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Research paper

Designing a standardised emergency nurse career pathway for use across rural, regional and metropolitan New South Wales, Australia: A consensus process☆

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ABSTRACT

Background: Emergency nurses are the first clinicians to see patients in the ED; their practice is fundamental to patient safety. To reduce clinical variation and increase the safety and quality of emergency nursing care, we developed a standardised consensus-based emergency nurse career pathway for use across Australian rural, regional, and metropolitan New South Wales (NSW) emergency departments.
Methods: An analysis of career pathways from six health services, the College for Emergency Nursing Australasia, and NSW Ministry of Health was conducted. Using a consensus process, a 15-member expert panel developed the pathway and determined the education needs for pathway progression over six face-to-face meetings from May to August 2023.
Results: An eight-step pathway outlining nurse progression through models of care related to different ED clinical areas with a minimum 172 h protected face-to-face and 8 h online education is required to progress from novice to expert. Progression corresponds with increasing levels of complexity, decision making and clinical skills, aligned with Benner's novice to expert theory.
Conclusion: A standardised career pathway with minimum 180 h would enable a consistent approach to emergency nursing training and enable nurses to work to their full scope of practice. This will facilitate transferability of emergency nursing skills across jurisdictions.

Introduction

Emergency nursing is a unique specialty [1]. Emergency nurses are responsible for the initial and ongoing assessment, management, and safety of undifferentiated patients of all ages, with varying

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degrees of clinical urgency and severity. They must make clinical decisions and deliver complex care under conditions of uncertainty in a stressful, time-pressured, often overcrowded environment [1]. In 2021–22, Australia's 292 hospital emergency departments (ED) treated > 8.8 million patients, or 24,000 patients per day, who waited longer than ever to be seen [2]. Emergency nurses work within a team of healthcare professionals in the emergency department, however, only 58% of urgent (triage category 3) patients are seen by a medical officer within the recommended timeframe [2], and are solely in the care of the emergency nurse until seen by a medical officer.

Patient safety is contingent on the nurses' accurate history, assessment, interpretation of clinical data, appropriate intervention and escalation of care [3]. Further, convergence of knowledge and critical thinking skills that enable assessment, treatment and evaluation must be balanced with accuracy, speed, capacity to troubleshoot and prioritise assessments and interventions for and between patients [4]. However, the best way to develop capacity and capability of the emergency nursing workforce, that translates across work environments (low, middle and high resource / remote, rural and metropolitan), is poorly understood.

Emergency nursing was established as a specialty area of practice in Australia in 1985 [1], however there is no standardised emergency nurse career pathway [5]. Further, the ways in which knowledge development and learning are scaffolded to emergency nursing experience is largely ad hoc and locally specific. Traditionally, emergency nurse career pathways are limited to individual, local settings such as single hospital level or hospital cluster level with various course options to support development of skills, knowledge and expertise. Lack of standardisation can lead to variations in patient care, nursing practice, and the ability for emergency nurses to transfer their skills between hospitals. It also results in nurses having to duplicate aspects of training and assessments.

Several frameworks and standards inform emergency nursing practice in Australia. The Nursing and Midwifery Board of Australia (NMBA) has established standards of practice that apply to degree prepared registered nurses and midwives and diploma prepared enrolled nurses (who work under the supervision of registered nurses) with a focus on safety of practice [6]. The College of Emergency Nursing Australasia (CENA) Emergency Nursing Specialist Standards build on the NMBA registered nurse practice standards to provide specialist practice and performance guidelines [7]. The CENA Emergency Nursing Specialist Standards cover nine domains: clinical expertise, communication, teamwork, resources and environment, professional development, leadership, lawful practice, professional ethics and research and quality improvement [7]. These standards do not specify learning outcomes in the same way as a training package, nor do they match the way nurses themselves describe their work.

In 2023, the NSW Government released the NSW Health Emergency Nursing Capability Framework [8] to support the professional development of emergency nurses. How these standards and frameworks from NMBA, CENA and NSW Health are operationalised to support career progression of emergency nurses is also unknown, ad hoc, and largely hospital dependent. To improve emergency nurse development, a standardised structure is needed. Greater consistency of practice to reduce variation of care will improve healthcare accessibility and equity for patients [1].

During foundational work for a multi-centre step wedge cluster randomised control trial it became apparent that there was variability in emergency nurse professional development, education and career pathways between EDs. The study is the Emergency nurse Protocol Initiated Care – Sydney Triage to Admission Risk Tool (EPIC-START) (ACTRN registration: ACTRN12622001480774, ethics approval number 2022/ETHO1940) [9]. The aim of EPIC-START is to improve patient outcomes through earlier decisions, delivery of care, and detection of clinical deterioration by front-line nurses and requires emergency nurses to use a series of nurse-initiated care protocols [10]. There are 73 evidence-based, standardised, nurse-initiated care protocols called ECATs (Emergency Care Assessment and Treatment) to enable timely delivery of fundamental initial care such as pain relief, antibiotics, pathology and radiology if a medical officer is not immediately available [11].

The ECAT protocols were developed and piloted in the Illawarra Shoalhaven Local Health District (as EPICs) then refined by the NSW Agency for Clinical Innovation for state-wide implementation, supported by an overarching NSW Health policy [10]. The variability identified in emergency nurse training and career pathways challenged the EPIC-START implementation fidelity, that is, the extent to which an intervention is delivered as intended [12,13]. Differences in delivery can impact the effects of an intervention between sites and compromise the internal and external validity of implementation [13]This paper describes the development of an emergency nurse career pathway, including hours of training required, training materials and processes for use, across 35 rural, regional and metropolitan EDs in New South Wales, Australia.

Material and methods

This consensus study was conducted in three stages. First, an analysis of career pathways from six health services to develop a draft career pathway. Second, a consensus panel was used to refine the pathway, and third, a document analysis and consensus process were conducted to determine the overarching education needs and evaluation methods to support the pathway. The expert panel of clinicians, educators, researchers, consultants, and academics met face-to-face over six days within five months from May to August 2023. Sub-groups worked on specific aspects of the education materials between each face-to-face workshop.

Study sites

Existing training materials were obtained from six local health districts (LHD) in New South Wales, the most populous Australian State. There were 35 EDs or multipurpose services in the sites, with 1600 + emergency nurses managing nearly 1 million emergency presentations annually. The EDs represent a range of geographically and clinically diverse settings, from large metropolitan teaching hospitals to rural services without medical doctors onsite (Table 1).

Consensus panel experts

The panel consisted of expert practising emergency nurses (with an understanding of current, real-world clinical needs), higher education emergency nursing experts with varying degrees of clinical responsibilities (to provide pedagogical expertise), and emergency nurses who would be required to administer the career pathway (for example, clinical nurse educators) [14]. The inclusion criteria for the expert panel were:

i) nursing members of the EPIC-START investigation team (either as a Chief Investigator or Associate Investigator), thus with peer-reviewed expertise in emergency nursing, pedagogy, education and training, research and clinical governance, or.

ii) emergency nurse leaders with at least five years of emergency experience; and.

iii) holding (or had recently held) a leadership position, such as Clinical Nurse Consultant, Clinical Nurse Educator or Nursing Unit Manager in an NSW ED.

Convenience and snowball sampling was used to assist with recruitment. Participants were invited to participate during an EPIC-

Table 1
Sites, ED patient presentations, admissions, nursing staff.

Local Health Districts	Number of EDs	ED patients per year	Admissions via ED per year	ED Nurse staffing	Description of LHD
Illawarra Shoalhaven	4	169,465	47,320	414	Spans 2816 km^2, 750,000 + residents
Northern NSW	12	213,307	40,539	430	Spans 20,732 km^2, 350,000 + residents
Western Sydney	4	202,516	67,975	280	Spans 780 km^2, 946,000 + residents
Southern NSW	10	116,836	17,065	180	Spans 44,534 km^2, 210,000 + residents
Sydney	4	176,474	54,091	305	Spans 126 km^2, 740,000 + residents
St Vincents Sydney	1	55,000	19,250	90	Inner city adult-only tertiary referral
Total	35	933,598	246,240	1699	Range of remote, rural, regional and metropolitan EDs

Abbreviations – ED – Emergency department, LHD – Local health district, NSW – New South Wales,

START investigator meeting or through personal invitation following consultation with the EPIC-START Chief Investigators in recognition of their track record in emergency nursing education. The final panel consisted of 15 clinical, academic, and educational experts with a collective 367 years of emergency nursing experience (Table 2).

Stage 1: Document analysis, April 2023

An exploratory, descriptive approach was used to conduct the document analysis. All emergency nurse career pathways and training materials were collected from all six sites and collated before the first face-to-face workshop guided by a priori themes: career pathway, training materials (courses), and evaluation or assessment processes. Materials were mapped using Excel (esupp 1) and then drafted into a career pathway (esupp 2) (SK, JC). The career pathway progression was structured according to Benner's [15] novice to expert model to facilitate scaffolding of learning and expertise. The career pathway was mapped against the CENA Practice Standards [7], Registered Nurse Standards for Practice [6], the NMBA Decision Making Framework [16], and the proposed scope of practice within the soon to be released NSW wide nurse initiated care protocols (ECATs) [17]. Practical consideration was given to the ED models of care in the areas where staff are required to work (for example, the skill-mix of staff). These specifically designed work areas of the ED models of care are characterised by increased patient acuity and case complexity and reflect rostering and daily staff allocation location. The career pathway also reflected the trajectory of different roles, knowledge, skills, industry courses, and higher education. Roles beyond the clinical expert, such as clinical manager and clinical nurse educator, were not in the scope of this process.

Stage 2: consensus process - expert panel May – July 2023

The consensus process used in this study was nominal group technique (also known as the expert panel) [14]which is a structured method of generating and prioritising ideas with the aim of achieving consensus. The aim of consensus methods is to determine the extent to which experts agree about a given issue [18], in this study – the emergency nurse career pathway. Consensus methods provide a means of synthesising information where published information is inadequate and provide a means of harnessing the insights of appropriate experts to enable decisions to be made. In preparation for the face-to-face workshop, the expert panel was given the results of the document analysis and working career pathway (esupp 2). The panel were also sent the CENA standards mapping document, the planned ECAT protocol list, and the Australian Nursing and Midwifery Board Registered Nurse Standards for Practice (2016). A series of questions related to an emergency nurse career pathway was distributed with the workshop agenda (Table 3). The intent was to obtain 100% consensus. A priori consensus of 100% was important to optimise and standardise emergency nurses' ability to work across NSW.

An iterative process at a structured face-to-face workshop was facilitated by an emergency nursing clinical, research and educational expert [14]. At the workshop, the draft career pathway was presented to the group. Each panel member was given the opportunity to respond to the questions that were distributed beforehand. Every panel member had a voice – the opportunity to comment, critique, and debate the draft career pathway. The responses to the questions were then summarised, and the group were again given the opportunity to respond. Once this information had been shared with the panel the group worked to reach 100% consensus on the emergency nurse career pathway recommendations and associated learning elements (see stage 3). Contextual differences for the sites were represented, with group consensus. Following the first workshop, the revised career pathway diagram was circulated to the panel for reflection and feedback from their respective EDs. The intent was to reconvene, discuss feedback and reach consensus at a second face-to-face workshop. Minor changes to the career pathway were made, and a final iteration determined before progressing to Stage 3.

Stage 3: Training materials consensus process July - August 2023

Once consensus on the emergency nurse career pathway was achieved, a second document analysis and consensus process were undertaken to determine the training required to progress safely along the career pathway. This process considered the data collated from local pathways in stage 1, NMBA Decision Making Framework and educational principles including backwards design [19]. The courses an emergency nurse requires to successfully complete to progress through each level of the career pathway were generated by considering the needs and existing resources from participating sites. The curricula of each course were revised to incorporate the principles of constructive alignment and backward design using a consistent template. The pre-requisite knowledge and assessment the nurse must complete prior to progressing to the next stage of learning was included.

Once the intended learning outcomes for each course were developed, the following aspects of education were considered: content (what is to be delivered); provider (who is to deliver it); format (how is it to be delivered); setting (where is it to be delivered); recipient (to whom is it to be delivered); intensity (over how many sessions is it to be delivered) and duration (over what period of time) [20]. As not all modes of delivery may be feasible or appropriate to deliver in different ED service contexts, the APEASE criteria (**A**ffordability, **P**racticability, **E**ffectiveness and cost-effectiveness, **A**cceptability, **S**ide-effects/safety and **E**quity) were used to guide judgements regarding which would likely be most successful [21]. For example, the format of delivery was decided on feedback from preliminary data from four LHDs and 670 nurses asking *'what is the best ways for you to learn something new'* indicated that nurses preferred face-to-face education (93.4%), and hands on practice (91.1%) compared to other methods such as online learning (37.1%)

Table 2
Description of emergency nurse career pathway consensus panel members.

Panel member	ED years	Professional experience	Rural/Regional	Metro experience
1	18	Active researcher in implementation and evaluation of emergency nursing evidence and practice. Front-line emergency nurse, 10 years in higher education	No	Current
2	33	Ten years as a practicing emergency nursing clinical educator, 15 years in emergency nursing higher education. Active researcher with leadership roles in local, State and National emergency care bodies. Expertise in design, implementation and evaluation of emergency nursing education programs, and curricula design and development.	Previous	Current
3	30	Current front-line practising emergency nurse. Active researcher with leadership roles in local, State and National emergency care bodies. Contributes significantly to mentorship and teaching of junior clinicians in development of their bedside clinical practice. Regularly conducts interprofessional teaching, program / curriculum development for academic and clinical settings	Current	Previous
4	24	Current front-line practicing Paediatric emergency CNC across regional and rural EDs. Contributes to mentorships of staff and ED CNEs across the LHD. Leadership for paediatrics with NSW EDs, chair of the Metropolitan group.	Current	Previous
5	28	Research officer for implementing change in NSW EDs. Previously held nurse management position responsible for governance and evidence-based care in NSW EDs. Experience in higher education. Mentoring ED clinicians in research capacity and capability.	Current	Previous
6	28	Front-line practicing Emergency Nurse. Previously 10 years as ICU and ED CNE. Currently ED and Trauma CNC for 10 rural and regional ED's. Regularly conducts interprofessional trauma workshops and teaching First Line Emergency Care Course.	Current	Previous
7	23	Front-line practicing emergency nurse. Holds ED and ED Research CNC positions in a metropolitan ED. Contributes to professional development and education of nursing staff and regularly teaches in external nursing and medical organisations.	No	Current
8	28	Front-line practicing emergency nurse. Holds ED and Research CNC positions. Contributes to professional development and education of nursing staff and regularly teaches in clinical, academic and external settings. Provides mentorship and teaching of junior clinicians.	No	Current
9	36	Front-line emergency nurse. Holds ED CNC in a metropolitan ED. Current work spans clinical, teaching, research and policy development.	No	Current
10	19	Front-line practising emergency nurse in rural setting, 5 years as CNE. Contributes significantly to mentorship and teaching of junior clinicians in development of their bedside clinical practice.	Current	Previous
11	31	Emergency research project manager and emergency nurse specialist in large regional ED 16 years and 15 years in emergency education and leadership roles.	Current	No
12	32	Active emergency researcher, previous clinical nurse consultant positions in large trauma centre EDs. Provides mentorship for emergency clinicians and regularly conducts interprofessional academic and clinical teaching	No	Current
13	22	Active emergency researcher and practising clinician with expertise in health protection. Research, academic and career mentor for emergency clinicians across the spectrum in emergency care. Active leadership roles in local, state and national emergency care agencies	No	Current
14	10	A/Emergency Nurse Educator for District, Emergency CNE. Contributes development of content, training and mentorship for Clinical nurse educator group and nurses in front-line Emergency nursing	Current	Previous
15	5	Emergency CNE and front-line practising emergency nurse. Contributes to mentorship and teaching of junior ED clinicians.	Current	Previous
TOTAL	**367 years**			

CNE - clinical nurse educator, ED – emergency department, CNC – clinical nurse consultant, ICU – intensive care unit, NSW – New South Wales

Table 3
Questions to inform the consensus process for development of an emergency nurse career pathway.

1. How do you think we can get emergency nurses from Novice to Expert?
2. What do we as emergency nurses want as a discipline?
3. What do you want to get out of the session today?
4. How does (reference document, such as the CENA standards mapping document) apply with the pathway? Does it change anything?
5. Do you agree that the approach taken is correct? Is there anything missing?
6. What skills & knowledge do nurses need at each level (novice to expert)?
7. How / where do they currently get those skills /that knowledge?
8. Where could / should they get those skills / that knowledge?
9. What is the role of assessment? What is currently assessed in existing programs?
10. Based on presented theories, which should be used to guide the process?

CENA – College of emergency nurses Australasia

[22]. Finally, the expert panel agreed on a process for nurses to demonstrate their competence at each stage of pathway, as well as to set standards for the assessment of this competence. Assessment tools were developed from existing processes at each site, the Bondy rating scale [23] and the Australian Nursing and Midwifery Council (ANMAC) Continuing Competency Framework [24]. Monitoring progression will be managed through a standardised online database embedded in existing platforms, and it was acknowledged that a recognition of prior learning matrix would be required.

Results

Seven career pathways and 22 training courses were obtained from the six study sites. The panel took 12 rounds to reach 100% consensus on the emergency nurse career pathway (Fig. 1). The career pathway commences with the novice emergency nurse (acknowledging that a nurse may have nursing experience in a different speciality). The nurse completes standard hospital and mandatory training, before embarking on the emergency nursing pathway. There are no time restrictions to progression along the pathway. This will be determined by each ED and the unique needs of their ED; however, prior to progression, the nurse must complete the corresponding training.

A total of 8 courses were identified to enable nurses to build their knowledge and skills to reach expert level of practice across the six sites (Table 4). We are in the process of updating and standardising the content of these courses to enable cross jurisdictional training and transfer of learning. All members of the panel agreed on the future content of these courses and linked to stages of the career pathway. This entails 172 h face-to-face training and 8 h online training that can be delivered flexibly per departmental needs and contexts. A recognition of prior learning matrix informed by existing processes at each site and material from the NSW Ministry of Health is under development and will be incorporated when available.

Discussion

A group of emergency nursing experts representing clinical practice, education, research, management and governance reached 100% consensus on an emergency nurse career pathway for use across 35 EDs in NSW. The pathway follows Benner's novice to expert framework of skills acquisition [15] and is informed by educational pedagogy of backward design [25], constructive alignment [19], and scaffolded learning [26]. The pathway also considers pragmatic practice considerations for NSW EDs, balancing the workload of participants and facilitators. To reach expert level, the emergency nurse requires a minimum 180 h of dedicated and protected education time.

We stipulated the minimum training required for emergency nurses to have the best opportunity to increase their skills and knowledge and develop professionally. This does not include the organisational mandatory training the nurse must undertake or the time nurses need to update their skills regularly through provided and self-directed continuing education. Australian nurses are expected by the Nursing and Midwifery Board of Australia to undertake a minimum of 20 h of continuing professional development relevant to their area of practice per year [27]. We also recommend nurses undertake postgraduate study looking for opportunities for career advancement. Postgraduate study was not included in the career pathway, though discussed at length by the panel, as in NSW nurses can choose to do postgraduate study at any time in their emergency nursing career. Continuing professional development is fundamental to professionalism, lifelong learning and safe patient care. Hospitals and governing bodies should adequately fund and make continuing professional development accessible, engaging and clinically relevant [28]. Further, they need to work with university partners to better integrate the emergency nursing pathway with postgraduate qualifications.

A consistently highlighted barrier to nurse professional development is a lack of time. With the increased demand for emergency care and significant challenges with access block, there is no longer "down time" where education can take place. Trainee emergency physicians receive employer-sanctioned time to undertake a volume of learning in excess of nurses, despite the volume of crucial patient care nurses deliver daily. EDs have unique external (policies, resources) and internal (local organizational readiness, infrastructures, and workflows) [29] that influence nurse education. Strategies to achieve successful, standardised emergency nurse career progression and consistent training can be successful through mitigating the risks, barriers, and associated contextual factors, including internal and external micropolitics [30].

The expert panel was unanimous in their recommendation that formal training in the emergency nursing framework HIRAID® (**Hi**story (including infection risk), identify **R**ed flags, **A**ssessment, **I**nterventions, **D**iagnostics, communication and reassessment) be compulsory (Fig. 2) [31,32]. HIRAID® is a clinical safety system for use by emergency nurses for any patient presentation and the only validated framework that enables emergency nurses to assess and manage ED patients systematically. The use of HIRAID® results in a reduction in clinical deterioration related to emergency nursing care, improved clinical documentation, health service cost savings [33,34] and clinical handover [35]. The expert panel agreed that a firm foundation in patient assessment (including recognition of deterioration, escalation of care and effective communication) is needed to enable emergency nurses to select appropriate nurse-initiated care protocols, monitor patient care and clinical status against expected clinical trajectory, and have the confidence to escalate care as needed.

The "Transition to Emergency Nursing Practice" course is under review in NSW, anticipated to be ready in two years. While waiting for this course, a generation of emergency nurses will benefit from standardised updated training provided by the EPIC-START course developed as part of the EPIC-START research project. The EPIC-START course entails supporting emergency nurses to attain knowledge, skills and confidence to safely initiate and escalate patient care. It is purposefully designed using best available evidence regarding patient assessment, risk factors for adverse outcomes, recognising and responding to deterioration, initiating intervention and pharmacology according to protocols [36].

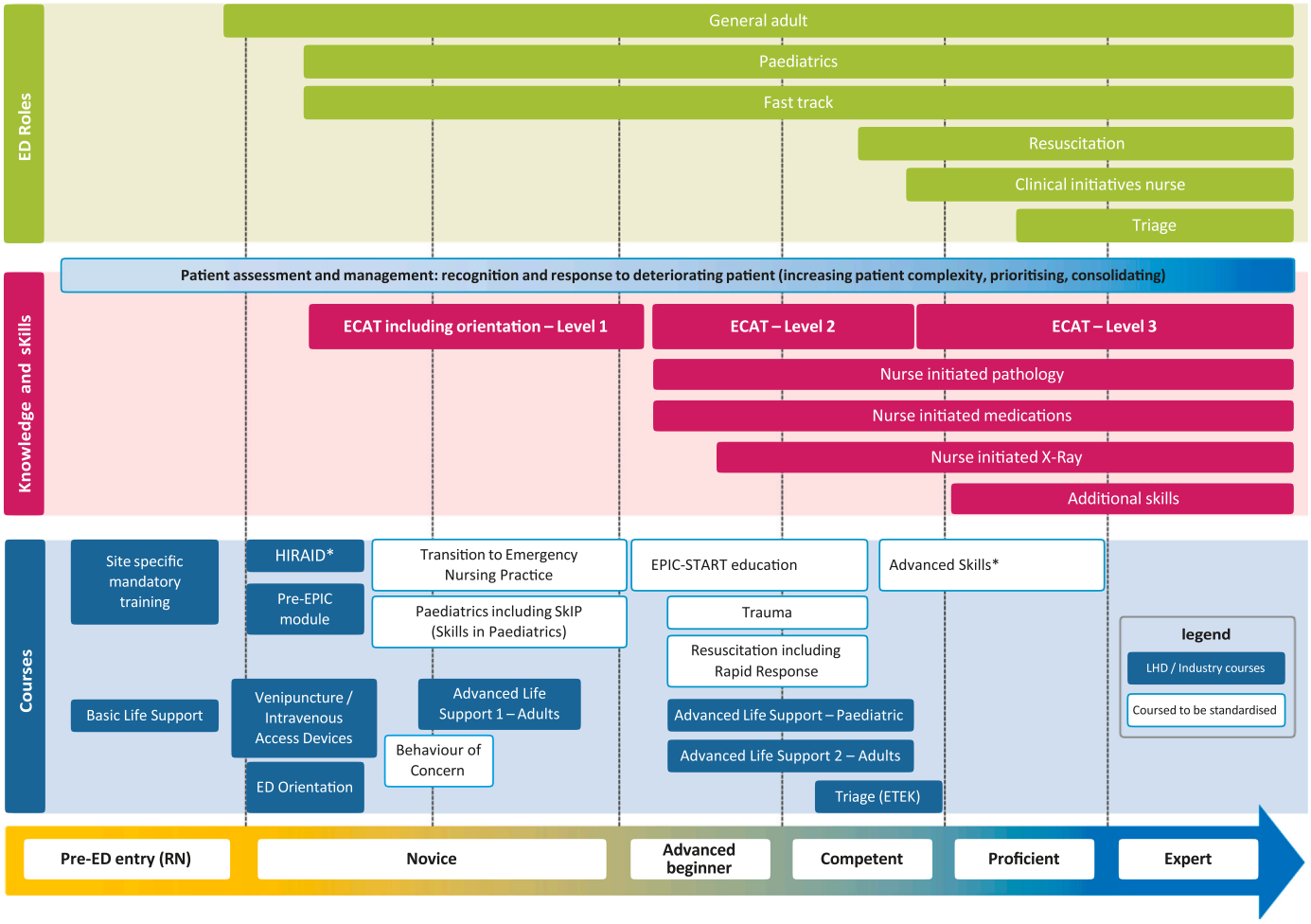

Fig. 1. Emergency nurse career pathway. ALS – Advanced Life support, ECAT - Emergency Care Assessment and Treatment. ECAT Level 1 – unshaded areas, using to enhance assessment, pick the right ECAT, component 1–4 of ECAT – History, Red Flags, Assessment, Focused assessment, ECAT Level 2 – first shading components 5 of ECAT, ECAT Level 3 – more advanced skills such as, ED – *Emergency Department, ETEK - Emergency Triage Education Kit*, HIRAID® – History, **I**dentify Red flags, Assessment, Interventions, Diagnostics, communication and reassessment link, LHD – Local Health District, RN – registered nurse, SKIP – Skills in paediatrics, *Advanced skills e.g. plastering, suturing,.

Behaviours of concern is a bespoke course run at Western Sydney LHD, however, given the increased violence experienced by emergency nurses, we recommend its inclusion. This course targeted early identification of violence risk in WSLHD EDs, and per local data improved staff and patient safety by 20%. This course was divided into management before, during and after a violent incident using de-escalation techniques, clinical leadership principles, patient communication, debriefing, minimising restraint use, video re-enactment, role-play, simulation and virtual reality [37]). In addition to familiarisation with and use of resuscitation equipment and procedures such as intubation and ventilation, the Resuscitation and Trauma courses incorporate contextualised simulated multidisciplinary training in teamwork and non-technical skills. This includes didactic instruction, communication, escalation techniques and high-fidelity simulated sessions encompassing team roles, resource management, care coordination and conflict resolution. Scenarios are followed by structured debriefing where non-technical skills such as teamwork, decision-making, leadership, care coordination and communication are the focus of the educational outcomes.

The remaining courses to support the proposed emergency nurse career pathway include some under development by State and National bodies. The Triage course is being updated at a national level, and the Advanced Life Support course is offered by core centres accredited by the Australian Resuscitation Council. The paediatric courses available across NSW are varied and have been standardised and updated with the latest available evidence through a consultation process with paediatric clinical nurse consultants across NSW.

This study has limitations. A consensus process was used as this method allowed for open discussions and participants to provide rationales for their thought process. The facilitator in the workshops was a member of the study team leading in potential bias, however this was mitigated by transparent, open discussion.

We described the process of developing an expert consensus emergency nurse career pathway and supporting education and training. The next step in validating this pathway is end-user testing, which we plan to undertake using a modified Delphi approach, including consumer groups. A standardised assessment program for assessors assessing skills in the clinical area should also be considered.

Table 4
Mapping of existing emergency nurse career progression courses at each study site.

Site	Career path	Foundational	TENP	Paediatric	Resuscitation / ALS 1 + 2[a]	Trauma	ESP	Triage (ETEK)
ISLHD	✓	ED orientation / HIRAID®	✓	✓	✓	Included in resuscitation	ACN	✓
SLHD	✓	ED orientation / HIRAID®	✓	✓	✓	✓	CIN[a]	✓
WSLHD	✓	ED orientation / HIRAID® BOC	✓	Resus4kids	✓	Included in Resuscitation Trauma team training	CIN[a]	✓
St Vincents	✓	ED orientation / HIRAID®	✓	Resus4kids	✓	Included in resuscitation	CIN[a]	✓
NNSWLHD	✓	ED orientation / HIRAID®	✓	✓ (FLECC)	✓	FLECC	✓ FLECC	✓
SNSWLHD	✓	ED orientation / HIRAID®	✓	✓(FLECC)	✓	✓	✓ FLECC / NIX	✓
Outcome	**Career path**	**ED orientation, BOC, HIRAID®**	**Await NSW wide course**	**Paediatric course (includes SKIP) + (ALS or resus 4 kids)**	**Update and standardise resus component**	**Update and standardise**	**EPIC-START education. Await new national course**	**National course in development**
Time (Face to face) – Hours	172 h	24	32	16	32	16	16 + 8[c]	16
Time online /pre-work – Hours	8	0.3 (ECAT module)	Unknown[b]	4.6	Unknown[b]	Unknown[b]	2.5	Unknown[b]

ACN – Advanced clinical nurse course, ALS – Advanced Life support, BOC – Behaviours of concern, CIN – Clinical Initiatives Nurse, FLECC – Front line emergency care TENP – Transition to emergency nursing practice, HIRAID® (History (including infection risk), identify Red flags, Assessment, Interventions, Diagnostics, communication and reassessment, SKIP – Skills in paediatrics, ISLHD – Illawarra Shoalhaven Local Health District, NNSWLHD – Northern NSW LHD, SLHD – Sydney Local Health District, SNSWLHD – Southern NSW Local Health District, WSLHD – Western Sydney Local Health District

[a] or equivalent
[b] Unknown – yet to be developed
[c] Additional skills

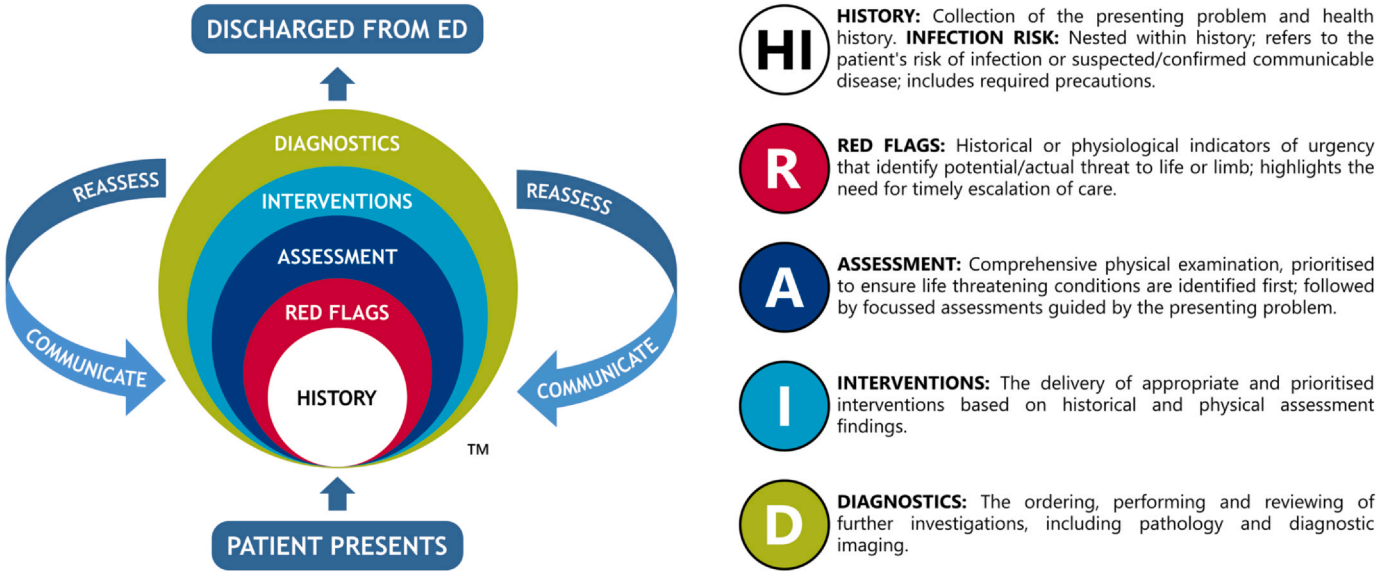

Fig. 2. HIRAID® Emergency Nursing Framework [38].

Conclusion

It was agreed through expert consensus that emergency nurses require a minimum of 180 h of protected education time to reach the highest level of clinical practice in NSW, Australia. A standardised emergency nursing career pathway could enable a consistent approach to emergency nursing education and training, enabling nurses to work to their full scope of practice and facilitate the transferability of skills across sites.

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CRediT authorship contribution statement

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Data Availability

Not applicable.

Declaration of Competing Interest

Authors KC, MM, MF, RZS, JC, SK are creators HIRAID® education materials which are the subject of an intellectual property agreement with the University of Sydney. RZS is Editor-in-Chief and JC and MF are Senior Editors of Australasian Emergency Care but none of them had any role to play in the peer review and editorial decision-making of this paper whatsoever. An independent Backspace Acting Editor-in-Chief managed this paper. Other authors have no competing interests to declare.

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Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.auec.2024.03.002.

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