.رطب نادراً: الجلد دائماً جاف.الشراشف بحاجه للتغيير حسب الفتره الاعتياديه.	
النشاط درجة النشاط الجسدي	1.ملتزم بالسرير: محصور بالسرير.	2.ملتزم بالكرسي: المقدره على المشي محدوده او غير موجوده. لا يستطيع نقل جسمه و/أو يجب مساعدته في الكرسي الثابت أو المتحرك.	3.يمشي أحياناً: يمشي أحياناً في النهار ولكن لمسافات قصيره بمساعده أو بدون مساعده.يقضي معظم وقته في السرير أو على الكرسي.	4.يمشي باستمرار: يمشي خارج الغرفه مرتين يومياً على الأقل وداخل الغرفه مره واحده كل ساعتين على الأقل أثناء ساعات الصحو.	
الحركه المقدره على تغيير او السيطره على وضع الجسم	1.ثابت تماماً: لا يعمل على تغيير وضعية جسده ولو قليلا او تحريك موضع أطرافه بدون مساعده.	2.محدود: يعمل على تغيير وضعية جسده أحياناً أو وضعية أطرافه ولكن لا يستطيع عمل ذلك غالباً بأستقلاليه.	3.محدود قليلاً: يقوم بتحريك وضعية جسده أحياناً أو وضعية أطرافه دائماً بأستقلاليه.	4. غير محدود: يقوم بأغلب وأكبر تغيرات جسده بدون مساعده.	
التغذيه نمط تناول الاكل الاعتيادي	1. ضئيل جداً: لا يأكل وجبه كامله مطلقاً.نادرا يأكل ثلث الطعام المقدم له.يأكل اثنتان او أقل من البروتين (اللحم او مشتقات الألبان) يومياً.قليل ما يشرب السوائل. لا يأخذ سوائل مساعدات حميه اضافيه.أو ممنوع من الطعام والشراب أو لو على السوائل الصافيه أو التغذيه الوريديه لأكثر من خمسة أيام.	2. غير كاف ربما: نادراً ما يأكل وجبة كامله.وعادة ما يأكل نصف الأكل المقدم له.يأكل ثلاثة حصص بروتين (لحمه أو مشتقات الألبان) في اليوم. أحياناً يأخذ مساعدات الحميه الاضافيه أويأخذ اقل من المطلوب من كمية سوائل الغذاء أو التغذيه عن طريق الأنبوب.	3. كاف: يأكل أكثر من نصف الوجبات .يأكل ما مجموعه أربعة حصص المقدم له من البروتين (اللحم أو مشتقات الألبان) يومياً. أحياناً يرفض الوجبه ولكن يأخذ مساعدات الحميه الاضافيه اذا قدمت له أويأخذ عن طريق الأنبوب التي تغطي معظم احتياجاته من التغذيه.	4. ممتاز: يأكل معظم الوجبات . لا يرفض الوجبات اطلاقاً. عادة ما يأكل ما مجموعه أربعة أو أكثر حصص اللحم أو مشتقات الألبان. أحياناً يأكل بين الوجبات. لا يحتاج الى مساعدات الحميه الاضافيه.	
الاحتكاك والسحب الافقي	1.مشكله: بحاجه الى درجه متوسطه الى عاليه من المساعده على الحركه.الحمل بدون عكس الشراشف مستحيل.دائماً يزحف للأسفل في السرير أو الكرسي.بحاجه الى اعادته الى وضعه الطبيعي دائماً بمساعده كامله.تشنج، أو تهيج يؤدي الى احتكاك مستمر تقريباً.	2.مشكله محتمله: يتحرك بضعف أو يحتاج الى مساعده صغيره جداً. خلال الحركه الجلد يزحف على امتداد الشراشف، الكرسي، القيود أو الوسائل الأخرى.يحافظ على وضعيه جيده على الكرسي أو السرير معظم الوقت ولكن احياناً يزحف للأسفل.	3. لا يوجد مشكله ظاهره: يتحرك بالسرير والكرسي بأستقلاليه وعنده قوة عضلية كافيه لحمل جسده عند الحركه.يحافظ على وضعيه جيده في السرير أو الكرسي كل الأوقات.		

مجموع العلامات =

علامات مقياس برادن:
1 = تلف الى حد كبير (درجه كبرى)
3 أو 4 = تلف متوسط الى منخفض
احتمالية مجمع النقط = 23
مجموع العلامات =
علامات تنبئ الخطر: 16 أو اقل
لا شيء عن طريق الفم=NPO
عن طريق الوريد =IV
TPN= التغذيه الداخليه الكامله

Appendix 3.6: Interview Questionnaire sheet 3

Interview Questionnaire Sheet (clinicians at AlBashir Hospital)

<u>Demographic data:</u>

Name:..

Age:......................Sex:...............

Designation...................Qualification (Highest Educational): ....

Department (Hospital unit or ward):.................................

Date of Interview:....................

---

1. What is the ability to work with the current clinical culture, seek and provide safe culture?

2. Could you identify which group of patients who would require risk assessment?

3. What are the criteria currently do you use in determining and managing risk?

4. In your opinion, what roles do the different professional disciplines play in risk assessment and management?

5. Who decide the care needs of a safe patient?

6. What kind of communication will assist your work to perform it effectively?

7. What are the barriers in developing an effective performance and functions?

8. What is diversity in clinical team and staff skills and readiness managed?

9. How important is it to follow organisation policies and procedures?

1. Do you have an opportunity to attend/participate in ward/organisation meeting /committees? If "No" could you please comment why?

2. How acceptable is it to do your work by yourself, rather than working together with others?

3. Do you think the current human resources are adequate?

4. What physical resources are available/required in pressure ulcer management?

5. How can the existing situation be modified to improve patient safety in a Jordanian hospital (using PU as an example)?

Observation Sheet (Meeting)

Place:.........................

Medical Meeting...........Nursing Meeting..............other...

Number of attendance:..................

Date.../.../

Time:...........

Department (Hospital unit or ward):...........

---

1. Who attended the meeting?

2. Was there an agenda ? if yes who set it?

3. Where was it held e.g. patient bedside, nurses' station?

4. When was it held?

5. What was the types of meeting e.g. handover?

6. Where the topics discussed agenda items at this meeting?

7. Did they talk about patient safety issues such as pressure ulcers?

8. Is there any discussion about the quality of patient care?

9. Is a record of the discussions and decision being kept?

10. Are there minutes of this meeting being recorded? Accessible: yes or no?

11. What are the main outcomes of this meeting?

12. Any other note worthy points?

13. Participants tone: - Friendly

- Angry

- Very quite discussion

- Information giving

Interview Questionnaire Sheet (managers at AlBashir Hospital)

Demographic data:

Name:...................................

Age:.....................Sex:...............

Designation....................Qualification (Highest Educational) :................

Department (Hospital unit or ward):....................................

Date of Interview:....................

1. What do you think are the main quality and patient safety health issues in acute care hospitals in Jordan?

2. What are the health needs regarding to quality of care and patient safety?

3. What does this organisation do to manage this issue?

4. Does this hospital provide a safe and healthy environment?

5. What are the processes of communication you are implementing to promote a quality and patient safety culture?

6. Does the organisational reporting structure facilitate coordination?

7. Do these groups of pressure ulcers patients need extra support to manage their problem?

8. What sort of support do clinicians need?

9. What do think about the resources facilities and health services provided?

10. Overall, are you satisfied with the quality of care given to pressure ulcers patients?

11. How can the existing situation be modified to improve patient safety in a Jordanian hospital (using PU as an example)?

Interview Questionnaire Sheet (Manager at MOH)

Demographic data:

Name:..

Age:.......................Sex:...............

Designation:...................Qualification (Highest Educational) :...............

Department :...................................

Date of Interview:....................

---

1. Outline the MOHs plans for a patient safety and quality health care in acute care hospitals in Jordan

2. Can you identify the priorities for safety and quality issues at MOH?

3. What can you do to advance the safety and quality agenda at organisations to solve any barriers?

4. What current evaluations data are available that incorporates safety and quality in managerial and clinical performance measures in public Jordanian hospital?

5. Who conduct the performance reviews?

6. What are the dimensions of performance measures for the staff at the MOH?

7. What current funding agreements are available that incorporates safety and quality in managerial and clinical performance measures in public Jordanian hospital?

8. How can the existing situation be modified to improve patient safety in a Jordanian hospital (using PU as an example)?

Appendix 3.10: Observation sheet (clinical practice)

Observation Sheet (clinical practice)

Date.../.../   Time and duration:...........

Department (Hospital unit or ward):...........

1. Who was observed?

2. What situation was observed, e.g. giving patient care?

3. Provide examples of are clinicians showing behaviours (e.g. wearing gloves) that appropriately are consistent with engagement in a quality and patient safety culture?

4. Is there concerns about a lack of patient safety?

5. Are the hospital's administrators having an action program in place to assist clinicians engage in quality and safety processes?

6. What are health care team doing during the day to assess and manage patients with pressure ulcers?

7. Was the clinical practice situation safe for the patient/s?

8. Why not?

9. Clinical practice guidelines availability: Yes....

                                            No....

10. If available are staff adhering to the organisational guidelines and policies?

11. Is there evidence of any processes in place about quality and safety?

12. Is there a formal structure to facilitate communication when clinicians have practice issues e.g. communication book, display board?

13. Is there a formal processes clinicians concerns to report e.g. improvement log?

14. Is there collaboration between the health care professionals to work as a team? e.g. observation of what kind of communication, how often, how, when and why: Nurse-Nurse communication, Nurse-Doctor communication, Nurse-patient communication, Doctor-Doctor communication, Doctor-Nurse communication, Doctor-patient communication, direct file communication, meeting communication and feedback, interdepartmental communication.

15. What is the current performance evaluation for clinicians available?

16. Who conducts performance evaluations of clinicians' performance?

17. What are the current human resources (staff)? Adequate, lack, overcrowded?

18. Are physical resources (equipment) adequate?

Appendix 3.11: Letter of Approval from the Jordanian MOH

بسم الله الرحمن الرحيم

THE HASHEMITE KINGDOM
OF JORDAN
MINISTRY OF HEALTH

المملكة الأردنية الهاشمية

وزارة الصحة

Ref. No. ٢ ٥ ر ٢ ٢٨ /١١ /١٥٧٨

الرقم _____

Date ٢٩ May ٢٣ ٢٠٠٥

التاريخ _____

الموافق _____

عناية السيد محمود الجاعفره

To Mr. Mahmoud Aljáá freh.

Dr. Judith Donoghue
Professor of Acute Care Nursing
St George Hospital
Gray Street Kogarah NSW 2217,
Australia

Sub.: Request for permission for data collection for doctoral research project entitled "The Development of a Quality System to Manage Patients with Pressure Ulcers in the Acute Setting" to be undertaken in a public hospital in Jordan.

Dear Dr. Donoghue,,,

With reference to your letter dated February 2, 2005 regarding above.

Kindly be informed of our approval for Mr. Mahmoud Alja'afreh to undertake date collection at Al-Bashir Hospital.

Dr. Alja'afreh is requested to provide us with the findings of his researched, and he is advised to coordinate with the Chief Nurse of the concerned department at Al-Bashir Hospital to facilitate his research.

Sincerely,,

Said S. Darwazah
Minister of Health
الأمين العام للكلف

c.c. _____ General of Hospitals & Specialized Centers.
c.c. Dir. Al-Bashir Hospital

23 March 2006

Professor Judith Donoghue
KG05.00.05
Faculty of Nursing, Midwifery and Health
UNIVERSITY OF TECHNOLOGY, SYDNEY

Dear Judith,

UTS HREC REF NO 2006-004 – DONOGHUE, Professor Judith, SORENSEN, Dr Roslyn, (for ALJA'AFREH, Mr Mahmoud, PhD student) - "Developing a best practice model of risk management: A vision for quality management in a Jordanian acute care hospital"

Thank you for your response to my email dated 24 February 2006. Your response satisfactorily addresses the concerns and questions raised by the Committee, and I am pleased to inform you that ethics clearance is now granted.

Your clearance number is UTS HREC REF NO. 2006-004A

Please note that the ethical conduct of research is an on-going process. The *National Statement on Ethical Conduct in Research Involving Humans* requires us to obtain a report about the progress of the research, and in particular about any changes to the research which may have ethical implications. This report form must be completed at least annually, and at the end of the project (if it takes more than a year). The Ethics Secretariat will contact you when it is time to complete your first report.

I also refer you to the AVCC guidelines relating to the storage of data, which require that data be kept for a minimum of 5 years after publication of research. However, in NSW, longer retention requirements are required for research on human subjects with potential long-term effects, research with long-term environmental effects, or research considered of national or international significance, importance, or controversy. If the data from this research project falls into one of these categories, contact University Records for advice on long-term retention.

If you have any queries about your ethics clearance, or require any amendments to your research in the future, please do not hesitate to contact the Ethics Secretariat at the Research and Commercialisation Office, on 02 9514 9615.

Yours sincerely,

Professor Jane Stein-Parbury
Chairperson
UTS Human Research Ethics Committee

Appendix 4.1: Checklist of quality program

بسم الله الرحمن الرحيم

مستشفى البشير

وحدة تطوير التمريض

<u>ورقة التشبيك اليومي الخاصة بغرف الادخال</u>

التاريخ:　　　　　　　　　الشفت:　　　　　　　مسؤول القسم:

الرجاء وضع كلمة (نعم) تحت البند الذي تم إنجازه وكلمة (لا) تحت البند الذي لم يتم إنجازه.

ملاحظات	لا	نعم	البند	الرقم
			تقيد الكادر التمريضي باللباس الرسمي	١-
			التزام الكادر التمريضي حتى نهاية الدوام	٣-
			اخذ المراقبات الحيوية حسب أوامر الطبيب	٤-
			النظافة:١- جيدة في الغرفة ٢- جيدة في قاعة الانتظار	٥-
			الإضاءة والتهوية :١- جيدة في الغرفة ٢- جيدة في قاعة الانتظار	٦-
			وجود عدد كافي من أجهزة تخطيط القلب صالحة في غرفة الإدخال	٧-
			وجود سجل خاص في عيادة الإدخال يسجل عليه اسم المريض و الطبيب والممرضة والتاريخ والوقت في نهاية الدوام وبالإضافة إلى توثيق الخدمة التمريضية المقدمة على ملف المريض	٨-
			وجود ستارة جانبية في كل غرفة الإدخال نظيفة ومرتبة	٩-
			أسرة الفحص في غرفة الإدخال مغطاة بالشراشف النظيفة	١٠-
			يتم التعامل مع النفايات الطبية وبالطريقة الصحيحة وحسب التعليمات	١١-
			توفير وعاء خاص لوضع الإبر المستعملة	١٢-
			يتم تفقد الغرفة بداية الوردية الصباحية	١٣-
			يتم توفير مستلزمات ومستهلكات الطبية لغرفة الإدخال	١٤-
			يتم غسل اليدين قبل وبعد أي عمل تمريضي	١٥-

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ملاحظات: ـــ

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أعضاء اللجنة:

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Internal memo

Date: May 7th, 2006

From: General Hospital Director

To: Director of the Quality Unit (Dr. Nasser Ibrahim)

"In order to improve the quality services at the hospital the following name lists should work as **quality coordinators** in addition to their basic official work.

1. Dr. Kamal Abu Arqoub   The director of medical records unit
2. Eng. Majeda Shboul   The director of nutrition unit
3. Mr Ahmed Abu Subaih   The nursing director of surgical department
4. Mrs Ezieh Subaih   The director of nursing developmental unit
5. Mr Nedal Elnsoor   The nursing director deputy of ophthalmic ward.

NOTE: This is translation of a copy the formal letter given to me by the director of nursing developmental unit NDU.

Appendix 4.3: Quality assurance performance indicators

بسم الله الرحمن الرحيم

مستشفى البشير

نموذج التشييك اليومي لأقسام المستشفى

القسم ....

مسؤول الشفت ....

التاريخ ....

الشفت ....

الرجاء وضع إشارة نعم تحت البند الذي تم إنجازه وإشارة لا تحت البند الذي لم يتم إنجازه

ملاحظات	لا	نعم	البند	الرقم
			حضور رئيسة القسم عملية الاستلام والتسليم	1-
			الاستلام والتسليم يتم بالمرور على المرضى	2-
			تقيد الكادر التمريضي بالزي الرسمي	3-
			ورقة الملاحظات التمريضية - تكتب عن جميع المرضى - الخط واضح ومقروء - الترويسة معبئة - كتابة التاريخ والشفت - كتابة اسم الممرضة أو المرض الذي كتب الملاحظات	4-
			ورقة العلاجات - التقيد بالزمن عند اعطاء العلاجات - التقيد بالكمية عند اعطاء العلاجات - الترويسة معبئة - التوقيع بعد إعطاء العلاجات وكتابة الاسم	5-
			المراقبات الحيوية - تؤخذ مرتين على الأقل في كل شفت - تؤخذ وتسجل في الوقت المحدد - التركيز على الحالات الخطرة وأخذها عدة مرات - كتابة اسم المرض أو الممرضة الذي أخذ المراقبات	6-
			السوائل الوريدية - الكمية مطابقة حسب الأوامر الطبية - وجود لاصق معتمد على كيس المحلول - التقيد بالزمن لكل نوع - تحسب جميع الكمية كل 24ساعة - يكتب اسم المرض الذي قام بالتسجيل - وضع بلا سعر على الكانيولا يبين التاريخ والوقت - تسجيل الكمية والزمن أو الشفت على الورقة المخصصة	7-

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				8-	السوائل المطروحة
					-تسجيل الكمية كل شفت
					-جمع الكمية كل 24ساعة
					-تسجيل اسم الممرض الذي قام بالتسجيل
				9-	تقرير نهاية الشفت :
					- يكتب مع كل شفت
					- الخط واضح ومقروء
					- إعطاء صورة واضحة عن المريض
					- ذكر الحالات الخطرة وماذا أجري لها
					- التوقيع بعد نهاية كتابة التقرير مع ذكر الاسم
					- ذكر الحالة المرضية للمريض
				10-	الإضاءة
					-جيدة في الغرف
					-جيدة في الممرات
				11-	النظافة
					- جيدة في كاونتر التمريض
					- جيدة في المرافق الصحية
					- جيدة في الغرف
					- جيدة في غرفة التحضير
					- جيدة في الممرات
				12-	الأوكسجين صالح في جميع غرف المرضى
				13-	أجهزة الشفط صالحة في جميع غرف المرضى
				14-	وجود جهاز شفط متنقل في القسم
				15-	وجود عربة طوارىء في القسم Emergency Trolley
				16-	وجود جهاز D.C shock في القسم
				17-	جميع العلاجات الطارئة منوفرة في عربة الطوارىء
				18-	وجود جهاز تخطيط القلب
				19-	جميع الأسرة الموجودة مغطاة بالشراشف
				20-	وجود شراشف احتياط في القسم
				21-	توفر الوصف الوظيفي والعمل به

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					رقم	البند
				22-	توفر كتاب السياسات والإجراءات التمريضية
				23-	توثيق وتدوين المعلومات الصحيحة في ملف المريض و الكاردكس
				24-	الكتابة على الكاردكس بقلم رصاص
				25-	الشراشف الموجودة على سرير المريض نظيفة
				26-	النفايات الطبية
					- وجود أكياس صفراء
					- وجود أكياس سوداء
					- وجود جالون مع غطاء
					- وضع label بين القسم والشفت والتاريخ
				27-	صيانة العلامات الحيوية (الحرارة)
					- وجود علبة فيها قطن مبلل بالصابون والماء
					- وجود علبة فيها قطن مبلل بالماء
					- وجود علبة فيها قطن مع كحول
					- وجود علبة فيها قطن جاف
					- التقيد بمواعيد اخذ المراقبات الحيوية الروتينية
				28-	حالات العزل
					- ارتداء ملابس العزل (Gloves +Gown and Mask)
					- وجود كادر مخصص لمتابعة حالات العزل
				29-	أجهزة التصريف Drain and Urine Bag العائدة للمرضى مثبتة على السرير
				30-	عملية نقل الدم
					- التأكد من اسم المريض ونوع الدم
					- اخذ المراقبات الحيوية قبل إعطاء الدم
					- اخذ المراقبات الحيوية أثناء إعطاء الدم
					- اخذ المراقبات الحيوية بعد إعطاء الدم
				31-	حالات السكري
					- التقيد بأجراء الفحص بشكل دوري
					- الالتزام بالتسجيل على الورقة المخصصة لذلك
					- التقيد باعطاء العلاج حسب أوامر الطبيب
				32-	تعبئة نموذج تفويض المعالجة حسب الأصول

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			تعبئة نموذج تحضير المريض ما قبل العملية حسب الأصول	33-
			التزام الكادر التمريضي حتى نهاية الدوام	34-
			عربة العلاجات	35-
			وجود label على كل علبة يبين اسم المادة الموجودة بالداخل	

الملاحظات والتوصيات

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أعضاء اللجنة

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Appendix 4.4: Nursing job description by MOH

الرقم	التاريخ	إلى	الشروحات والتوقيع

المسمى الوظيفي : ممرض / ممرضة قانونية في المستشفى .

الهدف العام :

تقديم الرعاية التمريضية الشاملة للفرد والاسرة والمجتمع ضمن معايير الأداء لمهنة التمريض المعتمدة في مستشفيات الصحة للوصول الى أفضل مستوى من الصحة والعافية في مختلف مستويات الرعاية الصحية .

المهام والمسؤوليـــات :

١. تقديم الرعاية التمريضية الفردية الشاملة من خلال تطبيق العملية التمريضية والمتضمنة :-

- تقييم الوضع الصحي الشامل للمريض (التاريخ المرضي ، الفحص السريري ، الفحوصات الطبية والاوامر الطبية) لوضع خطة الرعاية التمريضية .

- تحديد التشخيص التمريضي المبني على تقدير اجراءات مشكلات المريض الآنية والمحتملة .

- وضع خطة الرعاية التمريضية بما يتوافق مع التشخيص التمريضي حسب الأولويات .

- تنفيذ التداخلات التمريضية ضمن الاستراتيجيات لحل المشاكل الصحية للمريض .

- تقييم مدى استجابة المريض للتداخلات التمريضية التي تم تنفيذها وتعديل الخطة وحسب الحاجة .

٢. تقديم الدعم النفسي والتثقيف الصحي للمريض وافراد اسرته بأسلوب علمي مبسط .

٣. التقيد بدليل الاجراءات التمريضية عند تقديم الرعاية التمريضية .

٤. توثيق الاجراءات التمريضية وتطورات حالة المريض على النماذج

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٥. تعليم المريض وافراد أسرته بما يتعلق بحالته الصحية بما يتفق ونسبة المتعة في المستشفى وحسب الحاجة .

٦. الالتزام بتطبيق المعايير والسياسات المعتمدة للسيطرة على العدوى في المستشفى .

٧. المشاركة في اعمال ونشاطات مراقبة وتحسين الجودة المستمرة في المستشفى.

٨. الالتزام بتطبيق قواعد السلامة العامة في المستشفى .

٩. الالتزام بالقوانين والانظمة والتعليمات والسياسات المعمول بها والمطبقة في مستشفيات وزارة الصحة .

١٠. التعاون والتنسيق مع الفريق الصحي عند تقديم الخدمات الصحية والعلاجية .

١١. القيام بجولات تفقدية لمتابعة وتقييم حالة المرضى بشكل مستمر .

١٢. الالتزام باستلام والتسليم للمرضى من خلال جولة ميدانية على المرضى باستخدام ملف المريض الطبي .

١٣. المشاركة في تطوير وتنفيذ برامج التعليم المستمر والتدريب لفئات التمريض والطلبة .

١٤. المحافظة على حقوق وخصوصية المريض .

١٥. الالتزام بالسياسات المتبعة في المستشفى بما يتعلق بالدخول والخروج والتحويل والنقل وغيرها .

١٦. ارسال المرضى لعمل اجراءات علاجية وتشخيصية في اقسام المستشفى المختلفة والاستشارات والتعامل مع حالات الوفاة .

١٧. توزيع المهام على فئات التمريض ومتابعتهم والاشراف عليهم اثناء قيامهم بمهامهم .

١٨. التفاعل والمشاركة في البرامج التنظيمية داخل المستشفى وخارجه مثل محاضرات ، ندوات ، مؤتمرات وورشات عمل .

١٩. المساهمة في مشاريع الابحاث العلمية المتعلقة ببيئة التمريض واستخدام نتائج الابحاث لتحسين مستوى الرعاية التمريضية المقدمة .

٢٠. الاستخدام الامثل للموارد المتوفرة من أجهزة وادوات والمحافظة عليها والتأكد من ادامة صلاحيتها .

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٢١. مواكبة التطورات المهنية والتكنولوجية والعلمية والاستفادة منه في مجال العمل .

٢٢. الالتزام بالأدب والاخلاقيات المهنية والوظيفية .

٢٣. المشاركة في رفع التقارير الخاصة بسير العمل .

٢٤. الالتزام بقنوات الاتصال الادارية .

٢٥. المساهمة الفاعلة في عضوية اللجان التي يتم تسميته للمشاركة بها .

٢٦. مرافقة الطبيب اثناء عمل جولة على المرضى ومساعدته في اجراء التحاليل والاجراءات التشخيصية المختلفة .

٢٧. متابعة وتنفيذ الاوامر الطبية المدونة على الملف الطبي للمريض .

٢٨. استلام العلاجات والأدوية وتحضيرها واعطائيا للمرضى ضمن الأسس والمعايير المعتمدة .

٢٩. المشاركة بفاعلية وبالتعاون مع اعضاء الفريق الطبي في التعامل مع الحالات الطارئة مثل حالات توقف القلب ، النزيف ، والاختناق وغيرها .

٣٠. التقيد بتنفيذ التعليمات المتعلقة بالعقاقير الخطرة والادوية المخدرة .

<u>المرجعية :</u>

مسؤول أمام : رئيس تمريض القسم .

<u>المؤهلات :</u>

- بكالوريوس تمريض .

- دبلوم تمريض قانوني مدة الدراسة اربع سنوات اكاديمية .

<u>الاحتياجات التدريبية :</u>

- مهارات الاتصال

- التوثيق والتسجيل

- مهارات الحاسوب

- التعامل مع النفايات الطبية والسيطرة على العدوى

- الانعاش القلبي– الرئوي ولحالات الطارئة

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الوصف الوظيفي للممرض / الممرضة المشاركة في مستشفيات وزارة الصحة الأردنية

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المسمى الوظيفي : ممرض / ممرضة مشاركة في المستشفى .

الهدف العـــام :

المشاركة في تقديم الرعاية التمريضية الشاملة للمريض تحت اشراف الممرضة القانونية وضمن معايير الأداء المعتمدة لمهنة التمريض في مستشفيات وزارة الصحة للوصول الى افضل مستوى من الصحة والعافية في مختلف مستويات الرعاية الصحية .

المهام والمسؤولـــــــيات :

١ – تقديم الرعاية التمريضية الفردية الشاملة من خلال المشاركة في تطبيق العملية التمريضية والمتضمنة :-

– المشاركة في تقييم الوضع الصحي للمريض .

– المشاركة في تحديد التشخيص التمريضي المبني على تقدير اولويات المشكلات الصحية للمريض الآنية والمحتملة .

– المشاركة في وضع خطة الرعاية التمريضية للمريض .

– المشاركة في تنفيذ المداخلات التمريضية ضمن معايير الاداء المهني المعتمدة .

– المشاركة في تقييم مدى استجابة المريض للرعاية التمريضية المقدمة .

٢ – تنفيذ الاجراءات التمريضية المتعلقة بالرعاية اليومية للمريض وهي :-

– " ترتيب الأسرة ، العناية الجسمية للمريض ، العلامات الحيوية ، المساعدة في اطعام المريض ، وغيرها " .

٣ – توثيق الاجراءات التمريضية وتطورات حالة المريض على النماذج المخصصة وحال حدوثها .

٤ – التقيد بدليل الاجراءات التمريضية عند تقديم الرعاية التمريضية .

٥ – تقديم الدعم النفسي والتثقيف الصحي للمريض وافراد اسرته بأسلوب علمي مبسط .

٦ – القيام بجولات تفقدية لمتابعة وتقييد حالة المريض بشكل مستمر .

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٧ - المشاركة والالتزام بحضور الاستلام والتسليم للممرضات من خلال جولة ميدانية على المرضى وباستخدام الملف الطبي .

٨ - المشاركة في تحضير واعطاء العلاجات للمرضى ضمن الأسس والمعايير المعتمدة.

٩ - المشاركة بفاعلية مع اعضاء الفريق الطبي في التعامل مع الحالات الطارئة .

١٠ - المشاركة في تحضير المرضى للعمليات الجراحية ومتابعتهم بعد الجراحة .

١١ - مرافقة المرضى لعمل اجراءات علاجية وتشخيصية في اقسام المستشفى المختلفة .

١٢ - الالتزام بالقوانين والانظمة والتعليمات والسياسات المعمول بها والمطبقة في مستشفيات وزارة الصحة .

١٣ - التعاون مع الفريق الصحي عند تقديم الرعاية الصحية والعلاجية .

١٤ - المشاركة في برامج التعليم المستمر .

١٥ - المحافظة على حقوق وخصوصية المريض .

١٦ - الاستخدام الامثل للموارد المتوفرة من اجهزة وادوات والمحافظة عليها .

١٧ - الالتزام بآداب والاخلاقيات المهنية والوظيفية .

١٨ - التقيد والالتزام بقنوات الاتصال الادارية .

١٩ - مساعدة الطبيب اثناء فحص المرضى وعمل الاجراءات التشخيصية المختلفة .

٢٠ - الالتزام بتطبيق المعايير والسياسات المعتمدة للسيطرة على العدوى في المستشفى .

٢١ - الالتزام بتطبيق قواعد السلامة العامة في المستشفى .

٢٢ - المشاركة في اعمال ونشاطات مراقبة وتحسين الجودة المستمرة في المستشفى .

<u>المرجعية :</u>

مسؤول امام : - رئيس تمريض القسم / او الوحدة
- الممرض / الممرضة القانونية

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<u>المؤهـــلات :</u>

- دبلوم في التمريض المشارك من معهد أو كلية معترف بها على أن لا تقل مدة الدراسة عن سنتين دراسيتين " دبلوم جامعي متوسط " .

<u>الاحتياجات التدريسـة :-</u>

- مهارات الاتصال
- التوثيق والتسجيل
- السيطرة على العدوى والتعامل مع النفايات الطبية .
- الانعاش القلبي الرئوي والحالات الطارئة .

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الوصف الوظيفي للممرض / الممرضة المساعدة في مستشفيات وزارة الصحة الاردنية

المسمى الوظيفي : ممرض / ممرضة مساعدة في المستشفى .

الهدف العــام :

المساعدة في تقديم الرعايه التمريضيه الشامله للمريض تحت اشراف الممرضة القانونية وضمن معايير الاداء المعتمدة لمهنة التمريض في مستشفيات وزارة الصحة للوصول الى افضل مستوى من الصحة والعافية في مختلف مستويات الرعاية الصحية .

المهام والمسؤوليـــــــات :

١ – تقديم الرعاية التمريضية الاردنية الشاملة من خلال المساعدة في تنفيذ المداخلات التمريضية المدرجة ضمن الخطة التمريضية وذلك ضمن معايير الاداء المهني المعتمدة .

٢ – تنفيذ الاجراءات التمريضية المتعلقة بترعاية اليومية للمريض وهي :-
" ترتيب الاسرة ، العناية الجسمية لمريض ، العلامات الحيوية ، و المساعدة في اطعام المريض وغيرها "

٣ – توثيق الاجراءات التمريضية على النماذج المخصصة حال تنفيذها .

٤ – التقيد بدليل لاجراءات التمريضية عند تقديم الرعاية التمريضية .

٥ – تقديم الدعم النفسي للمريض وافراد اسرته .

٦ – المشاركة والالتزام بحضور الاستلام والتسليم للممرضات خلال الجولة الميدانية على المرضى .

٧ – المساعدة في تحضير واعطاء العلاجات للمرضى ضمن الأسس والمعايير المعتمدة .

٨ – المشاركة بفعالية مع اعضاء الفريق الطبي في التعامل مع لحالات الطارئة .

٩ – المساعدة في تحضير المرضى للعمليات الجراحية ومتابعتهم بعد الجراحة .

١٠ – مرافقة المرضى لعمل اجراءات علاجية تشخيصية في اقسام المستشفى المختلفة .

١١ – الالتزام بالقوانين والأنظمة والتعليمات والسياسات المعمول بيا و نطبقة في مستشفيات وزارة الصحة

١٢ – التعاون مع الفريق الصحي عند تقديم الرعاية الصحية والعلاجية .

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١٣ – المشاركة في برامج التعليم المستمر .

١٤ – المحافظة على حقوق وخصوصية المريض .

١٥ – الاستخدام الأمثل للموارد المتوفرة من أجهزة وأدوات والمحافظة عليها .

١٦ – الالتزام بالآداب والاخلاقيات المهنية والوظيفية .

١٧ – التقيد والالتزام بقنوات الاتصال الادارية .

١٨ – مساعدة الطبيب اثناء فحص المرضى وعن الاجراءات التشخيصية المختلفة .

١٩ – الالتزام بتطبيق المعايير والسياسات المعتمدة للسيطرة على العدوى في المستشفى .

٢٠ – الالتزام بتطبيق قواعد السلامة العامة في المستشفى .

٢١ – المشاركة في اعمال ونشاطات مراقبة وتحسين الجودة المستمرة في المستشفى .

<u>المرجعية</u> :

- مسؤول المام :

- رئيس تمريض القسم / او الوحدة

- لممرض /الممرضة الثانوية في فريق العمل .

<u>المؤهلات</u> .

- تهيئة ممرض مساعد من مدرسة أو معهد معترف به على ان لا تقل مدة
   الدراسة في أي منهما عن ثمانية عشر شهرا .

<u>الاحتياجات التدريسية</u> :-

- مهارات الاتصال

- التوثيق والتسجيل

- السيطرة على العدوى والتعامل مع النفايات الطبية .

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The first quality committee meeting

Date: 22/5/2006

Time: 11:30 –12:30

Attendance:

1. Dr. Nasser Ibrahim / The Director of the Quality Unit
2. Nabeeha Jabr / The nursing director of ENT ward
3. Mrs Ezieh Subaih / The director of nursing developmental unit
4. Mr Ahmed Abu Subaih / The nursing director of surgical department
5. Mr Nedal Elnsoor / The nursing director deputy of ophthalmic ward

Meeting Minutes:

1. The attendance agreed on Monday weekly to be as a day to the meeting at 11:00 at meeting room in head quarter.
2. The attendance agreed that the decision at the meeting will be according to 2/3
3. The Quorum will be half plus one.
4. The meeting members will be 7 and may be increased in future there members ate the above list in addition to Dr. Kamal Abu Arqoub, the director of medical records unit and the Eng. Majeda Shboul, the director of nutrition unit.
5. The reports will be reported directly to the general hospital director
6. Absence discussion: when any member absent for two meeting will be asked in written letter and if there is any repetition the member will be terminated from the committee.
7. Discussion about the ability to increase the number of the members from other sections not presented in the committee.
8. Mrs Ezieh Subaih / the director of nursing developmental uni was nominated to be the meeting decision and notes takers.

NOTE: This is translation of a copy given to me by the director of nursing developmental unit NDU.

The second quality committee meeting

Date: 29/5/2006
Time: 11:30-13:00
Committee name: Quality Coordinator Committee
Establishment date: May/2006
Goal: Supervision on the work and projects of quality improvements.

Members:
1. Dr. Nasser Ibrahim / the Director of the Quality Unit
2. Dr. Kamal Abu Arqoub /the director of medical records unit
3. Nabeeha Jabr, The nursing director of ENT ward
4. Mrs Ezieh Subaih, the director of nursing developmental unit, the meeting decision and notes taker
5. Mr Ahmed Abu Subaih / nursing director of surgical department
6. Mr Nedal Elnsoor, The nursing director deputy of ophthalmic ward

Absence: Majeda Shboul, the director of nutrition unit training workshop

Meeting Minutes:
Reporting process: directly to the general hospital director
Committee meetings: Monday weekly at 11:00 at meeting room in head quarter.
Committee duties and responsibilities:
1. Supervision on the work and projects of quality improvements.
2. Creation projects for the quality improvements
3. Evaluation of the hospital quality and preparing the annual reports of the quality system
4. Coordination between the hospital quality committee and the quality coordinators committee.
5. Assisting in achieving the accreditation system
6. Call for an urgent meeting in coordination with the meeting decision and notes taker
   - The decision at the meeting will be according to 2/3
   - The Quorum will be half plus one.
   - Absence discussion: when any member absent for two meeting will be asked in written letter and if there is any repetition the member will be terminated from the committee.
   - The members reviewed the quality improvement work since 2004-2005 by Dr Nasser as the following:
   - Discussion with the committee the emergency treatment forms
   - Ability to prepare waiting hall at the OPD and a queue system which will be discussed at the next meeting by Ahmed and Nedal preparation of a study resolution.

NOTE: This is translation of a copy given to me by the director of nursing developmental unit NDU.

Types of sanctions

The paragraph (A/142) of the law has determined the following disciplinary sanctions with the following:-

1. Drawing attention
2. Warning
3. Deduction from the basic monthly salary that should not exceed its half.
4. Delaying the annual raise for periods that do not exceed five years.
5. Reducing promotions completely of partially for a period of time that do not exceed one year, as personal promotion is excluded.
6. Reducing the salary
7. Reduction of the degree
8. Dismissal
9. Removal

http://www.csb.gov.jo/csbwebpage/English_web_page/main/MAIN.HTM

Retrieved on 20-03-2009

Appendix 4.8: TOR Nursing 'In-charges' with the AlBashir Hospital nursing manager

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وزارة الصحة

مستشفى البشير

محضر اجتماع رؤوساء ورئيسات التمريض – مستشفى البشير

التاريخ: ٢ / ٨ / ٢٠٠٦	اليوم:	الساعة: ١٠:٠٠ - ٢:٣٠ ظهرا	المكان: الإدارة
الرقم:			

☒Information   ☒Problem solving   ☼Decision making   ☼ Team building Feedback

الحضور:

١٣- مسؤولة ط.الجراحة/صباح فائق	عطوفة مدير مستشفى البشير
١٤-رئيسة قسم الأسنان/نوال عزت	١-المساعد الشؤون التمريض/الماس حداد
١٥- رئيسة قسم الإسعاف والطوارىء/طيبة الوحيدي	٢- رئيسة المخجرة نائبة المساعد الشؤون التمريض/نبيهة جبر
١٦- نائبة رئيسة قسم الخداج/حمدة سامي.	٣-رئيسة قسم الجلدية/هيام دبابنة
١٧-نائب رئيسة ع.الجراحة/ احمد السباتين	٤-مسؤولة وحدة تطوير التمريض/مقررا للاجتماع
١٨- رئيس قسم الجراحة / احمد أبو صبيح	٥-رئيسة قسم الأشعة/الهام جورج
١٩- مسؤولة ط .الجراحة /ختام اسحق	٦- رئيسة قسم التوليد/ نجوى أبو رشيدة
٢٠- نائبة رئيسة ع. التوليد /أنصاف أبو حطب	٧- رئيسة قسم الباطني/ سراء طرابية
٢٢- نائبة مسؤولة أمراض الدم/تغريد الحايك	٨-رئيس قسم ع.العظام /محمد عبد الكريم
	٩-نائبة رئيسة قسم الحروق والتجميل/رجاء أبو ترابية
	١٠-رئيسة قسم الأطفال / نادبا عبد الواحد
	١١-رئيسة قسم العيون /أمل الأططش
	١٢- رئيس قسم العظام/محمد أبو السويد
	١٣-نائبة رئيسة قسم الصدرية /أمال الحنيطي

المعتذرون

١. روز دبابنة / مرضي مفاجىء
٢.
٣.

الغياب

١.نهيل شحادة / اجازة سنوية
٢-فدوى سرية / اجازة سنوية
٣-مريم ريماوي / اجازة سنوية
٤- تمام مجاهد / اجازة سنوية
٥-نجوى بني يونس / أمومة

المدعوين:

١. السيد محمود الجعافرة / طالب دكتوراة جامعة استراليا

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المسؤول عن إدارة الموضوع	الزمن المتوقع للبحث	أسلوب البحث	الموضوع
رئيسة التمريض	١٠ دقائق	نقاش	١ـ الزي الرسمي والباجات
رئيسة التمريض	١٠ دقائق	نقاش	٢ـ الدوام الرسمي
رئيسة التمريض	٢٠ دقيقة	نقاش	٣ـ الاعتمادية ـ نموذج التقييم التمريضي للمريض والخطة التمريضية ـ موعد زيارة لجنة الإعتمادية ٢٠٠٦/٩/٢١ ـ وضع الكادر المناسب والفعال في هذا اليوم
رئيسة التمريض	١٥ دقيقة	نقاش	٤ـ متابعة ورشات Nursing Process والاستمرار فيها
رئيسة التمريض	١٠ دقيقة	نقاش	٥ـ الأجازات السنوية
رئيسة التمريض	٢٠ دقيقة	نقاش	٦ـ لجان التثقيف الصحي
رئيسة التمريض	١٠ دقيقة	نقاش	٧ـ اليوم العلمي السادس ٢٠٠٦/٩/٢١
رئيسة التمريض	١٠ دقيقة	نقاش / توزيع	٨ـ التصنيف الفني النقابة
رئيسة التمريض	١٠ دقيقة	نقاش / توزيع	٩ـ مجلة الأيدي البيضاء
رئيسة التمريض	١٠ دقيقة	نقاش	١٠ـ ورشات الـ C.P.R تؤجل إلى إشعار آخر
رئيسة التمريض	١٠ دقيقة	نقاش	١١ـ متابعة رؤساء الأقسام الكوادر التمريضية بأنها قد أخذت المعلومات المتعلقة بالتقييم التمريضي للمريض والخطة التمريضية مقابل التوقيع على ذلك

جدول الأعمال الطارىء

المسوول عن الوارد الموضوع	الزمن المتوقع للبحث	أسلوب البحث	الموضوع
		.	

مراجعه محضر الاجتماع السابق

مراجعه القرارات والتوصيات الواردة في الاجتماع السابق

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محضر الاجتماع:

١ – أخبرت المساعد لشؤون التمريض أن بعض الزملاء يوجد عندهم مناسبات

منهم:

- نجوى نبي يونس = ولادة

- محمد أبو السويد =عملية جراحية لزوجته

- محمود أبو عفيفة=أداء عمرة

- اسماعيل القطاونة= أداء عمرة

- عزيه صبيح=وفاة والدتها

- ابراهيم عواد – وفاة والده

٢–تم الترحيب بالزميل محمود جعافرة الذي يقوم بتحضير لرسالة للدكتوراد

تحت عنوان Risk Quality Management

٣– أخبرت المساعد لشؤون التمريض أن لجنة الإعتمادية الأردنية ستقوم بزيارة المستشفى بتاريخ ٢٠٠٦/٩/٢١ ويجب التنبيه على الكوادر ضرورة الالتزام بالزي الرسمي والموزع على الكادر ووضع الباجات قبل وصول اللجنة والاهتمام بالمظهر الشخصي والعناية الشخصية.

٤–طلبت المساعد لشؤون التمريض التزام الجميع بالدوام الرسمي ومقابل استجواب قبل تنسيب أية عقوبة بالموظف.

٥–أكدت المساعد لشؤون التمريض انه سوف يتم عمل دراسة حول الأجازات المرضية.

٦–طلبت المساعد لشؤون التمريض برمجة الأجازات السنوية منذ بداية السنة للكوادر التمريضية ولرئيسة القسم والنائب علما انه تم التركيز على ذلك بمحاضر اجتماعات ٢٠٠٤ و٢٠٠٥.

٧–تم بحث موضوع الإعتمادية ونموذج التقييم التمريضي للمريض والخطة التمريضية حيث أن تطبيقه سوف يتم من بداية شهر ٢٠٠٧/١ وذلك بتزويد النماذج من خلال التزويد، ويجب أن يكون في كل ملف + الخطة التمريضية.

٨–عملية تدريب المشاركين من الأقسام في وحدة تطوير وبشكل متواصل أيام الاثنين، الثلاثاء، الأربعاء، والخميس من كل أسبوع لتشمل جميع الكوادر التمريضية العاملة في المستشفى وأكدت على الجميع ضرورة مشاركة المجازين مرضياً في حضور المحاضرات.

٩– أخبرت الجميع بأنهم سوف يحاولوا تقديم موعد زيارة اللجنة إلى يوم ٩/١٩ أو ٢٠٠٦/٩/٢٠ موكدة إن يوم ٢١ /٢٠٠٦/٩ سيكون موعد زيارة اللجنة وهو يوم إقامة اليوم العلمي السادس و

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طلبت المساعد لشؤون التمريض التجهيز الكامل للمعايير التمريضية لـ١٥ ، مع التأكيد على وضع الكادر المناسب والفعال في هذا اليوم.

١٠- طلبت المساعد لشؤون التمريض إرسال ملخص أبحاث أو دراسات من اجل اليوم العلمي موكدة على مشاركة الأطباء التالية أسمائهم د. محمد سعادة ،د. مازن قاقيش وضرورة مواصلة اللجنة إعمالها واجتماعاتها وبشكل دائم.

١٠- تم تشكيل لجنة من قبل السيد احمد أبو صبيح،أمل الاقطش، نجوى أبو رشيدة لعمل دراسة حول إحصائية الكوادر والدورات التمريضية وان يكون جاهز خلال الأسبوع القادم.

١١- طلبت المساعد لشؤون التمريض من الجميع إخبار كوادرهم التمريضية كتابة كتب رسمية للمشاركة في دورات الكمبيوتر.

١٢- طلبت المساعد لشؤون التمريض من الجميع إرسال إحصائية وخزات الإبر لجميع الكوادر التمريضية في أقسامهم.

١٣- طلبت المساعد لشؤون التمريض من الجميع الالتزام بالتسجيل على Nurses Note لجميع العمليات.

١٤- أكدت المساعد لشؤون التمريض أن هناك نموذج خاص من اجل التوثيق لقسم الإسعاف والطوارئ سوف يتم تعميمه بعد أن اطلع عطوفة المدير عليه.

١٥- طلبت المساعد لشؤون التمريض من كل رئيسة وضع ثلاثة معايير خاصة بقسمه ووضع السياسات الخاصة في القسم وحفظ السياسة.

١٦- طلبت المساعد لشؤون التمريض من الجميع التأكيد على عملية التثقيف الصحي وبان لجنة الإعتمادية ستقوم بالتفتيش على الملفات من اجل التأكد من عملية التوثيق على الملف وطلبت المتابعة من قبل رؤساء الأقسام.

١٧-تم توزيع التصنيف الفني من النقابة وتوزيع مجلة الأيدي البيضاء العدد السابع.

١٨-تم إعطاء احمد أبو صبيح نموذج الإسعاف من اجل طباعته ورفعه للإدارة خلال الأسبوع القادم وتوزيعه على الإسعاف.

١٩- طلبت المساعد لشؤون التمريض وأعضاء اللجنة العلمية الخاصة بالبعثات والدورات الخارجية من الجميع إخبار كوادرهم بضرورة إرذاق جميع الشروط المتعلقة بأية دورة وإرفاق الشهادات المطلوبة في استدعاء الطلب قبل إرساله للإدارة.

٢٠-أكدت المساعد لشؤون التمريض على الحضور بان هناك ملاحظات كثيرة من قبل بنك الدم فيما يتعلق بقل الدم والتعامل السليم معه لذلك سوف تنضم محاضره خلال الأسبوع القادم في قاعة د.نواف الخطيب وأكدت على الجميع إرسال اكبر عدد من الكوادر التمريضية للحضور.

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٢١-أخبرت المساعد لشؤون التمريض الحضور بملاحظات مراقبي التمريض فيما يتعلق ببرامج المجازين مرضيا والغياب والأجازات السنوية أكدت على عملية توثيق البرامج جيدا مع برامج مراقبي التمريض لما لهم سلطة المساعد لشؤون التمريض في إعطاء الأجازات وتسهيل مهام العمل.

تم استدعاء رئيس الحركة لأمور تتعلق بنقل الممرضات من السكن في الورديات الثلاثة مع إلية توصيلهن إلى أقسامهم خلال الشفتات المسائية والليلية وتأخير إيصالهن إلى السكن بعد انتهاء الشفت حيث سيتم إيصالهن إلى السكن على مجموعتين مقابل تعميم للأقسام والسكن يتضمن استعداد التمريض للمغادرة الساعة ٢:٤٥ مساءً،١٠:٤٥ مساءً ، ٦:٤٥ مساءً .

أوعز رئيس الحركة انه سيتم تأمينهم بالباص المجموعة الأولى الساعة: ١١:٤٥ مساء المجموعة الثانية الساعة: ١١:٣٠ مساءا .

- طلب رئيس الحركة من الجميع انه في حالة حدوث أي تغير على برامج دوام التمريض تبليغ التغير إلى الحركة خطيا.

- حضر عطوفة المدير د. محمد الروايدة الاجتماع الساعة ١٢:٠٠ ظهرا وتمت مناقشة الأمور التالية:

- قام بتوجيه كلمة ترحيبية لكل رئيسات ورؤساء الأقسام بعد أن تم التعرف على الجميع.

- أكد على الجميع التعامل الجيد والسليم مع بعضهم البعض في الأقسام والابتسامة الدائمة والمعاملة الجيدة مع الإيجاز في القول والعلاج لبعض الأمور بالحكمة والإرشاد ومحاولة التخفيف من العقوبات إلا في الحالات الظاهرة والتي ممكن إن تؤدي إلى خطورة ومحاولة حل المشكلة داخل الأقسام قبل رفعها للإدارة.

- أكد على الواجب الوظيفي انه أساس واجب القيام به ومصلحة المريض وتثقيفه هو الأساس في تقديم الخدمة ومعرفة التمريض حقوقهم وواجباتهم شيء أساسي والعمل كفريق واحد يشمل جميع الفئات العاملة في المستشفى تحت هدف واحد هو خدمة المريض.

- أكد على أية تعليمات أو قرار صدر خطأ ووجد هناك أي اقتراح ،تطبيق بناء على معلومات وصلت من اجل التحسين يكون شاكر جدا لأي شخص يضيف أو يعدل.

- أكد إن عملية التوثيق ضرورية أساسية مثل إعطاء وتنفيذ اوامر طبي فقط في حالة إنقاذ الحياة هي الأولوية الأولى وبعد ذلك تتم عملية التوثيق ولهذا السبب سوف يتم إرسال تعميم لجميع الأطباء من اجل التقيد بعملية التوثيق.

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- أكد على ممرضات المواعيد أية حالة تستدعي رؤية سريعة مباشرة من قبل الطبيب إدخالها وفي حالة رفض الطبيب ذلك يجب إخبار رئيسة القسم وهى ستتصرف ----
- أكد على ضرورة مرافقة التمريض للمريض وخاصة كبار السن أو إبقاء مرافـق معهم.
- بناء على طلب عطوفة المدير كل رئيس قسم اقترح مطالبه:
- ثلاجات الدم داخل الأقسام إن تكون مزودة بموازين حرارة.
- عملية إرجاع الدم إلى بنك الدم الساعة السادسة مساءا فقط بعد ذلك استلام وتسـنيـ في حالة تأخير إرسال الدم
- توسعة عمليات العظام وغرف العمليات (For ceiling).
- الأجهزة الطبية إعادة الكتابة الرسمية وإرفاق الكتب السابقة للمدير.
- صيانة أجهزة أل (Blood Gases) في ICU الإسعاف والطوارىء نقاط الأكسـجين والشفط.
- زيادة عدد الفوط في قسم الخداج وال Ventilator نقاط الأكسجين والشفط.
- استقبال الإسعاف لا يوجد به طبيب التمريض يقوموا بالعمل /سوف يتم إصدار تعميم من المدير.
- وحدة تطوير التمريض : كمبيوتر + انترنت ، مجسمات وكتب ومجلات حديثة ،آلة تصوير، ثلاجة، وعاملة خدمات.
- الإسعاف وأجهزة الضغط العمل والمونيتر نقاط الأكسجين والشفط .
- مشكلة غرف غيار التمريض في ط.الجراحة وأمراض الدم.

الساعد لشؤون التمريض

الماس حداد

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وزارة الصحة
مستشفى البشير
ASSESSMENT PATIENT SHEET NURSING
نموذج التقييم التمريضي للمريض

اسم المريض:					
القسم: رقم الغرفة: رقم السرير: رقم ملف (			العمر: الجنس: التاريخ: / / ٢٠٠ (		
الطبيب الأختصاصي مصدر المعلومات:					

Arrival Mode	☐Pt. Trolley ☐Carried ☐Wheel Chair ☐By Foot

Occupation	Smoke: ☐ Y ☐ N	Marital Stat:☐Yes ☐ No ☐Divorce
		No. Of Child Others:

Wt: **Ht:** | Diet: ☐ Normal   or Type of Diet: ....

V/S: BP. ...... Pulse/m... Resp./m . Tem: O ... R.........A ......

Swallowing: ☐ Normal ☐ Difficulties   ☐ N.G.T

Chief Complain:

Past Medical / Surgical History:

Drug History:

Regular medication:

Pain: : Location   Nature   Duration   Frequency

Heart Rhythm ☐Regular ☐ Irregular   ☐Chest pain

Breath   ☐Normal ☐Dyspnea ☐Cough   ☐ Dry   ☐ Productive ☐ Others.............

Allergy   ☐ Drug ☐ Food   ☐Others .... **Pregnancy** ☐ No   ☐Yes Duration........ /M

Conscious ☐Semiconscious   ☐ Unconscious ☐ Oriented   ☐ Time ☐ Person ☐ Place

Skin   ☐ Dry   ☐ Cold skin   ☐ Moist   ☐ Cyanotic   ☐ Warm   ☐ pale

Usual bowl pattern ☐Normal ☐Abnormal ☐ Colostomy ☐ Diarrhea   ☐ Constipation

Bladder pattern: ☐Normal ☐Abnormal ☐ Foleys in place

☐ Nausea	☐Vomiting	Teeth ☐Normal ☐Dentures
☐ Speech difficulties ☐Sleeping difficulties		Visual ☐Normal ☐Glasses ☐ Contact lens
☐Convulsion	☐Dizziness	Hearing ☐Normal☐ Loss ☐ Hearing Aids

Self Care   ☐Bath   ☐Ambulation ☐ Feeding ☐Hygiene ☐Dress

General impression

Nurses Name:...................

Signature:........................

Date.............Time........

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Appendix 4.10: Civil Service Bureau (Public sector employment department)

The Departments Role in the Field of Employment

Civil Service Bureau plays a key role for citizens and public employment seekers in the process of employment for filling vacancies in the divisions and Institutions following the Civil Service Statute.

The Department in this regard reassures its commitment towards achieving the terms of justice and transparency in the process of selecting and promoting public employment seekers for filling vacancies that become available each year that provides civil ser vice bodies with the qualifications and specializations that contributes towards promoting and improving performance that aims at advancing the level of service provided for the citizens.

The Department emphasizes that the demand on human cadres in the ci vil service institutions in addition to job opportunities provided by the annual creations of employments should not be the only option among Jordanian young people in getting jobs nor should it be the solution for the problem of unemployment.

Emphasis on this fact aims at correcting the common social understanding about the public employment as we should enhance our children s awareness that their future prospects go beyond the public employment and not limited to it, which is linked with the comprehensive e social and economic development in addition to the industrial, agricultural, commercial and service production in various aspects of life that requires young people to promote and build the nation in its various cities, provinces, villages and Badias.

The role, which the Civil Service bureau plays in the field of employment, is represented in securing the governmental divisions and sections with their needs of scientific qualifications In light of the available vacancies within the following main spec ifications: -

- Continuous increase in the number of application forms submitted to the department compared with the limited number of vacancies available.

- To be committed with the vacancies presented to the department that corresponds to the departments ta sks and its actual needs classified according to the scientific qualification, sex, major and province.

- Abidance with the Civil Service Statute, basics and regulations of selecting and appointing employees in the governmental divisions.

Civil Service Sta tute has given the Civil Service Bureau the authority of promotions for appointments in employments of the first and second categories through approved competitive statements annually organized by the department, while the law has given powers of appointme not in employments of the third and fourth categories to governmental divisions according to Its needs of different employments through direct announcements. Of these vacancies that such procedure should be done in coordination with the Civil Service Bureau according to the basics and regulations particularly related to these two categories.

The Department is committed towards applying the principles of justice, objectivity and transparency in all employment related measures, as it stands ready to receive different inquiries and objections related to this subject, whereas employment procedures that is done through employment department can be summarized in the following:

Annual report mechanism

First: Mechanism of setting the annual report

An annual evaluation of the employees performance takes place according to the form of the annual report specially prepared by the department, which is approved by the civil service board, as the data, events and the remarks written in the performance record will be considered in the evaluation of the employees performance by his direct superior based on the form of the annual report, as evaluation takes place in any of the following assessments: (very good) , (good) , (intermediate) and (unsatisfactory).

The annual reports form is being filled out by the direct superior of the employee to be presented on the manager for giving his own opinion in agreement or disagreement mentioning the reasons behind his decision, then he refers it to the general secretary or who represents him, who has the authority to set the general appreciation of the employee.

Second: The results of the annual report

As for the outcome resulted of the annual reports which are as the following:-

1. If the employee was rated with intermediate, then he will be informed in writing to the shortcomings in his performance and the reasons, as he will be asked to avoid such mistakes.
2. If the employee was rated with intermediate in the annual report, while he was rated with intermediate in the last year's annual report, then a warning will be sent to him.
3. If he was rated with unsatisfactory, then he will be warned.
4. If he was warned in the previous year as expressed in the articles (2, 3) and his rate for the current year was intermediate of unsatisfactory, then he will be moved to other employment that matches his qualifications and capabilities.
5. If he was transferred in the previous year as expressed in the article (4) and he was rated with intermediate or unsatisfactory for the current year then his services will be ended.

Third: Objection to the annual report

A copy of the annual report will be sent to the employee by the authorized individual if he was rated with intermediate of unsatisfactory only in his annual report , where he will have the right to object to the report within ten days of receiving it , as the authorized person or who deputizes him will refer the report attached with the objection to the committee that is formed In the division that takes charge of looking into submitted objections , which will take its decision during a period of no further than ten days.

http://www.csb.gov.jo/csbwebpage/English_web_page/main/MAIN.HTM
Retrieved on 20-03-2009

Instructions of Organizing Performance Evaluations
Record and Annual Reports of the Employees in Division

Issued by the Civil Service Bureau according To the Paragraph (69/C) of Civil Service Bylaw NO (55) For the Year 2002

Paragraph (1):-
These instructions are named (The Instructions of Organizing Performance Evaluations Record and Annual Reports of the Employees in various Divisions) which will effective starting from 10/10/2002.

Paragraph (2):-
The officer of the employees' affairs unit will distribute copied forms of performance evaluation on the employees' direct superiors within the first week of January and as for teachers it will be during the first week of September Of each year.

Paragraph (3):-
The direct superior of the employee will write down in the record of evaluation information, notes, positive and negative events concerning the employees' performance and attitude each three months starting from the month of January, as for teacher it will be on the first of September of each year.

Paragraph (4):-
The direct superior will dedicate a file where he will keep forms of performance appraisal related to the employees in which he will write down his notes regarding them whereas no change shall take place on information, events and written notes also erasure or abrasion will be under legal responsibility of manipulation with the fixed changes.

Paragraph (5):-
The responsible of the employees affairs unit in the division will fill the first part of the employees annual reports in the division then it will be distributed on direct superiors for the purpose of continuing the procedures of evaluating employees performance in 1/10 and as for teachers on the first of April of each year as a dead line using the most proper method by the division.

Paragraph (6):-
A- The direct superior will do the organization of the employees annual report based on grades estimation for each element of the appraisal in that report then it will be referred to the manager in a period that should not exceed 10/10 and as for teachers on 20/4 as a dead line of each year whereas the performance appraisal report is considered to be the reference when filling out the annual report of the employee.

B- The manager will be in charge of reviewing the direct superiors evaluation and puts a sign of agreed or not agreed on the annual report of the employee and he will refer it to the general secretary or the one who deputize adding his own opinion In case of not agreed in a period that should not exceed 20/10 and as for teachers on 30/4 as a dead line of each year.

C- The general secretary or who deputize him will put the final annual appreciation for the employees' performance in the annual report in addition to the grade of that appraisal in a period that does not exceed 30/10 and for teachers on the 15/5 of each year.

Paragraph (7): -
The examining committee will look into objections stated in the paragraph (72/D) of the Civil Service in employees objections referred to it by the general secretary or who

represent him in a period of time does not exceed 10/11 and as for teachers on 15/6 of each Year.

Paragraph (8):-
Procedures and decisions stated in the paragraph (73) of the Civil Service Bylaw after receiving the annual reports the decisive nature on a period that should not exceed 25/12 and as for teachers on a period of 30/6 of each year.

Paragraph (9):-
The division will send to the Civil Service Bureau an approved sheet signed by the general secretary of the division including employees names of the first, second and third categories and the final appreciation with the grade for each of them in the annual report on a period that does not exceed 31/7 of each year whereas confidentiality should be considered and no alteration should take place on it after being kept in the department.

Paragraph (10):-
Annual reports of the deputized transferred or delegated employees on training courses and scholarships and those on vacations for study purposes and unpaid vacationed employees according to the following:

A-
1- The division to which the employee is assigned will put the annual report over the deputized employee if his assignment period still in effect till 1/9 of the year in which the report has been written, in case his deputation ends before this date the division to which he belongs will organize his annual report.
2- After the report gains the decisive aspect the division to which he is assigned will send a copy of the annual report to the division from which he was deputized.
B- The annual report of the transferred employee will be organized As the following:
1- If0 the transference was within the Kingdom, then a report will be organized by the division to which he was transferred.

2- If the secondment was outside the Kingdom, then a report will be organized by the division from which the employee was transferred on light of the previous annual reports and any other concerned information.
C- The annual report will be completed for the delegated employee in training courses or scholarships by his division depending on the previous annual reports, any other information, documents , official reports regarding his educational history.
D- Completing annual reports for educationally unpaid vacationed employees is permitted according to the rules of the paragraphs (105) and (111) of the Civil Service Bylaw if the vacation did not exceed four (continued or segregated) months during the year In which the report has been written,.

E- The division follows laws and procedures stated in the paragraphs (69, 72.73, and 74) of the Civil Service Bylaw.

Paragraph (11): -
Annual reports should not be organized for employees who are appointed after the first day of August of each year but they should be organized for the year in which they have been appointed.

http://www.csb.gov.jo/csbwebpage/English_Web_Page/main/MAIN.HTM

Evaluation of Employees Performance

Evaluation of Performance:-
It is a significant requirement in the managerial process for achieving justice in addition to innovating and promoting the level of efficiency and performance, as it should be dealt with in complete seriousness, integrity and accuracy, so that it wont lose its role and the objective set for it.

Stages of Performance Evaluation:-
1. Regular Performance Record
2. Annual Report

Very Good

Good

Intermediate

Weak
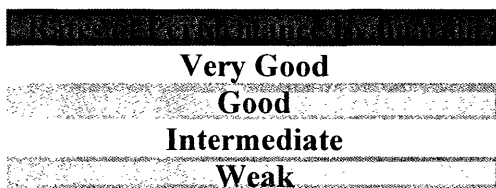
- All civil service employees are subject to performance evaluation (except higher category).
- The direct superior of the employee writes down in performance record information, notes in addition to positive and negative aspects related to the employees performance and his attitude every three months, as he lets know his superiors about negative aspects in their performance.
- Performance record is considered to be the reference by filling out the employees' annual report.
- Neither modification nor change should be made on information and incidents available in performance record or the annual report.
- The minister or secretary general or who deputize him is entitled to look into performance record for checking if it is being organized according to the indicated instructions.
- Various stages related to the preparation of performance record and annual reports are kept confidential, as the employee is not allowed to look into it unless his final rate was (intermediate or weak).

Procedures stated on the Appreciation in the Annual Report
1. To draw attention for those who get an appreciation rated with Weak.
2. Warning those, who get two appreciations rated with intermediate or weak.
3. Transference into other job that matches his capabilities and capacity if he was rated with intermediate or weak and had previously been warned in the previous year, and while he is subject to a rehabilitation program specially prepared for this purpose.
4. Ending the employee service who gets a rate with intermediate or weak and had previously been transferred to other job.

For learning more on the instructions of organizing performance level and annual reports Please Click Here

Enhancing Efficiency:-
One single annual raise, if the employee gets an annual appreciation rated with very good according to the instructions issued by the cabinet depending on the rules (39) of the law.

For learning more about the instructions of granting employees supplementary annual raises Please Click Here

http://www.csb.gov.jo/csbwebpage/English_Web_Page/main/MAIN.HTM

Instructions of Employees Additional Annual Raises
Those who have received (Very Good) Rating in the annual Reports, issued by the Cabinet according to the Article (39) of the Civil Service Statute No (55) for the Year 2002

Article (1):-
These instructions are named (The instructions of granting additional annual raises for Employees) which will take effect in reports of the Year 2003.

Article (2):-
Additional annual raises of (10 %) will be granted for permanent employees who possess annual report with the rating of (Very Good) of the total average for each of the first, second , third and fourth categories in the division , that covering various directorates and Sections should be considered for achieving justice by the ministers decision after these reports become evident.

Article (3):-
If the division had branches or centres in provinces, additional annual raises will be granted for permanent employees according to what stated above in the Article (2) over the Province level.

Article (4):-
Except a contract based employee who receives a total inclusive salary of all raises, additional annual raises will be granted for the highest (10%) of employees working on contracts those who, receive their salaries and the indicated annual raises according to the rules of the Civil Service of those who are rated with (Very Good) of the total average for those employees provided laws of the Articles (2) and (3) are to be taken into consideration of these instructions.

Article (5):-
The additional annual raise should not be granted to the employee once again unless five years have passed since he received the previous raise provided that granting this raise won't affect the deserved annual raise for the employee.

Article (6): -
If the employees have become equal in the grades of the annual reports, which has lead to the increase of those deserving the additional raise over (10%) then comparison will take place among them according to the following priorities:

A- The Higher Degree in the one Category.
B- Seniority in current Degree.
C- Seniority in the Previous Degree
D- Seniority in the Civil Service appointment provided that the Employees Service has been a continuous one.

Article (7):-
Decisions of granting deserving employees the additional annual raises are being issued on 13/12 as a top limit of each year whereas it is not permitted any raises to be granted after this date.

ديوان الخدمة المدنية

سجل الأداء

للموظفين الدائمين من الفئات الثانية والثالثة
والرابعة ومن في سويتهم من الموظفين بعقود

الدائرة: ....

رقم الملف: ....

أولا: معلومات أساسية عن الموظف (يملؤها مسؤول وحدة شؤون الموظفين)

الإسم .... الوحدة الإدارية ....

مسمى الوظيفة الحالية: .... تاريخ مباشرته لوظيفته الحالية / /

(حسب تعليمات وصف وتصنيف الوظائف المعتمدة)

الفئة والدرجة (الرتب الأساسي) ....

ثانيا: الوقائع الإيجابية والسلبية وفق عناصر التقييم التالية:-

- ممارسة الموظف لواجباته ومهامه المحددة بالوصف الوظيفي

- الدقة والسرعة في انجازات الموظف.

- مهارات وقدرات ومعارف الموظف المتخصصة بالعمل

- انتظام الموظف بالعمل والتزامه بأوقات الدوام

- كفاءات الموظف التطويرية: (مساهمته في تقديم الاقتراحات والدراسات لتطوير العمل في الدائرة)

- تعامل الموظف مع الآخرين (الرؤساء، المرؤوسين، الزملاء، الجمهور)

- الجوانب السلوكية المتعلقة بأخلاقيات الوظيفة

- المشاكل الشخصية (صحية مزمنة، نفسية، مالية، بما يؤثر على الأداء)

أ

الوقائع السلبية وتاريخ حدوثها	الوقائع الايجابية وتاريخ حدوثها
١.	١.
٢.	٢.
٣.	٣.
٤.	٤.
٥.	٥.
٦.	٦.
٧.	٧.
٨.	٨.
توقيع الرئيس المباشر	

الوقائع السلبية وتاريخ حدوثها	الوقائع الايجابية وتاريخ حدوثها
١.	١.
٢.	٢.
٣.	٣.
٤.	٤.
٥.	٥.
٦.	٦.
٧.	٧.
٨.	٨.
توقيع الرئيس المباشر	

2

الوقائع السلبية وتاريخ حدوثها	الوقائع الايجابية وتاريخ حدوثها
١.	١.
٢.	٢.
٣.	٣.
٤.	٤.
٥.	٥.
٦.	٦.
٧.	٧.
٨.	٨.
توقيع الرئيس المباشر	

الوقائع السلبية وتاريخ حدوثها	الوقائع الايجابية وتاريخ حدوثها
١.	١.
٢.	٢.
٣.	٣.
٤.	٤.
٥.	٥.
٦.	٦.
٧.	٧.
٨.	٨.
توقيع الرئيس المباشر	

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ثالثا: الإجراءات التي اتخذها الرئيس المباشر للتغلب على جوانب القصور وتحسين اداء الموظف:

....

رابعا: مدى استجابة الموظف للإجراءات السابقة:

....

| إسم الرئيس المباشر | .... | وظيفته | .... |
| توقيعه | .... | التاريخ | .... |

إرشادات ملء سجل الأداء

١. يستعمل هذا النموذج لتدوين الوقائع والملاحظات المهمة الداعمة لتقرير الرئيس المباشر لمرؤوسيه فيما يخص عناصر التقييم التالية:ممارسة الموظف لواجباته ومهامه المحددة بالوصف الوظيفي - الدقة والسرعة في إنجازات الموظف - مهارات وقدرات ومعارف الموظف المتخصصة بالعمل - انتظام الموظف بالعمل والتزامه بأوقات الدوام - كفايات الموظف التطويرية (الابداع، الابتكار في العمل، وتقديم الاقتراحات) - تعامل الموظف مع الآخرين (الرؤساء ، المرؤوسين ، الزملاء الجمهور) - الجوانب السلوكية المتعلقة بأخلاقيات الوظيفة - المشاكل الشخصية (صحية مزمنة، نفسية، مالية بما يؤثر على الأداء) وذلك عملا بأحكام المادة (٦٨) من نظام الخدمة المدنية رقم (٥٥) لسنة ٢٠٠٢ والتعليمات الصادرة عن مجلس الخدمة المدنية بهذا الخصوص.

٢. يستخدم هذا السجل لتقييم أداء الموظفين الدائمين ومن في سويتهم من الموظفين بعقود في الفئات الثانية والثالثة والرابعة.

٣. ينظم هذا السجل من قبل الرئيس المباشر كل ثلاثة أشهر.

٤. على الرئيس المباشر التقيد بالمهام المحددة لوظيفة المرؤوس في تعليمات وصف وتصنيف الوظائف عند تعبئة هذا السجل.

٥. على الرئيس المباشر تدوين الواقعة او الملاحظة المتعلقة بأداء ومسلكيات الموظف حال وقوعها.

٦. للوزير وللأمين العام او من ينيبه أي منهما الإطلاع على سجل أداء الموظفين في دائرته، وتدقيقه للتحقق من أنه ينظم وفقا للتعليمات المقررة لذلك واتخاذ الاجراءات المناسبة والضرورية لتحسين أساليب العمل وطرقه في الدائرة ورفع مستوى إنتاج الموظفين أو لتصحيح مسار العمل فيها إذا تبين له أن في البيانات والوقائع والملاحظات المدرجة في سجل الأداء ما يقتضي اتخاذ تلك الإجراءات.

٧. لا يجوز إجراء أي تعديل في البيانات والوقائع والملاحظات المدونة في سجل الأداء سواء بالإضافة أو بالحذف منها، كما لا يجوز إجراء أي محو او كشط فيها، وذلك تحت طائلة بطلان التعديل بجميع صوره.

٨. ويكون سجل الأداء الأساس الذي يبنى عليه التقرير السنوي كما يكون مرجعا هاما للجنة النظر في الاعتراضات.

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REFERENCES

Abernethy, M. A., & Stoelwinder, J. U. (1995). The role of professional control in the management of complex organizations. *Accounting Organisations and Society, 20*(1), 1-17.

AbuGarbieh, P., & Suliman, W. (1992). Changing the image of nursing in Jordan through effective role negotiation. *International Nursing Review, 39*(5), 149-152.

Adams, A., & Bond, S. (2003). Staffing in acute hospital wards: part 1. The relationship between number of nurses and ward organizational environment. *Journal of Nursing Management, 11*(5), 287-292.

Agency for Health Care Policy and Research (AHCPR). (1992). *Panel for prediction and prevention of pressure ulcers in adults. Pressure ulcers in adults: Prediction and prevention, clinical practice guidelines* (No. 92-0047): Agency for Health Care Policy and Research, Public Health Services, U.S. Department of Health and Human Services.

Agency for Health Care Policy and Research (AHCPR). (1994). *Treating pressure sores: consumer guidelines* (No. 95-0564). 15 Rockland MD: Agency for Health Care Policy and Research publication.

Aiken, L. H., Clarke, S. P., Sloane, D., Sochalski, J., & Silber, J. H. (2002). Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction *JAMA, 288*(16), 1987-1993.

Al-Keswani, H. (2008, 26 April). Al-Bakheet: Shortages of female nurses impede health sector improvement. *Al-Rai Newspaper*, from http://www.alghad.jo/?news=169686

Al-Ma'aitah, R., Cameron, S., Armstrong-Stassen, M., & Horsburgh, M. E. (1996). The effect of unit type and gender on Jordanian nurses' job satisfaction: A comparison of operating room, medical surgical, and critical care nurses. *Seminars in Perioperative Nursing, 5*(4), 222-229.

Al-Ma'aitah, R., Cameron, S., Armstrong-Stassen, M., & Horsburgh, M. E. (1999). Effect of genfer and education on quality of nursing work-life of Jordanian nurses. *Nursing and Health Care Perspectives, 20*, 88-94.

Al-Rai. (24th Nov. 2005). MOH plan to have competerised information system. *Al-Rai Newspaper*, from http://www.alrai.com/pages.php?news_id=64368

Allman, R. M., Goode, P. S., Patrick, M. M., Burst, N., & Bartolucci, A. A. (1995). Pressure ulcer risk factors among hospitalised patients with activity limitation. *The Journal of the American Medical Association, 273*(11), 865-870.

Alvarez, O. M., & Childs, E. J. (1991). Pressure ulcers, physical, supportive and local aspects of management. *Clinical Podiatric Medical Surgical, 8*(4), 869-890.

Amalberti, R., Auroy, Y., Berwick, D., & Barach, P. (2005). Five system barriers to achieving ultrasafe health care. *Annals of Internal Medicine, 142*(9), 756-764.

Anderson, R. A., & McDaniel, R. R. J. (2000). Managing health care organisations: where professionalism meets complexity science. *Health Care Management Review, 25*(1), 83-92.

Andrychuck, M. A. (1998). Pressure ulcers: causes, risk factors, assessment, and intervention. *Orthopaedic Nursing, 17*(4), 65-82.

Anonymous. (2003). Do pressure area risk assessment scales miss the point? *Australian Nursing Journal; ANJ; North Fitzroy, 10*(6), 31.

Anthony, D. (1996). Receiver operating characteristics analysis: an overview. *Nurse Researcher, 4*(2), 75-88.

Applegate, E. (2000). *The anatomy and physiology learning system* (2nd ed.). Philadelphia: W.B.Saunders company.

Arblaster, G. M. (1999). An evaluative approach to selecting mattresses. *Nursing Standard, 13*(42), 56-63.

As-Sayaideh, A., Shafei, A., Dwayne, B., & Muhtaseb, A. (2002). *Implementing Hospital Autonomy in Jordan: An economic cost analysis of Al-Karak hospital* (No. HRN-C-OO-OO-00019). Amman: Bethesda, MD:The Partners for Health Reform Plus Project , Abt Associatiates Inc.

Australian Wound Management Association. (2001). Clinical Practice Guidelines for the Prediction and Prevention of Pressure Ulcers. 1st edition. Retrieved 19-11, 2008, from www.awma.com.au

Ayello, E., & Lyder, C. (2007). Protecting Patients from Harm: Preventing pressure ulcers in hospital patients. *Nursing 37*(10), 36-40.

Ayello, E. A. (2003a). Predicting pressure ulcer sore risk. *Clinical Nurse Specialist, 14*(2), 89-90.

Ayello, E. A. (2003b). Predicting pressure ulcer sore risk. (try this: best practices in nursing care to older adults). *Medical Surgical Nursing, 12*(3), 197-199.

343

Ayello, E. A., & Braden, B. (2001). Why is pressure ulcer risk assessment so important? *Nursing, 31*(11), 74-80.

Ayello, E. A., Thomas, D. R., & Litchford, M. A. (1999). Nutritional aspects of wound healing. *Home Health Care Nurse, 17*(1), 719-729.

Bader, D. L. (1990). *Pressure Sores-Clinical Practice and Scientific Approach*. London: MacMillan Press, Scientific and Medical.

Badger, T. G. (1999). Quality management within a cost-containment service. *Journal of Nursing Management, 7*(6), 323-329.

Baharestani, M. (1999). Pressure ulcers in an old age of managed care: A nursing perspective. *Ostomy/Wound Management, 45*(5), 18-40.

Baker, D. P., Day, R., & Salas, E. (2006). Teamwork as an essential component of high-reliability organizations. *Health Services Research, 41*(4 Pt 2), 1576-1598.

Baldwin, K., & Ziegler, S. (1998). Pressure ulcer following critical traumatic injury. *Advanced Wound Care, 11*, 168-173.

Banning, M. (2005). Conceptions of evidence, evidence-based medicine, evidence-based practice and their use in nursing: independent nurse prescribers' view. *Journal of Clinical Nursing, 14*(4), 411-417.

Bartlett, M., Hatcher, D., Johnson, A., & Dixon, K. (1997). Total quality management in accredited New South Wales hospitals: A public/private comparison. *Australian Health review, 20*(4), 49-59.

Bate, P., Mendel, P., Robert, G., & Berwick, D. M. (2008). *Organizing for Quality: The Improvement Journeys of Leading Hospitals in Europe and the United States*. Abingdon: Radcliffe

Bates, D. W., Larizgoitia, I., Prasopa-Plaizier, N., & Jha, A. K. (2009). Global priorities for patient safety research. *British Medical Journal, 338*, b1775.

Batieha, A. (2004). Situation analysis of the health sector in Jordan. *http://www.hhc.gov.jo/sa.htm* http://www.hhc.gov.jo/sa.htm. Retrieved 16-11, 2004, from http://www.hhc.gov.jo/sa.htm

Benbow, M. (1995). Extrinsic factors affecting the management of chronic wounds. *British Journal of Nursing, 4*(9), 534-537.

Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice*. Melao Park, CA: Addison-Wesley.

Bennett, G., Dealey, C., & Posnett, J. (2004). The cost of pressure ulcers in the UK. *Age and Ageing, 33*(3), 230-235.

Bergquist, S. (2005). The quality of pressure ulcer prediction and prevention in home health care. *Applied Nursing Research, 18*(3), 148-154.

Bergquist, S., & Frantz, R. (2001). Braden Scale: Validity in community-based older adults receiving home health care. *Applied Nursing Research, 14*(1), 36-43.

Bergstrom, N. (1997). Strategies for preventing pressure ulcers. *Clinical Geriatric Medicine, 13*(3), 437-454.

Bergstrom, N., & Braden, B. (1992). A prospective study of pressure sores risk among institutionalised status. *Journal of Geriatric society, 34*(435-440).

Bergstrom, N., Braden, B., Boynton, P., & Bruch, S. (1995). Using a research-based assessment scale in clinical practice. *Nurse Clinical of Northern America, 30*(3), 539-551.

Bergstrom, N., Braden, B., Kemp, M., Champagne, M., & Ruby, E. (1996). Multi-site study of incidence of pressure ulcers and the relationship between risk level, demographic characteristics, diagnoses, and prescription of preventive interventions. *Journal of the American Geriatrics Society, 44*(1), 22-30.

Bergstrom, N., Braden, B., Kemp, M., Champagne, M., & Ruby, E. (1998). Predicting pressure ulcer risk: a multisite study of the predictive validity of the Braden Scale. *Nursing Research, 47*(5), 261-269.

Bick, D., & Stephens, F. (2003). Pressure ulcer risk: audit findings. *Nursing Standard, 17*(44), 63-72.

Bobel, L. M. (1987). Nutritional implication in the patient with pressure sores. *Nursing Clinics of North America, 22*(2), 379-389.

Bolon, D. S. (2006). Performance appraisal: helpful hints for the busy medical practice manager. *Journal of Medical Practice Management, 21*(4), 216-218.

Bours, G. J., Halfens, R. J., Abu-Saad, H. H., & Grol, R. T. (2002). Prevalence, prevention and treatment of pressure ulcers: descriptive study in 89 institution in the Netherlands. *Research Nursing Health, 25*(2), 99-110.

Bouza, C., Saz, Z., Munoz, A., & Amate, J. M. (2005). Efficacy of advanced dressings in the treatment of pressure ulcers: a systematic review. *Journal of Wound Care, 14*(5), 193-199.

Boyle, M., & Green, M. (2001). Pressure sores in intensive care: defining their incidence and associated factors and assessing the utility of two pressure sore risk assessment tools. *Australian Critical Care, 14*(1), 24-30.

Braden, B. J., & Frantz, R. A. (2004). Measuring skin integrity. In M. Frank-Stromborg & S. J. Olsonen (Eds.), *Instruments for clinical health-care research* (pp. 645-662). Sudbury: Jones and Bartlett Publishers.

Braithwaite, J., Runciman, W. B., & Merry, A. F. (2009). Towards safer, better healthcare: harnessing the natural properties of complex sociotechnical systems. *Quality & Safety in Health Care, 18*(1), 37-41.

Braithwaite, J., & Travaglia, J. (2008). An overview of clinical governance policies, practices and initiatives. *Australian Health Review, 32*(1), 10-22.

Braithwaite, J., Westbrook, J. I., Foxwell, A. R., Boyce, R., Devinney, T., Budge, M., et al. (2007). An action research protocol to strengthen system-wide inter-professional learning and practice. *BMC Health Services Research, 7*, 144.

Brink, P. J., & Wood, M. J. (2001). *Basic steps in planning nursing research: From question to proposal* (5th ed.). Sudbury: Jones and Barlett.

Brosk, H., Abu El-Samen, T., Abu Saif, J., Taissir, F., Odeh, M., Al-Shatwieen, L., et al. (2000). Jordan National Health Accounts: Technical Report. Bethesda, MD: Partnerships for Health Reform Project

Brown, G. (2006). Wound documentation: managing risk. *Advances in Skin & Wound Care, 19*(3), 155-165.

Brown, S. J. (2004). The Braden Scale: a review of the research evidence. *Orthopaedic Nursing, 23*(1), 30-38.

Brunt, B. A. (2002). Identifying perforamnce criteria for staff development competencies. *Journal for Nurses in Staff Development, 18*, 314-321.

Bryant, R. A., Shannon, M. L., Pieper, B., Braden, B. J., & Morris, D. J. (1992). "Pressure ulcers". In R. A. Bryand (Ed.), *Acute and chronic wounds: Nursing management* (pp. 105-163). St.Louis: Mosby.

Capobianco, L., & McDonald, D. (1996). Factors affecting the predictive validity of the Braden scale. *Advanced Wound Care, 9*, 32-36.

Carroll, P. (1993). Pressure ulcers and material management:cost-effective prevention and care. *Hospital Material Management Quarterly, 15*(2), 38-50.

Carter, N., Klein, R., & Day, P. (1995). *How organisations measure success*. London: Rout ledge.

Cheevakasemsook, A., Chapman, Y., Francis, K., & Davies, C. (2006). The study of nursing documentation complexities. *International Journal of Nursing Practice, 12*(6), 366-374.

Clark, M. (2002). Pressure ulcers and quality of life. *Nursing Standard, 16*(22), 74-79.

Clark, M., & Cullum, N. (1992). Matching patient need for pressure sore prevention with the supply of pressure redistributing mattresses. *Journal of Advanced Nursing, 17*, 310-316.

Clark, M., & Rowlands, L. B. (1989). Preventing pressure sores: matching patient and mattress using interface pressure measurements. *Decubitus, 2*(1), 34-39.

Clarke, C., Reed, J., Wainwright, D., McClelland, S., Swallow, V., Harden, J., et al. (2004). The discipline of improvement: something old, something new? *Journal of Nursing Management, 12*(2), 85-96.

Clarke, H. F., Bradley, C., Whytock, S., Handfield, S., van der Wal, R., & Gundry, S. (2005). Pressure ulcers: implementation of evidence-based nursing practice. *Journal of Advanced Nursing, 49*(6), 578-590.

Clay, K. S. (2004). Preventing pressure ulcers in your facility. *Nursing Homes Long Term Care Management, 53*(9), 96.

Clemow, R. (2006). Care plans as the main focus of nursing handover: information exchange model. *Journal of Clinical Nursing, 15*(11), 1463-1465.

Cochrane, G. (1990). The severity disabled. In D. L. Bader (Ed.), *Pressure Sores: Clinical practice and scientific approach*. London: Macmillan Press Scientific and Medical.

Coeling, H., & Cukr, P. (2000). Communication styles that promote perceptions of collaboration, and nurse satisfaction. *Journal of Nursing care Quality, 14*(2), 63-74.

Cohen, D. J., & Crabtree, B. F. (2008). Evaluative criteria for qualitative research in health care: controversies and recommendations. *Annals of Family Medicine, 6*(4), 331-339.

Cohen, M. M., Eustis, M. A., & Gribbins, R. E. (2003). Changing the culture of patient safety: leadership's role in health care quality improvement. *Joint Commission Journal On Quality And Safety, 29*(7), 329-335.

Collins-Nakai, R. (2006). Leadership in medicine. *McGill Journal of Medicine, 9*(1), 68-73.

Commonwealth Department of Health and Family Services. (1996). *The final report of the Taskforce on quality in Australian health care*. Canberra: Australian Health Ministers' Advisory Council.

Cook, R. I., Render, M., & Woods, D. D. (2000). Gaps in the continuity of care and progress on patient safety. *British Medical Journal, 320*(7237), 791-794.

Cox, K. R., Laird, M., & Brown, J. M. (1998). Predicting and preventing pressure ulcers in adults. *Nursing Management, 29*(7), 41-46.

Crow, R. A., & Clark, M. (1990). Current management for the prevention of pressure sores. In D. L. Bader (Ed.), *Pressure Sores-Clinical Practice and Scientific Approach*. London: MacMillan Press,Scientific and Medical.

Cruickshank, M. (2003). A study of quality management practices in nursing in universities in Australia. *Australian Health review, 26*(1), 194-200.

Cullum, N., McInnes, E., Bell-Syer, S., & Legood, R. (2004). Support surfaces for pressure ulcer prevention. [Systematic Review]. *Cochrane Database of Systematic Reviews, 4.*

Cullum, N., McInnes, E., Bell-Syer, S. E. M., & Legood, R. (2005). Support surfaces for pressure ulcer prevention [Systematic Review]. *Cochrane Database of Systematic Reviews 2005;(1).*

Currell, R., Wainwright, P., & Urquart, C. (2002). Nursing record systems: effects on nursing practice and health care outcomes [Cochrane review]. *The Cochrane Library*(1).

Currie, L., & Loftus-Hills, A. (2002). The nursing view of clinical governance. *Nursing Standard, 16*(17), 40-44.

Cuthbert, M., Duffield, C., & Hope, J. (1992). *Management in nursing*. Sydney: W.B Saunders, Hartcourt Brace Jovanovich.

Dawes, M., Summerskill, W., Glasziou, P., Cartabellotta, A., Martin, J., Hopayian, K., et al. (2005). Sicily statement on evidence-based practice. *BioMedical Central: Medical Education, 5*(1).

Dawsett, C. (2001). Clinical governance and pressure ulcer management. *Nursing Standard, 15*(22), 48-51.

Dealey, C. (1989). The pressure sore debate. *Nursing Times, 85*(26), 75.

Dealey, C. (1997). Pressure ulcer prevention -The UK perspective. *Dermatology Nursing, 9*(2), 108-117.

Degeling, P., Sage, D., Kennedy, J., Perkins, R., & Zhang, K. (1999). A comparison of the impact of hospital reform on medical subcultures in some Australian and New Zealand hospitals. *Australian Health review, 22*(4), 172-188.

Department of Statistics. (2008). Jordan in figures 2007. Amman - Jordan.

Dibsie, L. G. (2008). Implementing evidence-based practice to prevent skin breakdown. *Critical Care Nursing, 31*(2), 140-149.

Dolynchuk, K., Keast, D., Campbell, K., Houghton, P., Orsted, H., Sibbald, G., et al. (2000). Best practices for the prevention and treatment of pressure ulcers. *Ostomy Wound Management, 46*(11), 38-52.

Donabedian, A. (1966). Evaluating the quality of medical care *Milbank Memorial Fund Quarterly, 3(Supplementary)*, 166-206.

Donabedian, A. (1992). The Role of Outcomes in Quality Assessment and Assurance. *Quality Review Bulletin,, 18*(11), 356-360.

Dorazio-Migliore, M., Migliore, S., & Anderson, J. M. (2005). Crafting a praxis-oriented culture concept in the health disciplines: conundrums and possibilities. *Health, 9*(3), 339-360.

Dowie, R., & Kennedy, A. (2001). Clinical audit in NHS acute and community trusts: a comparative analysis. *Journal of Clinical Governance, 6*(2), 94-101.

Duffield, C., Kearin, M., Johnston, J., & Leonard, J. (2007). The impact of hospital structure and restructuring on the nursing workforce. *Australian Journal of Advanced Nursing 24*(4), 42-46.

Duffield, C., Roche, M., O'Brien-Pallas, L., Diers, D., Aisbett, C., King, M., et al. (2007). Glueing it together: Nurses, their work environment and patient safety. University of Technology, Sydney. Retrieved 14-07, 2009, from http://www.health.nsw.gov.au/pubs/2007/pdf/nwr_report.pdf

Edsberg, L. E., Nateiella, J. R., Baier, R. E., & Earle, J. (2001). Microstructural characteristics of human skin subjected to static versus cyclic pressures. *Journal of Rehabilitation Research and Development, 38*(5), 477-487.

Elliott, D., & Hayes, L. (2003). Observational designs and methods. In Z. Schneider, D. Elliott, G. LoBionado-Wood & J. Haber (Eds.), *Nursing research: Methods, critical appraisal, and utilisation* (2nd ed., pp. 295-315). Sydney: Mosby.

Embassy of the Hashemite Kingdom of Jordan: Washington. (2004). Information Bureau.   Retrieved 8-12, 2004, from http://www.jordanembassyus.org/new/index.shtml

EPUAP. (1998). www.epuap.org.   Retrieved 13/10, 2004, from www.epuap.org

Evans, D. B., Tandon, A., Murray, C. J. L., & Lauer, J. A. (2001). Comparative efficiency of national health systems: cross national econometric analysis. *British Medical Journal, 323*(11 August), 307-310.

Exworthy, M., Wilkinson, E. K., McCollb, A., Moorec, M., Roberick, P., Smith, H., et al. (2003). The role of performance indicators in changing the autonomy of the general practice profession in the UK. *Social Science and Medicine, 56*(7), 1493-1504.

Ferlie, E., & Shortell, S. (2001). Improving the Quality of Health Care in the United Kingdom and the United States: A Framework for Change. *Milbank Quarterly, 79*(2), 281-315.

Ferris, G. R., Perrewe, P. L., Anthony, W. P., & Gilmore, D. C. (2000). Political skill at work. *Organizational Dynamics, 28*(4), 25-37.

Fineout-Overholt, E., Levin, R. F., & Melnyk, B. M. (2005). Strategies for advancing evidence-based practice in clinical settings. *Journal of the New York Nurses Association, Fall/Winter*, 28-32.

Fisher, A. R., Wells, G., & Harrison, M. B. (2004). Factors associated with pressure ulcers in adults in acute care hospitals. *Holistic Nursing Practice, 18*(5), 242-253.

Flanagan, M. (1993a). Predicting pressure sore risk. *Journal of Wound Care, 2*(4), 215-218.

Flanagan, M. (1993b). Pressure sore risk assessment scales. *Journal of Wound Care, 2*(3), 162-167.

Flynn, M., & Flink, R. (2001). Committing to evidence-based skin care practice. *Critical Care Nursing Clinics of North America, 13*(4), 555-568.

Foster, J. M., Hoskins, G., Smith, B., Lee, A. J., Price, D., & Pinnock, H. (2007). Practice development plans to improve the primary care management of acute asthma: randomised controlled trial. *BMC Family Practice, 8*, 23.

Francis, K., Nawafleh, H., & Chapman, Y. (2005). Spotlight on rural nurses: Implications for a new nursing discipline in Jordan. *Online Journal of Rural Nursing and Health Care, 5*(2).

350

Frank-Stromborg, M., Christensen, A., & Do, D. E. (2001). Nurse documentation: not done or worse, done the wrong way-Part II. *Oncology Nursing Forum, 28*(5)), 841-846.

Frank-Stromborg, M., Christensen, A., & Elmhurst, D. (2001). Nurse documentation: not done or worse, done the wrong way-Part I. *Oncology Nursing Forum, 28*(4), 697-702.

Frantz, R. A. (2004). Evidence-Based Protocol: Prevention of Pressure Ulcers. *Journal of Gerontological Nursing, 30*(2), 4.

Freeman, D. B. (2002). Clinical governance: implication for point -of- care testing. *Annals of Clinical Biochemistry, 39*(5), 421-423.

Freeman, T. (2003). Measuring progress in clinical governance: assessing the reliability and validity of the Clinical Governance Climate Questionnaire. *Health Services Management Research, 16*(4), 234-250.

Gadamer, H.-G. (1993). *Truth and method* (2nd ed.). London: Sheed and Ward.

Gardner, S. E., Frantz, R. A., Bergquist, S., & Shin, C. D. (2005). A prospective study of the Pressure Ulcer Scale for Healing (PUSH). *Journals of Gerontology. Series A: Biological Sciences and Medical Sciences, 60 A*(1), 93-97.

Gerrish, K. (2004). Promoting evidence-based practice: an organisational approach. *Journal of Nursing Management, 12*(2), 114-123.

Ghazal, M. (2008). Al Bashir Hospital expansion to reduce overcrowding. *Jordantimes,*

Gibbons, W., Shanks, H. T., Kleinhelter, P., & Jones, P. (2006). Eliminating Facility-Acquired Pressure Ulcers at Ascension Health. *The Joint Commission Journal on Quality and Patient Safety, 32*(9), 488 - 496.

Gibson, R., & Singh, J. P. (2003). *Wall of Silence: The Untold Story of Medical Mistakes That Kill and Injure Millions of Americans.* Washington: Lifeline Press.

Giddens, A. (1984). *The constitution of society: outline of the Theory of Constructration.* Berkely and Los Angeles: University of California Press.

Giddens, A. (1993). *New rules of sociological method: A positive critique of interpretative sociologies* (2nd ed.). Cambridge, England: Politary Press.

Gilmartin, M. J., & Freeman, R. E. (2002). Business Ethics and Health Care: A Stakeholder Perspective. *Health Care Management Review, 27*(2), 52-65.

Godfrey, M. M., Nelson, E. C., Wasson, J. H., Mohr, J. J., & Batalden, P. B. (2003). Microsystems in health care: Part 3. Planning patient-centered services. *Joint Commission Journal on Quality and Safety, 29*(4), 159–170.

Gould, D., Goldstone, L., Kelly, D., & Gammon, J. (2004). Examining the validity of pressure ulcer risk assessment scales: a replication study. *International Journal of Nursing Studies, 41*(3), 331-339.

Gould, D., Kelly, D., Goldstone, L., & Gammon, J. (2001). Examining the validity of pressure ulcer risk assessment scales: developing and using illustrated patient simulations to collect the data. *Journal of Clinical Nursing, 10*(5), 697-705.

Granick, M. S., & Ladin, D. A. (1998). The multidisciplinary in hospital wound care team: two models. *Advances in Wound Care, 11*(80), 83.

Grbich, C. (1999). *Qualitative Research in Health: An introduction.* London: Sage Publications.

Grol, R., Wensing, M., & Eccles, M. (2005). *Improving patient care.* Oxford: Elservier.

Haalboom, J. R. E., denBoer, J., & Buskens, E. (1999). Risk-assessment tools in the prevention of pressure ulcers. *Ostomy/Wound Management, 45,* 20-24.

Hamilton, F. (1992). An analysis of the literature pertaining to pressure sore risk-assessment scales. *Journal of Clinical Nursing, 1,* 185-193.

Harris, M. G. (2006). *Managing health services: concepts and practice* (2nd ed.). Marrickville, N.S.W.: Mosby: Elsevier Australia.

Heidegger, M. (1962). *Being and time* (J. Macquarrie & E. Robinson, Trans.). Oxford : Blackwell; New York: Harper and Row.

Helmreich, R. L. (2000). On error management: lessons from aviation. *BMJ, 320*(7237), 781-785.

Helmreich, R. L., & Davies, J. M. (2004). Culture, threat, and error: Lessons from aviation. *Canadian Journal of Anesthesia, 51*(6), R1-R6.

Hess, C. T. (2001). *Clinical guide: wound care* (4th ed.). Pennsylvania: Springhouse.

Hess, C. T. (2005). The art of skin and wound care documentation. *Advances in Skin & Wound Care, 18*(1), 43-53.

Hewison, A. (1996). Organisational culture: a useful concept for managers? *Journal of Nursing Management, 4*(1), 3-9.

Hewison, A., & Stanton, A. (2002). From conflict to collaboration? Contrasts and convergence in the development of nursing and management theory (1). *Journal of Nursing Management, 10*, 349-355.

Heyneman, A., Beele, H., Vanderwee, K., & Defloor, T. (2008). A systematic review of the use of hydrocolloids in the treatment of pressure ulcers. *Journal of Clinical Nursing, 17*(9), 1164-1173.

Hibbs, P. (1988). Action against pressure sores. *Nursing Times, 84*(13), 68-73.

Hijazi, S., & Al-Ma'aitah, R. (1999). *Public service reforms and their impact on health sector personnel in Jordan*: International Labour Office and World Health Organisation.

Hofstede, G., Neuijen, B., Ohayv, D. D., & Sanders, G. (1990). Measuring organizational cultures: a qualitative and quantitative study across twenty cases. *Administrative Science Quarterly, 35*(2), 286-301.

Hojat, M., Nasca, T., Cohen, M., Fields, S., Rattner, S., Griffiths, M., et al. (2001). Attitudes towards physician-nurse collaboration: A cross-cultural study of male and female physicians and nurses in the United States and Mexico. *Nursing Research, 50*(2), 123-128.

Hood, L. J., Leddy, S., & Pepper, M. J. (2005). *Leddy & Pepper's conceptual bases of professional nursing* (6 ed.). Philadelphia: Lippincott.

Hook, S. (1998). Guidelines to help manage pressure ulcers. *Australian Nursing Journal, 6*(6), 27.

Hopkins, B., Hanlon, M., Yank, S., & Sykes, S., et al. (2000). Reducing nosocomial pressure ulcers in an acute care facility. *Journal of Nursing Care Quality, 14*(3), 28-36.

House, R., Rousseau, D. M., & Thomas-Hunt, M. (1995). The meso paradigm: A framework for the integration of micro and macro organizational behavior. *Research in Organizational Behavior, 17*, 71-114.

Husain, T. (1953). An experimental study of some pressure effects on tissue with reference to the bed sore problem. *Journal of Pathology and Bacteriology, 66*, 347-354.

Hyrkas, K., Koivula, M., Lehti, K., & Paunonen-ilmonen, M. (2003). Nurse managers, conceptions of quality management as promoted by peer supervision. *Journal of Nursing Management, 11*(1), 48-58.

Ibrahim, J. E. (2000). A system for systems is required for quality health systems. *Journal of Quality in Clinical Practice, 20*, 171-172.

Institute of Medicine. (2001). *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, D.C.: National Academy.

Institute of Medicine. (2004). *Keeping Patients Safe: Transforming the Work Environment of Nurses*. Washington, DC: The National Academies Press.

Jackson, C., & Butterworth, T. (2007). Every-one's business, no-one's responsibility; reporting clinical academic research activity by nurses in the United Kingdom. *Journal of Research in Nursing, 12*(3), 213-223.

Johnstone, M.-J., & Kanitsaki, O. (2008). Patient safety and the integration of graduate nurses into effective organizational clinical risk management systems and processes: an Australian study. *Quality Management in Health Care, 17*(2), 162-173.

Jolley, D. J., Wright, R., McGowan, s., Hickey, M. B., Campbell, D. A., Sinclair, R. D., et al. (2004). Preventing Pressure Ulcers with the Australian medical sheepskin: an open-label randomised controlled trial. *Medical Journal of Australia (MJA), 180*(7), 324-327.

Jootun, D., McGhee, G., & Marland, G. R. (2009). Reflexivity: promoting rigour in qualitative research. *Nursing Standard, 23*(23), 42-46.

Jordanian Official Newspaper. (2002, 10/5/2002). The Law of The Jordanian Nursing Council, Temporal Law (21) of 2002. *Jordanian Official Newspaper*,

Kalb, K. B., Cherry, N. M., Kauzloric, J., Brender, A., Green, K., Miyagawa, L., et al. (2006). A competency-based approach to public health nursing performance appraisal. *Public Health Nursing, 23*(2), 115-138.

Kennedy, S. (2000). Perceived worker autonomy: The foundation for shared governance. *Journal of Nursing Administration, 30*, 611-617.

Khouri, S., & Massad, D. (1996). *Causes of death*: University of Jordan, Department of Community Medicine.

Kiernan, M. (1998). Pressure sores: adopting the principles of risk management. *British Journal of Therapy and Rehabilitation, 5*(8), 402-405.

Klei, M., Maclellan, L., & Maclellan, D. (1997). Bottoms up: avoiding the horrors of pressure ulcers. *Veterans' Health, 20*, 24-27.

Koch, M. W., & Fairly, T. M. (1993). *Integrated quality management: The key to improving nursing care quality*. St.Louis: Mosby.

Koch, T., & Harrington, A. (1998). Reconceptualizing rigour: the case for reflexivity. *Journal of Advanced Nursing, 28*(4), 882-890.

Kohn, L. T., Corrigan, J. M., & Donaldson, M. S. (Eds.). (2000). *To err is human : building a safer health system*. Washington, D.C: National Academy Press.

Kramer, M., & Scmalenberg, C. E. (2003). Magnet hospital nurses describe control over nursing practice. *Western Journal of Nursing Research, 25*(4), 434-452.

Kring, D. L. (2007). Reliability and validity of the Braden Scale for predicting pressure ulcer risk. *Journal of Wound, Ostomy, & Continence Nursing, 34*(4), 399-406.

Krogstad, U., Hofoss, D., & Hjortdahl, P. (2004). Doctor and nurse perception of inter-professional co-operation in hospitals. *International Journal for Quality in Health Care, 16*(6), 491-497.

Landis, E. M. (1930). "Micro-injection studies of capillaries blood pressure in human skin". *Heart: A Journal for the Study of the Circulation, 15*, 209-228.

Langemo, D. K., Anderson, J., & Volden, C. (2003). Uncovering pressure ulcer incidence. *Nursing Management, 34*(10), 54.

Langemo, D. K., Olson, B., Hunter, S., Hanson, D., Burd, C., & Cathcart-Silberberg, T. (1991). Incidence and prediction of pressure ulcers in five patient care settings. *Decubitus, 4*(3), 25-26.

Langer, G., Knerr, A., Kuss, O., Behrens, J., & Schlömer, G. J. (2008). Nutritional interventions for preventing and treating pressure ulcers. *Cochrane Database of Systematic Reviews*(4).

Lawton, R., & Parker, D. (2002). Barriers to incident reporting in a healthcare system. *Quality and Safety in Health Care 11*(1), 15-18.

Leape, L. L., Bates, D. W., Cullen, D. J., Cooper, J., Demonaco, H. J., Gallivan, T. R. H., et al. (1995). Systems analysis of adverse drug events. ADE prevention study group. *Journal of the American Medical Association, 274*(1), 35-43.

Levine, J. M., & Totolos, E. (1995). Pressure ulcers: A strategic plan to prevent and heel them. *Geriatric, 50*(1), 32-37.

Lewis, M., Pearson, A., & Ward, C. (2003). Pressure ulcer prevention and treatment:transforming research findings into consensus based clinical guidelines. *International Journal of Nursing Practice, 9*(2), 92.

Lindgren, M., Unosson, M., Krantz, A.-M., & Ek, A.-C. (2002). A risk assessment scale for the prediction of pressure sore development: reliability and validity. *Journal of Advanced Nursing, 38*(2), 190-199.

Lingren, M., Unosson, M., Krantz, A., & Ekac. (2002). A risk assessment scale for the prediction of pressure sores development:reliability and validity. *Journal of Advanced Nursing, 38*(2), 190-199.

Lipe, S. K., & Beasley, S. (2003). *Critical thinking in nursing: A cognitive skills workbook.* Philadelphia: Lippincott Williams & Wilkins.

Lockhart, J. S., & Bryce, J. (1996). A comprehensive plan to meet the unit-based education needs of nurses from several specialty units. *Journal of Nursing Staff Development, 12*(3), 135-138.

Lofflin, M. E., & Kipp, J. D. (1997). Incorporating risk management into emergency incident operations. *Professional Safety, 42*(7), 132-136.

Lumby, J. (2001). *Who cares?: the changing health care system.* Crows Nest, N.S.W: Allen & Unwin.

Macleod-Clark, J. (1984). Verbal communication in nursing. In A. Faulkner (Ed.), *Recent advances in nursing ; 7.* Edinburgh: Churchill Livingstone.

Maier, U., Fotuhi, P., Seele, A., & Nikolic, D. (2008). Intercommunication and information flow. An explorative study about ward rounds and patients' documentation. *Pflege Zeitschrift, 61*(7), 400-403.

Maklebust, J. (1997). Policy implications of using reverse staging to monitor pressure ulcer status. *Advanced Wound Care, 10*(5), 32-35.

Maklebust, J. (1999). Interrupting the pressure ulcer cycle. *Nurse Clinical of Northern America, 34,* 861-871.

Maklebust, J., & Sieggreen, M. (1991). *Pressure Ulcers: Guidance for prevention and nursing management.* West Dundee: Illinois: S-N Publication.

Marriner-Tomey, A. (2000). *Guide to nursing management and leadership* (6th ed.). St. Louis: Mosby.

Marriner-Tomey, A. (2009). *Guide to nursing management and leadership* (8 ed.): St. Louis : Mosby.

Martin, A. H. (2001). Should continuous lateral rotating therapy replace manual turning? *Nursing Management, 32*(8), 41-46.

Martinko, M. J., Douglas, S. C., & Harvey, P. (2006). Attribution theory in industrial and organizational psychology: A review. In G. P. Hodgkinson & K. J. Ford (Eds.), *International review of industrial and organizational psychology* (Vol. 21, pp. 127-187). Chicester: Wiley.

McSherry, R. (2004). Practice development and health care governance: a recipe for modernization. *Journal of Nursing Management, 12*(2), 137-146.

Mills, D. H. (1978). Medical insurance feasibility study. A technical summary. *Western Journal of Medicine, 128*(4), 360-365.

Minichiello, V., Sullivan, G., Greenwood, K., & Axford, R. (2004). *Research methods for nursing and health science* (2nd ed.). Frenchs Forest: Pearson.

Ministry of Health. (1992). *Clinical instructor project course for clinical instructors.*Unpublished manuscript, Amman.

Ministry of Health. (2004). Annual Statistical Book. Retrieved 8 -12, 2004, from http://www.moh.jov.jo/esectors.htm

Ministry of Health. (2007). MOH Strategy Plan (2008-2012). Retrieved 4-08, 2009, from http://www.moh.gov.jo/MOH/Files/National_Health/Health%20Strategic%20.pdf.pdf

Ministry of Health. (2008). Annual Statistical Book. Retrieved 11-08-09, 2009, from http://www.moh.gov.jo/MOH/Files/Publication/report2008_1.pdf

Mintzberg, H. (2002). Managing care and cure - up and down, in and out. *Health Services Management Research, 15*, 193-206.

Mitchell, D. (1998). Power, professions and evidence-based guidelines: lessons from an organizational case study. *Journal of Nursing Management, 6*(5), 275-280.

MOH. (2007). *Annual Statistical Report.* Amman-Jordan.

Moore, Z., & Price, P. (2004). Nurses' attitudes, behaviours and perceived barriers towards pressure ulcer prevention. *Journal of Clinical Nursing, 13*(8), 942-951.

Moroney, N., & Knowles, C. Innovation and teamwork: introducing multidisciplinary team ward rounds. *Nursing Management, 13*(1), 28-31.

Morrison, C., Jones, M., Blackwell, A., & Vuylsteke, A. (2008). Electronic patient record use during ward rounds: a qualitative study of interaction between medical staff. *Critical Care (London, England), 12*(6), R148.

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Mrayyan, M. (2004). Perceptions of Jordanian head nurses of variables that influence the quality of nursing care. *Journal of Nursing care Quality, 19*(3), 276-279.

Mrayyan, M. T. (2005a). The influence of standardized language on nurses' autonomy. *Journal of Nursing Management, 13*, 238-241.

Mrayyan, M. T. (2005b). Nurse job satisfaction and retention: comparing public to private hospitals in Jordan. *Journal of Nursing Management, 13*, 40-50.

Mrayyan, M. T. (2006). Jordanian nurses' job satisfaction, patients' satisfaction and quality of nursing care. *International Nursing Review, 53*, 224-230.

National Cancer Registry. (1999). *Incidence of cancer in Jordan.*

National Institute for Cancer Excellence NICE UK. (2005). The management of pressure ulcers in primary and secondary care. Retrieved 29-07, 2009, from http://www.nice.org.uk//guidance/index.jsp?action=byID&r=true&o=10972

National Institute for Clinical Excellence NICE UK. (2001, 2005). Inhereted clinical guideline B: Pressure ulcer risk assessment and prevention. Retrieved 8/6, 2005, from http://www.nice.org.uk/pdf/clinicalguidelinepressuresoreguidencenice.pdf

National Institute for Clinical Excellence UK. (2001b, March 2003). A guide for patients and their carers: Working together to prevent pressure ulcers. Retrieved 8/6, 2005, from http://www.nice.org.uk/pdf/clinicalguidelinepressuresorepatleafletenglish.pdf

National Pressure Ulcer Advisory Panel. (1989). Pressure prevalence, cost, and risk assessment: consensus development conference statement. *Decubitus, 2*, 24.

Newhouse, R., Dearholt, S., Poe, S., Pugh, L., & White, K. (2005). Evidence-based practice: A practical approach to implementation. *The Journal of Nursing Administration, 35*(1), 35-40.

Nicholls, S., Cullen, C., O'Neill, S., & Halligan, A. (2000). Clinical governance: its origins and its foundations. *British Journal of Clinical Governance, 5*(3), 172-178.

Nixon, J., & McGough, A. (2001). Principles of patient assessment : screening for pressure ulcers and potential risk. In M. Morison (Ed.), *The prevention and treatment of pressure ulcers* (pp. 55-74).

NSW Health. (2005a). Patient Safety and Clinical Quality Program. Retrieved 25-07, 2009, from http://www.health.nsw.gov.au/policies/pd/2005/pdf/PD2005_608.pdf

NSW Health. (2005b). Patient Safety and Clinical Quality Program Implementation Plan. Retrieved 25-07 2009, from http://www.health.nsw.gov.au/policies/pd/2005/pdf/PD2005_609.pdf

O'Brien-Pallas, L., Thomson, D., Alksnis, C., & Bruce, S. (2001). The economic impact of nurse staffing decisions: time to turn down another road? *Hospital Quarterly, 4*(3), 42-50.

O'Connell, B., Macdonald, K., & Kelly, C. (2008). Nursing handover: it's time for a change. *Contemporary Nurse, 30*(1), 2-11.

Olson, k., Tkachuck, L., & Hanson, j. (1998). Preventing pressure sores in oncology patients. *Clinical Nurse Research, 7*(2), 207-224.

Ousey, K. (Ed.). (2005). *Pressure area care.* Oxford, UK; Malden, MA: Blackwell.

Ovretveit, J., & Gustafson, D. (2003). Improving the quality of health care: Using research to inform quality programmes. *British Medical Journal, 326*, 759-761.

Palmieri, P. A., DeLucia, P. R., Ott, T. E., Peterson, L. T., & Green, A. (2008). The anatomy and physiology of error in averse healthcare events. In E. Ford & G. Savage (Eds.), *Advances in Health Care Management* (Vol. 7, pp. 33–68): Emerald Publishing Group.

Pancorbo-Hidalgo, P. L., Garcia-Fernandez, F. P., Lopez-Medina, I. M., & Alvarez-Nieto, C. (2006). Risk assessment scales for pressure ulcer prevention: a systematic review. *Journal of Advanced Nursing, 54*(1), 94-110.

Papanikolaou, P., Lyne, P., & Anthony, D. (2007). Risk assessment scales for pressure ulcers: a methodological review. *International Journal of Nursing Studies, 44*(2), 285-296.

Parahoo, K. (1997). *Nursing research: Principles, process and issues.* London: Macmillan.

Pase, M. N. (1994). Pressure relief devices, risk factors, and development of pressure ulcers in elderly patients with limited mobility. *Advanced Wound Care, 7*, 38-42.

Patrick, M. M. (1994). Speciality beds and wound care products: A new cost saving role. *Hospital Material Management Quarterly, 16*(2), 48-62.

Pearson, A., Francis, K., Hodgkinson, B., & Curry, G. (2000). Prevalence and treatment of pressure ulcers in Northern NSW. *Australian Journal of Rural Health, 8*, 103-110.

Person, C. (1996). Risk management: Implication for nurses. *Creative Nursing: A Journal of Values, Issues, Experience and Collaboration, 2*(3), 12.

Petro-Nustas, W., Mikhail, B., & Baker, O. (2001). Perceptions and expectations of Baccalaureate-prepared nurses in Jordan: Community Survey. *International Journal of Nursing Practice, 7*, 349-358.

Phillips, L. (1999). Pressure Ulcers: Prevention and treatment guidelines. *Nursing Standard, 14*(12), 56-62.

Poirrier, G. P., & Oberleitner, M. G. (1999). *Clinical Pathways in nursing: A guide to managing care from hospital to home*. Pennsylvania: Springhouse.

Politt, D. F., & Beck, C. T. (2004). *Nursing research: principles and methods* (7th ed.). Philadelphia: Lippincott Williams and Wilkins.

Pothier, D., Monteiro, P., Mooktiar, M., & Shaw, A. (2005). Pilot study to show the loss of important data in nursing handover. *British Journal of Nursing, 14*(20), 1090-1093.

Potter, P. A., & Perry, A. G. (2005). *Fundamentals of nursing* (6th ed.). St. Louis, Mo.: Mosby.

Prentice, J. L., & Stacey, M. C. (2001a). Implementing the guidelines for the prediction and prevention of pressure ulcers. *Primary Intention. The Australian Journal of Wound Management*, 99-102,104-108.

Prentice, J. L., & Stacey, M. C. (2001b). Pressure ulcers: the case for improving prevention and management in Australian health care settings. *Primary Intention. The Australian Journal of Wound Management, 9*(3), 111-120.

Prevost, S. S. (1992). *Relationships between pressure ulcer risk potential, nursing interventions, and pressure ulcer presence*. Unpublished PhD, Texas Woman's University.

Promovost, P., Berenholtz, S. M., Dorman, T., Lipsett, P. A., Simmoknds, T., & Har, C. (2003). Improving communication in the ICU using daily goals. *Journal of Critical care, 18*(2), 71-75.

Quality Directorate MOH. (2004). Quality Assurance in the Jordan Primary Health Care System: Best practices (No. 287-c-00-99-00059-00): Primary Health Care Initiatives Project. Amman.

Queensland Health. (2007). Pressure ulcer prevention and management guideline. Retrieved 30-07, 2009, from http://www.health.qld.gov.au/patientsafety/pupp/documents/pup_spinal.pdf

Qureshi, N. S., & Swamy, N. N. (2008). Postgraduate trainees' assessment of the educational value of ward rounds in obstetrics and gynaecology. *Journal of Obstetrics & Gynaecology, 28*(7), 671-675.

Radnor, H. A. (2001). *Researching your professional practice : doing interpretive research* Buckingham ; Phildelphia, Pa.: Open University.

Ramos-e-Silva, M., & Ribeiro de Castro, M. C. (2002). New Dressings, Including tissue-Engineered Living Skin. *Clinics in Dermatology, 20*, 715-723.

Ratliff, C. R. (2005). WOCN's evidence-based pressure ulcer guideline. *Advances in Skin & Wound Care, 18*(4), 204-208.

Raven, J., & Rix, P. (1999). Managing the unmanageable: risk assessment and risk management in contemporary professional practice. *Journal of Nursing Management, 7*(4), 201-206.

Reason, J. (2000). Human error: Models and management. *British Medical Journal, 320*(7237), 678-770.

Reason, J. T. (1990). *Human error*. New York: Cambridge University Press.

Reason, J. T. (1997). *Managing the Risks of Organizational Accidents*. Aldershot: Ashgate.

Reddy, M., Sudeep, G., & Rochon, P. (2006). Preventing Pressure Ulcers: Asystematic Review. *JAMA, 296*(8), 974-984.

Registered Nurses' Association of Ontario. (2005). Nursing Best Practice Guideline: Risk Assessment and prevention of Pressure Ulcers. Retrieved 10/01, 2009, from http://www.rnao.org/Storage/12/638_BPG_Pressure_Ulcers_v2.pdf

Rivers, P. A., Woodard, B., & Munchus, G. (1997). Organisational power and conflict regarding the hospital-physician relationship: symbolic or substantive? *Health Services Management Research: An Official Journal Of The Association Of University Programs In Health Administration / HSMC, AUPHA, 10*(2), 91-106.

Robbins, S. P., & DeCenzo, D. A. (2008). *Fundamentals of management : essential concepts and applications* (4th ed.). Upper Saddle River: Pearson/Prentice Hall.

Robbins, S. P., Millett, B., Cacioppe, R., & Waters-Marsh, T. (1998). *Organisational behaviour : leading and managing in Australia and New Zealand* (2nd ed.). Sydney: Prentice Hall.

Rosswurm, M. A., & Larrabee, J. H. (1999). A model for change to evidence-based practice. *Image: Journal of nursing scholarship, 31*(4), 317-322.

Runciman, B., Merry, A., & Walton, M. (2007). *Safety and ethics in healthcare: a guide to getting it right*. Aldershot, Hants, England: Ashgate.

Runciman, W., Hibbert, P., Thomson, R., Van Der Schaaf, T., Sherman, H., & Lewalle, P. (2009). Towards an International Classification for Patient Safety: key concepts and terms. *International Journal for Quality in Health Care, 21*(1), 18-26.

Runciman, W. B., & Moller, J. (2001). *Iatrogenic Injury in Australia*. Canberra: Commonwealth Department of Health and Aged Care.

Russell, T., & Logsdon, A. (2003). Pressure ulcers and lateral rotation beds: a case study. *Journal of Wound, Ostomy, & Continence Nursing, 30*(3), 143-145.

Rycroft-Malone, J. (2001). Pressure Ulcers: Risk assessment and prevention. *Practice Nurse, 21*(3), 46.

Scally, G., & Donaldson, L. J. (1998). Clinical governance and the drive for quality improvement in the new NHS in England. *British Medical Journal, 317*, 61-65.

Schoessler, M. T., Aneshansley, P., Baffaro, C., Castellano, T., Goins, L., Largaespada, E., et al. (2008). The performance appraisal as a developmental tool. *Journal for Nurses in Staff Development - JNSD, 24*(3), E12-18.

Schoonhoven, L., Haalboom, J. R. E., Bousema, M. T., Algra, A., Grobbee, D. E., Grypdonck, M. H., et al. (2002). Prospective cohort study of routine use of risk assessment scales for prediction of pressure ulcers. *BMJ, 325*(7368), 797-800.

Seo, M., Tamura, K., Morioka, E., & Shijo, H. (2000). Impact of medical round on patients' and residents' perceptions at a university hospital in Japan. *Medical Education, 34*(5), 409-411.

Sexton, J. B., Thomas, E. J., & Helmreich, R. L. (2000). Error, stress, and teamwork in medicine and aviation: cross sectional surveys. *BMJ, 320*(7237), 745-749.

Sharp, C. A., & McLaws, M.-L. (2005). A discourse on pressure ulcer physiology: the implications of repositioning and staging: World Wide Wounds. *Journal*. Retrieved from www.worldwidewounds.com

Shekelle, P. G., Ortiz, E., Rhodes, S., Morton, S. C., Eccles, M. P., Grimshaw, J. M., et al. (2001). Validity of the Agency for Healthcare Research and Quality clinical practice guidelines: how quickly do guidelines become outdated? *JAMA: Journal of the American Medical Association, 286*(12), 1461-1467.

Sherman, H., Castro, G., Fletcher, M., Hatlie, M., Hibbert, P., Jakob, R., et al. (2009). Towards an International Classification for Patient Safety: the conceptual framework. *International Journal for Quality in Health Care, 21*(1), 2-8.

Shukri, R. (2005). The status of nursing in the Arab world. *Ethnicity and Disease, 15*(Winter), S1-88-89.

Simpson, A., Bowers, K., & Weir-Hughes, D. (1996). *Pressure Sore Prevention* (2nd ed.). London: Whurr Publishers Ltd.

Sinclair, A. (1997). After Excellence: Models of Organisational Culture for the Public Sector. In M. Considine & M. Painter (Eds.), *Managerialism: the great debate*. Melbourne: Melbourne University Press.

Snelgrove, S., & Hughes, D. (2000). Interprofessional relations between doctors and nurses: perspectives from South Wales. *Journal of Advanced Nursing, 31*(3), 661-667.

Sorensen, R. (2004). *Report of the evaluation of the quality management in Cancer Services Program in WSAHS and WAHS*. Sydney: NSW Cancer Council.

Sorensen, R., Lloyd, A., Van Kemenade, C., & Harnett, P. R. (2005). Managing quality in Cancer Services: why improvement isn't easy. *Australian Health Review, 29*(4), 406-416.

Sorensen, R., Maxwell, S., Coyle, B., Zhang, K., & Patterson, K. (2001). *Improving patient care: A clinician self-assessment Package on the organisation and management of clinical care part 3*. Sydney: Centre for Clinical Government Research, University of New South Wales.

Sorensen, R., Maxwell, S., Coyle, B., Zhang, K., Patterson, K., & Degeling, P. (2001). *Systematising care in Elective Caesarean Section-controlling costs or quality? Report of a project to develop a tool to assess the extent to which clinical work for a nominated clinical process is pathwayed part 1*. Sydney: Centre for Clinical Government Research, University of New South Wales.

Spence, D. G., & Wood, E. E. (2007). Registered nurse participation in performance appraisal interviews. *Journal of Professional Nursing, 23*(1), 55-59.

Spilsbury, K., Nelson, A., Cullum, N., Iglesias, C., Nixon, J., & Mason, S. (2007). Pressure ulcers and their treatment and effects on quality of life: hospital inpatient perspectives. *Journal of Advanced Nursing, 57*(5), 494-504.

Stake, R. E. (2000). Case Studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Handbook of Qualitative Research* (2nd ed., pp. 435-454). Thousand Oaks: Calif : Sage Publications.

Stein-Parbury, J. (2005). *Patient and person: interpersonal skills in nursing* (3rd ed.). Sydney: Elsevier

Stewart, R. (2003). *Evidence-based management: A practical guide for health professionals*. Melbourne: Ausmed Publication.

Sultan, F. (1998). *Nursing in Jordan: Start, development and aspirations* (1st ed.). Amman-Jordan: Alnjma Press Co.

Surgenor, S. D., Bilike, G. T., & Corwin, H. W. (2003). Teamwork and collaboration in critical care; Lessons from the cockpit. *Critical Care Medicine, 31*(3), 992-993.

Tap, H., & Schut, F. (1987). Escaping from the dual organization: physician self-governance. *International Journal of Health Planning and Management, 2*, 229-242.

Taylor, G. (2002). Clinical governance and the development of a new professionalism in Medicine: Educational implications. *Education for Health, 15*(1), 65-70.

The Centre for Administrative Innovation in the Euro-Mediterranean Region (CAIMED). (2004). Jordan profile. Retrieved 8-12, 2004, from http://www.caimed.org/newsletters

The Joanna Briggs Institute. (2008a). Pressure ulcers-management of pressure related tissue damage. *Best Practice, 12*(3), 1-4.

The Joanna Briggs Institute. (2008b). Pressure ulcers-prevention of pressure related damage. *Best Practice, 12*(2), 1-4.

The World Bank. (1996). *Hashemite Kingdom of Jordan Health Sector Study* (No. 154-18-JO): Jordan Health Sector, Human Resources Division.

The World Bank. (2004). Jordan: country Brief. Retrieved 8 -12, 2004, from http://worldbank.org/mna/mena/countries/Jordan

The World Bank. (2006). World Development Indicators: Health expenditure, services and use. Retrieved 15-3, 2007, from http://devedata.worldbank.org/wdi2006/contents/section2.htm

Thomas-Hess, C. (1992). Pressure ulcers: current treatment trends. *Nursing Homes, 41*(5), 37-40.

Thomas-Hess, C. (1993). Pressure Ulcers: keys to prevention. *Nursing Homes, 42*(4), 31-33.

Thomas, McColl, E., Cullum, N., Rousseau, N., & Soutter, J. (1999). Clinical guidelines in nursing, midwifery and the therapies: a systematic review. *Journal of Advanced Nursing, 30*(1), 40-50.

Thomas, D. R. (2001). Prevention and Treatment of pressure ulcers: What works?What doesn't? *Cleveland Clinic Journal of Medicine, 68*(8), 704-722.

Thomas, G. W., Rael, L. T., Bar-Or, R., Shimonkevitz, R., Mains, C. W., Slone, D. S., et al. (2009). Mechanisms of delayed wound healing by commonly used antiseptics. *Journal of Trauma, 66*(1), 82-91.

Tolson, D., McAloon, M., Hotchkiss, R., & Schofield, I. (2005). Progressing evidence-based practice: an effective nursing model? *Journal of Advanced Nursing, 50*(2), 124-133.

Tourish, D., & Mulholland, J. (1997). Communication between nurses and nurse managers: a case study from an NHS Trust. *Journal of Nursing Management, 5*(1), 25-36.

Trealease, C. C. (1988). Developing Standards for wound care. *Ostomy/Wound Management, 20*, 45-56.

Turner, R., & Hartley, R. (1998). Status of total quality management in Australian public health organisations. *Australian Health review, 21*(1), 77-87.

Twigg, D., & Duffield, C. (2009). A review of workload measures: A context for a new staffing methodology in Western Australia. *International Journal of Nursing Studies, 46*(1), 132-140.

Tzeng, H.-M., & Yin, C.-Y. (2007a). No safety, no quality: synthesis of research on hospital and patient safety (1996-2007). *Journal of Nursing Care Quality, 22*(4), 299-306.

Tzeng, H.-M., & Yin, C.-Y. (2007b). Using family visitors, sitters, or volunteers to prevent inpatient falls. *Journal of Nursing Administration, 37*(7-8), 329-334.

U.S National Pressure Ulcer Advisory Panel (NPUAP). (1992). *Pressure Ulcers in adults: prediction and prevention. Clinical practice guidelines 3*, Rockville.

Ulusoy, H., Smith, L. N., & Knill-Jones, R. P. (1996). The role of nurses in management within the national health services in Scotland. *Journal of Nursing Management, 4*(2), 103-113.

Van den Bosh, T., Montoye, C., Satwicz, M., Durkee-Leonard, K., & Boylan-Lewis, B. (1996). Predictive validity of the Braden scale and nurse perception in identifying pressure ulcer risk. *Applied Nursing Research, 9*(2), 80-86.

Vangilder, C., Macfarlane, G. D., & Meyer, S. (2008). Results of nine international pressure ulcer prevalence surveys: 1989 to 2005. *Ostomy Wound Management, 54*(2), 40-54.

Vap, & Dunaye. (2000). Pressure ulcer risk assessment in long-term care nursing. *Journal of Gerontological Nursing, 26*(6), 37.

Walsgrove, H., & Fulbrook, P. (2005). Advancing the clinical perspective: a practice development project to develop the nurse practitioner role in an acute hospital trust. *Journal of Clinical Nursing, 14*(4), 444-455.

Wann-Hansson, C., Hagell, P., & Willman, A. (2008). Risk factors and prevention among patients with hospital-acquired and pre-existing pressure ulcers in an acute care hospital. *Journal of Clinical Nursing, 17*(13), 1718-1727.

Watts, D., Abrahams, E., MacMillan, C., & Sanat, j. ,et al. (1998). Insult after injury: Pressure ulcers in trauma patients. *Orthopaedic Nursing, 17*(4), 84-91.

Webster, J. (1999). Practitioner-centred research: an evaluation of the implementation of the bedside hand-over. *Journal of Advanced Nursing, 30*(6), 1375-1382.

Weinstein, L. (2006). A multifacited approach to improve patient safety, prevent medical errors and resolve the professional liability crisis. *American Journal of Obstetrics & Gynecology, 194*(4), 1160-1165; discussion 1165-1167.

Weller, C., & Sussman, G. (2006). Wound Dressings Update. *Journal of Pharmacy Practice and Research 36*(4).

Wendt, D. A., & Vale, D. J. (2003). Managing quality and risk. In P. S. Yoder-Wise (Ed.), *Leading and managing in nursing* (3rd ed., pp. 173-191). St.Louis.

White, R., Cutting, K., & Kingsley, A. (2006). Topical antimircobials in the control of wound bioburden. *Ostomy/Wound Management, 52,* 26-58.

Whittington, K., Moore, R., Wilson, W., Patrick, M., Briones, R., & Wight, D. (1999). Managing pressure ulcers: A multisite CQI challenge. *Nursing Management, 30*(10), 27-30.

Whittington, K., Patrick, M., & Roberts, J. L. (2000). A national study of pressure ulcer prevalence and incidence in acute care hospitals. *Journal of WOCN, 27*(4), 209-215.

WHO. (2003). *Country Cooperation Strategy for WHO and Jordan 2003-2007* (No. WHO-EM/ARD/004/E/L/10.03/200). Cairo: World Health Organisation, Regional Office for the Western Mediterranean.

WHO. (2006). Country profiles: Jordan. Retrieved 5-03, 2009, from
http://www.emro.who.int/emrinfo/index.asp?Ctry=jor

WHO. (2009). Health indicators. Retrieved 13-01, 2009, from http:
//www.who.int/whosis/indicators/copendium/2008/3hwo

WHO, & MOH. (2005). *Health in Jordan: An outline of the current situation and the
main challenges facing health deveopment in Jordan.*

WHO EMRO Jordan Representative office. (2002). Health indicators. Retrieved 8-6,
2005

Wilborn, D., Halfens, R., & Dassen, T. (2006). Pressure ulcer: Prevention protocols and
prevalence. *Journal of Evaluation in Clinical Practice, 12*(6), 630-638.

Williams, A. J. (1998). Managing change in the nursing handover. *Nursing Standard,
12*(18), 39-42.

Wilson, L., & Fulton, M. (2000). Risk management: how doctors, hospitals and MDOs
can limit the costs of malpractice litigation. *Medical Journal of Australia,
172*(77-80).

Wilson, L., & Goldschmidt, P. (1995). *Quality Management in Health Care*. Roseville,
NSW, Australia: McGraw-Hill Book Company Australia Pty Limited.

Wilson, R., Runciman, W. B., Gibberd, R. W., Harrison, B., Newby, L., & Hamilton, J.
(1995). The Quality in Australian Health Care Study. *The Medical Journal of
Australia, 163*(9), 458-471.

Wise, S. (2006). Undermining the ratios: nurses under pressure in Victoria in 2006.
Sydney: University of Sydney.

Woods, D., & Cook, R. I. (2002). Nine steps to move forward from error. Cognitive
Technology and Work. *4*(2), 137-144.

Woolf, S. H., Grol, A., Hutchinson, M., Eccles, J., & Grimshaw, R. (1999). Clinical
guidelines: Potential benefits, limitations, and harm of clinical guidelines.
British Medical Journal, 318(20 Feb), 527-530.

World Alliance For Patient Safety Drafting, G., Sherman, H., Castro, G., Fletcher, M.,
World Alliance for Patient, S., Hatlie, M., et al. (2009). Towards an
International Classification for Patient Safety: the conceptual framework.
International Journal for Quality in Health Care, 21(1), 2-8.

World Health Organization. (2007). Patient Safety Performance Measurement Manual:
Health Care Delivery Unit. Retrieved 25-07, 2009, from

http://www.who.int/gpsc/events/2008/EMRO_Draft_Patient_Safety_Performanc
e_Measurement_Manual.pdf

Wright, J., Smith, M. L., & Jackson, D. R. H. (1999). Opinion Clinical governance: principles into practice. *Journal of Management in Medicine,, 13*(6), 457-465.

Yin, R. K. (2002). *Case Study Research: Design and Methods* (3rd ed.). Thousand Oaks: Calif : Sage Publication.

Zajac, J. (2003). The public hospital of the future. *Medical Journal of Australia, 179*(5), 250-252.

Zulkowski, K. M. (1998). *Minimum data set pressure ulcers (MDS+) items associated with pressure ulcer prevalence in newly institutionalized elderly.* Unpublished Doctor of Nursing Services Thesis.