the outcomes of ZRS-stratified patients in a large STEMI cohort.

Methods: A total of 829 STEMI patients who were treated with PCI and discharged from hospital, from 1 January 2014 to 31 December 2017, were studied. The ZRS was prospectively calculated for all patients. Length of stay (LOS), 30-day readmissions, MACCE (major adverse cardiac and cerebrovascular events), and mortality rates were compared between low-risk (ZRS ≤ 3) and high-risk (ZRS > 3) patient groups.

Results: The mean age was 59.6 ± 12.6 years; 79% were male. A total of 636 patients had a ZRS ≤ 3, of these 380 (60%) were discharged on day 3. Overall 30-day readmissions, MACCE, and mortality rates were 9.5%, 2.2%, and 0.6%, respectively. Low-risk patients discharged on day 3 had a lower readmission rate compared to the rest of the cohort (7.4% vs 11.4%, Chi-squared = 3.80, $p = 0.05$). There was no statistically significant difference in MACCE or mortality rates between low-risk and high-risk groups.

Conclusion: A significant proportion of ZRS low-risk patients were discharged after 3 days, this was potentially due to other contraindications. Low-risk patients discharged on day 3 did not experience worse clinical outcomes relative to the rest. The non-difference in mortality and MACCE rates may have been due to a relatively low event rate. Utilisation of the Zwolle Risk Score to facilitate early discharge appeared to be safe in this study cohort.

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0760

A Systematic Review of Successful Elements of Interventions for Heart Failure Patients With Mild Cognitive Impairment

L. Hickman[1,*], D. Parker[1], C. Ferguson[2], S. Allida[1], P. Davidson[3], M. Agar[1]

[1] *University of Technology Sydney, Sydney, Australia*
[2] *Western Sydney University & Western Sydney Local Health District, Blacktown, Australia*
[3] *Johns Hopkins University, Baltimore, USA*

Introduction: Approximately 50% of patients with heart failure (HF) demonstrate aspects of cognitive impairment. Cognitive impairment can adversely affect the patient's ability to perform self-care. Inadequate self-care is a major contributor to hospitalisation and worse outcomes. Very few strategies have been identified to improve cognitive function and help cope with self-care.

Aims: The purpose of this study was: 1) to examine the effects of these strategies on cognitive function, memory, working memory, instrumental activities of daily living (IADL), HF knowledge, self-care, quality of life and depression; and 2) to identify the successful elements of these strategies.

Methods: An electronic search of databases including CINAHL, MEDLINE, EMBASE and PsycINFO was performed in July 2017. All randomised, controlled trials that examined HF patients with mild cognitive impairment or dementia were included.

Results: The initial search yielded 1,622 citations; six studies were eligible (n = 595 participants, mean age 68 years). There was a wide variation in the quality of the studies included. No significant improvements were found in cognitive function and depression. Significant improvements were observed in memory ($p = 0.015$), working memory ($p = 0.029$), and IADL ($p = 0.006$). Nurse-based interventions enhanced the patients' HF knowledge ($p = 0.001$), improved their knowledge of self-care ($p < 0.05$), and enriched their quality of life ($p = 0.029$). Successful elements of these interventions include brain exercises (e.g. syllable stacks), individualised assessment and customised education, personalised self-care schedule development, interactive problem-solving training on scenarios, and association techniques to prompt self-care activities.

Conclusion: Nurse-based interventions improved HF knowledge, self-care and quality of life among HF patients with mild cognitive impairment.

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0761

Attitudes of Clinicians in Using Invasive Monitoring in Patients With Heart Failure

K. Koo[1,*], S. Allida[1], C. Ferguson[2], S. Inglis[1]

[1] *IMPACCT, Faculty of Health, University of Technology Sydney, Sydney, Australia*
[2] *Western Sydney Nursing & Midwifery Research Centre, Western Sydney University & Western Sydney Local Health District, Sydney, Australia*

Background: Telemonitoring provides an opportunity to alter care, so as to avoid deterioration of heart failure. Invasive monitoring is an emerging field in healthcare that has yet to be accepted and widely implemented in Australia. Apart from evidence of clinical benefit, there are directly associated barriers to clinicians and individuals that could impact the implementation of these monitoring devices.

Purpose: The survey explored the experiences and current practices by cardiovascular clinicians towards invasive telemonitoring. Implementation of invasive telemonitoring is dependent not only on the available evidence, but also on the perceptions and acceptability of these devices. Exploring the views on telemonitoring informs future research to address identified gaps in the evidence, so as to best support and manage people with heart failure, thus reduce hospitalisations, and improve quality of life and survival.

Methods: The survey contained questions related to the demographics of the survey responders, and the use of both invasive and non-invasive telemonitoring. An electronic survey was distributed to Australasian Cardiovascular Nursing College and Cardiac Society of Australia and New Zealand.

Results: The electronic survey revealed key findings on clinician views and perspectives on using invasive telemonitoring and non-invasive telemonitoring. A total of 10% of respondents used invasive telemonitoring, and a third of all the respondents were familiar with telemonitoring devices. Those who supported the use of invasive telemonitoring did

not prefer to use invasive telemonitoring over non-invasive telemonitoring.

Conclusion: By identifying barriers and addressing those barriers accordingly, heart failure management could be optimised to reduce hospitalisations, and improve quality of life and mortality.

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0762

Barriers to Timely ST-Elevation Myocardial Infarction Management as Reported by Paramedics and Triage Nurses: A Cross-Sectional Study

L. Martin[1,2,*], D. Clark[1], M. Murphy[2], D. Edvardsson[2], C. Naismith[1], O. Farouque[1], V. Lewis[2]

[1] *Austin Health, Heidelberg, Australia*
[2] *La Trobe University, Melbourne, Australia*

Introduction: Frontline clinicians are pivotal to timely ST-elevation myocardial infarction (STEMI) management, but it remains unclear what factors influence timely STEMI management. This study explored key barriers surveyed through paramedics and triage nurses.

Methods: An online survey was offered to a cross-sectional sample of paramedics and triage nurses in Victoria, Australia. The 79-item survey explored the potential influence of known barriers to timely STEMI management, such as differences in patient presentation, time of presentation, and failure of rapid systems of care at an operational level.

Results: There were 333 respondents; 88% paramedics and 12% triage nurses. There were no differences in experience by professional group (paramedics 12 ± 10 years vs nurses 12 ± 8 years; $p = 0.96$). The most commonly reported barriers were distance to hospital facilities, mobilising rapid-access services within the hospital system, and lack of access to expert advice or resources. Triage nurses treated more suspected STEMIs per month than paramedics (0.4 vs 2.5; $p < 0.001$). Paramedics reported higher rates of misclassification of the triage process for suspected STEMI patients compared to triage nurses (25% vs 10%; $p < 0.001$). Triage nurses reported higher levels of opportunity to develop electrocardiogram recognition skills (61% vs 82%; $p = 0.02$), and higher levels of access to senior staff if unsure of a STEMI diagnosis (76% vs 95%; $p < 0.001$).

Conclusion: The results indicate that access to experts and rapid access services need improvement to increase timely STEMI management, and that profession-specific barriers need further exploration. Further analysis will identify whether there are differences by geographical location.

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0763

Benefits of LUCAS Device in the Cardiac Catheter Laboratories at Western Health

H. Cutter*, F. Groen

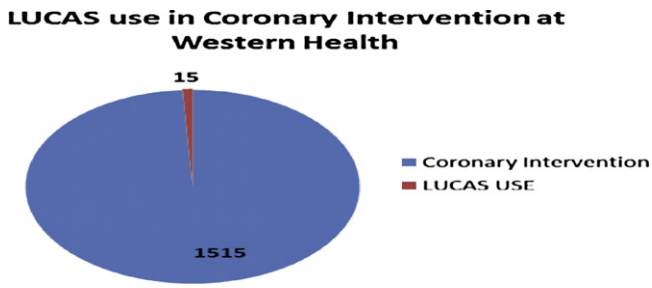
Western Health, Melbourne, Australia

Background: Performing effective manual cardiac compressions for cardiopulmonary resuscitation (CPR) during coronary intervention (CI) is technically difficult and represents significant occupational health and safety (OHS) risks in the Cardiac Catheter Laboratory (CCL). The use of an autocompressor device such as the LUCAS offers an alternative to traditional CPR. This study reports initial experience with the use of the LUCAS device in patients presenting to the CCL for emergency cardiac catheterisation.

Methods: The LUCAS was introduced to the Western Health CCL over a 2-year period (2015–2016). LUCAS device protocols were embedded into routine practice for all emergency cases in the CCL. All CCL staff completed initial industry training and a nurse champion was allocated for ongoing staff education and annual competency. All staff adhered to the as low as reasonably achievable (ALARA) radiation safety principals. The LUCAS back plate was positioned on all emergency cardiac patients presenting to the CCL. Door to balloon time data were collected for all cases. In patients who underwent CPR, the effectiveness of uninterrupted CPR delivered was assessed by periprocedure haemodynamic monitoring.

Results: A total of 1,515 emergency cardiac catheterisations occurred during the period. The LUCAS was used on 15 occasions. The LUCAS device facilitated rapid patient transfers to CCL, as evidenced by compliant door to balloon time data. No CCL staff experienced rescuer fatigue, injury or prolonged radiation exposure when manual CPR was replaced by the LUCAS.

Conclusion: From initial experience the LUCAS device allowed for safe, uninterrupted CI, while maintaining effective CPR.



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