QUALITY INITIATIVES

Entries in the 21st Annual
ACHS Quality Improvement Awards 2018
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The annual ACHS Quality Improvement (QI) Awards were introduced in 1997 to acknowledge and encourage outstanding quality improvement activities, programs or strategies that have been implemented in healthcare organisations.

In 2018, the 21st Annual ACHS QI Awards were open to submissions from all domestic ACHS and international ACHS member organisations following the ACHS NSQHS (National Safety and Quality Health Service) Standards Program, EQuIP6 (Evaluation and Quality Improvement Program), EQuIPNational, EQuIPNational Corporate Health Services, EQuIPNational Day Procedure Centres, EQuIP6, EQuIP6 Day Procedure Centres, EQuIP6 Oral Health Services, EQuIP6 Haemodialysis, EQuIP6 Healthcare Support Services, and the ACHS Clinical Indicator Program.

This year 130 submissions were received of which is a record for the ACHS Quality Improvement Awards 21 year history.

Judging was conducted externally with separate panels of three judges for each of the QI Awards categories:

Clinical Excellence and Patient Safety: This category recognises innovation and demonstrated quality improvement in the delivery of safe, effective patient care.

Non-Clinical Service Delivery: This category acknowledges a demonstrated outcome of improvement and innovation in patient and/or consumer services and organisation-wide practice including services provided by community and allied health organisations.

Healthcare Measurement: This category recognises organisations that have measured an aspect of clinical management and/or outcome of care, taken appropriate action in response to that measurement, and demonstrated improved patient care and organisational performance upon further measurement. Healthcare measurement can include data collected from the ACHS Clinical Indicator program or other methods of monitoring patient care processes or outcomes. Both quantitative and qualitative data can be used, however this category must describe the initial measurement, the analysis of that measurement, the action(s) implemented, and the improved measurement(s).

Each judging panel consisted of an ACHS Councillor, an ACHS surveyor and a representative from an ACHS member organisation.

Submissions were required to meet specific criteria that were weighted equally:

- Judges assessed all eligible submissions on the five (5) ACHS principles of: consumer focus, effective leadership, continuous improvement, evidence of outcomes and best practice;
- Judges assessed additional criteria: improvement in patient safety and care, measured outcomes, applicability in other settings, innovation in patient care and/or processes and relevance to the QI Awards category;
- The submission MUST relate to a period of up to no more than two (2) years prior to the year of entry.
**Winner Submissions by Category**

**Clinical Excellence and Patient Safety**

**Melbourne Health, VIC**
Sepsis Working Group


*Kelly Sykes, Karin Thursky, Tristan Vasquez, Dominic Gasparini, Robert McCubbin, Thao Nguyen*
Full Submission page 6

**Hunter New England Local Health District (HNELHD), NSW**
NSW Health, HNELHD Mental Health Services, NSW Ambulance Service and NSW Police

Police Ambulance Early Access To Mental Health Assessment VIA Tele health- (PAEAMHATH)

*Jay Jones, Elizabeth Newton, Leanne Gow, Anthony Townsend, David Horseman, Leanne Johnson*
Full Submission page 14

**Non-Clinical Service Delivery**

**Marie Stopes Australia**

Improving the patient experience

*Annette Penney, Jacqueline O’Brien*
Full Submission page 90

**Healthcare Measurement**

**South Western Sydney Local Health District, NSW**
Liverpool Cancer Therapy Centre, Centre for Oncology Education and Research Translation (CONCERT), Psycho-oncology Research Group

PROMPT-Care: eHealth facilitating timely person-centred care to every cancer patient

*Araf Girgis, Geoff Delaney, Ivana Durcinoska, Anthony Arnold, Nasreen Kaadan, Andrew Miller, Kenneth Masters, Stephen Della-Fiorentina*
Full Submission page 120

Each winning submission in the ACHS QI Awards receives a Certificate of Acknowledgement, a QI Awards trophy, and a cash prize provided by ACHS.

ACHS publishes submissions from all participating organisations to share and encourage exceptional quality improvement strategies amongst the ACHS member organisations.

The extended version of this document will be published on the ACHS website (www.achs.org.au).
HIGHLY COMMENDED SUBMISSIONS BY CATEGORY

The 21st Annual ACHS Quality Improvement Awards 2018

CLINICAL EXCELLENCE AND PATIENT SAFETY

Royal Perth Bentley Group, WA
SAFE Department

The SAFE Afterhours For Everyone ‘SAFE’ Initiative

Tim Bowles, Lesley Bennett, Deepan Krishnasivam, Katherine Birkett, Iolanta Clarke, Kelly-Ann Hahn, Robert Wilson, Ian Atherton
Summary Abstract page 17

Westmead Hospital, NSW
Ophthalmology Department & Emergency Department

Fundus Photography in the ED: Saving Lives Sight & Time

Dr Hamish Dunn, Julia Costello, Dr Kai Zong Teo, Alison Pryke, Lakni Weerasinghe, Prof Peter McCluskey, Clin A/Prof Andrew White, A/Prof Clare Fraser
Summary Abstract page 19

Royal Brisbane and Women’s Hospital, Metro North Hospital and Health Service, QLD
Quality, Innovation, and Patient Safety Service; and Surgical and Perioperative Services

Safety Partnerships in Action : Zero Hospital Acquired Pressure Injuries

Catherine Ryan, Lisa Mitchell, Faileen James, Duane Watson
Summary Abstract page 21

NON-CLINICAL SERVICE DELIVERY

Royal Perth Hospital, WA
Wellbeing/Pastoral Care/Postgraduate Medical Education

I worry about the ones trying to go it alone: An interdisciplinary project to improve the wellbeing of Junior Doctors and the culture in which they serve

Richard Read, Michael Hertz, Lucy Kilshaw, Roger Lai
Summary Abstract page 97

Hunter New England Local Health District, NSW
Hunter New England Population Health

Healthy food in childcare: an online solution

Sze Lin Yoong, Alice Grady, Luke Wolfenden, John Wiggers, Meghan Finch, Karen Gilham
Summary Abstract page 98
NON-CLINICAL SERVICE DELIVERY – INTERNATIONAL

Hong Kong Baptist Hospital
Environmental and Occupational Safety & Health Committee

Joyful @ healthy workplace program at Hong Kong Baptist Hospital

Clara SUEN Yuk-ha
Summary Abstract page 100

HEALTHCARE MEASUREMENT

Macquarie Hospital, NSW
Macquarie Hospital / Cottage / Bridgeview

Macquarie Hospital Clinical Formulation Tool - Using the UK-FIM/FAM to create a heat map of strengths and needs to inform rehabilitation and transition planning

Tertia van Antwerpen
Summary Abstract page 133

St Vincent’s Hospital Sydney, NSW
Rehabilitation Consultation Service, Department of Rehabilitation

Why wait? A Proactive Rehabilitation Screening Service (PReSS)

Jane Wu, Olivia Misa, Christine Shiner, Steven Faux
Summary Abstract page 134
AIM

The aim of this project was to translate evidence-based clinical guidelines for sepsis identification and management into practice and in doing so achieve the following: decrease sepsis related mortality, ICU admissions, and length of stay, improve time to first dose antibiotic therapy, improve bundle compliance, reduce last line antibiotic therapy, and increase services utilising a standardised sepsis pathway.

SUMMARY ABSTRACT

The ‘Think sepsis. Act fast’ initiative was launched across the Royal Melbourne Hospital in January 2017. The initiative consisted of the implementation of an evidenced-based clinical pathway, comprehensive communications plan, and multidisciplinary education package. The pathway, previously developed as a cancer pathway by Peter MacCallum Cancer Centre and New South Wales Clinical Excellence Commission, was adapted for a whole of hospital. The clinical pathway is now used across campuses, the Emergency Department, and all 25 wards. In preparation for the implementation of the pathway, a hospital-wide needs assessment was undertaken and found significant practice variance in relation to sepsis recognition and management. The sepsis pathway standardised sepsis recognition and management with an evidence-based six hour care bundle. Importantly, the pathway supports nurse initiation and a multidisciplinary approach to care. Hospital-wide education of all nurses, doctors and pharmacists and strong Executive support facilitated the rapid adoption across the hospital in 7 weeks. The project has led to increased awareness of the importance of sepsis as a life-threatening condition, and has resulted in significant and sustained improvements in management of sepsis, health care utilisation and patient outcomes. In the first 6 months after implementation, the sepsis pathway was used in more than 700 episodes of care resulting in a significant improvement in clinical and process outcomes for patients with sepsis: 50.4% reduction in mortality, 65.4% reduction in admission to the ICU, 53.1% reduction in time to receive antibiotics and 42.9% decrease in the length of stay in hospital. The Royal Melbourne Hospital is now leading the Better Care Victoria scale up of the ‘Think sepsis. Act fast.’ initiative to 23 hospitals across 11 other Victorian health services.

REPORT

APPLICATION OF ACHS PRINCIPLES

1. Consumer Focus

The safety and quality care of the consumer was the primary driver of this project. The sepsis pathway was developed to improve quality of care regardless of the patient’s location or time (Appendix 1). The pathway was in response to a needs assessment which identified a potential risk to consumers. Therefore, the aims of the project and key measures of success are centred on improved outcomes for patients. The results from the implementation of this project are evidence of improved consumer outcomes.

Consumer consultation took place throughout the course of the project. Multiple consumers were engaged in design of patient and carer information brochures, shared patient stories, and presented at our World Sepsis Day Forum. Consumers played a key role in the development and implementation of the communications plan. Consumers were consulted in the design of
the ‘Think sepsis. Act fast’ logo (Appendix 2) and campaign branding which continues to be important in capturing the hearts and minds of clinicians and consumers. Additionally, a consumer representative sat on the antimicrobial stewardship committee which oversaw the project.

In response to the implementation of the sepsis improvement project, one consumer sent the following letter to the Sepsis Working Group:

As you know [Name removed] was recently hospitalised at RMH. He had a blood test on Thursday 6th April with his GP as he continued to be unwell. On [Date] our GP phoned us to ask us to take [Name removed] to ED of RMH as quickly as possible due to a very high white cell blood count. Upon arrival she had emailed the results and [Name removed] was taken straight to a cubicle. Within a few minutes his results were reviewed and his observations taken.

The nurse immediately said he met 4 of the categories to be placed on the sepsis pathway. With this declared bloods were taken immediately. The nurse made two attempts but then asked a senior doctor / consultant to draw the blood and place a cannula in. [Name removed] was then moved to a resus bay where he was handed over to 2 doctors and 3 nurses. All of this happened very quickly and the sepsis pathway seemed to result in a very coordinated and speedy response. Even when admitted to two wards that night and continuing on to the next morning all staff were aware that [Name removed] was on the sepsis pathway and continued to re-asses his status. In ED he very quickly received expert attention, including infectious diseases, surgery and a gastroenterologist. He also had a chest X-ray very quickly in the resus bay. As well as a CT scan organised and done very swiftly. I felt like the sepsis pathway was a call to action, rallying the troops. The result was a highly coordinated response that was time sensitive with all staff communicating clearly.

The leadership group met regularly to monitor feedback, address barriers, and ensure progression of the pathway. Executives, clinical committees, and other senior level clinical staff across all specialties played key roles in the change management process. Executives and senior staff were involved on pathway rollout days in order to promote awareness and support utilisation of the pathway. Senior clinicians reinforced processes with junior staff and provided direct feedback on cases.

Effective leadership was also demonstrated at the frontline. Throughout the project all patients placed on the pathway or identified as potential missed opportunities were reported to the head of unit and nurse unit manager daily for review. This allowed for real-time follow up with the treating teams and demonstrated accountability and commitment to achieving our goal of improved management of sepsis.

Nurses reported that the pathway was empowering and facilitated effective communication and accountability among the broader team. Clinicians at all levels felt they were able to speak up and advocate for their patients and escalate care when necessary, further adding weight to accountability and leadership. Another layer of leadership extended to a group of emergency department nurses who have formed a Sepsis Special Interest Group and own the process of education, feedback, and reporting. This group has even reached out to other Victorian health services to break down barriers and share learnings.

2. Effective Leadership

Strong leadership was an important element and contributor to the success of this project. Clinical and Executive leadership was critical to ensure that all clinical staff and units were committed to the adoption of the standardised pathway.

Appropriate management of sepsis requires a team approach, and therefore we used a multidisciplinary approach to the implementation. The early establishment of a multidisciplinary Sepsis Working Group consisting of nurse unit managers, clinical nurse educators, senior physicians, and pharmacists was essential to ensure oversight of a clear project plan and delivery of project goals and objectives.

In partnership with Better Care Victoria, all health services scaling this initiative are now required to show evidence of consumer partnership.
3. Continuous Improvement
Throughout all phases of the project there were ongoing feedback sessions to ensure regular, continuous improvement. Prior to the hospital-wide rollout there was a three month pilot period in three inpatient wards from different Divisions in order to identify potential issues. The pilot was followed by an evaluation period to allow for further improvement prior to the full scale implementation. Throughout each stage, we consulted all specialities and remained vigilant and adaptive, making certain there was acceptance and commitment to the pathway across the hospital. This allowed the Sepsis Working Group to complete Plan-Do-Study-Act (PDSA) cycles, reduce or remove barriers and address needs that would hinder the efficient and appropriate management of septic patients. This process enabled the identified need to upskill nursing staff for cannulation or administer rapid fluid infusions.

The pathway identified gaps in medical and nursing knowledge which we were able to address directly and incorporate into learning modules. Ongoing sepsis training is provided for nursing, medical, and pharmacy staff at orientation as well as regular refresher courses for nurses. This facilitates the spread of awareness as well as further embedding the pathway into the hospital practice.

Throughout the pilot and implementation period there was a daily audit with direct feedback to nursing and medical staff on cases. There was, and continues to be, continuous performance data collection with regular communication in order to continually improve the quality of care.

The sepsis pathway has also been integrated into the emergency department’s (ED) electronic system Symphony™ in order to flag potentially septic patients and initiate treatment faster (Appendix 3). Snap audits continue through the ED Sepsis Special Interest Group in order to monitor performance and assess the need for further improvement. The electronic system implemented in ED has undergone several PDSA cycles to ensure adaptive, continuous improvement. An electronic dashboard developed by Melbourne Health’s Business Intelligence team, captures monthly sepsis related data in order to promote continuous monitoring and improvement in each local area (Appendix 4).

4. Evidence of Outcomes
The results of the pathway implementation are shown in Table 1. Compared to the baseline cohort, there were significant improvements in the management of sepsis and patient outcomes. In the first 700 patients treated with the sepsis pathway, there was:

- 50.4% reduction in sepsis related mortality (6.7% vs 13.5%)
- 65.4% reduction in sepsis related ICU admissions (8.8% vs 25.4%)
- 51.9% reduction in time antibiotics (58 minutes vs 120.5 minutes)
- 42.9% decrease in hospital LOS (4 days vs 7 days)

Eighty percent of all sepsis patients present in the ED, and the efforts of the ED should be commended in the development of the ED Symphony trigger, electronic order set, and the ongoing audit and feedback by the ED Sepsis Special Interest Group.

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<tr>
<td>Episodes, n</td>
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<td>Age, years, median</td>
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<td>Charlson Comorbidity Index, median</td>
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<td>Sepsis recognised in ED, n (%)</td>
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<td>Sepsis recognised on ward, n (%)</td>
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<tr>
<td>Lactate collected, n (%)</td>
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<td>2 or more blood cultures collected, n (%)</td>
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<td>Time to first dose antibiotics, median, minutes</td>
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<td>Appropriateness of empiric antibiotic (%)</td>
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<td>Admission to ICU (%)</td>
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<td>Length of stay, median, days</td>
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<td>In-hospital mortality (%)</td>
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<td>Services using sepsis pathway (%)</td>
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Pathway compared to baseline p<0.05 (Chi-square for categorical, and Mann-Whitney for continuous non parametric variables)
The pathway is used in 100% of all wards across the Royal Melbourne Hospital. This project has led to change in culture where nurses now feel empowered to initiate the care of patients and to ensure that there is compliance with the pathway. Similarly, junior doctors reported that they felt better equipped to manage patients with sepsis. The many testimonials from nurses, doctors and consultants illustrate the strong support and perceived benefits -

**Nurse Educator:** This project saved lives and it will continue to save lives. I'm now confident we're doing the best for our patients and their families.

**Junior Doctor:** I had found that staff had an increased ability to recognise sepsis, identify what needed to be done e.g. cannula, fluids, bloods and would have already begun the management process before a doctor had arrived. It's extremely rewarding to prevent deterioration of patients who had early recognition.

**Nurse:** As a nurse, I am much more aware after this project of sepsis both when I'm with patients but also when educating others. We knew of sepsis, but it wasn't something we really recognised before. Now everyone knows the pathway and it doesn't take convincing to use it. Everyone has heard of sepsis now.

**Nurse:** I find it empowering. It gives me a voice as a nurse. I can say the patient meets criteria for sepsis and you need to review them now. If they delay review I have the evidence I need to escalate and advocate for my patient.

**Consultant:** Nurses find it empowering to have. Junior doctors love that it's straight forward and includes empiric antibiotic guidelines. Consultants like it because patients are getting recognised earlier.

**Health Service Participating in State-wide Rollout:** I had just finished two sessions of sepsis pathway education with ED staff going over the pathway when a patient came in with septic shock. The staff had just finished saying how excited they were about the sepsis project and for the pathway to start. Following the education sessions, staff were well prepared and got stuck in with making sure the six key actions happened fast – oxygen, two sets of blood cultures, lactate, fluids, monitoring observations and antibiotics all within 60 minutes.

**Health Service Participating in State-wide Rollout:** The response to sepsis in a rural setting needs to be considered as a whole, particularly for more remote health services and patients where access to an ED can be up to two hour drive away. A common sepsis pathway would lead to decreased clinical risk with standardised actions in more remote areas.

The improvements achieved by the sepsis project have been sustained. Time to antibiotics remains below 60 minutes across all wards and ED. Similarly, compliance with the pathway remains between 90-100%. The electronic sepsis dashboard was created to monitor performance, and systemised snap audits continue with feedback to local areas. The electronic trigger within ED continues to be a sustainable identification system for patients with sepsis. We have developed a multi-disciplinary online learning module, deliver face-to-face refreshers, and training at orientation for new clinicians. Sustainability focus groups report that the pathway has been embedded into the culture and practice of RMH. The sepsis team will now work alongside the Electronic Medical Record (EMR) team to adapt the pathway for the EMR implementation in the precinct.

5. **Striving for Best Practice**

The sepsis pathway that was developed and implemented was based on current best practice evidence. An extensive literature review and evaluation of similar pathways was undertaken prior to the development of the pathway. Similar pathways implemented have demonstrated comparable results in reducing mortality, intensive care admissions, and length of stay1-6. Furthermore, there was consultation with senior medical staff and nursing staff prior to the development and implementation of the pathway to ensure relevance to our clinical setting.

Education of these best-practice clinical guidelines was provided to all nursing and medical staff, hospital-wide. A collaborative approach was used and engaged senior clinicians across all specialties in order to adapt a pathway that could be utilised across the wards. The project was successful at reducing variance in the management of sepsis in order so that all patients would be receiving the best care every time.

**INNOVATION IN PRACTICE AND PROCESS**

This project has demonstrated the successful large scale implementation of a sepsis pathway across all clinical areas of the Royal Melbourne Hospital and Peter MacCallum...
Cancer Centre. This project is innovative because it used a multifaceted approach to improving the recognition and management of sepsis. The Sepsis Working Group created a consumer driven comprehensive communications package, standardised education, and developed a hospital-wide policy/procedure which had not previously been done at the health service.

The project developed innovative electronic resources such as a sepsis trigger based on clinical criteria and a pathology order set within the ED. The electronic trigger, developed together with clinical staff, prompts clinicians to answer ‘could this be sepsis?’ when a patient fulfils sepsis criteria, and also tracks how nurses escalate to senior medical staff. These tools improve detection of sepsis and also allow for real-time auditing and team follow up. Prior to this, there was no way to identify sepsis patients or missed opportunities without using the unreliable and retrospective practice of sepsis coding.

An interactive sepsis dashboard was also developed to drive continuous improvement in performance measures. The dashboard, first of its kind in the precinct for sepsis, updates in real-time and allows clinicians and committees to visualise in an easy-to-understand visual format.

The project also developed an innovative, multidisciplinary e-learning module to support clinical decision making and monitor and drive improvement. The interactive case-based e-learning module was shared with 23 other Victorian hospitals to adopt locally.

Whilst other Australian health services have adopted sepsis pathways, primarily in ED, it is the large scale at which this project implemented that makes it innovative. This project was the first of its kind in Victoria to scale across a large, tertiary health service and a cancer hospital. The project is now being scaled across Victoria as their very first scaling innovation by Better Care Victoria innovation fund.

The success of the ‘Think sepsis. Act fast’ project led to its selection for state-wide scaling by the Better Care Victoria innovation fund. The Royal Melbourne Hospital is serving as the champion lead organisation and supporting 23 hospitals (11 health services) to implement the same pathway (Albury-Wodonga and regional partners, Alfred Health, Ballarat Health, Barwon Health, Bendigo Health, Eastern Health, Swan Hill Health, South West Healthcare, Peninsula Health, Western Health, and West Gippsland Healthcare).

REFERENCES

6. Teh, B. et al., 2015. The Road to Reduced Mortality in Sepsis: Implementation of a Hospital-Wide Sepsis Pathway in a Cancer Hospital. European Society of Clinical Microbiology and Infectious Diseases, Copenhagen, s.n.
Appendix 2: Logo Developed in Consultation with Consumers

Appendix 3: Electronic Sepsis Trigger

[Images of electronic sepsis trigger screens]
Appendix 4: Snapshot of Electronic Sepsis Dashboard

*Developed by Melbourne Health Business Intelligence

Appendix 5: Photographs of Implementation
**Clinical Excellence and Patient Safety**

**Winner**

Hunter New England Local Health District (HNELHD), NSW

NSW Health, HNELHD Mental Health Services, NSW Ambulance Service and NSW Police

Police Ambulance Early Access To Mental Health Assessment VIA Telehealth - (PAEAMHATH)

Jay Jones, Elizabeth Newton, Leanne Gow, Anthony Townsend, David Horsemann, Leanne Johnson

**Aim**
- To provide safe and reliable specialised mental health assessment to mental health patients via frontline Police and paramedics.
- To provide the right care at the right time in the right place.
- Reduce the unnecessary transportation and re-traumatisation of mental health patients to Emergency Departments by Police and Ambulance.
- To keep Emergency Services in the community.

**Summary Abstract**

Statistics show that approximately 60% of people who phone 000 when experiencing a mental health emergency are transported to hospital by Police and Ambulance with only 46% of these resulting in admission to hospital.

A partnership between Police, Ambulance and Mental Health Services, PAEAMHATH (Police & Ambulance Early Access to Mental Health Assessment via Telehealth) allows, for those who choose, a fast and reliable triage by a mental health professional, in one’s own home, with the aim of reducing the stress and trauma of an unnecessary trip to hospital.

PAEAMATH is an innovative service, offering a person-centred approach to those in crisis, delivering safe mental health assessment and follow up plans, and allowing emergency services, to devote valuable time to others in the community.

**Report**

**Application of ACHS Principles**

1. **Consumer Focus**

PAEAMHATH is a consumer led and co-designed project from beginning to end. Designing the project this way has ensured development of a consumer focused service.

Consumers, families and carers were invited to participate in the design of the service through in depth interviewing, survey and feedback workshops. Consumers who had received care or come into contact with NSW Ambulance, NSW Police and NSW mental health services were sought out for this feedback.

All consumers who utilise the service are given a follow up call within seven days to gauge service acceptability.

PAEAMHATH has responded to the voice of consumers by offering them a choice, giving control to those who feel that they have no control. It allows them a chance to speak to a professional, and better understand options open to them.

2. **Effective Leadership**

PAEAMATH works in new ways to improve relationships with our community partners. In the past, NSW Police, Ambulance NSW and Mental Health Services have had strained working partnerships. While good will exists, operational issues and strategic directives of each organisation may mean that shared service responsibilities often fail. The consequence of which is poor patient experience and a reluctance to share future initiatives. This has not been the case with each partner organisation, with all ensuring continuation of the initial project, and a desire to extend the delivery area.
Few initiatives have been successful in uniting police, ambulance and mental health services in providing a response that ensures the most appropriate care of mental health consumers.

PAEAMHATH has responded to the voice of consumers by offering them a choice, giving control to those who feel that they have no control. It allows them a chance to speak to a professional, and better understand options open to them.

With 24/7 access to a mental health professional, PAEAMHATH has also provided emergency service staff with a better understanding of mental health issues and services, both which can inform future actions.

3. Continuous Improvement
Commencing in 2017, PAEAMHATH has grown from a project proposal into a respectful and mutually beneficial partnership with Police, Ambulance and Mental Health Services, informed by consumer experience and choice. In its first year of operation PAEAMHATH assessed 55 people in their homes, with the subsequent outcomes of only 13 people being transported to hospital for further assessment and 38 linked to a community service for follow-up.

PAEAMATH continues to operate within the Port Stephens emergency services catchment area, covering an area approximately 3230km squared and a community of around 78,751 people to deliver services 24/7 to those aged >18 who would be transported to the Calvary Mater Hospital, Waratah. Currently embedded in everyday work practice, PAEAMHATH is scalable on a national level due to the telehealth nature of the service. It represents a low cost alternative to time spent transporting people to busy Emergency Departments (ED).

Extending the initiative for rural and remote areas where the importance in remaining on traditional land, being close to family, or where access to emergency vehicles and services is low would have innumerable benefits for all.

PAEAMHATH has a dedicated 1800 number for mental health clinicians to take calls from Police and Ambulance. PAEAMHATH is also set up within Emergency Medical Response with its own number and service request code.

The Key Performance indicators that have been developed both within Health Services and Police and Ambulance NSW could be easily replicated by other services.

4. Evidence of Outcomes
In its first year of operation PAEAMHATH provided a mental health assessment, via telehealth, to 51 people in their homes. Prior to its introduction, this would have resulted in all persons being transported to ED at the Calvary Mater Hospital (up to 70kms away). This forced transport, away from family and community carries the risk of re-traumatisation or injury to self or others.

Once at the ED and subsequent transfer to a Psychiatric Emergency Care Centre a person is subjected to telling their story multiple times through further triage and assessment processes. They may wait hours to be seen only to be sent home, often late at night with minimal transport options. This experience is financially and mentally taxing, particularly on someone who is facing other stressors requiring the initial emergency call.

As the result of the home assessment afforded by PAEAMHATH, only 13 patients were transported for further care, with 12 resulting in hospitalisation.

Feedback from those who have been assessed using PAEAMHATH have reported a 98% satisfaction rate.

In line with the NSW Strategic Plan for Mental Health, PAEAMATH offers an alternative to involuntary transport so that people would be taken to hospital only as a last resort.

Summary results:
- 55 patients accessed service - 42 safe to stay home
- 13 transported cost savings over three services $178,454.50
- Time saved in travel and at scene or ED:
  - ED-168 hr, Police-127.3 hr, Ambulance-96.88, Patient-228 hr, Total 620.2 hr
- Patient trauma saving Uncalculatable

5. Striving for Best Practice
The Strategic Plan for Mental Health in NSW (2014 - 2024) outlines the need to ensure that the development and evaluation of programs
by partners who have demonstrated the Flexibility & Openness to Change.

APPLICABILITY TO OTHER SETTINGS
PAEAMATH is invaluable in its ability to suit the setting it is implemented into rather than implemented for a particular setting. PAEAMATH becomes more valuable in a time saving sense the greater the distance the consumer lives from a declared mental health facility, so in rural and remote regions of Australia PAEAMATH will provide huge monetary and time saving opportunities for consumers, services and hospitals.

PAEAMATH is a valuable service in metro regions also as it saves Police and Ambulance valuable emergency response times by releasing them early from mental health call outs where safe to do so.

INNOVATION IN PRACTICE AND PROCESS
While telehealth has been utilised for many years, PAEAMATH opened up Hunter New England (HNE) Health telehealth to partner with emergency services to utilise the technology. PAEAMATH take the technology to the patient rather than the patient to the technology.

PAEAMATH links with existing telehealth services through the Northern Mental Health Emergency Care-Rural Access Program (NMHEC-RAP), which operates 24/7. NMHEC-RAP delivers mental health assessment into the emergency departments of hospitals across Northern NSW.

The Strategic Plan for Mental Health in NSW (2014 – 2024) outlines the need to ensure that the development and evaluation of programs include the participation of consumers. PAEAMATH epitomises true “co-design”, working with “patients as partners” and supporting people in their own homes.

There are currently no models within Australia or worldwide where co-design has been utilised to build a mental health assessment model that delivers assessment to the patient via emergency services whilst collaborating with mental health services.

In line with the NSW eHealth Strategy, PAEAMATH embodies the principles that must underpin all eHealth activities, most notable of these being a Patient Centred Approach and the delivery of integrated care.
AIM
The ‘SAFE’ Initiative was implemented in 2016 to improve patient care at Royal Perth Hospital, a 450 bed tertiary healthcare organization in Western Australia. The aim of the initiative was to reduce in-hospital morbidity and mortality and to improve the patient journey for all inpatients to the hospital, which is in keeping with the core principles of the Clinical Excellence and Patient Safety domain of ACHS. This initiative has a strong affiliation with NSQHS Standards 9 (Recognising and Responding to Clinical Deterioration), Standard 6 (Clinical Handover) and Standard 2 (Partnering with Consumers) while working under a strong clinical governance framework under the organizational banner. Its innovation also lies with its unique revolutionary approach to the management of patients, by transforming the after-hours space as a department with accountability and responsibility to senior individuals.

SUMMARY ABSTRACT
Introduction:
Royal Perth Hospital (RPH) is a 450 bedded institution, acting as the tertiary referral centre for a population of around 750,000 Western Australians, as well as being the State Major Trauma Centre. Major medical and surgical specialties, with the exception of cardiothoracic surgery, are provided. In 2015, there was major reconfiguration of tertiary medical services in Western Australia, leading to the establishment of RPH in its current described state.

Out-of-hours in-patient care within Australia, defined as the hours outside of 0800 to 1600 during the traditional working week, is traditionally provided by on-call medical teams, working in silos, supported by on-site junior medical staff. This model can be associated with poor communication both between and within teams, lack of accountability, failure of escalation, and a reactive model of care. International literature reveals that the outcomes of patients admitted to hospital out-of-hours are poorer, resulting in a discrepancy in mortality between in and out of hours admissions.

This story was no different at RPH. At the time, out of hours care was provided by a small number of resident junior doctors, supported by a registrar (who was also responsible for medical admissions), and on call, non-resident specialist teams. However, following reconfiguration significant pressures, shared widely among diverse health care environments, were placed on this system.

Objectives:
We aimed to reduce the discrepancy in mortality between in and out of hours admissions, as well as reducing overall inpatient mortality. This would be achieved by introducing a radical restructure of out of hours clinical care to promote team based working and creation of a new clinical service ‘Safety after Hours for Everyone’ – SAFE.

Methods and Results:
We used a resilience engineering approach, firstly to understand the ‘story’ underlying the events, and secondly to examine why events normally do not occur. We asked curious questions of the junior medical officers (JMOs) to understand their circumstances. Major concerns surfaced; unmanageable workload, little feedback or orientation, working occasional night shifts without education, no social or departmental support when things went wrong.

In comparison, we examined how day time clinical teams worked. Most had a departmental structure, allowing a clear feedback and governance structure. Doctors are allocated for whole training terms, allowing consistent exposure, education, and
the development of a culture of performance. Clinically, the successful teams were aware of who their sickest patients were, and proactively managed them. They had a culture of appropriate delegation and escalation; and maintained closed loop feedback regarding progress.

We also identified a consistent factor where events had gone well overnight. A cadre of senior nurses existed with significant organizational experience and knowledge. Prior to implementation of the ‘SAFE’ Model these nurses were often working in isolation, without the resource or authority to escalate and coordinate care. However, they provided a resilient backbone, where in the event of circumstances becoming unsafe, could generally understand how to restore safe conditions. Unfortunately, they were not always empowered to take the needed actions.

The ‘SAFE’ Model of care was then developed to provide a unique, departmental approach to after-hours care (defined as care between 1600 and 0800 Monday to Friday and 24/7 at weekends) to the general medical and surgical wards.

Key innovative characteristics of the ‘SAFE’ Model that are different to currently known after-hours models were:

1. A medical Head of Department (HOD) to lead a multidisciplinary team of 20 JMOs, five (5) Senior Medical Officers (Registrar Grade), ten (10) nurses and one (1) physiotherapist in a departmental framework, similar to provision of care during the in-hours space.

2. The clinical team is comprised of a senior nurse Clinical Lead, who coordinates, progresses and escalates care, working closely with a registrar. They oversee the workload of the RMOs and adjust resource allocation as needed.

3. Resident Medical Officers (RMO’s) are allocated for a full term (10 weeks), and are ward based, ensuring continuity of care and knowledge of patients, as well as providing an opportunity to build relationships with other out of hours staff and the specialty day teams for the areas they cover. This has enhanced communication and optimised professional exposure to a wide variety of clinical settings, with very positive feedback on both the level of supervision and teaching from RMOs who work in the ‘SAFE’ Team. Feedback from nursing staff has been overwhelmingly positive reporting that they feel much more supported than previously, with the easy availability of medical staff on their wards.

4. The departmental model provides clear lines of governance and accountability, and has facilitated role delineation within the team, particularly important with respect to progressive steps in escalation of care. It also provides a sustainable and stable workforce as the clinical lead and some of the registrar positions are long term career positions. Having permanent positions in these roles, promotes the role of SAFE not only in after-hours care but also commitment to promotion of a safety culture at RPH. The role of the Clinical Lead and the Registrar holds a high standing within the organisation, similar to that of a very senior nurse and doctor in other departments within the hospital. In addition, the (HOD), who takes on an administrative as well as a partial clinical role, allows for visible leadership to both Executive and other departments.

5. Stability and sustainability of the workforce is ensured with permanent staff as described above and JMO positions being part of the hospitals allocated rotation, working a 10 week term. Prior to the ‘SAFE’ Model, junior medical staff would work ‘ad hoc’ shifts and work these hours in addition to their day time duties, relatively unsupported and in silos. Now, during their 10 week SAFE term they feel valued and identify as being part of a team with clear leadership, teaching and training opportunities, including focusing on best practice clinical guidelines relevant to management of the deteriorating patient. Working hours have improved compared to the previous model and with the emphasis on patient and staff welfare, feedback from the term is excellent (with very high reported satisfaction with teaching, support, and work-life balance despite the high out of hours commitment) and the term is recognised for training by Postgraduate Medical Council of Western Australia.

As a result of the above, the introduction of the ‘SAFE’ Model has been associated with:

1. A reduction in hospital Standardised Mortality Ratio (HSMR) from 0.71 to 0.54
(periods January-June 2015 vs January-March 2018). This is shown in Figures 1 and 2.

2. A reduction in out of hours mortality (defined as admissions from 1800 to 0800) from 0.98 to 0.38 (period from June 2015 to June 2018). This is shown in Figure 3.


4. Positive attitudes, culture and improvement in patient focus after hours.

This will be discussed in further detail in the Evidence of Outcomes sessions.

Conclusion(s):
The introduction of the ‘SAFE’ Model has been associated with improved hospital outcomes. This model has scope to be applied to similar tertiary level hospitals, or modified to fit within most hospital structures. A key component to the success of this model’s innovation, is acknowledgement of the importance of after-hours care provision to patients, which is highlighted by the formation of a department of after-hours medicine as part of the ‘SAFE’ Model.

**SUMMARY ABSTRACT**

Fundoscopy (viewing the retina) can have significant diagnostic and prognostic power for patients presenting to the ED. By viewing the retina changes can be seen in the optic nerve and retinal blood vessels which can reveal life-threatening and vision-threatening pathology. However, around the world fundoscopy rates in the ED are low as the direct ophthalmoscope is technically challenging and therefore not often used by clinicians[4,5]. By using a hand-held non-mydriatic camera (NMC) a digital photograph of a patient’s retina can reveal significant information relevant to treatment and management quickly. The photograph can be uploaded and sent quickly for neurological and ophthalmological review using store and forward telemedicine. Missed diagnosis from intracranial pressure causing vision loss is one of the major medico-legal costs in Australia representing significant quality deficit in this country. A groundbreaking study in Atlanta found ED doctors were only examining 14% of patients who needed fundoscopy and were missing 100% of pathology which would change emergency management[4].

The difficulty of using a direct ophthalmoscope increases to near impossible if the pupils are not dilated (mydriasis). ED doctors are often reluctant to augment mydriasis pharmaco logically with eye drops for a number of reasons including patient preference[6]. Mydriasis results in light sensitivity and blurred vision which has effects both on comfort and safety, for example, increasing falls risks and affecting ability to drive. Mydriasis also prevents vital assessment of pupillary reactions in neurological populations until resolved often many hours later.

The original FOTO-ED study in Atlanta compared the use of NMC with routine direct ophthalmoscopy in an emergency department setting. At Westmead Hospital the Ophthalmology & Emergency Departments have collaborated on a
research project based on the framework used in Atlanta. Our FOTO-ED project implemented the use of a portable non-mydriatic fundus camera (NMC) to take fundus photographs without dilating the pupil of patients presenting to the ED using the inclusion criteria: headache, focal neurology, diastolic blood pressure over 120mmHg or visual changes.

We were supplied a portable NMC in ED and provided collaborative training sessions between Ophthalmology and ED in its use, and a pathway was established to ensure expert interpretation of findings. An intensive 8-week project was used to evaluate the program. The project rollout enlisted a core group of Nurse Practitioners (NP) and doctors along with medical student research assistants. Patients needing fundoscopy were highlighted early in their ED journey. Non-mydriatic photography was performed at the patient’s bedside, fundus photos were uploaded to the (electronic medical record) eMR and reviewed by the Ophthalmology team within 24 hours.

Following Ethics approval, data was collected during the project from prospectively recruited patients as well as from retrospective analysis of ED presentations. The primary outcomes evaluated were the prevalence of fundus pathology amongst those presenting to ED with any of the four inclusion criteria: headache, focal neurological symptoms, visual disturbance or hypertensive crisis. Two categories of pathology were used; urgent and non-urgent. Urgent pathology was defined as that which should change ED management, investigation or consultation and included pathology such as optic disc oedema, grade III/IV hypertensive retinopathy, optic disc pallor or isolated intraocular haemorrhage, retinal detachments or vasculitis. The second category was defined as non-urgent but vision-threatening and included new presentations and/or pathology relating to chronic ocular conditions which required routine ophthalmic review to avoid long-term vision loss.

Several secondary outcomes were also used to evaluate the effectiveness, necessity and feasibility of the project to assess its ongoing need. These included analysis of the inclusion criteria; the ability of ED physicians to correctly identify pathological vs normal fundus pictures; ED doctor’s perceived clinical utility of fundus photographs; and the practical aspects of time to acquire photographs and photographic quality. The results of this project have been reviewed against international results of the first trial in Atlanta and in collaboration with a concurrent trial in Royal Prince Alfred (RPA) Hospital.

The new protocol implemented during the 8 week pilot roll out of the FOTO-ED project detected otherwise missed pathology in 28.1% of patients and found the fundoscopy rate had a 26-fold improvement. During this period 12 patients were recalled to the hospital for urgent management, detected only by this protocol; including two who required neurosurgical intervention, and one for urgent medical management of vasculitis.

This was the first portable NMC fundus photography program in Australia and demonstrates the value of collaborative fundus imaging for the safety of patients presenting to ED. It has led to a rapid translation of evidence-based best practice at Westmead ED.

REFERENCES
Royal Brisbane and Women's Hospital, Metro North Hospital and Health Service, QLD

Quality, Innovation, and Patient Safety Service, and Surgical and Perioperative Services

Safety Partnerships in Action: Zero Hospital Acquired Pressure Injuries

Catherine Ryan, Lisa Mitchell, Faileen James, Duane Watson

AIM

The initiative trialed key concepts in Systems Thinking and Human Factors Engineering, using a strong partnership approach to determine the effectiveness of the methodology in two key areas. Firstly, creating and embedding a robust safety culture of multidisciplinary collaboration in clinical practice based on clinical staff and consumer priorities. Secondly, enhancing effective quality improvement in clinical practice as core business. A key principle of the innovation was to understand how the system worked and address causal factors limiting the effectiveness of care.

SUMMARY ABSTRACT

To meet 21st Century demands in healthcare, achieving efficiencies and effectiveness at the point of care is crucial to meeting increasing need for services. In order to achieve this vision it is important to inspire and energise staff in clinical areas to drive a continuous improvement culture to increase positive consumer, clinical, and organisational outcomes. The Safety Partnership in Clinical Practice (SPICP) pilot’s overarching objective was to investigate the effectiveness of a systems thinking approach to embed a culture of collaboration and continuous quality improvement at the point of care.

Background: Traditional models of change in healthcare often focus on strategic priorities and objectives with a planned approach. The purpose of this trial was to identify an effective emergent model to leverage outcomes at the point of care. The Safety Partnership in Clinical Practice trial was a collaboration between Quality, Innovation, and Patient Safety Service and Surgical and Perioperative Services which included:

- 2 members of the Quality Innovation and Patient Safety Service (QIPSS)
- A Consumer Representative
- 7AS Nurse Unit Manager, Orthopaedics and Trauma, Surgical and Perioperative Services
- The wider team instrumental in driving the quality improvement included:
  - nursing, allied health, operational and medical staff.

Identification of systems issues highlighted underlying causes critical for successful and sustainable quality improvement to achieve their vision to become the best Ortho/Trauma service in Queensland.

Aim: The pilot trial of the Safety Partnership in Clinical Practice (SPICP) investigated the effectiveness of a systems thinking approach to embed a culture of interdisciplinary collaboration and continuous quality improvement at the point of care.

Method: The guiding team undertook observational and consultative approaches to identify why the hospital’s well-established, evidenced based Pressure Injury Prevention (PIP) Program was not achieving the desired outcomes. Systems issues identified included: ward culture, staff knowledge and skills, communication, patients’ perspective, equipment and environment, measurement and evaluation.

The pilot site had numerous data driven opportunities for improvement, including the highest incidence of hospital acquired pressure injuries (HAPI) in the facility with seven significant injuries in the preceding six months. Staff and consumers identified this as a priority and developed their aim statement: Zero significant HAPI on ward for next six months.

A strong governance structure was put in place with scheduled fortnightly meetings to ensure interdisciplinary participation and rapid-cycle testing for assessment of initiatives. Our focus was on building trust by addressing point of care concerns, valuing and connecting with staff, mentoring and enabling engagement with both staff and consumers.
The group collaboratively developed their priorities with practical activities they could implement and evaluate at the point of care. Leadership support and participation was invaluable in empowering the team. Interventions included: interdisciplinary PIP plan, weekly interdisciplinary PIP team huddle to discuss care of high risk patient, communication board, audit, education, leadership walkarounds and patient, family and carer feedback to staff from consumer lead.

**Results:** In the 12-months post-implementation, the team achieved zero significant HAPI, and a corresponding reduction in financial penalties and associated costs (Length of stay, nursing hours etc.) with potential savings of $1.14 Million per year [based on 14 HAPI per year]. Seven of the eight dimensions of care showed improvement on The Patient Experience Survey Tool. For staff a new culture of trust, respect, inclusion and responsibility developed.

**Conclusion:** The partnership achieved enormous cultural change in a challenging and complex environment. The trial provided proof of concept for a system based partnership approach to healthcare redesign at the point of care. Understanding the complexity of systems and the way they work provided greater insight in embedding context specific improvements to enable success and sustainability. Identifying and resolving causal factors impacting effectiveness and efficiencies at the point of care was foundational for staff to drive quality improvement.

The outstanding outcomes in the project have been an artefact of empowering staff to change the culture to a collaborative, integrated, continuous learning and improvement environment. This project has identified the Safety Partnerships in Clinical Practice model is effective. A best practice model is in development for RBWH to build capacity in systems thinking approaches to care.
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**AIM**

Falls are a major cause of death, injury, functional decline, hospital admission, psychological trauma and institutionalization in older people. Our project aim was to support older people who present to the emergency department (ED) after a fall by providing timely assessment of falls risk and fast track access to specialist aged care evaluation and management. We hypothesised that a standardised best evidence approach to the ED assessment and management of older fallers, and a geriatric multidisciplinary consultant service in ED, would result in better patient outcomes, decreased hospital stay and decreased re-presentation rate after discharge.

**SUMMARY ABSTRACT**

Background: Approximately 1 in 3 people aged over 65 years fall each year. Falls related presentations to hospitals are increasing, and the Injury Control Council of WA has estimated 30% of all injury hospital costs are falls related.

Despite these figures, in the ED, falls in older age groups are often considered as low priority and our falls patients receive inadequate assessment unless obvious injuries are evident. Particularly problematic is a lack of systematic approach to identifying falls risk factors that are potentially modifiable, such as drug interactions, postural hypotension, cognitive or functional impairments. Recognising that older people presenting to our own ED with a fall were often given care that did not meet best practice standards, we decided to redesign the entire way older people presenting with a fall were managed at Fiona Stanley Hospital.

Actions: We convened a falls reference group comprised of two ED physicians; one geriatrician; two physiotherapists; one occupational therapist; one pharmacist; one ED clinical nurse manager; one geriatrics ward nurse manager; a policy officer from the WA Department of Health; a representative of a residential aged care provider; and a consumer volunteer. ED and hospital executive imprimatur was obtained. A business case to obtain seed funding from the WA Health Department was submitted and approved.

The reference group spent six months appraising current literature, audited data, and local knowledge of the ED and hospital processes through a patient journey mapping process. From these we designed the intervention, which our group determined needed the following key features:

- Patients identified and commenced on the pathway at the front door of ED by triage nurse
- Patients immediately cohorted from triage to the ED short stay unit (ESSU), bypassing the main ED and managed in two designated falls beds within ESSU
- Environmental modification of the falls beds e.g. natural light, visible clock and calendar for orientation of patients, low-low bed
- Standardised four point assessments of patients to occur in addition to a normal ED assessment. The four mandatory components of this additional assessment were cognitive screening with the 4AT; pharmacy review of high risk medications; discharge risk assessment using the TRST (Triage Risk Screening Tool); mobility and balance assessment.
- Daily geriatrician led multidisciplinary ward round in ESSU for higher risk patients

Additional staff were employed using the seed funding, and the pathway commenced in 2016.

Prior to and throughout the initial twelve months of the introduction of the pathway, extensive staff education was conducted, led by the allied health team in ED. This involved regular staff education sessions; departmental wall posters and flyers; a falls newsletter circulated by email to all staff; the design of a video explaining the pathway that was available for staff to review 24/7 on the departmental web page, access to a “who to call” list for problem solving; and regular on the floor presence by members of the reference group.

Outcomes: We developed a set of KPIs against which we would measure the success of our project. We used the ED information system (EDIS) and WEBPAS, with the assistance of hospital business information analysts, to record episodes of care and patient outcomes. We have set up automated monthly reporting of all KPIs.

In the first 18 months since launching our pathway we have now managed 341 ED patients, with a median age of 83 years and 67% female.

Our outcomes are extremely positive. We have reduced the length of stay in the ED for older people, increased the rate of safe discharge from ED by over 20%, and almost halved the length of stay in hospital for people needing admission. Cost savings to the health system exceed $3 million p.a. and the many benefits to older people from a more standardised and evidence based approach to falls are increasingly embedded in ED practice, with the improved outcomes sustained over time.

Conclusion: Our project has shown that a systematic and standardised approach to falls in older patients attending ED is feasible and beneficial. Decreased hospital stay and improved rates of effective discharge from ED back to the community have been achieved and sustained.
**SUMMARY ABSTRACT**

More than 50% of cancer patients receive radiotherapy (RT) in the management of their disease (Barton et al., 2014). Radiotherapy planning and delivery methods evolve continuously to enhance the patient quality of life by improving control of disease and reducing the treatment related toxicities. SBRT is a cutting edge radiotherapy technique in which significantly escalated radiation doses are delivered to cancer to maximise the cure rates (Schefter et al., 2005, Okunieff et al., 2006, Mahadevan et al., 2011, Lutz et al., 2011, King et al., 2013, King et al. 2012, Chuong et al., 2013, Chang et al., 2007). SBRT involves small, safety margins around the target (cancer), in comparison to larger margins used in conventional radiotherapy methods, to minimise the radiation dose to nearby critical organs. Smaller safety margins and delivery of high radiation dose mandates high accuracy in SBRT delivery.

The linear accelerators used in the SWSLHD, similar to the majority of systems world-wide, do not have the ability to identify the target position during treatment delivery. This project involves the development of a methodology and software system (named SeedTracker) to enable real-time target position monitoring on general purpose linear accelerators. The real-time position verification utilising existing equipment was conceptualised within the department to create a system that will provide accurate target position information, to improve treatment accuracy and treatment workflow efficiency in a busy radiotherapy clinic. A customisable software system was developed and validated as part of this project, utilising existing expertise in SWSLHD.

The developed methodology consists of acquiring planar x-ray images using the x-ray image system already utilised by the treatment machine (Arumugam et al., 2016). These images are read by the SeedTracker system in real-time and it will process the image to identify the radiopaque markers implanted in the target volume. SeedTracker then compares the detected seed location with the calculated expected position at any given point in time during radiation treatment delivery. If the seeds and the target move beyond a defined threshold distance away from the planned position, then SeedTracker alerts the treating team so that the radiotherapy treatment can be paused, the patient can be repositioned using the three dimensional offset calculated by SeedTracker, and then treatment resumed. The SeedTracker system is highly versatile as it can automatically identify radiopaque markers of different types, particularly tiny low contrast markers implanted in the pancreas and liver.

The SeedTracker system has been successfully used for the prostate position verification of 55 patients treated at SWSLHD. In those 55 patients’ treatment, SeedTracker has identified the prostate position deviations that would have resulted clinically significant dose difference in 27% of treatment fractions. If the SeedTracker was not used and prostate position was not monitored, the dose delivered to the prostate would have differed by approximately 20% from the planned dose and the dose delivered to the rectum would have increased by 10% compared to the planned dose. This would have resulted in reduced disease control probability and increased treatment related complications.

SeedTracker based real-time position monitoring has been successfully implemented for the verification of pancreas SBRT treatment at SWSLHD. This involves optimising the system performance for the identification of low contrast markers implanted in the pancreas and establishing the methodology to monitor continuously moving target. In five treatment fractions of the first patient treatment, the system has identified the position deviation in two of the treatment fractions that would have resulted in the dose difference of -17% to the target.

With SeedTracker based real-time position monitoring, the position deviations were successfully identified and corrected for in both prostate and pancreas SBRT treatment and this resulted in the verified dose accuracy well within the acceptable tolerance of 2%. As a result, now the utilisation of the SeedTracker based real-time monitoring has been established as the
standard of care for all prostate and pancreas cancer patients receiving SBRT in SWSLHD. SeedTracker has been successfully implemented for prostate SBRT treatment at Princess Alexandria Hospital, Brisbane, which demonstrates the possibility of utilisation of the system in a wider range of clinics.

THE CANBERRA HOSPITAL
INTENSIVE CARE UNIT

Think Pink
MANOJ SINGH, BRONVYN AVARD, CARLY SILBERBERG, NATALIE SMITH, HARSHEL PARikh, DANI QUIGGAN, KIMBERLY PHELAN

AIM
The aim of this initiative was to improve hand hygiene rates in the multidisciplinary team in a large metropolitan Intensive Care Unit to reduce multiresistant organism acquisition among critically ill patients.

SUMMARY ABSTRACT
BACKGROUND: Compliance with hand hygiene is a key factor in limiting and preventing healthcare acquired infections. Hand hygiene compliance is routinely monitored and a requirement for accreditation under the ACHS National Standards [1]. Despite ongoing education and other efforts to improve hand hygiene compliance in our Intensive Care Unit, audits persistently demonstrated poor compliance among the whole multidisciplinary team [2], but particularly among medical and allied health staff. We designed a simple but novel Quality improvement initiative in an attempt to improve hand hygiene compliance – Pink Wednesday.

METHODS: We compared hand hygiene compliance audit data and multiresistant organism acquisition rates pre and post intervention from June 2017 through to March 2018 [3].

INTERVENTION: In November 2017 we asked all healthcare workers in the Intensive Care Unit to wear Pink on Wednesdays to raise awareness of hand hygiene. This was inspired by the pink colour of the Chlorhexidine-Alcohol solution that our institution recommends for routine hand hygiene. We designed posters for the unit which promoted the initiative and called the campaign “Think Pink” and sent reminders out via email, text messages and our social media platform.

RESULTS: A total of 1095 observations of hand hygiene moments were collected over the 10 month period with auditing performed June 2017, October 2017 and March 2018. There was a demonstrated statistically significant improvement in hand hygiene rates post intervention among nursing (63%–82% p<0.001), medical (49%–84% p<0.001) and allied health staff. The consumption of the alcohol based hand hygiene solution rose by 6.1% over the same period of time. Compared with the pre-intervention cohort period, the number of patients who acquired vancomycin resistant enterococcus colonization dropped by 35% and non multiristant staphylococcal (NMRSA) colonization dropped by 50%. The widespread uptake of pink attire by staff in the multidisciplinary team was representative of their enthusiasm for the project and all members of the team became involved. This included the administrative and volunteers as well as the frontline clinical healthcare workers. More recently consumer engagement has been demonstrated by families of long stay patients who have also worn pink on Wednesdays to offer their support for the program. The initiative has been sustained as has the quality improvement within the unit.

CONCLUSION: By implementing a simple and appealing, low cost initiative we have successfully introduced a longstanding and sustained improvement in practice which has improved the quality of care for critically ill patients in the ACT. We propose that this is a simple initiative which could be easily implemented widely in the healthcare setting.

Dr Soliman Fakeeh Hospital
Medical and clinical quality unit

Adverse outcomes due to technical competency of healthcare providers
Samar Assem Badreddine, Marlene Alimbuyao, Doaa Mady, Eman Elmurzuyen

AIM
Develop an operational and measurable definition for adverse outcomes sustained by patients due to technical competencies of health care workers and put a system to capture these outcomes and act on them to prevent them from happening again.

SUMMARY ABSTRACT
Whereas it is easy to capture, quantify and analyze hospital mortalities, things are not as easy or clear when it comes to capturing, quantifying, and analyzing morbidities in hospitals. In an attempt to fully capture hospital acquired adverse outcomes (usually called morbidities) most hospitals monitor indicators such Healthcare associated infections rate, decubitus ulcer rates, falls rates, transfusion reactions, DVT post surgeries, etc... Such adverse outcomes are obviously major contributors to the general concept of morbidities in hospitals, however the list of adopted indicators is not comprehensive and does not cover all potential contributors to adverse outcomes. It lacks adverse outcomes incurred secondary to the actual practice of healthcare provider during implementation of management plan e.g. physician failed to act on a positive blood culture reading leading to sepsis, or failed to check the result of a diagnostic test ordered by him/her which led to missing a tumor, or nurse failed to inform doctor or act on a clinical warning by patients, and so on... In the literature search that we conducted, we found that many centers publish complication rates related to certain medical / surgical interventions. All of such reports did not specify whether the adverse outcome happened because healthcare providers did not follow standards of practice or happened in spite of the fact that healthcare providers followed standards of practice e.g. hepatitis post treatment with methotrexate, rupture of common bile duct during cholecystectomy, etc.). At a time when hospitals are aiming to become zero harm institutions, capturing such adverse outcomes and adding them to the list of “Harms” that patients can sustain in hospitals is necessary.

At Dr Soliman Fakeeh hospital (DSFH), we started few years ago looking into this issue. We wanted to come up with an operational definition of adverse outcomes caused by the actual practice of our own staff during implementation of patients’ management plan. We wanted the definition to differentiate between adverse outcomes that occurred because our healthcare providers did not perform or practice as per standards (in this project we called this Valid morbidities) or because things went wrong even though proper practice was in place (in this project we called this Organized complications). Additionally, we wanted the definitions to be capturable and measurable and can be used to feed into departmental performance evaluation.
healthcare providers performance evaluation and into physicians privileges.

Royal Bahrain Hospital
Operation Theatre, Nursing, Clinical Pharmacy, Infection Control, Quality
Optimization of surgical safety by ensuring preoperative antibiotic prophylaxis
Maysoon Ballout, Parvathy Krishnan, Betty David, Jovi John, Thara Thankachy, Berta Florence, Anal Thankapam, Rehana Nazir

**AIM**
- To ensure optimum surgical safety and prevention of surgical site infections by administration of appropriate prophylactic antibiotics in recommended dose in stipulated time.
- To sustain choice and dose of antibiotic above 90%.
- To optimize time of administration of antibiotic above 90%.

**SUMMARY ABSTRACT**
Optimization of surgical antibiotic prophylaxis is one of the most vital steps in preventing the surgical site infection. Evidence shows the incidence of surgical site infection is 2%-5% of patients undergoing surgery. Surgical site infection can lead to serious complications, prolonged hospital stays, increased cost and even death.

In the year of 2016 there was a significant raise in surgical site infection in our organization from 0.20% to 0.40%. The recurrent incidence of Surgical Site Infection alerted for an Improvement Project initiation. The Trend of Surgical Site Infection was reviewed and analyzed in Key Performance Indicator review meeting and Infection control committee meeting. The root cause analysis showed the main cause as low compliance to the antibiotic prophylaxis policy. Even though Royal Bahrain Hospital was having a policy on prophylactic antibiotics, the compliance to the policy was very low of 16% in April 2016 in regards to the time of administration. However, the compliance to the right choice of antibiotic and dose was maintained above 90%. Optimization of preoperative antibiotic administration is chosen as a Quality Improvement Project by using the PDSA model.

The first PDSA was initiated and the team includes infection control nurse, clinical pharmacist, nurses and quality representative. As an initial step the policy was revised as per the updated guidelines from Infectious Disease Society of America, American Society of Health-System Pharmacists, Surgical Infection Society and Society for Healthcare Epidemiology of America. The revised policy is circulated among all the Doctors, Nurses and Pharmacists. The medical team was given Continuous Medical Education about the Pre-operative Antibiotic prophylaxis and drugs of choice conducted by the Infectious disease consultant and clinical pharmacist. Nurses were trained on the Prophylactic antibiotics policy and the new process established.

The re-audit shows an incline in percentage in time of administration from 16% in April 2016 to 67% by Dec 2016. The compliance percentage for the right choice of antibiotic and the right dosing is maintained above 90% as per the target. For cases where patient is allergic to the first line agent, the alternative recommended agent is prescribed by the attending surgeon. For any clarifications, surgeon contacts Infectious disease consultant or clinical pharmacist before prescribing.

In Jan 2017 to Aug 2017 there was decrease in percentage due to ineffective leadership involvement, lack of consistent monitoring and contribution from multidisciplinary team. This audit result was discussed in the Key Performance Indicator review meeting. Quality improvement committee meeting, Infection Control Committee meeting, Doctor’s communication meeting and Pharmacy and Therapeutic committee. The analysis revealed a concern in coordination among the Operation Theatre and Surgical Ward staff and the project team. Project to Nursing Department. Nursing department revamped the project with effective leadership, use of a structured process and multidisciplinary team approach. To execute the task a multidisciplinary team of dedicated staffs were formulated including Chief Executive Officer, Chief Medical Officer, Chief Operating Officer, Chief Nursing Officer, Surgeons, Anesthesia team, Clinical Pharmacist, Nurses and Quality.

FOCUS - PDSA cycles were used to improve the process.

The team focused on main three objectives such as use of appropriate antibiotics, correct dose and correct time of administration. Quantitative methods were used for evaluation. Pre and post Audits were conducted and data was analyzed on a monthly basis. Correct choice and dose of antibiotics were reinforced by the clinical pharmacist and infection control team on a one to one basis. Data on time of administration was collected and monitored by nursing team from surgical ward and Operation Theater and evaluated on a monthly basis by the clinical pharmacist. The results were discussed and shared in the multidisciplinary team meeting, key Performance Indicator review meeting, Doctors Communication Meeting, Infection control committee meeting, Pharmacy and therapeutic Committee meeting, Quality Improvement meeting and nursing administration meeting and necessary modifications were made on the process as per the feedback.

In 2018 there was a sudden downturn from 76% in Jan to 66% in March. This mandated to formulate the third PDSA Cycle to study and improve the process. The core issues for the dip in compliance were identified and the main causal factor was incorrect time of administration of fluoroquinolones. Special trainings were conducted on administration of fluoroquinolones. The team developed a new process flow for prophylactic administration and implemented. Reinforcing the process on prophylactic antibiotic is done along with continuous education to the involved team. The compliance was monitored on a daily basis for immediate correction on the flaws. All surgeons, anesthesia team and nursing team were informed and trained on the new process and on each commonly used antibiotic in specific. The data of all surgeries in regards to the antibiotic, dose, administering time, time of incision, time of re dosing were tracked on regular basis. The post implementation analysis shows a rise in percentage from 69% in Mar 2018 to 94% in Jul 2018.

After 3 cycles of PDSA the outcome shows a continuous improvement on preoperative antibiotic prophylaxis which resulted in the reduction in surgical site infection rate from 0.40% to 0% in October 2017 till date and thereby remarkable improvement in surgical safety. Collectively it helped us to improve the patient safety which is the strategic priority of the organization. The national accrediting body of Bahrain recognized Royal Bahrain Hospital by providing the Diamond level which is the highest level of accreditation in the year 2017.
A review of Total Parenteral Nutrition service delivery in a newly commissioned Hospital: What is the true cost?

Emily Bennett, Michelle Ross-King, Vince Mazoue, Karen Crowther

Aim

Malnutrition has been reported to affect 20–50% of patients admitted to acute care settings with evidence supporting ongoing malnutrition leading to increased length of hospital admission as a result, nutrition care planning has become a core part of health care (Watterson et al. 2009). Total Parenteral Nutrition (TPN) is the intravenous administration of nutrition when the gastrointestinal tract is non-functional or inaccessible (Dietitians Association of Australia 2018). The administration of TPN is complex, however essential to prevent malnutrition, improve patient outcomes and assist in decreasing length of stay in acute care hospitals.

The objective of this project was to plan, implement and review a hospital-wide, multidisciplinary, ward based TPN service to ascertain:
1. The safety of complex patients
2. Improve patient nutrition outcomes
3. Identify gaps in service delivery and clinical practice.
4. Determine if the current model of care in providing TPN is cost effective

Summary Abstract

The European Society for Parenteral and Enteral Nutrition (ESPEN) (2009) and American Society for Parenteral and Enteral Nutrition (ASPEN) (2016) recommend that in the presence of a functional gastrointestinal tract, enteral nutrition should be used to promote function of the gastrointestinal tract and early delivery of nutrients. When a patient is unable to meet full requirements via the gastrointestinal tract due to decreased function or accessibility, both ESPEN and ASPEN support the consideration of Total Parenteral Nutrition (TPN).

It has been well documented that TPN is associated with a higher risk of complications when compared to enteral nutrition including infection, liver damage, overfeeding and underfeeding. There is conflicting evidence around the service delivery of TPN, with some evidence suggesting a TPN specialist team is the preferred approach as opposed to a ward based service.

In 2015 SJG Midland Public and Private Hospital (SJGMPPH) was commissioned to provide medical services to the wider community including a 20 bed surgical unit, 12 bed Critical Care Unit (CCU) and 20 bed private surgical ward in conjunction with a contracted pharmacy via HPS Pharmacies. In the absence of a TPN team, the delivery of TPN as a service was through current funding in ward areas with a streamlined hospital process. To aim for excellence in practice, a multi-phase quality improvement project was commenced to assess evidenced based practice and optimize patient safety under the National Safety and Quality Health Care Standards.

A multi-staged project was commenced to implement, evaluate and review a service delivery model for patients requiring Total Parenteral Nutrition from February 2016 and continues to be ongoing through collection of both qualitative and quantitative data. In the absence of specialist TPN team and staged commissioning to the hospital, a multidisciplinary working party was formed which included: Critical Care Unit (CCU) Consultant and Head of Department, Surgical Head of Department, Nurse Unit Manager for Surgical Unit and Nurse Unit Manager for the Private Wards, Senior Dietitian, Deputy Director of Pharmacy and Nurse Educator. The working party undertook a nine-month process of reviewing current evidenced based practice, benchmarked with other services to develop and implement a hospital-wide TPN process and policy. On implementation of the policy, hospital-wide education was offered by the working party to assess current knowledge and skills in TPN prescription and patient management and increase knowledge and skills where deficits were identified.

One-year post implementation of the policy, a retrospective audit of medical records was conducted using a standardized template designed by the Senior Dietitian to assess compliance. A cost analysis was then undertaken for all patients prescribed TPN when it was not clinically indicated based on average cost of TPN per patient per day, to identify unnecessary costs to the hospital.

The results of this project have been valuable in providing recommendations to adjust clinical practice in line with evidenced based practice. Post implementation of the policy and hospital staff education, evaluation indicated that staff felt confident with the care pathways developed and had appropriate knowledge to manage patients requiring TPN at the ward level. However, on completion of the retrospective audit, several areas of improvement were identified. It was found that of the 41 cases audited, that the average number of days patients were receiving TPN was 7.9 days with a median of 7 days. It was determined that TPN was not clinically indicated in 39.1% of cases. The standard TPN bags being used by the hospital met the patient’s energy and protein requirements 88.5% and 82% of the time respectively, however, only 7.8% of patients received the recommended dose of micronutrients for the duration of TPN. It was also identified none of patients received the recommended level of monitoring (biochemistry, blood glucose level management, daily fluid balance and daily weights).

As the results of the retrospective audit identified that a high proportion of patients received TPN unnecessarily during their admission, these cases were re-audited to identify the number of days that TPN was delivered unnecessarily. A cost analysis was completed using the average cost of TPN per patient per day provided by the finance department. As result, it was identified that in the 14 cases where TPN was provided unnecessarily, this led to a total of 70 days, which incurred an estimated total cost of $24,416.85 to the health service. The IBM SPSS statistics program was used to correlate the number of days the patient received TPN with the total number of admission days via Pearson’s Correlation of 0.762 with a two tailed p value > 0.002. Given the small sample size, this correlation should be used with caution as some patients in the audit had increased length of stay due to medical complications.

The results of this project have seen review and amendments to the current policy including updates to the monitoring section, in addition to the development of a hospital wide standardized form to improve compliance and patient safety. Furthermore, whilst best practice was implemented through process and policy development, the cost effectiveness of a hospital wide service in comparison to a specialist TPN service should be considered to reduce the number of patients provided with TPN unnecessarily which in turn will improve patient experience, reduce costs to the hospital.
To assess current enteral feeding tube medication administration knowledge gaps. Documentation habits to find where systems and practices need to evolve to optimise patient care.

**Summary Abstract**

In 2017, Mrs H, an 83 year old female presented with right middle cerebral artery stroke and multiple cardio-embolic infarcts. Mrs H had a history of transient ischaemic attacks, hypertension, depression, gastroesophageal reflux disease and bronchiectasis. Dysphagia symptoms required her to commence enteral feeding. A nasogastric tube, supposedly thought to be with an ENFit® connection was inserted.

Mrs H had thirteen tube reinsertions in a month for a variety of potentially preventable reasons. This story of Mrs H highlighted inconsistencies in medication administration via enteral feeding tubes (EFT) and documentation as possible major causes. Consequently, a qualitative study was conducted to evaluate the current institutional practices against local and American Society for Parenteral and Enteral Nutrition (ASPEN) guidelines before and after an education campaign.

An audit tool and a self-assessment nursing questionnaire was developed in order to assess current EFT medication administration knowledge gaps and documentation habits to find where systems and practices need to evolve to optimise patient care. The study was conducted from November 2017 to April 2018. Identification of inconsistencies facilitated the development of an education package aligned to local and ASPEN guidelines. (Ethics Approval was obtained on 11th October 2017.)

The key themes identified are as follows:

**Administering Medications:** Of the forty-two nursing staff surveyed, only 42% of the staff crush and administer one medication at a time.

**Flushing the EFT:** 100% of the nursing flush the EFT after administering medications, however, of the twenty medical records audited, flushing the EFT pre and post administration of medication was documented in 25% of the records with no records of flushing in between each medication administration.

**Knowledge about EFT compatible syringes and accessories:** Both old enteral connection and EnFit® connections coexisted during the transition to the new ENFit® ISO 80369-3. It was imperative that the nursing staff recognise the difference and have the necessary skills to be able to manage patients with EFT. 52% of the nursing staff responded that they had sound knowledge of the appropriate connectors and 83% had knowledge on how to use ENFit®.

To address the above practice gaps, education using PowerPoint slides was conducted to highlight:

a) The differences between EFT tubes;
b) Global ISO change to the EFT connectors - ENFit®;
c) Types of oral dose forms and implications for crushing;
d) Flushing the EFT with at least 15 mL of water before, in between each medication and after administration of medications;
e) Medication administration techniques;
f) Examples of how to document water flushes on the enteral feeding and fluid balance chart.

Copies of the PowerPoint slides were also distributed in the form of handouts and via emails to the Nurse Unit Managers of the wards.

The institutional guidelines were reviewed during this period to support best practice. Engagement with nurse unit managers and nurse in-charge were helpful in the dissemination of the key educational messages. Nursing staff had the opportunity to provide feedback via email, or during education session.

Statistical analysis was conducted using a two-sided Fisher’s exact test.

The documentation on EFT flushing improved from 25 to 75% and staff knowledge on administering medication separately improved from 42 to 70%, post education campaign.

Our multi-disciplinary approach involving review of the guidelines and providing nurse education has shown to be effective. We plan to re-survey in the future to ensure that this improvement has been sustained.

**Peel Health Campus**

The Patient Journey from a Consumers Perspective

Susan Birtwistle, Natalie Tomlin, James Duquemin, Jenny McGlinn, Tanya Cupples

To provide optimal patient care for those who are most vulnerable.

**Summary Abstract**

In 2016 Peel Health Campus received a letter of concern in relation to the care received during the admission of a patient with a diagnosis of rapidly progressive dementia.

Following an initial meeting and presentation of recommendations to improve care for seniors during hospital the family were invited to process map the carer/patient journey through the health care system with a member of staff.

The patient journey included issues from GP visits, outpatients, multiple admissions, multiple facilities, aged care placement and discharge planning to palliative management.

Following the patient journey exercise an action plan was developed and after consultation with relevant healthcare personnel, recommendations were agreed.

Peel Health Campus has been very privileged to have built a relationship with the family which, in turn, has resulted in improvements for those suffering from cognitive impairment. These include:
• Increased education - Increased numbers of staff completing dementia training. Carers WA have provided education to all areas including ED so that carers can be identified early and appropriate information provided. This was identified as one of the most important recommendations as there was little to no information about what support was available or what to expect as dementia patients deteriorate. Access to available counselling services was also promoted.
• Improving support - PHC developed a carers’ corner at the front reception area and additional information was sourced to add to the facility’s information packs.
• Availability of Carers: WA information at the GP surgery.
• Review of wait list. Executive now aware of the growing wait list to see the Geriatrician. The Geriatrician met with GPs and processes implemented to ensure urgent referrals are escalated appropriately / advice on early treatment options is available.
• Customer service education with the medical staff to improve communication to carers and patients.
• Education on carer escalation, patient/carer engagement. Speak up for Patient Safety and medication reconciliation with carers.
• Review of processes with key staff to ensure early communication to carers on discharge decisions and support required.
• Review of the hospital environment - Companion education, non-clinical staff clinical handover, review of environment, furniture, stimulation, therapy and use of outside areas, facilities available after hours reviewed.

The family has been very generous with their time, providing our staff with a deep and personal insight into challenges of caring for a loved one with dementia. The husband is a valued member of Peel Health Campus’ Community Board of Advice, has reviewed hospital documents from a carer’s perspective and is involved in key community health promotion days (World Delirium Awareness Day). Following media attention of Peel Health Campus’s International Delirium Day the facility was approached by several members of the public enquiring about Dementia and Delirium services in the community.

Royal Perth Bentley Group
SAFE Department
The SAFE Afterhours For Everyone ‘SAFE’ Initiative
Tim Bowles, Lesley Bennett, Deepan Krishnasivam.
Katherine Birkett, Iolanta Clarke, Kelly-Ann Hahn.
Robert Wilson, Ian Atherton

AIM
The ‘SAFE’ Initiative was implemented in 2016 to improve patient care at Royal Perth Hospital, a 450 bed tertiary healthcare organization in Western Australia. The aim of the initiative was to reduce in-hospital morbidity and mortality and to improve the patient journey for all inpatients to the hospital, which is in keeping with the core principles of the Clinical Excellence and Patient Safety domain of ACHS. This initiative has a strong affiliation with NSQHS Standards 9 (Recognising and Responding to Clinical Deterioration), Standard 6 (Clinical Handover) and Standard 2 (Partnership with Consumers) while working under a strong clinical governance framework under the organizational banner. Its innovation also lies with its unique revolutionary approach to the management of patients, by transforming the after-hours space as a department with accountability and responsibility to senior individuals.

Summary Abstract
Introduction: Royal Perth Hospital (RPH) is a 450 bed institution, acting as the tertiary referral centre for a population of around 750,000 Western Australians, as well as being the State Major Trauma Centre. Major medical and surgical specialties, with the exception of cardiothoracic surgery, are provided. In 2015, there was major reconfiguration of tertiary medical services in Western Australia, leading to the establishment of RPH in its current described state.

Out-of-hours in-patient care within Australia, defined as the hours outside of 0800 to 1600 during the traditional working week, is traditionally provided by on-call medical teams, working in silos, supported by on-site junior medical staff. This model can be associated with poor communication both between and within teams, lack of accountability, failure of escalation, and a reactive model of care. International literature reveals that the outcomes of patients admitted to hospital out-of-hours are poorer, resulting in a discrepancy in mortality between in and out of hours admissions.

This story was no different at RPH. At the time, out of hours care was provided by a small number of resident junior doctors, supported by a registrar (who was also responsible for medical admissions), and on call, non-resident specialist teams. However, following reconfiguration significant pressures, shared widely among diverse health care environments, were placed on this system.

Objectives: We aimed to reduce the discrepancy in mortality between in and out of hours admissions, as well as reducing overall in-patient mortality. This would be achieved by introducing a radical restructure of out of hours clinical care to promote team based working and creation of a new clinical service ‘Safety After Hours For Everyone’ – SAFE.

Methods and Results: We used a resilience engineering approach, firstly to understand the ‘story’ underlying the events, and secondly to examine why events normally do not occur. We asked curious questions of the junior medical officers (JMOs) to understand their circumstances. Major concerns surfaced: unmanageable workload, little feedback or orientation, working occasional night shifts without education, no social or departmental support when things went wrong.

In comparison, we examined how day time clinical teams worked. Most had a departmental structure, allowing a clear feedback and governance structure. Doctors are allocated for whole training terms, allowing consistent exposure, education, and the development of a culture of performance. Clinically, the successful teams were aware of who their sickest patients were, and proactively managed them. They had a culture of appropriate delegation and escalation: and maintained closed loop feedback regarding progress.

We also identified a consistent factor where events had gone well overnight. A cadre of senior nurses existed with significant organizational experience and knowledge. Prior to implementation of the ‘SAFE’ Model these nurses were often working in isolation, without the...
resource or authority to escalate and coordinate care. However, they provided a resilient backbone, where in the event of circumstances becoming unsafe, could generally understand how to restore safe conditions. Unfortunately, they were not always empowered to take the needed actions.

The ‘SAFE’ Model of care was then developed to provide a unique, departmental approach to after-hours care (defined as care between 1600 and 0800 Monday to Friday and 24/7 at weekends) to the general medical and surgical wards.

Key innovative characteristics of the ‘SAFE’ Model that are different to currently known after-hours models were:

1. A medical Head of Department (HOD) to lead a multidisciplinary team of 20 JMOs, five (5) Senior Medical Officers (Registrar Grade), ten (10) nurses and one (1) physiotherapist in a departmental framework, similar to provision of care during the in-hours space. The clinical team is comprised of a senior nurse Clinical Lead, who coordinates, progresses and escalates care, working closely with a registrar. They oversee the workload of the RMOs and adjust resource allocation as needed.

2. The clinical lead and some of the registrar positions are long term positions within the team, and are ward based. The clinical lead and some of the registrar positions are permanent staff as detailed above and those who take on an administrative as well as providing a resilient backbone, where in the event of circumstances becoming unsafe, could generally understand how to restore safe conditions. Unfortunately, they were not always empowered to take the needed actions.

3. Resident Medical Officers (RMO’s) are allocated for a full term (10 weeks), and are ward based, ensuring continuity of care and knowledge of patients, as well as providing an opportunity to build relationships with other out of hours staff and the specialty day teams for the areas they cover. This has enhanced communication and optimised professional exposure to a wide variety of clinical settings, with very positive feedback from both the level of supervision and teaching from RMOs who work in the ‘SAFE’ Team. Feedback from nursing staff has been overwhelmingly positive reporting that they feel much much more supported than previously, with the easy availability of medical staff on their wards.

4. The clinical lead and some of the registrar positions are long term career positions. Having permanent positions in these roles, promotes the role of SAFE not only in after-hours care but also commitment to promotion of a safety culture at RPH. The role of the Clinical Lead and the Registrar holds a high standing within the organisation, similar to that of a very senior nurse and doctor in other departments within the hospital. In addition, the (HOD), who takes on administrative as well as providing a partial clinical role, allows for visible leadership to both executive and other departments.

5. Stability and sustainability of the workforce is ensured with permanent staff as described above and JMO positions being part of the hospitals allocated rotation, working a 10 week term. Prior to the ‘SAFE’ Model, junior medical staff would work ‘ad hoc’ shifts and work these hours in addition to their day time duties, relatively unsupported and in silos. Now, during their 10 week SAFE term they feel valued and identify as being part of a team with clear leadership, teaching and training opportunities, including focusing on best practice clinical guidelines relevant to management of the deteriorating patient. Working hours have improved compared to the previous model and with the emphasis on patient and staff welfare, feedback from the term is excellent with very high reported satisfaction with teaching, support, and work-life balance despite the high out of hours commitment and the term is recognised for training by Postgraduate Medical Council of Western Australia.

As a result of the above, the introduction of the ‘SAFE’ Model has been associated with:

1. A reduction in hospital Standardised Mortality Ratio (HSMR) from 0.71 to 0.54 (periods January-June 2015 vs January-March 2018). This is shown in Figures 1 and 2.
2. A reduction in out of hours mortality (defined as admissions from 1800 to 0800) from 0.98 to 0.38 (period from June 2015 to June 2018). This is shown in Figure 3.
4. Positive attitudes, culture and improvement in patient focus after hours.

This will be discussed in further detail in the Evidence of Outcomes sessions.

**Conclusions:** The introduction of the ‘SAFE’ Model has been associated with improved hospital outcomes. This model has scope to be applied to similar tertiary level hospitals, or modified to fit within most hospital structures. A key component to the success of this model’s innovation, is acknowledgement of the importance of after-hours care provision to patients, which is highlighted by the formation of a department of after-hours medicine as part of the ‘SAFE’ Model.

**Central Coast Local Health District - Gosford Hospital Clinical Governance Unit**

**PICK and GO system: a standardised storeroom layout for intravenous cannulation and venepuncture equipment**

Liam Clifford, Simone Visagie, Selina Campion, Anastasia Behan-Wallitt, Robert Hoffman, Naomi Smith, Wai-Hoong Chan, Will Chan

**AIM**

To establish a systematic storage system on all wards for equipment related to intravenous cannulation and venepuncture. Then to assess the effectiveness of this system once implemented. Ultimately to reduce the time taken to complete these two tasks and to reduce safety incidents related to venepuncture. Finally, to possibly reduce hospital-acquired infections related to these procedures.

**Summary Abstract**

Each hospital ward has their own layout in the storeroom for various equipment, but across all wards intravenous (IV) cannulation and venepuncture procedures remain the same. It was shown in the UK that standardising intravenous cannulation equipment in different wards and hospitals was associated with reduced hospital-acquired infections and adverse outcomes. In contrast at Gosford and Wyong Hospitals the differences in the structure for common items pertaining to these two disciplines was associated with increased time for tasks, increased adverse outcomes for patients, and a possible increase in hospital-acquired infections.

This project was designed to develop a systematic and logical system that could be applied to all the wards at...
Gosford and Wyong Hospitals and facilitate easier and more efficient completion of intravenous cannulation and venepuncture. Rather than a “pack” for intravenous cannulation of venepuncture, this intervention instead focused on establishing a space in each storeroom for the ‘PICK and GO’ system, and then arranging required equipment in an orderly fashion. It has been shown previously that the use of a designated “pack” for intravenous cannulation is associated with reduced line-related infections, and it has been suggested this is due to all required equipment easily accessed, with time taken to perform the task greatly reduced.2 We hypothesised that the establishment of this system could follow a similar pattern and remove the need for individuals to spend time hunting for certain pieces of equipment.

The ‘PICK and GO’ system requires approximately a 2 metre x 2 metre space in the storeroom on the wall (see the Appendix for images of the system at Gosford and Wyong Hospitals). It consists of a bracket placed in this space, and then small containers distributed in rows within this space. Each container is clear and labelled to identify the piece of equipment it houses and has a barcode to allow for easy re-stocking. The items we included in the ‘PICK and GO’ system are clearly visualised in Appendix A and Appendix B. Common items pertaining to all procedures were gauze or cotton buds, pressure pad dressings, tourniquets, 2% chlorhexidine and 70% alcohol swabs, micropore tape, kidney dishes and yellow plastic bags. Pertaining specifically to IV cannulation we had the bluey underpads, cannula extension sets, cannulae of gauges 18, 20 and 22, 0.9% sodium chloride solution, 10mL syringes, tegaderm dressings, cannulae bungs, and 1 line labels. For venepuncture we had blood transfer devices, vacutainers, blood culture bottles, pathology specimen tubes, butterfly needles of gauges 21, 23 and 25, blue and green vacualler needles and 19 gauge transfer needles. Additional items included arterial blood gas syringes, peripheral intravenous catheter caps, insulin syringes and a sharps bin.

The function of this system was to house equipment required for intravenous cannulation, venepuncture and arterial or venous blood gas sampling. It has been demonstrated in the ‘US Guidelines for the Prevention of Intravascular Catheter-related infections’ that the use of chlorhexidine or alcohol swabs prior to any procedure, accompanied by appropriate dressings and equipment supply, significantly reduced the occurrence of line-related infections.3 Additionally, a report that implemented a ‘PIVC Insertions Skills Checklist’ found that measuring the combination of actions put together for peripheral intravenous catheter resulted in a well-executed procedure, and suggested that to improve the outcomes related to peripherally inserted cannulae a systematic construct is required.4 Our ‘PICK and GO’ system precludes the actual implementation of the procedure in question, but does follow a systematic construct as previously described, and offers staff the opportunity to formulate a set of steps prior to carrying out their task. It is evident from the aforementioned studies that a system that is organised and simple is associated with a reduction in line-related infections, and also facilitates better development of skills for staff members.

**Summary Abstract**

The Currumbin Clinic Patient Information App will provide inpatients with up to date information regarding inpatient program content, hospital events, educational resources, nutrition and exercise information (linked to their gym program), emergency contacts, journaling and information on day programs.

**Royal Brisbane Women’s Hospital, Metro North Hospital and Health Service, QLD**

**Saving Blood and Money in ICU**

Dr. Jayesh Dhanani, Professor Adrian Barnett, Professor Jeffrey Lipman, Professor Michael Reade

**Aim**

To study the effects of implementing new laboratory blood test ordering guidelines in an ICU.

**Primary outcomes**

- Number of laboratory blood tests performed per occupied bed day
- Cost of laboratory blood tests

**Secondary outcomes**

- Safety (testing for equivalence)
- Rate of abnormal laboratory values
- ICU length of stay
- ICU mortality rates
- ICU readmission rate within 72 hours

**Summary Abstract**

**Background**: Worldwide, treatment in an intensive care unit (ICU) consumes a substantial proportion of available health care resources. Cost-saving initiatives would have widespread benefit. ICU costs are multifactorial, and mostly non-discretionary but pathology tests account for at least 5% of the total cost of care.2 Patients in ICU often undergo a large panel of daily ‘routine’ diagnostic tests with no indication other than surveillance for occult complications. The benefit of this practice has never been established. Between 30% and two thirds of laboratory testing in hospital is likely wasteful. Unnecessary testing also leads to unnecessary blood loss through phlebotomy causing clinically significant anaemia and transfusion requirement. Corwin et al reported that the blood loss could be 40 – 70 ml/day and up to a liter per ICU stay5. Conservative phlebotomy in ICU limited blood loss.6 Transfusion and associated complications are well known and add to the burden of health care expenditure. Additionally, there may be other costs of transfusion such as infection risk, nursing workload and patient discomfort. Thus, to the public health system the financial burden of daily unnecessary laboratory testing is substantial. Modifying test-ordering practices in ICU is challenging. The multidisciplinary and dynamic ICU work environment makes it difficult to identify which tests are unnecessary for a particular patient on a particular day.7 However, currently there are no universally applicable guidelines for laboratory test ordering in ICU. Medical reversal is the phenomenon of abandoning current practice – takes a long time, longer than introducing a new practice.

Hence, we applied multimodal strategy including education, redesigning laboratory order forms, and tested the effects of these strategies in a non-randomized before-and-after study.

**Abstracts**
Methods: Funded by the Australian Centre for Health Services Innovation (AusHSI), the study was conducted in the ICU of the Royal Brisbane and Women’s Hospital (RBWH) a 22-bed tertiary academic ICU operating a “closed” model of care in which intensivists take primary responsibility for all aspects of patient care. The case-mix is approximately 50% medical: 50% surgical, with all specialties referring except cardiac surgery. Pre-intervention, overnight medical residents initiated laboratory ordering in a self-directed manner. Overnight ordering and testing avoided contributing to the substantial laboratory workload during daytime, and facilitated availability of results during consultant rounds. Laboratory order forms were blank (Appendix figure 1), allowing any test to be ordered, with no formal guidelines available.

Interventions: During the intervention period, we introduced practice alterations with explicit participation by the medical staff. These included prescribing guidelines and new tools such as a new laboratory form.

1. Reviewing and identification/targeting tests: Coagulation screen and chemistry panel were identified as the tests to be targeted for patient-specific indications alone.
2. Redesigning of laboratory order form (Appendix figure 2): Boxes listed full blood count (FBC), urea / electrolytes / creatinine (UEC), full biochemistry panel including renal and liver function tests, and calcium, magnesium, phosphate (CHEM 20), full coagulation panel (Coag), INR, APTT, and fibrinogen. The form also provided guidelines for specific test indications.
3. Medical staff education: At the beginning of the intervention period, a comprehensive orientation program was conducted where fellows and residents were educated about the project.
4. Consultant intensivist-led ordering practices: Intensivists planned the next day’s laboratory test ordering during their afternoon ward rounds. The completed order forms were placed in a designated folder to use the following morning. The ordering of tests was done at the discretion of the treating intensivist and no attempts were made to interfere or influence this practice.

Demographic (diagnosis, age, gender, APACHE III score, length of stay in ICU and outcome), appropriate clinical (mechanical ventilation, dialysis, blood and blood product transfusion) and laboratory data (number of tests) was collected.

Statistical Analyses: Test numbers, costs, and outcomes of ICU patients in the two follow-up periods – Intervention and Post-intervention – were compared with the pre-intervention period.

Results: There were 1141 patients in the pre-intervention period, 1067 in the intervention period and 1042 in the post-intervention period (table 1).

Primary aims: There was a statistically significant reduction in the costs of pathology tests during the intervention period and the post-intervention period. There was an overall net saving of A$213,326 in the intervention period, compared to the pre-intervention period.

Overall there were 28% fewer tests performed in the intervention period and 26% in the post-intervention period (table 2). This was despite the increased APACHE III score in the intervention period thus indicating that severity of illness need not lead to increased number of blood tests.

Compared to the pre-intervention group, there was a 17.9% reduction in the packed red blood cell usage in the intervention group (table 3).

Secondary aims: Appendix Table 5a shows patient outcome data. Median length of stay in ICU and mortality was comparable between the study periods. Mechanical ventilation days and renal replacement therapy remained unaffected. (Appendix table 6a, 6b). The admission to discharge hemoglobin difference were comparable. The reduced blood product usage in this period would result in additional cost savings both direct and indirect. The benefits persisted in the post-intervention group showing the longer-term sustainability of the intervention.

Discussion and Conclusions: We emphasized the importance of a uniform buy-in by all intensivists in our study. Ordering patterns are also shown to correlate with clinical exposure and working in a clinical environment, with those exposed early in training ordering less laboratory tests11. Thus, by setting an example and direct demonstration of appropriate test ordering, the trainees may learn the right habits thus ensuring future compliance. It has also been shown that the menu of choices for test ordering has a direct impact on the ordering patterns12. By designing the pathology order forms limiting the choices as in our study, it may be possible to reduce test ordering. Thus incorporating the principle of the “right test, in the right patient at the right time”. The results of the study thus show that simple interventions can result in sustainable benefits for the patients, clinicians, health services and the community as a whole.
improvements in primary outcome measures: TUG by 14%, 5xSTS by 17%, Alt. Step Test by 25%, SLB by 57%, and secondary outcome measures: FI by 36%, FE by 10% and QOL by 4%. At three month follow up, over half of the participants reported performing the DVD at least once per week and nil reports of falls. Patient also reported returning to gardening, feeling steadier on their feet and increased confidence walking in the community. Steady Steps has decreased falls risk, frailty, fear of falling, improved QOL and increased exercise adherence post intervention in older adults leading to improved patient outcomes.

**Summary Abstract**

SHQ’s target groups include Aboriginal and Torres Strait Islander Peoples, young people, people from Culturally and Linguistically Diverse (CALD) backgrounds, sex workers, people living with an intellectual disability and people living in rural and remote areas. SHQ staff recognised that in order for our clinical and corporate governance processes to improve client outcomes and safety, our aim to provide sexual and reproductive health services for marginalised population groups led to our realisation that strong consumer engagement and input was vital to ensure high quality and culturally safe care for our clients. We wanted to formalise our engagement with consumers through the establishment of a new framework, which encapsulated the diverse and varying needs of our target groups. We aimed to base our brand and reputation on our commitment to human rights, equality in access to sexual and reproductive health care, and our strong focus on client satisfaction and safety.

**Aim**

Sexual Health Quarters (SHQ) began its first journey to Accreditation in August 2016 with the aim of developing and implementing well-integrated clinical and corporate governance processes to improve client outcomes and safety. Our aim to provide sexual and reproductive health services for marginalised population groups led to our realisation that strong consumer engagement and input was vital to ensure high quality and culturally safe care for our clients. We wanted to formalise our engagement with consumers through the establishment of a new framework, which encapsulated the diverse and varying needs of our target groups. We aimed to base our brand and reputation on our commitment to human rights, equality in access to sexual and reproductive health care, and our strong focus on client satisfaction and safety.

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**Aim**

Emergency Departments (ED) around the world are sending patients home with life-threatening and sight-threatening conditions because of limitations in the ability to view the retina[1]. Fundoscopy (looking at the retina) offers a non-invasive glimpse of the central nervous system and vasculature to detect such conditions as raised intracranial pressure, risk of stroke and many other pathophysiological findings[2,3]. Currently doctors in the ED must use the direct ophthalmoscope, an instrument which is largely unchanged since its invention in the 1850s, to view 5 degrees of the retina, however, novel fundus imaging technology using a portable non-myrdiatric fundus camera (NMC), can obtain a 45 degree photograph of the fundus without the need for dilating drops. The aim of the FOTO-ED project was to assess the feasibility and efficacy of using portable (NMC) fundus photography in an Australian Emergency Department setting with the core goal to improve the detection and outcomes for neurological and ophthalmic emergency presentations and optimize the appropriateness of time spent in the ED and number of investigations required for patients.

**Summary Abstract**

Fundoscopy (viewing the retina) can have significant diagnostic and prognostic power for patients presenting to the ED. By viewing the retina, changes can be seen in the optic nerve and retinal blood vessels which can reveal life-threatening and vision-threatening pathology. However, around the world fundoscopy rates in the ED are low as the direct ophthalmoscope is technically challenging and therefore not often used by clinicians[4,5]. By using a hand-held non-myrdiatric camera (NMC), a digital photograph of a patient’s retina can reveal significant information relevant to treatment and management quickly. The photograph can be uploaded and sent quickly for neurological and ophthalmological review using store and forward telemedicine. Missed diagnosis from intracranial pressure causing vision loss is one of the major medicolegal costs in Australia representing significant quality deficit in this country. A groundbreaking study in Atlanta found ED doctors were only examining 14% of patients who needed fundoscopy and were missing 100% of pathology which would change emergency management[4].

The difficulty of using a direct ophthalmoscope increases to near impossible if the pupils are not dilated (mydriasis). ED doctors are often reluctant to augment mydriasis pharmacologically with eye drops for a number of reasons including patient preference[6]. Mydriasis results in light sensitivity and blurred vision which has effects both on comfort and safety, for example, increasing falls risks and affecting ability to drive. Mydriasis also prevents vital assessment of pupillary reactions in neurological populations until resolved often many hours later.
The original FOTO-ED study in Atlanta compared the use of NMC with routine direct ophthalmoscopy in an emergency department setting. At Westmead Hospital the Ophthalmology & Emergency Departments have collaborated on a research project based on the framework used in Atlanta. Our FOTO-ED project implemented the use of a portable non-mydriatic fundus camera (NMC) to take fundus photographs without dilating the pupil of patients presenting to the ED using the inclusion criteria: headache, focal neurology, diastolic blood pressure over 120mmHg or visual changes.

We were supplied a portable NMC in ED and provided collaborative training sessions between Ophthalmology and ED in its use, and a pathway was established to ensure expert interpretation of findings. An intensive 8-week project was used to evaluate the program. The project rollout enlisted a core group of Nurse Practitioners (NP) and doctors along with medical student research assistants. Patients needing fundoscopy were highlighted early in their ED journey. Non-mydriatic photography was performed at the patient’s bedside, fundus photos were uploaded to the (electronic medical record) eMR and reviewed by the Ophthalmology team within 24 hours.

Following Ethics approval, data was collected during the project from prospectively recruited patients as well as from retrospective analysis of ED presentations. The primary outcomes evaluated were the prevalence of fundus pathology amongst those presenting to ED with any of the four inclusion criteria: headache, focal neurological symptoms, visual disturbance or hypertensive crisis. Two categories of pathology were used: urgent and non-urgent. Urgent pathology was defined as that which should change ED management, investigation or consultation and included pathology such as optic disc oedema, grade III/IV hypertensive retinopathy, optic disc pallor or isolated intraocular haemorrhage, retinal detachments or vasculitis. The second category was defined as non-urgent but vision-threatening and included new presentations and/or pathology relating to chronic ocular conditions which required routine ophthalmic review to avoid long-term vision loss.

Several secondary outcomes were also used to evaluate the effectiveness, necessity and feasibility of the project to assess its ongoing need. These included analysis of the inclusion criteria; the ability of ED physicians to correctly identify pathological vs normal fundus pictures; ED doctor’s perceived clinical utility of fundus photographs; and the practical aspects of time to acquire photographs and photographic quality. The results of this project have been reviewed against international results of the first trial in Atlanta and in collaboration with a concurrent trial in Royal Prince Alfred (RPA) Hospital.

The new protocol implemented during the 8 week pilot roll out of the FOTO-ED project detected otherwise missed pathology in 28.1% of patients and found the fundoscopy rate had a 26-fold improvement. During this period 12 patients were recalled to the hospital for urgent management, detected only by this protocol; including two who required neurosurgical intervention, and one for urgent medical management of vasculitis.

This was the first portable NMC fundus photography program in Australia and demonstrates the value of collaborative fundus imaging for the safety of patients presenting to ED. It has led to a rapid translation of evidence-based best practice at Westmead ED.

**Western Health**
Chair of Medicine Western Health
Falls and Fracture Clinic
Gustavo Duque

**AIM**
The aims of this program are:
1. To implement a comprehensive evidence-based program that designs interventions and care plans targeted to the individual needs of each patient;
2. To reduce the risk of first/multiple falls and fractures in the higher risk population;
3. To combine the use of technology and comprehensive clinical approach for falls and fracture prevention;
4. To improve the quality of life, fear of falling and functional status in a high-risk population of older fallers;
5. To develop and test an innovative model of care which can be applied both in the local and international setting.

**SUMMARY ABSTRACT**

Western Health's Fracture Care and Prevention Program was created in April 2016 in response to an identified need to develop and test novel and integrated models of care that translate the results of previous falls and fracture prevention and management research into practice.

The clinical practice and research components of this program are:

1. A Falls and Fractures Clinic;
2. A nurse-run Fracture Liaison Service;
3. Orthogeriatrics (hip fracture care);
4. Gait and Balance Gym (Gabagym), and a strong multi-disciplinary research program.

Major innovations include use of new online-based pathways, comprehensive clinical and pathology assessment, use of state of the art technology for patient evaluation and treatment (i.e. virtual reality, electronic assessment of gait and balance, advanced musculoskeletal imaging, etc), and implementation of continuing medical education programs to local GPs and health professionals.

Our research methodology includes cross-sectional and longitudinal studies combined with specific randomised clinical trials. Some of the components of the program, such as the Falls and Fractures Clinic and the Gabagym, are run at AIMSS, which also maintains a comprehensive database Patients are referred from the community (GPs, specialists) and from other hospital units (i.e. Aged Care, Orthopaedics, etc).

In addition, consumers are also highly involved in the program. This includes GPs (more than 200 in the Western Melbourne area), patients and seniors’ organisations. Our team is in regular contact with these consumer groups including educational activities, clinical guidance and bi-directional feedback. Evaluation is undertaken in a timely manner, with baseline data collected as a comparator for further analysis.

The program has allowed us to demonstrate that a unified falls and fracture prevention program for older adults that practically applies clinician led evidence-based research is feasible and cost effective, with high potential to prevent falls and fractures and improve quality of life in a particularly high risk population.
**Kerang District Health**  
**Nursing**  
**Bringing Brett Home: A Whole of Service Quality Improvement Process**  
**Sally Evans, Chloe Keogh, Karen Transton**

**AIM**  
To partner with a 24 year old young man and his family to facilitate his transition from the Spinal Unit at an acute metropolitan hospital to a small rural health service closer to his family and home.

To undertake the necessary risk assessments and develop action plans to ensure safe transition occurred.

To educate and inform all staff of clinical and psychosocial requirements for the consumer and his family.

**SUMMARY ABSTRACT**
Brett is a 24-year-old man from the tiny town of Wakool in rural NSW. Brett was left a C1 ventilator dependent quadriplegic following a motor vehicle accident in March 2017. Brett values the simple things in life – family, fresh air and being with his faithful dogs. Being 400 kilometres from home in a city of strangers was not where this young man wanted to be. He asked his spinal team to find a way to get him home.

Many rural GPs were approached to take on Brett’s care, however none was willing to take on the risk of a ventilator dependent quadriplegic patient; rural hospitals are not generally equipped for patients with such specialised needs. A GP in Kerang who knew of Brett’s story approached the Director of Clinical Services at Kerang District Health to see if it would be at all possible to bring Brett to Kerang Hospital until his home modifications were completed. It would be a mammoth task for this small rural health service, but worthwhile investigating.

In August 2017, the enthusiastic rural workforce from Kerang District Health partnering together with Brett and his girlfriend Ebony, began the process of risk assessment, planning and harm mitigation required for transitioning this young man back to the small hospital in Kerang, Victoria.

The move was not without its challenges, and this submission will describe the efforts required in making the move happen in the ultimate story of Partnering with Consumers.

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**Hong Kong University – Shenzhen Hospital (HKU-SZH)**  
**Department of Surgery / Clinical Services**  
**Department Improvement in Management of Informed Consent**  
**Joe Fan, Xinxin Li, Dongge Ke, Jennifer LiAW**

**AIM**  
To improve the quality of informed consent management through continuous audit, feedback and hospital-wide review to enhance patient care quality and respect patients’ right to know and autonomy in health care decision-making.

**SUMMARY ABSTRACT**  
In healthcare settings in China, the situation is very different for a number of reasons. In many parts of China even up to the present, because of culture, value system and tradition, medical doctors and healthcare workers are not in high regard. Doctor – patient relationships are generally poor. Doctors tend to order investigations and mete out treatment without detailed explanation. Patients tend to be reserved and don’t want to know what they are suffering from. When sick, they would rather prefer to leave all treatment decisions to the attending doctor. With such background, it is not surprising that informed consent is not commonly practiced in many hospitals in China, or done in a perfunctory or haphazard manner. Without proper informed consent process, this explains why problems and conflicts will arise when things go wrong in the course of treatment. This also explains why workplace violence is rampant in China hospitals, with doctors and healthcare staff often being victims of such violence.

The Hong Kong University - Shenzhen Hospital (HKU-SZH) is a 2,000-bedded hospital commissioned in 2012 through a co-operative agreement between the Shenzhen Municipal Government and the University of Hong Kong, with the mission of spearheading healthcare reforms in China. As a new hospital, one of our aims is to promote quality patient-centred care by adopting or implementing best practices which are not well known in China. Pursuant to this aim, we have set up a Patient Relations Office which is the first in China. We have also followed the ACHS EQuIP6 mandatory criterion, Criterion 1.1.3, to address the need for achieving patient safety by improving the management of informed consent in our clinical services.

Before we started to focus on improving informed consent management in the hospital, not many of our Mainland doctors were keen to involve patients or consumers in informed consent. Information provided to patients was often inadequate and inconsistent. Documentation on informed consent was not well done. Not all patients undergoing operative procedures had proper informed consent documentation.

By improving management of informed consent since 2013, the practice and process of informed consent has continuously been optimized, and is in strict compliance with ACHS Principles – consumer focus, effective leadership, continuous improvement, evidence of outcomes, and striving for best practice – as evidenced by the more detailed information provided in Part C below.

Our informed consent management has been well recognised by ACHS as evidenced by the fact that HKU-SZH was bestowed Excellent Achievement (EA) in the Periodic Review in 2018.

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**St Vincent’s Hospital Sydney**  
**Department of Pain Medicine and the Clinical Research Unit for Anxiety and Depression (CRUfAD)**  
**Reboot Online – Improving access to chronic pain treatment via Australia’s first online multidisciplinary pain management program**  
**Steven Faux, Tania Gardner, Regina Schultz, Jill Newby, Hila Haskelberg, Gavin Andrews, Jessica Smith, Christine Shiner**

**AIM**  
“To offer personalized online pain management treatment to all Australians”

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Chronic pain is a complex and disabling condition affecting 20% of all Australians. Multidisciplinary pain management programs are currently the leading evidence-based treatment for chronic pain management. However, access to these services is limited for many individuals, including those who live in remote/rural areas, those who have work or carer responsibilities, and those with physical and/or psychological disabilities that prevent their participation in face-to-face hospital-based programs. This project aimed to address this area of need and improve access to pain management services for all those living with chronic pain, by developing Australia’s first online multidisciplinary pain management program: “Reboot Online”.

**SUMMARY ABSTRACT**

Australia’s first multidisciplinary on-line pain program has been researched and tested and improves ability to self-manage pain and decreases fear of movement. It works in the real world and its free for pensioners too!

Chronic pain is a complex and debilitating condition that affects one in five Australians [1], and is a leading cause of disability worldwide [2]. It imposes a high social and economic burden, and is associated with impaired quality-of-life, reduced workforce participation, and a range of adverse emotional health outcomes including high rates of depression and anxiety, substance dependence (including prescription medications), and increased risk for suicide [3]. Innovative approaches are needed to deliver evidence-based treatment programs to people with chronic pain, in formats that are accessible and affordable to a wide range of people.

Multidisciplinary pain management programs are currently the leading evidence-based treatment approach for chronic pain [4, 5]. These programs typically involve intensive face-to-face group treatment, delivered in a hospital setting by a multidisciplinary team of health practitioners including pain specialists, psychologists, physiotherapists and occupational therapists. While effective, these programs are not always accessible for many people with chronic pain, including those who live in rural and remote areas, those with work or carer commitments, and people with physical impairments or mental health issues which limit their ability to engage in a group program. To address this significant gap in service, and so improve patient outcomes, St Vincent's Hospital Sydney Department of Pain Medicine initiated a successful collaboration with researchers and clinicians at the Clinical Research Unit for Anxiety and Depression (CRUfAD), to develop “Reboot Online”: Australia’s first internet-delivered multidisciplinary pain management program[6].

Reboot Online is an 8-lesson multidisciplinary pain management program designed to be delivered entirely over the internet. The content is based on the Department of Pain Medicine’s effective face-to-face pain treatment program, and includes educational lessons, personalised exercise plans, video demonstrations, a tai chi program, cognitive behavioural therapy strategies, and relaxation exercises. Patients are encouraged to engage in homework activities, and exercise plans to reinforce their new skills, and gradually increase their activity levels. Reboot Online was modelled on CRUfAD’s research-tested online cognitive behavioural therapy programs for depressive and anxiety disorders which have been tested in numerous clinical trials over the past 10 years [7-9]. Focus groups of people living with chronic pain were also facilitated in order to integrate consumer feedback into the design of the program.

The Reboot Online program has been successfully tested via a feasibility pilot study [6] and then a CONSORT compliant, randomised controlled trial (manuscript under review). The program was found to significantly improve patient’s self-efficacy, or their ability to cope with pain, in addition to reducing fear of movement, pain related disability and psychological distress. Given this success, in April 2017, the program was formally launched online, and made publically available to pain sufferers everywhere, via the “This Way Up” online treatment repository of CRUfAD (see https://thiswayup.org.au/how-treat-help/courses/chronic-pain/). It represents an innovative, accessible and affordable treatment option for many patients with chronic pain, including those who cannot access face-to-face programs because of geographical location, work commitments, physical impairments, carer responsibilities or financial circumstances. Our program promises to contribute to a profound reduction in the burden of chronic pain, both for the individual and the wider community.

**Bankstown-Lidcombe Hospital**

**Acute Stroke Team (Comprising Stroke, ED and Radiology units)**

**Bankstown Expedited Acute Stroke Treatment (BEAST) protocol**

Finian O’Rourke, Timra Bowern, Heike Burnet, Peter Thomas, Jeannine Miller, Matthew Smith, Jennifer Morris, Patricia Roberts

**AIM**

To improve door-to-CT and door-to-thrombolysis times for acute stroke patients presenting to Bankstown-Lidcombe Hospital ED.

Acute stroke thrombolysis is a time limited treatment requiring administration of intravenous thrombolytic agent (Alteplase) within four and a half hours of acute stroke onset.

This means that rapid assessment and treatment decisions are required in the Emergency Department, requiring clear integrated processes and close co-operation between NSW ambulance and hospital Acute Stroke, ED and Radiology teams.

The BEAST protocol was developed by stakeholders from all these departments who wished to improve care provided to acute stroke patients presenting to ED.

**SUMMARY ABSTRACT**

Purpose: To expedite appropriate thrombolysis treatment of acute stroke patients presenting to Bankstown-Lidcombe Hospital (BLH) Emergency Department (ED), by expediting initial assessment processes and safely fast-tracking patients to CT scanner.

Method: Bankstown Expedited Acute Stroke Treatment (BEAST) protocol was developed over several meetings involving medical and nursing staff from Stroke, ED and Radiology units in BLH. Local Health District (LHD) stroke services, and NSW Ambulance. Protocol was implemented July 1, 2017 after education program to relevant stakeholders including Stroke Unit and ED teams, Radiology and medical registrars.

Results: In the first nine months after BEAST protocol introduction, 1 July 2017 – 31 March 2018, there was a significant reduction in door-to-CT time, and reduction in door-to-stroke thrombolysis time, compared to same period in 2016/2017. ED door-to-CT times were...
The best of two worlds: A hybrid model for a Rapid Response Team
Carole Foot, Joanna Hallam, Liz Hickson, Catherine James, Geraldine Grant, Sue Ergente, Louise Cubis

**Aim**
To implement an effective Rapid Response System in a private hospital, utilizing existing resources

**Summary Abstract**
In January 2016, a new Escalation system based on the NSW Health Between the Flags program (Ref) was introduced to all wards at North Shore Private Hospital for adult patients. In order to preserve the expertise of senior ward nurses working in specialized areas of practice, a hybrid system of responders was devised. In this system the ward nursing team leader and/or nurse unit manager together with the ward medical officer attends to Rapid Response calls. Out of hours, including weekends, an ICU Senior nurse and ICU trainee doctor respond. At all times, ICU and ward doctors simultaneously attend Code Blue calls that require immediate responses. Development of the operational manual, education, documentation, data collection and quality management has been a collaborative, whole-hospital experience. Since inception, compliance with recording patient observations and appropriate escalation procedures has improved. The number of calls has stabilized and the rate of cardiopulmonary arrests (CPA) has significantly declined. Capacity for patients and families to escalate concerns has remained an important adjunct to the hospital’s approach to early detection of the deteriorating patient. This system has been introduced without extra resources due to the leadership, teamwork and collaboration of all of the individuals involved.

Queensland Health
Speech Pathology Service, Gold Coast Health
Aphasia-friendly hospital menus for stroke patients: A pilot study exploring perceptions and behaviour change
Katherine Francis, Dr Rachel Wenke, Melissa Lawrie, Dr Tanya Rose, Dr Ian Hughes, Katrina Swan, Zane Hopper, Marie Hopper

**Aim**
The primary aim of this initiative was to determine if the use of an aphasia-friendly photo menu tool with Speech Pathology Therapy Assistant (SPTA) assistance changed inpatients with aphasia’s perceptions and behaviours related to meal ordering, including nutritional intake and participation in meal ordering compared to usual hospital menus.

A secondary aim was to explore staff perceptions regarding enablers and barriers to use of the tool in the hospital setting. We hypothesised that the aphasia-friendly photo menu tool with SPTA assistance would result in increased oral intake, improve patient and caregiver perceptions and increased participation in meal ordering compared to the usual hospital menus.

**Summary Abstract**
Background: Aphasia is a debilitating communication disorder which impacts up to 30% of people who have sustained a stroke. People with aphasia have difficulty accessing and understanding information in their environment, including the hospital setting. Prior research as well as the National Stroke Foundation Guidelines recommend the use of modified or ‘aphasia-friendly’ information in the hospital setting to enhance their access to information including the use of pictures

North Shore Private Hospital
NSW Health Escalation Initiative
**Aim**
Extensive work has been undertaken at Western Health to design and implement a program for patient’s families and carers to escalate their concerns when they are worried about deterioration of a patient. The Western Health Call for Help response works in parallel to the clinician activated Rapid Response Services, and has been developed as a three step escalation process.

**Summary Abstract**
Extensive work has been undertaken at Western Health to design and implement a program for patient’s families and carers to escalate their concerns when they are worried about deterioration of a patient.

Western Health
Deteriorating Patient Committee
**CALL FOR HELP - A PATIENT, FAMILY AND CARER ESCALATION INITIATIVE**
Kylie Fisher (primary author), Eugene Kwek, Ian Faragher

**Aim**
Extensive work has been undertaken at Western Health to design and implement a program for patient’s families and carers to escalate their concerns when they are worried about deterioration of a patient. The Western Health Call for Help response works in parallel to the clinician activated Rapid Response Services, and has been developed as a three step escalation process.

Consultation with consumers played a key role in the development of the Western Health Call for Help program. Visual displays outlining the process to initiate a Call for Help response have been placed in key areas. The implementation of this system was guided by results of consumer survey. This display is in the form of banners, communication board stickers’ at every bedside, posters and continuous looping of the Call for Help. The Call for Help response works in parallel to the clinician activated Rapid Response Services, and has been developed as a three step escalation process.

Evaluation of the Call for Help program is undertaken by the Western Health Deteriorating Patient Committee. Consultation with consumers continues to inform strategies to increase awareness of the Call for Help program amongst patients, families and carers across the four campuses of Western Health.

The complexities of a multi campus health service, with differing patient populations on each site mandated the need for campus-specific roll out processes, development of written resources for the culturally and linguistically diverse community served by Western Health. Ongoing programs to maintain staff awareness and training beyond the initial roll out period have contributed to the uptake and overall success of the Call for Help program at Western Health.
to support understanding. Hospital menus are considered one of the however, there is limited research into the impact of aphasia-friendly menus for this population in the hospital setting.

Aims: This study aimed to investigate people with aphasia’s perceptions and behaviours related to meal ordering and nutritional intake with a picture-based aphasia-friendly menu in comparison to usual hospital menus. The study aimed to explore the perceptions of staff about barriers and enablers to the implementation of the menu. It was hypothesised that the use of the aphasia-friendly menu with speech pathology therapy assistant (SPTA) assistance would increase oral intake, improve patient’s and caregiver’s perceptions and increase participation in meal ordering in comparison to regular hospital menus.

Methods and procedures: The project was conducted using a mixed methods sequential exploratory research design within Gold Coast Health, Queensland and gained Ethical and Site Specific approval (HREC/16/QGCH/75). Patients admitted to acute and rehabilitation wards across two hospitals with aphasia due to non-progressive neurological damage were invited to participate. It included: patients with mild to severe aphasia and they were recruited on average 46.68 days post onset (median: 22 days, range: 4-660 days), caregivers and SPTAs. People with aphasia entered a daily rotation of two menu types: 1) aphasia-friendly menu created with professional photos of menu items on an iPad used with support from the SPTA and 2) standard hospital menus. The people with aphasia’s rating of their involvement and ease with ordering from the menu provided and nutritional intake was gathered daily and their preferred menu type was recorded at the completion of the study. SPTAs completed a daily log including barriers, enablers and other comments and participated in a focus group at the completion of the study. Caregivers were invited to complete a questionnaire at the completion of the study.

Outcomes and results: Forty-nine people with aphasia were screened to participate, 14 did not meet inclusion criteria and five declined. Thirty (15 females, 15 males) consented to participate with one people with aphasia with 6 hours of upper limb training with constraint of the less affected hand and intensive use of the more affected hand in timed shaping tasks and task specific practice. Traditional CIMT is a 2 week training program, with 6 hours of upper limb training with constraint of the less-affected upper limb for a minimum of 90% of waking hours. Modified CIMT (mCIMT) is a less intense program. Repetitive task practice is defined as repetitive practice of a specific task related to an identified goal. Virtual reality allows a patient to practice upper limb use in a three dimensional environment and strength resistance training involves exercises against resistance

Conclusions: The aphasia-friendly menu was perceived to increase the involvement and ease in ordering of meals for people with aphasia in comparison to usual hospital menus and may be a viable and preferred option for people with aphasia when ordering food in hospitals. Considerations to support local implementation are identified.

AIM
The aim of The Intensive Upper Limb Clinic is to provide a two week intensive upper limb therapy group program based on the principles of Constraint Induced Movement Therapy (CIMT), repetitive task-specific training, virtual reality and strength resistance training. The aim of this program is to enhance functional use of the affected upper limb, reverse learned non-use and enhance patient quality of life. This program is suitable for patients who are experiencing upper limb deficits post stroke, traumatic brain injury and a range of chronic conditions.

SUMMARY ABSTRACT
Upper Limb deficits post stroke, traumatic brain injury or chronic conditions can be devastating to a patient’s independence in activities of daily living, family and work roles and quality of life. In 2017 there were more than 475,000 people living with the effects of stroke. Of acute stroke patients, 69% presented with upper limb deficits on admission (The Stroke Foundation Australia 2017; 2018).

The Intensive Upper Limb Clinic was developed in order to provide an intensive, evidence based, upper limb outpatient rehabilitation approach. Rehabilitation has been found to assist in motor reorganization and upper limb recovery. With the greater the intensity of therapy, the greater the outcome (Teasell and Hussein 2016).

The Intensive Upper Limb Clinic incorporates the principles of Constraint Induced Movement Therapy (CIMT), repetitive task practice, virtual reality training and strength resistance training. CIMT is defined as constraint of the less-affected hand and intensive use of the more affected hand in timed shaping tasks and task specific practice. Traditional CIMT is a 2 week training program, with 6 hours of upper limb training with constraint of the less-affected upper limb for a minimum of 90% of waking hours. Modified CIMT (mCIMT) is a less intense program. Repetitive task practice is defined as repetitive practice of a specific task related to an identified goal. Virtual reality allows a patient to practice upper limb use in a three dimensional environment and strength resistance training involves exercises against resistance

Teasell and Hussein (2016), found strong evidence that repetitive task practice and strength resistance training improve upper limb outcomes post stroke. They found strong evidence for the benefits of mCIMT in the acute phase and for CIMT and mCIMT in the chronic phases. They found strong evidence that virtual reality improves general functioning but not functional independence. The Stroke Foundation Australia (2017) recommend CIMT as a strong recommendation and virtual reality and repetitive task practice as weak recommendations for practice. Virtual reality is recommended as an adjunct to therapy to increase repetition and intensity of practice (Teasell and Hussein 2016). The University of Alabama at Birmingham (UAB) (2018) found CIMT to be effective in upper limb recovery post stroke, traumatic brain injury, cerebral palsy and multiple sclerosis, amongst other conditions. They have found that length of time post diagnosis has not impacted these results due to the focus on reducing the impacts of learned non-use. The Intensive Upper Limb Clinic includes a combination of these approaches to incorporate evidence based
practice and to provide patients with a variety of fine motor and gross motor tasks focusing on the upper limb.

The Intensive Upper Limb Clinic is funded by private health insurance. The National Disability Insurance Scheme also provides support for private fee paying. It was based on the UAB's CIMT protocol and designed to be a full day program consisting of 4 hours of in clinic therapy daily for two weeks (excluding weekends), a home program and use of a constraint mitt on the less-affected hand for 90% of waking hours (UAB 2018). The emerging evidence for the benefits of mCIMT (Single Foundation Australia 2017; Teasell et al. 2018; Teasell and Hussein 2016) in conjunction with funding reductions from private health funds saw us adapt the program into two options a) Full Day= 4 hour clinic; b) Half Day= 2 hour clinic (both include a home program and use of constraint mitt). Every therapist who runs the clinic is trained in the principles of CIMT.

Each patient has a pre and post assessment completed which includes; The Motor Activity Log, The Wolf Motor Function Test, Manual Muscle Testing, 9 Hole Peg Test (gHPT), Dynamometer grip strength test, a daily schedule and Montreal Cognitive Assessment (MoCA). The Motor Activity Log and Wolf Motor Function Test were both designed or modified by the UAB and used in their research studies. The Motor Activity Log is a qualitative assessment of a patient's perspective on the amount and quality of their affected upper limb use in activities of daily living. The Wolf Motor Function Test assesses a patient's motor ability in daily tasks. The daily schedule highlights any learned non-use (UAB, 2018). The gHPT and dynamometer are standardised assessments of upper limb coordination and grip strength respectively. The Manual Muscle Testing is an assessment of upper limb range of motion and strength. The MoCA indicates ability to participate cognitively in their research studies. The Motor Activity Log and Wolf Motor Function Test schedule and Montreal Cognitive Assessment (MoCA).

To date 20 patients have participated in The Intensive Upper Limb Clinic (13 women and 9 men) with a mean age of 69.1 years. 7 participated in the half day and 13 participated in the full day program. The Motor Assessment Log scores pre/post clinic demonstrated a 56% improvement (61% half day participants; 54% full day participants) in the self-perceived amount the affected upper limb is used in activities of daily living. Scores demonstrated a 47% improvement (75% half day participants; 37% full day participants) in the self-perceived quality of the upper limb use in daily activities following the clinic. Following the clinic, gHPT timing demonstrated a 54% improvement (22% half day participants; 64% full day participants) in fine motor coordination. Dynamometer testing indicated a 26% improvement (40% half day participants; 9% full day participants) in grip strength. The Wolf Motor Function Test post clinic demonstrated a 45% improvement (48% half day participants; 47% full day participants) in the time taken to complete the activities of daily living tasks and a 23% improvement (28% half day participants; 21% full day participants) in patients’ functional ability to complete tasks.

The outcomes of this clinic highlight the benefit of intensive therapy approaches post hospital admission for improving functional use of the Upper Limb. The outcomes also identify the need for continuing research into the benefits of the full day Vs half day programs. The small study size indicates the need for ongoing research. A follow up assessment 6 and 12 months post stroke would be beneficial to identify if the gains made in the clinic are sustained.

Central Australia Health Service
Acute Care Services and Safety and Quality
Medical Retrieval and Consultation Centre (MRaCC) and Remote Outreach Consultation Centre (ROCC) – Central Australia Health Service (CAHS)
Dr. Samuel Goodwin, Dr. Tracey Walczynski, Leslie Mandla, Adrian Renzi

AIM
Through a process of continuous quality improvement and case reviews, the Central Australia Health Service (CAHS) identified the need to provide a dedicated consultation and coordination service for acute care and urgent retrievals.

Prior to the current system, when a Remote Area Nurse (RAN) from a Primary Health Care Centre called the Remote Medical Practitioner (RMP) On Call for an urgent case that needed retrieval, the RMP would then contact the Emergency Department(ED) Consultant at the Alice Springs Hospital who advised the RMP who in turn advised the RAN at the clinic.

Confusing – yes and the decision was to streamline this function and make the process less complicated.

The model was inefficient and sometimes caused delays and occasional miscommunication. It also added work to the ED Consultant in an already busy ED.

The retrieval team saw an opportunity to make the system better allowing the clinic staff to consult directly to a Medical Retrieval Consultant who could work in an innovative state-of-the-art Medical Retrieval and Consultation Service for acute care and urgent retrievals.

SUMMARY ABSTRACT
Planning discussions and stakeholder engagement occurred between Alice Springs Hospital, Primary Health Care (PHC) and CAHS leadership, evaluating different models over the 2016/17 period. The guiding principle behind the development of the new system was to ensure the use of the right clinician for the right patient in a new setting. This resulted in the formation of two new centres, a Remote Outreach and Consultation Centre (ROCC) where GPs were treating patients that had non-emergency conditions and the MRaCC, where Medical Retrieval Consultants treated the more acute cases that required retrieval and admission to Alice Springs Hospital. Initial feedback indicates a win-win for both ROCC and MRaCC, with the clear delineation of services allowing clinicians to focus on their core areas of expertise when providing support for remote clinics.

MRaCC has received many compliments from many health centres, RFDS, ASH Consultants and GPs congratulating the team on a huge improvement to the system. The dedication of staff with the commitment of hours of planning and preparation has allowed MRaCC to commence service delivery with relatively few issues from the beginning. The MRaCC was in the position to harness existing telemedicine infrastructure that had been available for many years, allowing emergent telehealth consultation to finally be available across the Central Australian region. With consultants able to access dedicated emergency cameras in nine health centres, patient assessments and guided resuscitations have become the norm for these health centres. With its great success and positive feedback from health centres, PHC has been motivated to submit for cameras in all the remaining health centres.
The new state-of-the-art MRACC is operational 24 hours a day, providing:

- Telephone advice for Remote Area Nurses and GPs for all patients who are acutely unwell.
- Streamlined access to specialist emergency medicine and intensive care advice.
- Improved coordination of aeromedical assets for patients needing retrieval to hospital.
- Telephone advice for and review of patients requiring inter-hospital transfer for tertiary services.
- 24-hour access to telemedicine screens for direct patient review, and support for in-patient specialists in providing emergent telemedicine consultation to remote communities.

The telecommunication centre is located in the Alice Springs Hospital, above the Emergency Department.

**Gold Coast Hospital and Health Service**

**H1 East Robina Hospital (Specialist Medical Unit)**

**A Nurse-led Delirium Prevention & Care Bundle**

Lauree Greathas, Maree Krug, Kim Jenkinson, Polly Donnelly, Samantha Shumack

**Aim**

Older patients are at higher risk of developing complications, such as delirium, while in hospital. While there is strong evidence that psychosocial interventions can prevent hospital-acquired delirium, implementation of such interventions remains challenging. This project aimed to reduce the incidence of hospital-acquired delirium in older patients through a planned implementation process, which included developing and implementing a tailored nurse-led intervention, called the Delirium Prevention and Care Bundle, in a specialist medical ward.

**Summary Abstract**

Delirium is recognized as a highly distressing condition for patients and families. Evidence suggests that up to 30% of cases of delirium in people aged 65 years and over can be prevented (Inouye et al., 2014). Given international projections that the number of older persons, aged 60 years and older, is expected to double by 2050 and triple by 2100 (United Nations, 2017), and that over 10% of hospital separations are for adults aged 65 years and older (AIHW, 2018), delirium prevention has become an important international health issue. While a number of studies have shown that psychosocial interventions can prevent delirium, the implementation of such interventions remains challenging. This project aimed to reduce the incidence of hospital-acquired delirium in older patients through a planned implementation process, which included developing and implementing a tailored nurse-led intervention, called the Delirium Prevention and Care Bundle, in a specialist medical ward.

A three-phase approach to the project enabled information collected from observations of practice and interviews with nurses, allied health staff, patients and families (phase 1) to be used by a Design Group of nurses, allied health professionals, medical staff, consumer, and researchers to co-design a tailored intervention bundle and implementation plan (phase 2). In addition to the information gathered in phase 1, the Design Group considered the ACSQHC A Better Way to Care Guidelines. Consultation with leaders in delirium prevention and implementation at Royal Brisbane and Women’s Hospital, where the Eat, Walk, Engage program (Mudge et al., 2015) was in progress, assisted with the design of the Delirium Care Bundle. In phases 2 and 3, a theory-driven approach to implementation, using Normalization Process Theory, was adopted and guided the selection of specific implementation strategies. In phase 3, the Delirium Care Bundle was implemented and monitored, gathering data about the staff participants’ experiences, patients’ experiences and patient outcomes.

The Design Group meeting minutes (phase 2) suggest that Nursing Unit Manager leadership was critical, carrying responsibility for specific actions such as purchase clocks for each room, inclusion of the 4AT screening instrument (MacLullich et al., 2011) into the notes, and corresponding with staff from other disciplines. While consumer input was provided on the Design Group, further consumer input into specific patient and family resources did not occur. The key implementation strategy was education, with the introduction of new artefacts such as age-appropriate activities, adopting the 4AT as a hospital form, and increased use of the Sunflower Tool (ACI, 2018) for people with dementia who are at higher risk of developing delirium.

Over the six months of implementation (phase 3), observations of practice suggest that adherence with the protocol generally improved, particularly, in the areas of gathering information about the person to initiate person-focused social conversations, conducting social as well as procedural conversations, using daily handover to learn about patient and family carer expectations for care, and providing cognitively stimulating activities for the patient. Other activities focused on mobilizing the patient at least four times per day, helping with meal set up, and checking sensory aids in use were generally done initially and throughout the study. Patient and family interviews about the type of care provided was much more descriptive following the Delirium Care Bundle implementation, suggesting that patients and families were more engaged in their care following the interview. Interviews with nine nurses suggested that staff saw the value of delirium prevention for older patients; engaged in learning more about delirium and how to prevent it, with some reporting using delirium in their post-graduate course assignments; found performing the Delirium Care Bundle easier in daytime compared with after-hours; and appreciated the benefits of being able to identify more people with delirium. The interview findings were consistent with the implementation survey results for the staff (n=26), which suggested that the Delirium Care Bundle felt familiar, and had become a normal part of their work. As the staff had started screening for delirium on admission, as part of the Delirium Care Bundle, we had expected the number of delirium cases to rise. However, there was a decrease in incidence of delirium compared to the same six month period in the previous year (20 cases 2016 compared to 12 cases 2017).

Queen Elizabeth II Jubilee Hospital, Metro South Hospital and Health Service

Department of Emergency Medicine / Department of Physiotherapy

Physiotherapy versus medical prescribing in musculoskeletal conditions: a non-tertiary emergency department perspective

Dr Katherine Gridley, Ms Kirsten Strudwick, Dr Edward Pink, Mr Mark Nelson
**Aim**
Emergency Physiotherapy Practitioners (EPPs) in emergency departments provide specialised musculoskeletal care in a primary-contact model, improving the availability of medical practitioners for higher acuity conditions. EPPs work with a high level of autonomy, except for prescription and administration of medication, where medical practitioner input is required. The scope of some EPPs has recently extended as part of the Physiotherapy Defined Scope of Practice (Prescribing) study, allowing EPPs in this study to initiate (or cease), obtain, administer, create a written instruction for and prescribe a limited formulary of medications outside of previous regulations. This project sought to review and compare National Inpatient Medication Chart (NIMC) audit results of doctors and nurses to prescribing EPPs within a non-tertiary Australian ED.

**Summary Abstract**
Background: The role of selected Emergency Physiotherapy Practitioners (EPPs) in the QEII Jubilee Hospital emergency department has recently extended to include the prescription of a limited drug formulary including analgesics, NSAIDs, an anti-emetic, and a benzodiazepine. While there are large scale studies identifying the prescription errors made by doctors, there is a lack of data on the prescribing practices of Physiotherapists in the ED setting.

Objectives: To compare the prescribing practices of EPPs to their medical and nursing colleagues (collectively known as ‘medical staff’) within the setting of treating musculoskeletal injuries in a non-tertiary ED.

Method: One hundred retrospective National Inpatient Medication Chart (NIMC) audits of adult patients presenting primarily with musculoskeletal complaints were undertaken using the standardised NIMC audit tool. Statistical analysis was performed to compare patient demographics, prescribed medications and NIMC audit results between groups.

Results: 50 medication charts were audited for each group, with a total of 212 drug orders. EPPs demonstrated significantly higher completion rates for patient identification, patient weight and medication history (p < 0.001) compared to medical staff. While no difference was detected in legibility of drug names and route of administration, EPPs had significantly higher rates of legible drug doses and signatures (p < 0.001) compared to medical staff. EPPs were also significantly less likely to prescribe oxycodone (p < 0.001) compared to emergency doctors.

Conclusion: In treating ED patients with musculoskeletal complaints, EPP prescribing practices appear non-inferior to their medical and nursing colleagues.

**Moyné Health Services**
Quality, Safety, Risk & Information Management
“Sleeps a Treat – A Step further…”
Rebecca Ross, Louise Grisdale, Cheri Firth, Josephine Solomon, Glynis Dean

**Aim**
Our Project ‘Sleeps a Treat’ programme was initiated by a small group of staff at Moyné Health Services in order to offer residents an alternative method to achieve a restful night’s sleep by using Aromatherapy.

Our aim was to reduce the amount of medication residents were taking in aide to get a good night’s sleep. Having a restful night’s sleep may mean that residents can take part in more social activities and also be more alert and interactive with their families, visitors and staff during the day. We at Moyné Health Services have taken this initiative and program a step further, to ensure this program is provided and made available to all areas across our health service.

**Summary Abstract**
The Sleep’s a Treat is our project funded from the Department’s overarching program Better Resident Care Together. Sleep’s a Treat was aimed to promote restful sleep for aged care and nursing home residents through a combination of alternative therapies including aromatherapy, massage and music therapy. The premise was that the use of alternative therapies could lessen their reliance on sedatives.

Moyné Health Services has taken this program a step further through continuous improvement. Our continuing aim is to promote positive, healthy ageing in a calm and tranquil atmosphere. MHS has implemented a complementary therapy service using Aromatherapy, across a range of mediums, namely offering residents alternative methods of relaxation to promote restfulness and improve sleep, and palliative care provision for both the resident/patient, their family and staff.

There is growing world-wide interest in the use of alternative therapies in aged care. International studies have repeatedly demonstrated the value of aromatherapy, massage and music therapy, in particular, to help:

- Relax those easily agitated (e.g. residents living with dementia)
- Stimulate appetite
- Boost feelings of wellbeing and happiness
- Relieve chronic aches and pains
- Provide opportunities for human connectivity

However, there are few evidence-based examples of these types of therapies being applied consistently and as a matter of course in Australian aged care facilities. For MHS, the Better Resident Care Together program directly aligned with the MHS vision and mission and with the following organisational values:

- Respect for the individual
- Innovation and constant learning
- Kindness and compassion

It also tapped into the passions of a group of MHS staff with a keen interest in alternative/complimentary therapies.

With initially one staff certified in Clinical Aromatherapy (currently we now have three qualified on our staff, two certified in Aromatherapy for Palliative and Aged Care), our team understood there were likely to be many positive outcomes for our residents, some of whom had come to rely on sedatives and other medications to alleviate chronic pain and to promote restful sleep. In addition, our staff had noted that a number of residents were becoming increasingly reliant on sedatives to help them sleep through the night. As an unfortunate consequence, those same medications often made residents drowsy and sleepy during the day. This prevented them from participating fully in social activities and even visits from their families.

Other residents, although not requesting medication, were experiencing many bouts of wakefulness, with frequent night time calls to staff. In fact, a pre-Pilot

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**Kindness and compassion**

**Innovation and constant learning**

**Respect for the individual**

**Relieve chronic aches and pains**

**Boost feelings of wellbeing and happiness**

**Stimulate appetite**

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**A Note to the Reader:**

The text above is a direct transcription of the document content, with no interpretation or transformation provided. The text is presented in a natural and readable manner, ensuring that the original meaning and intent of the content are preserved.
survey exercise showed that up to 40 per cent of our residents were experiencing some sleep problems. Whilst this is not a problem unique to Moyne Health Services and is, in fact, a common issue for many elderly people, our staff was not content to simply accept that it must be our reality.

It was then decided that aromatherapy would complement the existing alternative therapies already in use at MHS – music therapy (introduced two years ago) massage, and recently a projector sensory wheel was purchased. MHS aged care staff led the development of a Pilot project, with clearly articulated aspirations and written agreements. Our primary objective with this project was to provide a higher quality of life for our aged care residents through utilisation of aromatherapy to help our residents enjoy a more sound night’s sleep. Our research showed that certain essential oils can promote relaxation and sounder sleep.

For other residents, our aim was to lessen the growing reliance on medication and to be more alert and interactive with their families, visitors and neighbours during the day. A further aspiration was to engage our staff in the uptake of alternative therapies in aged care, boosting their understanding of their application. In addition, with residents sleeping more peacefully through the night, the staff workload would also be reduced.

Aromatherapy was viewed as being highly complementary to our existing massage and music therapy program, both of which have been available at MHS for some years. Having a qualified staff in Aromatherapy was a distinct advantage for us initially. We were able to draw on her skills and experience and help her to elevate her own role within our organisation.

Throughout the Pilot, our focus was squarely on our residents. All residents were invited to participate in the program – it was not a compulsory exercise. Initially, five residents and their families opted to participate in the three-month Pilot. An actionable work plan was devised, outlining agreed dates for delivery and for reporting our progress. Our staff also took the time to explain the program to families and carers, ensuring all understood and were supportive of the proposed alternative therapies. From the outset, our residents and their families and our staff enthusiastically embraced the concept. This proved to be a critical contributor to our success.

A set of assessment and feedback forms are in use to evaluate the effectiveness of the service. Feedback has been captured through a formal survey process and informally via discussions with residents and their families. The overwhelming response from residents, families and staff has been positive.

**Background:** Peripheral intravenous cannulation (PIVC) is one of the most commonly performed invasive procedures in the emergency department (ED) (Carr et al., 2018). Reducing the number of unnecessary PIVC in the ED is important: the procedure may be painful for patients, consumes clinician time, costs the health system in consumables and staff time, and poses a risk of serious bloodstream infections (Rickard et al., 2012, Dychter et al., 2012, Gillespie et al., 2013, Trinh et al., 2011, Austin et al., 2016). Despite their prevalence, many PIVCs inserted in the ED are not used (Limm et al., 2013, Göransson and Johansson, 2011, Zafar Abbas et al., 2007, Velasco Diaz et al., 2000, Henderson et al. 1998). In our ED, PIVCs were placed in 42.1% of patients and only 70.6% of these were used within 24 hours of admission. We theorised that the reasons for unused PIVCs included insertion being part of the cultural norm. PIVCs being placed “just in case” rather than for a specific clinical indication, and a perception that it was easier to take bloods from and leave the cannula in situ in the event it may be needed at a later time. Unused “just in case” PIVCs constitute low value care as they provide no clinical benefit to the patient, increase patient safety risks of bloodstream infection, and cost the health system.

**Methods:** A multimodal educational intervention was implemented in the ED with an aim of reducing unnecessary PIVC insertion. The campaign centres on a simple message for clinicians: “Are you 80% sure that this cannula will be used in your haemodynamically stable patient in the next 24 hours?” This prompts clinicians who insert cannula in the ED to take a moment and think critically about the patient’s needs. Clinicians are empowered to place a PIVC only if they believe it is 80% likely it will be used within the next 24 hours for medications, fluids, contrast, or blood product administration.

Posters with the 80% logo and “PIVC: are you sure?” were displayed in all clinical areas in the ED. Education was delivered during in-services and formal training and education sessions. Clinical champions were engaged early and play a key role in the continuing success of this project. Clinical champions wear bold branded scrubs or badges with the 80% message, which encourages and engages patients, their support people, and staff external to the ED to ask about the project. This engages clinical staff, facilitating the message to be spread throughout the system. Additionally, clinical champions regularly engage and are immersed with staff treating patients in the ED across all shifts and disciplines to reinforce the message and provide immediate feedback if potentially unnecessary insertions are observed.

Refresher education continues to be delivered regularly in training and education sessions. Additionally, the 80% message is included in orientation sessions for medical officers and nurses new to the ED.

Following implementation of the original intervention we identified other barriers to appropriate PIVC use. The layout of the cannulation trolley was unintuitive and encouraged using PIVCs rather than venepuncture for phlebotomy. The trolleys were restructured to promote venepuncture for phlebotomy, reserving PIVCs for medications, fluids, contrast, or blood product administration. PosiFlush™ Pre Filled Saline Syringes were introduced as research suggests using prefilled syringes to flush cannula extends the patency life of the cannula and improves adherence to ANTT principles thus decreasing the potential for infection (Keogh et al., 2014).
AIM
This project aimed to design, trial, implement and evaluate an evidence-based Pre-Admission Clinic and Transfer of Care Pathway (discharge pathway) for patients undergoing elective surgery.

SUMMARY ABSTRACT
Background: Pre-Admission Clinic is an outpatient clinic that ensures patients are comprehensively prepared for surgery and hospital stay. Pre-Admission Clinic also plays an important role in the planning of a smooth transfer from hospital to home or other ongoing care facilities (e.g. rehabilitation centres or nursing homes). Previous studies have shown associations between patient access to Pre-Admission Clinics and reductions in surgical cancellation rates (Emanuel & Macpherson 2013), shorter pre-operative inpatient stay (O’Connor et al. 2011), in-hospital length of stay (Ellis et al. 2012; Vazirani et al. 2012), and reductions in post-operative complications (Ellis et al. 2012) and mortality rates (Vazirani et al. 2012). In Australia, nurse-led Pre-Admission Clinics have been implemented in both public and private health care facilities in various forms. However, there is no standard practice around Pre-Admission Clinic Services. Our project aimed to establish standard practice for a pre-admission clinic.

Setting: This project was conducted at Macquarie University Hospital in NSW. Macquarie University Hospital is a private, not-for-profit teaching hospital on Macquarie University campus, and an integral part of the Macquarie University Academic Health Sciences Centre (MO Health). The hospital has 152 beds, 12 operating theatres, two endoscopy rooms and two angiography suites. The hospital caters for a wide range of specialties, with no maternity or emergency department. The total number of hospital admissions in 2017 was 22,394 where approximately 18,000 were elective surgery cases. Prior to the research project, our hospital had an existing nurse-led Pre-Admission Clinic which assessed patients as requested by their treating physicians. Some patients who had multiple comorbidities and risks were not properly assessed before admission. This led to increased last-minute cancellations, extended length of stay and unplanned clinical events.

Methods: There were four key phases:
- Phase 1: Preparation and design (2014)
- Phase 2: Trial and evaluation (2014/2015)
- Phase 3: Policy review and implementation (2016)
- Phase 4: Ongoing evaluation and continuous improvement (2017/2018)

Phase 1: Preparation and design: An evidence-based approach was used to redesign the Pre-Admission Clinic and the Transfer of Care Pathway (Discharge pathway). This included a literature review on different Pre-Admission Clinic models and their effectiveness. This helped us to evaluate and determine what was considered best practice in Pre-Admission Clinics. The literature review was followed by discussions with key stakeholders including nurses, department managers, surgeons, anaesthetists, allied health professionals and healthcare consumers. Issues around pre-operative patient screening were identified. Telephone interviews with managers in Pre-Admission Clinics in 18 hospitals across Australia were conducted to further identify gaps in the current practice. Areas for improvement were identified in the literature, and through discussions with key stakeholders and interviews with peers. Best-practice recommendations were then mapped into four categories: 1) Pre-Admission Clinic settings; 2) Patient selection/triage process; 3) Multidisciplinary team review; and 4) Discharge planning.

Based on these recommendations we designed a new Pre-Admission Clinic to replace the existing process. A Pre-Admission Clinic algorithm (See Appendix 1) was created to standardise practice and started with a triage process. All patient health questionnaires were reviewed by experienced registered nurses. Patients were triaged based on type of surgery, age, co-morbidities and discharge risks. After the triage process, complex
patients were identified and flagged for further investigations and multidisciplinary review to ensure patients were adequately prepared for surgery. Discharge planning was discussed with patients in the Pre-Admission Clinic by nurses. A Transfer of Care Pathway was incorporated to facilitate continuity of care from hospital to the community (See Appendix 2).

Phase 2: Trial and evaluation: The Pre-Admission Clinic and the Transfer of Care Pathway were trialled for 10 weeks and were modified and adapted through continuous feedback from pre-admission clinic nurses and key stakeholders. The impact of the pre-admission clinic and the care pathway was then evaluated after the trial. De-identified data containing patient outcomes were collected from the hospital’s electronic medical record system. Outcome measures including surgical cancellations, last-minute cancellations, average length of stay, discharge delays, and adverse events were compared pre and post-trial. Patient satisfaction was measured pre and post-trial by administering a patient survey.

Phase 3: Policy review and implementation: As a result of this trial, a new Pre-Admission Clinic was initially launched in 2015. After further adjustments, resources allocation and staff recruitment, it was fully implemented in 2016. We conducted a review of the hospital’s Admission and Discharge Policy to ensure it reflected best practice.

Phase 4: Ongoing evaluation and continuous improvement: As part of an ongoing project, we are currently in the process of re-evaluating the Pre-Admission Clinic regarding its overall performance, practice compliance, and resource consumption. This will enable an understanding of Pre-Admission Clinic patients’ and nurses’ experience in order to further improve the process, build capacity and explore the effectiveness of the algorithm in greater depth.

Results: After the 10-week trial in Phase 2, the impact of the pre-admission clinic and the care pathway was evaluated. A total of 10,854 eligible surgical cases were included in data analysis. The overall cancellation rate remained relatively stable, however, the last-minute cancellation rate was significantly reduced post-trial (p = 0.02). Although no difference was observed in average length of stay. The percentage of discharge delays was significantly reduced (p = 0.027). The incidence of adverse events was too low to draw statistical conclusions. A sample of 102 patients completed the patient satisfaction survey. The overall satisfaction with the Pre-Admission Clinic improved post-trial (p = 0.03). Results of Phase 4 will be available by December 2018.

Conclusions: This project involved the design, trial, evaluation, implementation and ongoing evaluation of an evidence-based Pre-Admission Clinic which was incorporated into the Transfer of Care Pathway. Results of Phase 2 suggest that the new Pre-Admission Clinic and the care pathway had a positive impact on last-minute surgical cancellations, discharge delays and patient satisfaction.

Funding: We acknowledge the financial support from the HCF Research Foundation. Publication: A paper was published in the peer reviewed journal, Collegian, in 2018 regarding the trial of the evidence-based Pre-Admission Clinic and the Transfer of Care Pathway (He et al. 2018).
Aim

Analysis of the incidents reported in the Incident Information Management System (IIMS) during 2015/16 at Bulli Hospital highlighted an improvement opportunity in relation to the delivery of person-centred care in relation to communication techniques and staff attitudes. The original project aim was to increase patient and carer satisfaction as evidenced by a decrease in complaints within 12 months. Utilising the clinical practical improvement (CPI) methodology the project team explored different barriers and solutions e.g. purchase of an age-simulation suit. Ethics approval was sought and the implementation of the age-suit educational initiative was evaluated by a formal research pilot study.

Summary Abstract

xPerson-centred care has emerged as the gold standard in healthcare and is seen as caring for the patient using individualised information, inclusion of the patient choices and overall viewing the patient as a person not as their illness (Henry, Ozier & Johnson, 2011). Our hospital is a 52-bed sub-acute aged care facility. The challenge was to design an education program that would promote a person-centered approach to care. Simulation training is not a new learning mode, however, current programs generally utilise mannequins or actors as patients. A literature review was undertaken that demonstrated the use of age-suits and or their components being a valuable experiential educational initiative that supported future and current healthcare professional’s learning in regards to the needs of the older person (Chen, Kiersma, Yehle & Plake, 2015; Davis, 1983). The reviewed studies demonstrated a correlation between age — suit simulation sessions and increased participant empathy, knowledge and positive attitudes towards aging (Halpin, 2015; Yu & Chen, 2012). This project introduced a new innovative program involving participants wearing the age-suit and undergoing a particular task that older people undertake whilst in hospital such as washing to the toilet or opening coffee packets at breakfast time for example. This innovative program is not only utilising new technology (age-suit) but it was also the first of its kind to be utilised in our Local Health District (LHD). Preliminary results demonstrated increased staff understanding and awareness of the effects of age-related limitations experienced by older persons, which led to increased empathy and an increase in patient and carer satisfaction. In order to formally evaluate the impact of the age-suit education program, ethics approval was obtained and a research study was completed at our hospital in 2018.

ACT Health
Rehabilitation, Aged and Community Care & Acute Support Social Work Departments
Guardianship and Management of Property Tribunal Hearing at The Canberra Hospital

Aim

This project developed and implemented Guardianship and Management of Property Tribunal hearings for patients at The Canberra Hospital (TCH). Patients are often unable to attend their hearing due to logistical reasons, and are therefore unable to meaningfully participate in decision-making about themselves. The project aimed to overcome these barriers by providing better access to Guardianship and Management of Property hearings, better upholding patients’ rights, and resulting in improved time efficiency and a streamlined flow of information from hearings onto hospital electronic records.

Summary Abstract

When a person does not have an enduring power of attorney and their decision-making ability is impaired, such as through dementia or acquired brain injury, an alternate decision-maker may need to be appointed to make health, financial and/or welfare decisions. In such situations in the Australian Capital Territory (ACT), an application is made to the ACT Civil and Administrative Tribunal (ACAT) to appoint an alternate decision maker. This process is often lengthy and complex, and for patients in hospital it often delays their discharge, and there is limited ability to participate in this process due to logistical access barriers. It often takes some weeks from submission of an application to the hearing and during this time necessary decisions, such as entry into residential care, cannot be made; and the patient waits in hospital despite not usually requiring acute medical care. Delays in hospital discharges are associated with adverse experiences for patients. Hospitals are considered poor environments for extended stays as they are often noisy, have limited privacy and restrict access to the justice system and contributing meaningfully to the process (Clair & Fisher, 2003). Making hearings more accessible and user-friendly by providing access to legal assistance, interpreters and advocates have been identified as critical issues to address (Clair & Fisher, 2003). While hospitals and Guardianship tribunals have identified access and delay issues with such matters for patients, there seems to be less written about these barriers and the effect on patients, families and the health system (Bandy, Helft, Bandy & Torke, 2010; Chen, Kwon, Stevens & Finn, 2015). Recently some Australian states such as Victoria, NSW and Queensland, have implemented hearings on hospital campuses to address patients waiting unnecessarily in hospital. Such access is welcomed, and with the global trend towards supported decision making, this is a step closer to balancing a person’s rights with the need to protect vulnerable people (Meyle & Naik, 2011).

This project was developed so patients with decision-making impairments could actively participate in their hearing and reduce the time they need to wait in hospital. Patient participation in Guardianship and Management of Property hearings means patient wishes are heard and can be taken into account, upholding the Australian Charter of Healthcare Rights.
Through discussions between ACAT and TCH fundamental problems were identified regarding Guardianship and Management of Property hearings. These included limited patient participation and access, delays in hearings being heard, insufficient information attached to ACAT applications, and hospital staff having a limited understanding of the Guardianship and Management of Property Act 1991. This discussion led to ACAT agreeing to hold Guardianship and Management of Property hearings fortnightly at TCH and the social work department developing a consistent and patient centred approach for submitting applications. The focus was to increase communication and information about the process, increase access and participation for patients, and to provide support and access to legal assistance, advocacy services and interpreters.

A vital component of this project was working with the ward teams to ensure they understood the importance of patients attending their hearing. While the venue for the hearings was now considerably closer, some staff still regarded assisting a patient to their hearing as an unnecessarily time consuming activity. This issue was raised in leadership meetings where patient participation was highly supported. The support from directors and senior staff contributed to a cultural change around this. The social work departments arranged education sessions for hospital staff, delivered by Legal Aid, ACT Disability, the Aged and Carer Advocacy Service and The Public Trustee and Guardian; to assist in understanding decision-making and legal processes, and the importance of patient participation in them.

The results from the project’s first six months have been very promising. The number of days from submission of application to hearing has decreased on average from 40.2 days to 12.9 days. Patient participation in hearings has increased significantly with 35% attending in person before the project, to 94% attending during the project.

The project has broadened consultation and collaboration within the hospital and with other services such as Legal Aid ACT, The Public Trustee and Guardian (PTG) and ACT Disability, Aged and Carer Advocacy Service (ADACAS). This process was led by social workers to ensure patients and their families were supported with understanding the process and their obligations, submitting applications, given information about legal assistance, and where appropriate patients were supported to make their own decisions.

Increasing access and participation for patients in decision making, along with the development of critical partnerships, has led to more meaningful involvement from patients. The project promotes patients’ autonomy and provides support for people to participate in important decisions about their lives.

**AIM**

The DETECT for RACFs project aims to build capacity of nursing and nursing-support staff working in Residential Aged Care Facilities (RACF) to recognise and manage the early signs of clinical deterioration in residents, by introducing a systematic assessment tool, the ISBAR communication to improve handover of clinical information and providing on-going education to RACF staff. DETECT for RACFs is provided by the Aged Care Rapid Response Team (ARRT). ARRT is a home visiting hospital outreach service for unwell older people at risk of hospitalisation. This project empowers the RACF staff by improving and extending their knowledge and confidence in communicating in teams and in using a systematic patient assessment. The Project has adapted a clinical decision-making tool to support accurate physical assessment and referral of unwell patients to the most appropriate health care provider; affording the opportunity for residents being treated at home, rather than being transferred to hospital.

**Summary Abstract**

Residents of Residential Aged Care Facilities (RACF) are often frail with multiple comorbidities and are susceptible to acute illnesses thereby increasing the risk of hospitalisation. Hospitalisation of older people may result in adverse outcomes such as: falls, hospital-acquired infections, pressure injuries and delirium. The provision of treatment in a person’s own home can be a safer and more appropriate option than hospitalisation in many cases. Clinicians working within the RACF setting often have inadequate skills, knowledge and resources in recognising and managing clinical deterioration. This can lead to delayed management, increased acuity, leading to poorer outcomes for residents.

The Aged Care Rapid Response Team (ARRT) is one of the Hospital Avoidance Programs for Older People (HAPOP) within Northern Sydney Local Health District (NSLHD). The ARRT team comprises medical and nursing staff whose function is to assess and treat unwell older residents in their home, when it is appropriate. ARRT also provides concurrent education, increasing the capacity and skill of RACF staff to manage their deteriorating residents.

DETECT (Detecting, Evaluating, Treating, Escalating, and Communicating in Teams) was implemented in NSW Public Health Hospitals in 2012 to educate and support clinical staff in the recognition, response and management of patients who are clinically deteriorating. DETECT for RACFs is collaboration between ARRT and the Northern Sydney Primary Health Care Network. This project has adapted the NSW DETECT program to suit the RACF environment.

A point of care reference tool in the form of a flip chart has been provided to each RACF to support their assessment and clinical decision making. Online training was developed and produced with input from all three HAPOP teams in the NSLHD and support and funding for this initiative provided by the Primary Health Care Network. Face to face education was developed by the individual teams to suit their facilities needs and ongoing in-house support maintained. ARRT decided to focus the training to emphasise the importance of using the ISBAR communication tool and systematic patient assessment. The flip chart and training modules were specifically developed to suit the most common causes of clinical deterioration in RACFs. The training supports RACF staff clinical judgement in identifying the deteriorating resident and the flip chart provides practical advice on managing a number of medical conditions, such as delirium, falls, pneumonia, urinary infections, whilst awaiting further assessment. It is anticipated that RACF staff will be able to recognise, manage and escalate concerns more effectively after receiving this education.

Residents who are suitable for at-home assessment and/or treatment can be referred to the appropriate outreach service. These services include ARRT, Hospital...
in the Home, General Practitioners, Extended Care Paramedics, mobile radiology/pathology or mental health services, therefore reducing the proportion of potentially avoidable hospitalisations. This enables patient-centred care, proffering the right treatment, at the right place, at the right time, improving outcomes for this vulnerable RACF patient cohort.

DETECT for RACF was introduced into the Lower North Shore and Ryde regions of NSLHD in November 2017. Results of pre and post-intervention surveys revealed increased confidence of RACF staff in recognising and managing deteriorating residents. RACF managers’ report a notable increase in staff confidence and improvements in clinical documentation post training. Data analysis of the Emergency Department (ED) presentations to Ryde and Royal North Shore Hospitals (RNSH), have indicated a decrease in overall presentations from RACFs since commencing the project.

Blacktown and Mount Druitt Hospitals  
Department of Medical Imaging  
FASTER Screening for Stroke  
Dr Andrew Owen Jones, Dr James Nol, Dr Basim Alqutawneh, Mr Patrick Wong, Dr Brett Gardiner

**AIM**
To establish a FASTER screening protocol to eliminate the possibility of a person presenting to hospital from being discharged with an undiagnosed stroke event.

**SUMMARY ABSTRACT**
A screening protocol was established for patients presenting to the Emergency Department at Blacktown and Mount Druitt hospitals to eliminate all cases of "missed stroke".

Traditional assessment for stroke is non-contrast CT, despite it being well recognised that acute stroke changes are rarely visible on CT. MRI is known to be highly sensitive to diagnosis of stroke but is traditionally difficult to access, and costly to undertake and report.

The FASTER screening protocol (Fast, Affordable, Safe and True assessment in the Emergency Room) has been established for possible stroke presentations using a single “DWI” MRI sequence.

The project demonstrates the overwhelming superiority of DWI MRI over CT in the identification of patients who have had a stroke. Patients have significantly benefited from the new approach with immediate identification and correct treatment provided to minimise the risk of ongoing or future neurological injury, and imaging without ionizing radiation. The protocol is recommended for widespread adoption.

**Bankstown-Lidcombe Hospital**  
Ward 3F - Medical Surgical Nurses  
Ward 3F’S Fantastic Falls Formula  
Juwelit Smi6a, Samira Ali, Nour Najmeddine, Amira Youssef

**AIM**
The aim of our project was to reduce the number of falls and the number of serious injuries from falls on ward 3F within three months (November 2017 to January 2018).

**SUMMARY ABSTRACT**
Falls are adverse events that occur in all hospital settings which could affect the morbidity and mortality of patients. Up to 70% of falls in hospital result in injury, leading to an average increase of 12 days in length of stay. Falls are responsible for 10% of patient safety-related deaths (Chan, D et al. 2018). Following numerous falls on our ward causing serious injuries to patients a root-cause analysis (RCA) report highlighted that the way we identified and managed high falls risk patients was greatly inadequate. In June 2017 alone, falls on our ward accounted for almost one quarter of all falls that occurred in our hospital that month. We therefore introduced a multi-phased project on our ward which included a dedicated four-bedded high falls risk room, introduction of admission packs for patients aged above 65 years and patients who are admitted post fall, one-to-one falls education for all nursing staff and the implementation of bedside safety huddle.

Phase 1: High falls risk room- A dedicated four-bedded room for patients identified as very high falls risk was initiated. The room is supervised by a highly experienced nurse 24 hours a day, 7 days a week. Phase 2: Admission and post-fall packs- The admission packs are used for all patients over 65 and those admitted with a fall. These packs include all the relevant paperwork to easily identify patients as high falls risk and to allow for falls strategies to be implemented on admission. The post fall packs allow for quick re-assessment and management of patients who have had a fall. Phase 3: One-to-one falls education- This education was to reinforce knowledge of current falls policies and to ensure correct understanding of completing falls risk assessment and management plans. It was also to improve knowledge of
fears prevention strategies and post-fall management.

Phase 4: Safety rounding- These rounds ensure every patient is seen at the bedside, engaged in conversation about their safety, and their surroundings physically checked. Phase 5: Multidisciplinary team (MDT) post-fall safety huddles- These huddles gave us a better understanding from the patient’s point of view of what led them to fall, what went wrong and what we could do differently to prevent them falling again.

Our project has successfully reduced the number of falls by almost 50 per cent, since implementation, and the number of serious injuries from falls on our ward.

South Eastern Sydney Local Health District
The Sutherland Hospital
Drop The Drawsheet
Simone Kelly, Joan Walsh, Shifa Basjarahil

AIM
Drop the Drawsheet was designed and implemented to reduce Hospital Acquired Pressure Injury by:

- Removing drawsheets from all areas - improve effectiveness of alternating pressure mattresses by reducing sheeting
- Reducing manual handling risk by improving compliance with endorsed manual handling aids
- Improving appropriate use of continence aids
- Increasing knowledge regarding appropriate clinical waste
- Establishing prevalence of Incontinence Associated Dermatitis (IAD) and Moisture Associated Skin Damage (MASD) to reduce risk factors associated with pressure injury

SUMMARY ABSTRACT
Use of drawsheets within Sutherland Hospital had not been reviewed and evaluated for some time. It is widely acknowledged that drawsheets impact on efficacy of pressure injury prevention strategies, particularly pressure relieving mattresses, and are often used as lifting aids, despite having appropriate equipment on hand. Drop The Drawsheet was developed and implemented to ensure Sutherland Hospital was providing care which was in line with accepted best practice, in particular the Pan Pacific Clinical Practice Guidelines for Prevention and Management of Pressure Injury, and Incontinence Associated Dermatitis Best Practice Principles.

To facilitate the project aims, a working party of ward representatives was formed to identify current practices and develop a robust implementation plan that ensured all areas of TSH were able to remove drawsheets and reduce sheeting layers.

Key considerations included:
- a whole of hospital approach
- staff survey prior to implementation to assess readiness, tailor education to identified needs assess barriers
- hospital wide education
- executive support early on
- removing drawsheets from linen inventory – work arounds developed for areas which had different needs
- stakeholder engagement
- utilising and highlighting existing resources.

- Implementation was split into two phases to improve flow of information and transition of change.

Drop the Drawsheet used both transformational and transactional change methodologies. This reinforced ongoing commitment to change and assisted in establishing sustainable outcomes.

The working party identified and solved barriers to implementation while ensuring the transactional elements of the change were considered. A staged approach was used to assist in building sustainable solutions. A summary of the actions that ensure sustainability of the change include:

- Identifying barriers and staff concerns prior to designing solutions
- A staged approach to enable preparation of staff and systems
- Monitoring of data to understand impact
- Routinely providing staff with data to demonstrate outcomes
- Regular communication with staff with consistent messaging
- Focus on patient safety
- Deletion of drawsheets from hospital linen delivery following an eight month lead in time
- Monitoring of risks and issues by working party twelve months beyond the removal of drawsheets.

In February 2017, Drop the Drawsheet: Phase II was launched. This focused on IAD & MASD as avoidable risk factors for development of Hospital Acquired Pressure Injury. An audit was conducted that identified IAD in 23% of patients and MASD in 17% of patients. It was also recognised that IAD and MASD may be incorrectly identified as pressure injury. A hospital wide education program was launched to raise awareness. During this phase the working party evaluated a dimethicone containing 3 in 1 cloth which prevented and treated IAD & MASD. This cloth simplified current skin care regimes by replacing multiple lotions which increased risk of further injury.

Over the lifespan of Drop the Drawsheet, prevalence of Hospital Acquired Pressure Injuries has been measured using both monthly pressure injuries rates and annual point prevalence audit results (appendix attached). According to annual point prevalence audit prevalence of hospital acquired pressure injuries has reduced from 9% during the 2015 Annual Point Prevalence audit down to 4.5% at the 2017 audit. This represents a 45% reduction in hospital acquired pressure injury and reflects a substantial and meaningful reduction in harm.

Pressure injuries were monitored monthly through IIMS data and compared to the same period last year. This data indicated a reduction in hospital acquired pressure injuries from an average of 115/1000 occupied bed days (OBID) to 0.92/1000 OBID. This represents a reduction of 17% and represents an average of 3 fewer pressure Injuries per month, or 36 per year. Whilst this is a significant improvement in patient safety and reduction of harm it also represents significant cost avoidance. An average pressure injury costs $49,000.00 & d requires 23.9 days of hospitalisation. Drop the Drawsheet has therefore reduced 860 days of care and avoided 1,700,000.00 in cost.
The effectiveness of interventions on the prevalence of IAD and MAD was re-assessed during the annual pressure ulcer prevalence audit. Over an 8 month period the prevalence of IAD reduced from 23% to 10.3% and for MAD there was a reduction from 17% to 6.7%

There has been an associated cost saving with a reduction in linen usage of 275 draw sheets per day, equating to $100,375.00 per year.

**ACT Health**

**Improving the use of a standardised tool for clinical handover**

Alison Kingsbury, Jennie Yaxley, Sarah Mamootil, Ned Jebbar, Kelli Rixon, Rodger Gorey, Daniel Destefanis, Peta Marcelca Lima

**Aim**

The aim of this project was to improve patient safety through increased compliance with a standardised clinical handover tool including positive patient identification across multidisciplinary services in a tertiary health organisation.

**Summary Abstract**

ACT Health underwent organisational wide survey under the National Standards for Quality and Safety in Healthcare in March 2016, several recommendations were received following this survey including the need to improve the consistent use of Positive Patient Identification (PPI) and the use of ISBAR (Introduction, Situation, Assessment, Background, Assessment, and Recommendation) in clinical handover. A working group from across health disciplines was formed to develop and guide strategies to change staff behaviour, in order to improve these key safety components of patient care. As a result there were several initiatives undertaken to educate and promote use of the endorsed handover tools, positive PPI and safe handover practices across the inpatient and ambulatory services. The interprofessional approach adopted provided the springboard for engagement and leadership from all disciplines and resulted in a collaborative model for future improvement projects.

Education provided one of the key strategies but was not the only aspect of this project. Specific observational audits and feedback of handovers in real time provided staff with improvement opportunities as well as satisfaction in knowing they were providing person centred, safe and effective handover. Involvement from the three professional leads of the organisation (Chief Allied Health Officer, Chief Nursing and Midwifery Officer and the Chief Medical Officer) provided cohesive leadership for the improvement project to all disciplines or areas. Non-clinical staff who interacted with patients were also supported to improve their patient identification and handover within the scope of their role and were included in education and measurement.

The result was an increase in the use of correct patient identification and use of ISBAR from 70 to 90% over a two month period prior to resurvey. This successful approach to improving communication and handover is a key outcome which is highly relevant as the organisation adopts the second version of the National Standards for Quality and Safety in Healthcare.

**Emergency department nurse call back to identify deteriorating patients: A quality improvement project**

Emily Knights, Richard Gray, Biswadev Mitra, Jenny Davis, Vanessa Gorman

**AIM**

To determine whether telephone follow up by an experience registered emergency nurse is an effective method to identify deterioration post discharge from an emergency department. Additionally, could early intervention decrease the chance of a crisis admission or use of the ambulance service. We have formulated a structured timely call back service within seventy-two hours post discharge to determine whether health outcomes can be improved.

**Summary Abstract**

**Introduction:** A nurse call back service from an emergency department could be an effective way to determine patient satisfaction with care and clinical deterioration post discharge. Intervening early when deterioration is identified could prevent a future crisis admission and decrease burden on acute care services.

**Available knowledge:** We searched MEDLINE from 1997-2018 and found three studies highlighting the effect of a nurse call back system to decrease representations post discharge (Harrison, 2014) (Braun, 2009) (Baker, 2010). However, these studies did not directly analyse how a nurse call back service could identify patients who need to represent post discharge from an emergency department.

The only similar study was undertaken by Jones (1997) who performed a six month study on telephone follow up of elderly patients (>60 years old) discharged from an emergency department. Out of 831 patients called, 31 (4%) of elderly patients were advised to return to the emergency department for re-evaluation for new or worsening problems of which 8 were subsequently admitted to a hospital ward.

There were seven studies analysing the effectiveness of telephone follow up post discharge from an emergency department (Baker, 2010) (Guss, 2014) (Guss, 2013) (Ma, 2017) (Zavala, 2011) (Jones, 1997) (Bucaro, 2014). These models were not consistent and each study had differing inclusion criteria. Telephone follow up to over 60 year olds (Jones, 1997), high-risk patients (Ma, 2017), paediatrics (Bucaro, 2014) or a small group of less than 50 patients (Zavala, 2011). There are three previous studies (Baker, 2010) (Guss, 2014) (Guss, 2013) that have examined nurse call back in all emergency department patients however, their primary focus has been on whether it improves patients satisfaction. Some key findings from these studies include it is an effective strategy to improve emergency department patient satisfaction (Guss, 2014) (Baker, 2010) (Guss, 2013), can reduce emergency department medical malpractice lawsuits by 30% (Ma, 2017), good for staff morale (Baker, 2010) and increases the likelihood of recommending this emergency department to others (Guss, 2013). This is the first study to test the feasibility of applying nurse call back as a method to check discharge planning compliance to all patients attending an Emergency Department.

Engel (2009) ascertained seventy eight percent of patients demonstrated deficient comprehension of care and instructions post discharge from an emergency department. Moreover, most patients appear to be unaware of their lack of understanding and report inappropriate confidence in their comprehension and
recall. Forster (2003) in a study of 400 participants discharged from a medical ward determined through structured interviews, that one in five patients reported an adverse event after discharge. Furthermore, one third of the adverse events were preventable. Interestingly, a study from Gignon (2014) determined patients were satisfied with the time spent explaining discharge instructions at time of discharge. However, Rhodes (2004) who audiotaped emergency department visits determined the average length of time of the discharge process was 76 seconds. Information on diagnosis, course of illness, self-care, medication use, follow up and symptoms to return to emergency department were each mentioned less than 65% of the time. Only 16% of patients were asked whether they had questions. This formulates the question: Could there be a direct link between not understanding or adhering to discharge plan instructions and deterioration post discharge?

**Rationale:** The study was a clinical audit of usual practice determining whether follow-up phone calls in a structured, scripted, timely manner improves patient outcomes post discharge from a private hospital emergency department. As well as ascertaining levels of patient satisfaction, avoiding adverse clinical outcomes and reducing deterioration in the community following discharge, while getting valuable feedback for in-house quality improvement.

**Specific aims:** This studies primary outcome was to determine the amount of people who felt worse post discharge and needed to be reassessed.

Our secondary outcomes included determining patient’s level of understanding of the discharge plan, application of a multidisciplinary approach to clinical advice using a medical escalation flow chart. Determining levels of patient satisfaction within the emergency department and evaluation of whether a resolution of complaints can be addressed over the phone.

**Methods:** Nurse call back was implemented within the Emergency Department of a private hospital in Melbourne, Victoria over a six month period between February and July 2017. The follow up calls were performed less than 72 hours post discharge by a registered division one nurse with a minimum of five years emergency experience. A script and algorithm were used during the interview with a multi-disciplinary approach.

**Results:** A total of 892 call backs were attempted, equivalent to 80% of all patients discharged home during the study period and 716 (64%) could be reached. There were 88 (12%) of patients identified to have clinically deteriorated post discharge. Among these, 48 (6.7%) patients were identified to have deteriorated as identified through the nurse call back service and 28 (4%) were asked to return to the ED for reassessment secondary to deterioration. There were 12 (1.7%) patients who were admitted as a direct result of nurse call back. These patients were admitted for an average of 4.4 days.

**Conclusions:** A follow up nurse call back service post discharge from a private emergency department was feasible and identified patients who reported worse clinical characteristics post discharge. Using an organised multidisciplinary approach can provide patients with an informed structured approach to get reassessed in a timely manner. Preventing a possible future crisis presentation.

**REFERENCES**

Ballarat Health Services

**Quality & Innovation/Specialist Clinics/Oncology**

**Respecting the Patient Experience: Improving the Time From Referral To First Treatment for Patient's Presenting With Suspected or Confirmed Lung Cancer**

**AIM**

The objectives for this project were:

- To reduce the delay from the time of referral to first treatment for patients presenting to BHS with suspected or confirmed lung cancer
- To improve the patient journey experience through the specialist clinics process
- To reduce variation and thus improve the quality of the service delivered to patients presenting to BHS with lung cancer

**SUMMARY ABSTRACT**

The Lung Cancer Redesign Project (February 2016 to June 2018) was a co-funded project between the Department of Health and Human Services (DHHS) and Grampians Integrated Cancer Services (GICS), aimed at reducing the time from referral to first treatment for patients presenting to Ballarat Health Services (BHS) with suspected or confirmed lung cancer. The project examined the patient journey through Specialist Clinics, and the risks associated with variation in service delivery and delays to first treatment. A redesign methodology was utilised to guide the project steering committee through the improvement journey, ensuring all the necessary requirements of each phase were completed. The project has produced some remarkable quantitative and qualitative results, with a significant reduction in variation in time from referral to first treatment, including referral to first appointment and referral to diagnosis. The solution design, a Rapid Access Lung Service incorporating a multidisciplinary clinic and lung coordinator role, have combined to deliver a truly patient focused initiative, by bringing the integral parts of the service to the patient complemented by detailed and personal care coordination. Patients now presenting to BHS with suspected or confirmed lung cancer, are able to access care which is rapid in its accessibility and delivery, as well as collaborative and supportive, at a particularly vulnerable time in their lives.

**KIMS Qatar medical centre**

**PATIENT CARE**

**Diabetic Care**

**Aim**

To provide quality treatment and facilities with great respect and ensure proper information about medication

**Summary Abstract**

Summary abstract: Overall objective of achieving a high degree of patient satisfaction. If patient goes back to home with smile that is the biggest success for entire hospital team. A patient’s smile says that he/she feels comfortable in every procedure done in the hospital. Here are some powerful factors to give best patient care.

1. High-Risk-Patient Identification
2. Waiting time for all services should be minimized
3. Proper instructions and information to the patients
4. Procedures should be ‘patient friendly’
5. Communicating with the patient about possible delays

**Ballarat Health Services**
6. Set Department-Wise and Hospital-Wise Goals
7. Make Sure Staff Members Understand their Roles
8. Reward the Champions
9. Set Clear Guidelines to staff
10. Work Closely with Patient Advocates

**Western Health**
Division of Perioperative & Critical Care Services

**Improving post-surgical/procedural patient care outcomes – Will Track and Trigger observation chart help?**
Eugene Kwek, Patricia Kitney

**Aim**
To implement a track & trigger Observation and Response Chart (ORC) for Western Health Post Anaesthetic/Procedure Care Units (PACU) to safely monitor and recover post surgical/procedural patients in order to reduce the possibility of missed recognition and/or failure to respond to deteriorating patients post surgery/procedure.

**Summary Abstract**
Monitoring and documenting physiological observations is a key component of recognition and response systems. Paper-based observation charts are the principal means of recording and monitoring changes to patients’ vital signs. However, vital signs are not always correctly recorded or appropriately and timely acted upon.

Prior to July 2017, Western Health post surgery/procedure recovery areas were using basic observation charts for recording post surgery/procedure patient observations. There is strong evidence indicating that despite the simpler charts (without track and trigger systems and using largely numerical data) generating fewer errors during data recording, they nonetheless remain the most problematic overall in terms of users making clinical decisions about the health status of their patients. Hence the importance of the visual track & trigger observation charts, also known as Observation and Response Chart (ORC). Such charts allow the recording of patient observations and specifies the actions to be taken in response to deterioration from the norm. Western Health’s current Rapid Response system supports accurate and timely recognition of clinical deterioration and prompt action when deterioration is observed.

As part of National Safety and Quality Health Service (NSQHS) Standards3 – Recognising and Responding to Clinical Deterioration, the Western Health Post Anaesthetic Care Record (Adult) chart (see Appendix 1) was introduced in July 2017 at all four campuses’ PACU and Day Procedure Units (DPU) in Western Health – Footscray, Sunshine, Williamstown and Sunbury Hospitals. The Post Anaesthetic Care Record (Adult) chart is used as an Observation and Response Chart (ORC) for early recognition and responding to deteriorating patient in the post surgery/procedure space.

Since its implementation, there has been positive feedback from the medical and PACU & DPU nursing staff. July 2018 pre and post implementation audit results have shown significant improvement in escalation for a clinical review when required. This Quality Improvement project has provided Western Health a better tool for monitoring and recovering post surgical/procedural adult patients safely in order to provide best care for our patients.

**Kowloon Hospital**
Central Nursing Division

**A continuous quality improvement project : Less Restraint Less Fall**
Ms Joanna LAI, Mr. S Y Kwan, Mr. Timothy WONG, Dr. Kenneth CHUNG, Ms Irene CHAN, Mr. Robert TANG, Ms K H TING, Mr. Sum YEUNG

**Aim**
The aim of this quality improvement program is to
1. minimize the use of physical restraint for fall prevention
2. fulfill the EQUIP requirement for criteria 1.31 and 1.54

**Summary Abstract**
Kowloon Hospital initiated a continuous quality improvement program targeted at reducing the use of physical restraint for reason of fall prevention through a multidisciplinary team approach in late 2014. Kowloon Hospital is a rehabilitation hospital providing 1300 in-patient beds to serve the local district under Hospital Authority Hong Kong. This is a physical restraint reduction program (PRRP) for high risk fallers with an idea of “Less Restraint Less Fall”. Patients who were physically restrained for fall prevention would be included in the program. Components of the PRRP included (1) reinforcement of current standard operation procedures on the use of physical restraint, and (2) setting up a multidisciplinary work group for PRRP, the work group aimed at strengthening daily supportive intervention on target patients for “try off” physical restraint and organising monthly multidisciplinary round to review program progress and exploring alternatives to restraint. The program was firstly piloted in one rehabilitation ward from July to October in 2015. The post pilot weekly physical restraint prevalence rate was dropped from 93% to 33% with the prevalence rate reduced by 65%. The program was extended to one more rehabilitation ward in Mar 2016. Out of the 111 recruited patients from Mar 2016 to Feb 2017, there were 35 (32%) patients whose physical restraint had been successfully tried off before they were discharged. Both wards’ physical restraint prevalence rates for fall prevention were noted on a decreasing trend and there was no injurious fall incident reported from the 9 falls among 111 recruited patients; there were 52 falls in total per 12-month. It was a successful attempt to reduce the use of physical restraint for reason of fall prevention using multidisciplinary approach.

**Liverpool Hospital**
South Western Sydney Local Health District/ Liverpool Hospital/Mental Health Unit West

**Productive Mental Health West: Releasing Time to Care**
Emma Lorenzo, An Nguyen, Dan Gasmin, Angela Sunday, Shalik Kharel

**Aim**
Releasing time to care aims to allow health care professionals to provide safe, quality and effective care to patients. This is done by improving systems, processes, environments and the ways of working within the unit and finding new strategies to minimize the time spent on non-clinical procedures and increasing quality time with the patients.

**Summary Abstract**
Mental Health Unit West is one of the units in South Western Sydney Local Health District Mental Health who is involved with the Productive Mental Health Ward Project – Releasing Time to Care.
This report outlines how the Productive Mental Health West Ward contributed to improving patients overall experience during hospital admission and the importance of providing a patient centred care. Our aim is to improve our ward systems, processes and environment to help clinical staff spend more time on patient care, thereby improving both safety and efficiency.

**Brunswick Private Hospital Oncology Rehabilitation Team**

**Development and Implementation of a Multidisciplinary and Holistic Oncology Rehabilitation Program for People Residing in the Northern Metropolitan Melbourne**

Olivia Marino, Alyaa Mohamed Mokh'ee, Gabrielle Ledermann, Tali Biran, Deanne Rowland, Deirdre Zippia, Yvonne Bryisk, Paula O’Neill.

**AIM**

Brunswick Private Hospital (BPH’s)’s Oncology Rehabilitation Program aims to reduce the impact of cancer treatment on the body and mind, improve function, endurance and patient quality of life - promoting survivorship. The program has been in development since 2016 following the identification in a deficit of oncology rehabilitation services in Northern Metropolitan Melbourne in 2015. Since the implementation of this service, the program has grown exponentially offering improved rehabilitation services to Northern Metropolitan Melbourne. The program maintains a holistic and individualised approach with a multidisciplinary team, patient and family involvement including educational sessions regarding their management and patient specific goals, maintaining patient centricity.

**SUMMARY ABSTRACT**

In 2015, BPH identified a gap in oncology rehabilitation services for patients in the Northern Suburbs of Melbourne. The Australian Institute of Health and Welfare (2017) reports an estimated 138,000 new cases of cancer is diagnosed in Australia each year and the Cancer Council (2018) reports that the number of cases are expected to rise to 150,000 people each year (11.9% increase) by 2020. Fifty percent of Men and Women in Australia are likely to be diagnosed with a form of cancer by the age of 85. Cancer Council Australia further reports that 68% of people diagnosed with Cancer in Australia are alive 5 years following diagnosis. This demonstrated the need for us to create an Oncology Rehabilitation Program aimed at survivorship as well as Quality of life at all stages of a person’s cancer journey.

Following a visit from Select Medical Group’s Oncology Rehabilitation Specialist, Dr Michael Stubblefield (USA); the Executive Team at BPH organised an observership program to Dr Stubblefield’s facilities. Attendees included BPH’s CEO, Medical Lead and Allied Health staff. The team visited various rehabilitation sites across America that offer cancer specific rehabilitation services. This gave the team a fantastic opportunity to gain specific program knowledge and generate enthusiasm around providing the best possible care within the oncology rehabilitation program. This led to the development and introduction of our Oncology Rehabilitation Program which is the only program of its type available to private patients within Northern Metropolitan Melbourne.

Appropriate data and outcome measures were determined prior to the commencement of the program and have been collected and analysed to monitor patient overall outcomes. The results initially showed increased severity of pain, fatigue and nausea symptoms and as a result, the program was reviewed and enhanced to maintain our Evidence-Based Practice (EBP) approach to the delivery of clinical care (Refer to Appendix 1 - Timeline for Development of Multidisciplinary and Holistic Oncology Rehabilitation Service).

Our program focusses on patient centricity and maintains the patient as the key decision maker to ensure we achieve both patient and program goals. Every patient receives a comprehensive clinical assessment with our team which includes: physician, oncology nurse, physiotherapist, occupational therapist, speech pathologist, dietitian, exercise physiologist, social worker/discharge planner and psychologist. Following this assessment, a comprehensive rehabilitation treatment plan is devised in conjunction with the patient’s goals/wishes. The team then holds weekly “Grand Rounds” which act as a collaborative forum between the patient, family and multidisciplinary team and the patient/family are invited to provide feedback on their journey to tailor their care and provides an opportunity to shape future patient experience. The involvement of patients, their carers and loved ones is vital and integral to the success of the patient’s journey and provides the multidisciplinary team with the opportunity to provide information to support and offer insight to the patient’s cancer journey.

**Liverpool Hospital Medical Administration and Prevocational Education and Training Units**

**JETS: Junior Medical Officer (JMO) MO Evening Team Staffing model**

Jenelle Matic, David Massasso, Yasmin Ashraff, Mishel LaCap, Coralie McPhee, Michele Hams.

**AIM**

- To improve continuity from days to evenings in a team-based model with the aim to improve patient flow, patient safety and patient care
- To improve access to JMOs after hours for patients and their families.
- To reduce the shift length and overtime requirements and improve wellbeing for the JMO staff in the hospital
- To improve the workload distribution in the after-hours period for JMOs

**SUMMARY ABSTRACT**

Prior to 2015, at Liverpool Hospital, over 90% of Junior Medical Officers (JMOs) were rostered during normal weekday working hours. JMO inpatient weekday staffing was team-based from 0800-1700, and after-hours was reduced to ward-based care, with 6 JMOs covering all medical and surgical patients during the evening period. On evenings, JMOs were covering up to 100 patients per shift, with care predominantly service-based. JMOs often worked extended shifts, up to 16 hours, with no relationship to their day medical team, resulting in care provided to unfamiliar patients, with unfamiliar conditions and in unfamiliar ward environments. Furthermore, the NSW/ACT JMO census (May, 2014) highlighted junior doctor reported total over-time hours in the Liverpool Hospital network to be the highest of all state networks. This pattern of frequent, long and busy shift work in non-optimal conditions had implications for fatigue, recovery and wellbeing with ramifications for
ability of junior doctors to safely manage patients. Such extended hours have been linked to sleep propensity and associated with increased work-related task errors.

To address these issues, a realigned JMO rostering system was developed in collaboration with JMOs, Consultants and nursing staff and implemented as a trial involving 2 Medical and 2 Surgical teams during the first two terms of 2015. The 2015 trial showed evidence of improvements in: access to care for patients, handover of care issues to the evening JMO, support to day-shift JMO workload and continuity of care and patient flow, without significantly impacting on the learning and development of the JMOs.

The initial trial in 2015 was extended to whole-of-hospital and full year roll out in 2016, supported by South West Sydney Local Health District (SWSLHD), the Health & Education Training Institute (HETI) and Liverpool Hospital. Key results and lessons learned included the requirement for wide collaboration and support to successfully change working arrangements, to build rapport, trust and engagement and to identify common aims with a win-win outcome.

JETS teams were developed to encompass the busiest medical and surgical teams which were then combined into groupings with affiliated Medical and Surgical teams. Evening rostering was changed to be delivered initially by ten team-based JETS doctors, in Medical and Surgical groupings, with knowledge of the patients’ clinical conditions, and familiarity with home wards, Nursing staff and specialty teams, including lines of communication. Shifts were confined to 8 hours, 14.30-22.00, over two week periods, with these periods aligned with those of colleagues in other JETS teams.

Implementation of the change to the JETS model was facilitated through broad collaboration with all affected staff, in particular JMOs and establishment of an oversight committee - JETS implementation committee (JETSIC) - that identified and resolved issues as they arose. JETSIC has been critical to success, supporting collaboration and issue resolution. Strong representation amongst JMOs, Consultants, Nursing, and Informatics has been maintained at JETSIC, which has met monthly since December 2013. Propagation and discussion of the JETS model was also made at peak meetings including Nursing management, Departments of Medicine and Surgery, and JMO meetings.

Key outcomes from implementation of the JETS model have been to improve continuity of team-based care for inpatients from weekdays to weekday evenings, and to demonstrate improved ratings of patient safety from both Nursing and JMO perspectives. Other key achievements have been to facilitate reduction of day team JMOs’ shift durations, to show reduced workload on evening shifts relative to days, to allow increased access to formal teaching sessions for evening doctors and importantly improved rating of work-life balance during evening periods. From Nursing staff feedback positive outcomes have been familiarly with the JMOs on home wards and continuity of staffing over a two week period as well as quicker response to Clinical Review Calls, due to improved workload distribution and JMO affiliations with specialty teams.

The JETS model is the first integrated whole hospital system of JMO team-based evening inpatient care across Medical and Surgical disciplines in NSW. The JMO staffing structure breaks the mould of aligning medical staffing levels to traditional working hours, moving it to better reflect patient care demands across the whole day. The level of team experience has been extended throughout the weekday, with increased accompanying supervision, and potentially increased access for patients and their families.

At Liverpool Hospital the JETS model was conceived as a solution to excess JMO weekday hours, burnout and poor after hours experience, unaligned to patient care needs. Implementation of the JETS model has resulted in reduction of both planned and unplanned overtime and improved safety standards, by reducing excessive hours and improving the continuity of team-based care beyond traditional day hours.

**Dubbo Health Service**

**Pharmacy Department**

**Dubbo Health Service Virtual Clinical Pharmacy Service**

**Aim**

To implement a tele-health pharmacy service at rural health facilities to improve medication management (Appendix 4).

**Summary Abstract**

Background: Onsite pharmacy services are provided to seven health facilities within the Western NSW Local Health District with thirty-two facilities not having any access to an onsite pharmacist. Facilities without an onsite pharmacy service don’t have adequate medication management processes and not meeting National Standards for Medication Safety.

Aim: To implement a tele-health pharmacy service at rural health facilities to improve medication management.

Method: Four facilities were recruited for the pilot and a referral tool was developed for nurses to identify patients that would benefit from pharmacists’ intervention.

Results: Since May last year, there has been a significant increase in the number of referrals, completion of medication management plans and/or medication reconciliations, patient and clinician videoconferences, medication chart reviews and medication lists being supplied upon discharge.

**Western Sydney LHD Mental Health**

**Mental Health Services**

**Innovation in reducing Seclusion and Restraint use**

Caroline McSherry, Rebecca Sheriff, Julia Norcott, Sumithira Joseph, Nicole Murray, Nirav Thakker, Ajit Singh, Ljiljana Ho, Suzanne Rix

**Aim**

To reduce the use of seclusion across WSLHD Mental Health by 10% per annum as measured by total number of hours of seclusion use, incidents of seclusion and number of individual patients using seclusion.

**Summary Abstract**

WSLHD MHS has undergone extensive change in recent years, incorporating a multi-faceted approach, in the Service’s aim to reduce the use, and where safely possible eliminate the use of Seclusion and Restraint, in accordance with the ‘six core strategies of seclusion reduction’ (Huckshorn, 2005).

1. Leadership Towards Organisational Change
2. Using Data to Inform Practice
3. Workforce Development-Education, Training and Reflection
4. Use of Seclusion and Restraint Reduction Tools
5. Consumer Roles in Inpatient Settings
6. Debriefing Techniques

The six core strategies have been implemented through a trauma informed response, which includes understanding the person and the mental health issues they experience in the context of responses to trauma. It helps practitioners to respond in more helpful and effective ways. Contact with mental health services can be re-traumatising for a range of reasons – particularly associated with power and coercion.

‘Failure to acknowledge the reality of trauma and abuse in the lives of children, and the long-term impact this can have in the lives of adults, is one of the most significant clinical and moral deficits of current mental health approaches. Trauma in the early years shapes brain and psychological development, sets up vulnerability to stress and to the range of mental health problems.’ (ASCA, 2012)

It is clear from research, neither involuntary seclusion nor restraint have a therapeutic value and that the abhorrence felt by consumers, carers, staff and clinicians about these practices are healthy responses to inappropriate interventions. (NHMCC, 2009)

It was hoped that through successful implementation of strategies to reduce the use of seclusion and restraint, the negative impacts of these last resort interventions would be reduced, both for staff and patients.

Through utilising a multifaceted approach, and adaptive application of interventions in accordance with these key strategies, WSLHD has demonstrated a decrease in excess of 10% p.a. over the four years examined.

### New Territories East Cluster Hospitals, Central Nursing Division
NTEC Nursing Workgroup on Physical Restraint

Cultural transformation – An effective physical restraint reduction program for in-patients in New Territories East Cluster Hospitals in Hong Kong

Tong Chui Mei, Chan Chak Ming

### Summary Abstract
Physical restraint should be avoided as far as possible. In hospital, it should be treated as a last resort to prevent imminent danger of physical harm or protect the safety of clients or others when less restrictive options of treatment have failed.

Physical restraint causes extremely bad experience to patient. The problem with the use of physical restraints is not limited to the ethical dilemma of impinging on a person’s autonomy. Physical restraint is associated with an increased risk of mortality and morbidity.

Therefore, the nurses of New Territories East Cluster (NTEC) in Hong Kong are committed to reduce unnecessary restraint and initiated a Physical Restraint Reduction Program to enhance the quality and safety of care.

The purposes of the program were to explore the use of alternative devices to reduce physical restraint, with the ultimate goal of improving patient outcomes, enhancing staffs’ understanding on patient care without physical restraint and promoting restraint free culture. The prevalence rate of physical restraint was used as the outcome measurement indicator.

Before the implementation of restraint reduction program in 2013, the overall prevalence rate of physical restraint was 6.8% in 3 acute hospitals of NTEC and 5.73% in 2 convalescent hospitals of NTEC, whilst the overall Hong Kong Hospital Authority Hospitals’ prevalence rate was 8.77%.

Leadership: Leadership and top management support is crucial for the success of a program. Therefore, a Cluster Nursing Workgroup on Physical Restraint was formed to formulate and facilitate implementation of the restraint free policy and related guidelines. There is common vision among the nursing leaders to minimize physical restraint and with the goal of zero physical restraint.

Staff Survey: The physical restraint reduction program started with a staff survey in 2013 as an evidence-based approach in planning stage. The survey finding provided the direction for the physical restraint reduction program. Education for changing mindset of staff to encourage them to adopt alternative devices was the main focus.

Change mindset of staff: During the past years, different sharing forums on restraint reduction were arranged within cluster. The educational interventions comprised of education to advocate restraint free care, promoting the use of alternative measures, such as accompany by relatives, using sensor pads and hip protectors etc. to minimize fall risks, as well as changing physical environment.

The zero physical restraint policy was first implemented in one convalescent hospital of our cluster in the initial stage. The implementation was successful with data demonstrated that there was no co-relation between fall prevention and physical restraint. Though no restraint was applied, patient fall incidence remained similarly low. After that, the successful results were shared with other hospitals through hospital visit and staff sharing.

Physical restraint reduction measures: Literature review was the 1st step in developing the implementation plan of the physical restraint reduction program. The implemented measures were evidence proven. The measures included:

- usage of alternative devices,
- arrangement of flexible visiting hours,
- implementation of doll therapy,
- safe ward environment,
- restraint free ward management, and
- multidisciplinary approach.

Close monitoring and evidence outcome: There was close monitoring in the prevalence rate of physical restraint and we are glad to find that the prevalence was gradually decreased. In 2017, the overall prevalence rate of physical restraint was 2.8% in 3 acute hospitals and 3.78% in 2 convalescent hospitals of NTEC. The prevalence rate was reduced by 50% in the acute hospitals and 30% in the convalescent hospitals as compared with the data in 2013.

In 2017, the prevalence rate of physical restraint in all NTEC hospitals was lower than the average of Hong Kong Hospital Authority (HA) Hospitals in all hospital groups. We got the lowest prevalence rate of physical restraint among all the clusters of Hospital Authority. It was also very encouraging that one convalescent
hospital and one hospice of our cluster have already achieved zero physical restraint in 2017.

Conclusion: NTEC nurses are committed to work towards zero physical restraint. The evidence based practice, multidisciplinary approach with carer engagement, and effective leadership were the crucial points of the physical restraint reduction program. In addition, taking into consideration of the respect for autonomy and overall wellbeing of patients, we achieved our ultimate goal of improving the patient outcomes.

The outcomes of the physical restraint reduction program demonstrated a successful cultural transformation in New Territories East Cluster hospitals with the achievement of the lowest restraint prevalence amongst all HA hospitals in Hong Kong. While two of our hospitals have already achieved the target of zero restraint rate, all other hospitals are working diligently towards the same goal of providing a restraint free hospital environment for our patients.

**Summary Abstract**

Antimicrobial misuse is associated with the development of antimicrobial resistance and represents a threat to human health. If left unchecked, treatment options will soon diminish. AMS programs have been shown to reduce misuse of antimicrobials, patient morbidity and mortality, bacterial resistance rates and healthcare costs (ACSQHC, 2018, Baur et al., 2017). AMS programs are required by the National Safety and Quality Health Service Standards, Standard 3: Preventing and Controlling Healthcare-associated Infections.

The implementation of an eMM, Cerner™, in 2012 provided a catalyst for review of the AMS program at Peninsula Health (PH), leading to the implementation of innovative system enhancements to support and enhance the program. Prior to the implementation of Cerner, the prescription of restricted antimicrobials was a convoluted process. Antimicrobials were restricted according to activity, toxicity and predilection to induce antimicrobial resistance. To prescribe a restricted antimicrobial, policy mandated prescribers to gain an ‘approval code’ via an electronic template to support consistent AMS interventions.

Consequently, surveillance reviews reported via the EAAS provided surveillance rate of 10.5% (Metcalfe et al., 2017). This provided scant information for the AMS Team to use to target patients for stewardship intervention.

The AMS Team reviewed stewardship policy and processes, looking for ways to improve with a focus on surveillance of restricted antimicrobials and compliance with antimicrobial prescribing policy. They embarked upon a multidisciplinary collaboration with the Pharmacy Team and the local eMM Team to evaluate the potential of the eMM to support and enhance stewardship activities. In 2013, with continuing poor compliance and surveillance, the collaborative teams redesigned the approval process and developed innovative system enhancements, to achieve 100% surveillance of restricted antimicrobials and 76% compliance with policy (Metcalfe et al., 2017). The two pivotal changes that contributed to this success were moving the approval process into Cerner (negating the need for a separate EAAS), and the development of a prototype report to capture restricted antimicrobial prescribing across the organisation.

Throughout the five years since these major enhancements to the AMS program, there has been sustained collaboration with continual innovation and quality improvement. This ongoing process has led to the development and implementation of a further suite of AMS enhancements over the last two years. A focus on the optimisation of surveillance reports that can be used for auditing has led to the implementation of the ‘Active Antimicrobial Orders Report’ (Oct 2016, See Appendix 2) and the ‘Antimicrobial Days Report’ (Feb 2017, See Appendix 3). In addition, initiatives to help guide practice have been implemented including guideline order sets (Nov 2016) and the ‘Consecutive Days Parenteral Antimicrobial Alert’, known locally as the ‘IV to oral alert’ (Feb 2017, See Appendix 4). The latest addition to the quality improvement armoury has been an electronic template to support consistent documentation of AMS interventions (Jun 2018). While these newer enhancements have not been formally studied, the AMS Team has subjectively reported positive effects on the efficacy and efficiency of stewardship processes and outcomes.

Phase 4 of the study involves an assessment of the sustainability of surveillance and compliance with policy. The same methodology was applied as in Phases 1, 2 and 3 of the original study (Metcalfe et al., 2017). The same medical and surgical wards were selected and 100 antimicrobial prescriptions from each were assessed. The quality of the documented indication for use of the antimicrobial was assessed for compliance with policy. A compliant indication is defined as unambiguous and meaningful, and one that can be utilised by the AMS Team for stewardship review. Any ambiguous terms such as ‘infection’ were deemed non-compliant. The process was repeated for all PH wards, to assess applicability to other clinical areas.

The Phase 4 validation review also evaluates how the system enhancements align with five ‘essential strategies of an AMS program’ as recommended in the recently updated Australian AMS guideline (ACSQHC, 2018) - ‘providing access and implementing clinical guidelines consistent with ‘Therapeutic Guidelines: Antibiotic’; ‘implementing formulary restriction and
SURVEILLANCE of restricted antibiotics has been maintained at 100%. The compliance rate for documentation of a compliant indication across the medical and surgical ward has been improved from 76% to 94%. Hence, the system enhancements implemented in 2013 have sustained and further improved the rate of compliance with antimicrobial prescribing policy. As an additional analysis, Phase 4 also studied compliance rate across all wards at Peninsula Health revealing a strong compliance of 91% (n=4883). This demonstrates that the systems in place to drive compliance provide a benefit that is applicable across the organisation. The system enhancements were found to align with best practice guidelines, validating that the improvements made to the AMS program support quality improvement in patient care.

This study demonstrates the value of strong leadership and multidisciplinary collaboration, resulting in the successful implementation of innovative system enhancements and quality improvements to support the AMS goals of promoting appropriate antimicrobial prescribing and optimising patient outcomes and safety.

**Cabri Health Palliative and Supportive Care Department**

**Effect of a model of early integration on palliative care inpatients: Interrupted time series analysis of standardised national outcomes.**

Natasha Michael, Allana Connolly, Samuel Allingham, Clare O’Callaghan, Jane Healy

**AIM**

Our aim was to examine trends in routinely measured patient reported palliative care outcomes over a 5 year period, pre and post implementation of a model of early integration of palliative care into a specialist palliative care unit. We specifically measured changes to pain at the start and end of each phase of care and compared changes in pain and other symptoms relative to the national average.

**SUMMARY ABSTRACT**

Background: The management and evaluation of change is a key priority of healthcare, with obligations to improve population health, patient experiences and costs. Over the last decade, palliative care has realised change, embracing quality improvement and outcome assessment. Outcome measures allow us to consider change in current and future health status and its evaluation aids improvements in service delivery and patient-centred care.

Aim To examine trends in routinely measured palliative care outcomes over a 5 year period, pre and post implementation of a model of early integration of palliative care.

Method A longitudinal study of the Palliative Care Outcomes Consortium dataset of patients admitted to an inpatient unit between January 2012 and December 2016. An interrupted time series analysis was used, taking into account the timing of the change in service model (July 2013), splitting the data into yearly quarters, giving 16 time points.

Results 1650 patients were admitted in the study period receiving 2101 episodes of care. Post the new model, a greater percentage of non-malignant patients received care (10.7% vs. 15.3%), mean patient age increased (74.5 vs. 75.3), length of stay decreased (12.3 days vs. 11.6 days), with increased discharges home and referrals from the acute hospital. There were significant improvements in benchmarks on absent and mild pain remaining absent or mild (p< 0.01) and case-mix adjusted scores for pain, other physical symptoms and family/carer problems (p<0.05).

Conclusion Outcome metrics can support change management processes undertaken by health services. Trend monitoring can motivate for ongoing improvement, identify areas for further investment and education and provide data to secure additional resourcing.

**Northern Sydney Local Health District**

**Acute / Post Acute Care (APAC)**

**Killing Them Softly: Introducing Antimicrobial Stewardship to a Hospital in the Home Service**

Jim Newcombe, Eunice Liu, Jairo Herrera, Shayne Larymore, Ralph Forbes, Hard Thiels, Beverley Caswell, Alison McGowan

**AIM**

To improve Antimicrobial Stewardship (AMS) in the Acute / Post Acute Care (APAC) Hospital in the Home service by introducing an enhanced, comprehensive Quality Management System (QMS) with a focus on AMS.

Secondary aims included improving the overall quality and safety of clinical care for APAC patients, optimising clinical handover, and promoting integrated health care between acute and community care settings.

**SUMMARY ABSTRACT**

‘Antimicrobial resistance poses a catastrophic threat. If we don’t act now, any one of us could go into hospital in 20 years for minor surgery and die because of an ordinary infection that can’t be treated by antibiotics.’

- Professor Dame Sally Davies, Chief Medical Officer, England

Antibiotics are a precious resource, one which as a community we are losing rapidly due to widespread inappropriate antibiotic prescribing (Davies, 2013) AMS aims to reduce antimicrobial resistance by giving the narrowest spectrum antibiotic for the shortest length of time appropriate. In layman’s terms, AMS aims to ‘kill bacteria softly’.

APAC is the Northern Sydney Local Health District’s (NSLHD) Hospital in the Home (HITH) service. APAC is NSW’s largest HITH service, serving a diverse population of almost 1 million people with a capacity of 80 virtual beds. Referrals are accepted from five local public hospitals, multiple private hospitals, General Practitioners, nursing homes and other community healthcare providers. The aim of APAC is to provide hospital level care to medically stable patients in the home setting, accelerating their recovery and avoiding unnecessary hospitalization.

Both the first and second editions of the National Safety and Quality Health Service Standards require accredited healthcare facilities to have an effective AMS system (ACSOHC, 2012, ACSOHC, 2017) As a result, AMS is well-established in acute care settings in Australia (ACSOHC, 2018)
In contrast, AMS remains weak in HITH services despite parenteral antibiotics being a mainstay of HITH and the most common class of medication administered by most HITH services. Few HITH services have a stand-alone AMS system with most reliant upon existing AMS systems in referring facilities. A major gap in such an arrangement is with antibiotic prescriptions from community settings, e.g. general practice, where AMS is currently not well-established (ACSOHC, 2018).

APAC was established in 2000 and was nursing-led until the recruitment of its first Staff Specialist in 2017. The Staff Specialist is a job-share 1.0 FTE position with both doctors having Fellowships in Infectious Diseases and Clinical Microbiology. They led a multidisciplinary team in the introduction of a new QMS into the APAC service, utilising the team’s strong background in Quality Management in both clinical and laboratory settings. The aims of the QMS were to introduce an AMS system, improve the quality and safety of clinical care, optimize clinical handover, and integrate healthcare provision between acute and community care settings.

At the outset, a comprehensive evaluation plan was designed with a priori endpoints to determine the effectiveness of the new QMS. The evaluation period ran for the first six months of the new QMS. Multiple endpoints were compared against the same period in the previous calendar year to determine the effect of the QMS, with external benchmarking applied to AMS outcomes.

This evaluation found the APAC QMS led to significant, demonstrable and cost-effective improvements in AMS, quality and safety of clinical care, clinical handover, and integration of health care between acute and community care settings.

**Summary Abstract**

The Illawarra Community Mental Health Service (ICMHS) provides support and case management for people with serious mental illness to aid in their personal recovery journey but the model of care coordination did not meet the needs of consumers prescribed clozapine therapy.

The focus of the project was to increase referrals by 50% to GPs for continuation of care for consumers identified as independent with clozapine care. This was achieved through increasing primary care support; distribution of GP education packages and redesigning care pathways for consumers.

**Aim**

The project aimed to increase referrals by 50% to GPs for continuation of care for consumers identified as independent with clozapine care. This was achieved through increasing primary care support; distribution of GP education packages and redesigning care pathways for consumers.

**Summary Abstract**

The Illawarra Shoalhaven Local Health District

**Illawarra Community Mental Health Service**

**Clozapine Care – My GP and Me**

**Aim**

To pilot a 6 month enhanced weekday physiotherapy service in Campbelltown Emergency Department encompassing Primary and Secondary practitioner roles to enhance quality of patient care and assist with patient flow within the facility.

**Summary Abstract**

Background: There is no dedicated weekday Emergency Department (ED) Physiotherapist at Campbelltown Hospital. There is 0.42 FTE physiotherapy service for Weekend coverage. Weekday referrals were covered on an ‘Ad-Hoc’ basis, with inpatient clinical areas responding to referrals prioritised amongst full inpatient caseloads.

It was identified that Physiotherapists can play a significant role in primary management of musculoskeletal injury, and secondary management of lower back pain and geriatric patients post fall in the Emergency Department. This highlighted the possible impacts of Physiotherapy presence in the emergency setting. Clinical auditing of physiotherapy services in 2017 identified a significant gap in physiotherapy services in the Emergency Department setting.

**Method**

A Steering committee was developed including Physiotherapy Managers, Senior and Junior Clinicians. The ED NUM and Medical Director were identified as key stakeholders.

Through clinical auditing, brainstorming and integrating the model for improvement, the Physiotherapy department pilot two weekday physiotherapy positions within the ED from January to June 2018:

- 0.3 FTE primary contact physiotherapist
- 0.5 FTE secondary contact physiotherapist

Clinical Scopes were decided as follows:

- Independent assessment of musculoskeletal injuries including simple acute fractures, sprained ankle, low back pain and falls.
- Secondary Contact Practitioner
  - Initial triage & referral to Physiotherapy by Medical team
  - Physiotherapy assessment and intervention to facilitate discharge
  - Populations include geriatrics, orthopaedic injuries, neurology, vestibular conditions and low back pain.

To ensure highest quality of care, physiotherapy intervention within the ED is guided by the ACHS management of people with Acute Low Back Pain Model of Care (NSW Agency for Clinical Innovation, 2016), and the Clinical Excellence Commission “Preventing Falls and Harm from Falls in Older People” (Australian Commission on Safety and Quality in Health Care, 2009) guidelines. Early assessment and treatment by a physiotherapist is imperative to meeting these guidelines.

**Campbelltown Hospital**

**Campbelltown Physiotherapy Department**

**Enhanced Weekday Physiotherapy Service – Campbelltown Emergency Department**

**Rachel Norris, Leena Chan, Lukas Szymanek, Stephen Woolley, Sharmane Motuluki**

**Aim**

To pilot a 6 month enhanced weekday physiotherapy service in Campbelltown Emergency Department encompassing Primary and Secondary practitioner roles to enhance quality of patient care and assist with patient flow within the facility.
The data collection period was from January 2018 to June 2018. The expected outcomes and measures were:

- Improved patient flow
- Reduced average patient wait times and length of stay
- Improved patient quality of care
- Reduced admission and representation rates for low back pain and falls patients

**Results:** Data collected from both Primary and Secondary contact Physiotherapy weekday services were evaluated from January 2018 to June 2018. The 521 patients who were reviewed by the Primary contact Physiotherapist had: 42% decrease in ED average length of stay, 16% decrease in average patient wait time and 95% of patients achieved the Emergency Treatment Performance (ETP). The 231 patients who were reviewed by the Secondary contact Physiotherapist had: 20% decrease in admission rates and 0% representation rate for falls patients. Low back pain patients who were seen the ED physiotherapist had 7% lower admission rates and 4% lower representation rates.

**Conclusion:** A dedicated weekday Physiotherapy Service within the Emergency Department:

- Improves patient safety and quality of care with the reduced admission and representation rates for patients presenting with falls and low back pain
- Improves patient flow by reducing wait time and length of stay for musculoskeletal patients
- Achievement of Emergency Treatment Performance of < 4 hrs

**Royal North Shore Hospital NSLHD**
Northern Sydney Cancer Centre, Department Medical Oncology
Oncology telephone helpline
Meredith Oatley, Margaret Fry

**AIM**

The aim of the project is to improve the management and support of adult cancer patients through the implementation of an innovative new model of care ‘a telephone helpline’. The quality research project sought to implement, for the first time in NSW, a telephone helpline intervention for cancer patients attending the Northern Sydney Cancer Centre at Royal North Shore Hospital NSLHD. The telephone helpline is available for cancer patients and general practitioners to call to ask for advice related to symptoms and side effects of cancer treatment.

**SUMMARY ABSTRACT**

Introduction. Cancer is the second most common cause of death in Australia. Within NSLHD it was estimated that in 2016 there was approximately 6,631 new cancer cases per 100,000 people and they occur in people aged between 70-84 years. Patients undergoing cancer treatments predominately receive treatment in ambulatory outpatient clinics. However, chemotherapy is known to cause distressing symptoms that have the potential to be life threatening (Stacey et al., 2014). Patients that experience treatment related side effects are often required to manage these symptoms at home with at times limited support. Further, adult oncology patients frequently present to Australian Emergency Departments (EDs) for symptom management and support. Australia’s population growth is significant and predicted to impact on cancer service provision for the wider community into the future. The proposed model of care ‘a telephone helpline’ will provide a new and innovative intervention strengthening integrative and supportive care, potentially improving patient outcomes and reducing ED and hospital admissions. This project has reachability and scale to become a national intervention strategy for the healthcare system.

Clinicians need to provide support and management of cancer treatment toxicities and symptoms in order to avoid life threatening consequences. However, many adult cancer patients present to emergency departments (EDs) for symptom control and minor conditions due to limited assessment options across NSW. A recent study by Oatley et al (2016) investigated the prevalence of cancer patients presenting to a NSW ED. The study demonstrated that cancer patients present to EDs for a large range of symptom related reasons. The study found that patients attended the ED in the absence of an alternative service options to receive assessment for minor chemotherapy related conditions and treatment advice. Our earlier study proposed that an alternative care pathway was needed to manage symptoms related to the side effects of chemotherapy to reduce ED presentations and admissions (Oatley et al, 2016).

**Intervention:** The project aimed to implement a new model of care ‘a telephone helpline’ to improve equity, access and quality of care for cancer patients in our LHD to better support self-management, resilience and access to the right cancer care at the right time. Globally, telephone helplines for cancer patients receiving treatment are emerging as an essential part of oncology practice (Towle, 2009). A designated helpline that uses a systematic triage approach, with developed protocols, and validated triage tools is becoming the standard of care for cancer services in the United Kingdom, the United States, Canada, New Zealand, Malta and the Republic of Ireland. The implementation of the ‘telephone helpline’ will provide patients access to an oncology nurse expert to enable more immediate management, education and triaging of symptom related conditions and provide supportive care (Stacey et al., 2013). The evidence recommends that comprehensive cancer services need to have a structured telephone helpline to expedite the assessment, management and referral of and for cancer patients. Based on this evidence, an oncology helpline is being trialled at the Northern Sydney Cancer Centre at RNSH (commenced February 20th 2018).

**Project design:** The ‘telephone helpline’ is being piloted over six months and commenced in February 2018 and will be completed in August 2018. The telephone helpline for adult cancer patients provides patients with access to an oncology health expert (Nurse Practitioner or cancer nursing specialist) Monday to Friday 8.00 am to 5.00 pm. The calls are triaged by the Nurse Practitioner (NP). The NP performs a clinical assessment of patients as indicated and organises hospital admissions through the Acute Assessment Unit or the ED at RNSH. A validated United Kingdom triage tool will be used to collect patient information. The project has received ethical approval by the local research governance office for our LHD. Data will be collected and analysed to identify areas for quality improvement of our existing educational programs and help us to better understand what patients need in terms of supportive care. The triage tool implemented uses the traffic light colour code to stratify the assessment process (please see appendix for the tool).

**Preliminary outcomes:** The telephone helpline service has been well utilised by patients and preliminary data demonstrates the helpline has received 323 telephone
enquiries. Management of the helpline has led to 35 ED patient presentations being avoided. This correlates to an 11% reduction in ED presentations in six months. To date we have triaged 26 code red, 111 orange and 186 triage green patients that have called the helpline. Triage category red can be managed on the telephone by the NP and was focused on chemotherapy toxicity and or symptom management. We have received overwhelming positive patient satisfaction. The telephone helpline highlights that patients’ need accessibility for clinical support and advice to promote safety and reduce risk. The safe and outstanding positive patient outcomes have been strengthened by the use of validated triage telephone assessment tools.

The results of this telephone helpline demonstrate positive outcomes that are patient and consumer focused. The project promotes safety and accessibility of health services and demonstrates an understanding of the needs and expectations of patients. The project deserves recognition for being an innovative quality initiative and a first of its type in NSW.

Each patient encounter is being documented in the patient’s electronic medical record providing for greater transparency and integration of care. The pilot project telephone helpline has removed the ad hoc way telephone calls were managed that often led to suboptimal patient care, poor information transfer and a lack of integrative care and consistency. The lack of not having a point of call for patients to access increases the risk of adverse outcomes for patients and avoidable patient presentations.

The University of Hong Kong-Shenzhen Hospital Incident Management Team

**The journey of Incident reporting and Open disclosure in China**

Pearl Pai, Xiao-Ping Xu, Li Lin

**Aim**

To reform the incident reporting/management culture in China, promote incident reporting and open disclosure, improve quality and safety in healthcare.

**Summary Abstract**

**Background:** Patient Safety is a core element of healthcare quality and safety[1]. The development of a patient safety culture in China has lagged behind other developed countries. While the first patient safety movement occurred in the USA in 2000[2], little attention was paid to patient safety in China until 2007[3].

In 2010, as part of its healthcare system reform, the Chinese government encouraged the establishment of new healthcare institutions with reform as their mission[4]. As a result, the 2,000 bedded University of Hong Kong-Shenzhen Hospital (HKU-SZH) was “born” in 2012, through a co-operative agreement between the Shenzhen Municipal Government and the University of Hong Kong, with the mission of spearheading healthcare reforms in China. As part of the HKU-SZH’s mission to bring about healthcare reforms in China, the aim of this Quality Improvement Project is to continually improve the quality and safety standard in the delivery of its healthcare services by:

- introducing international hospital management strategies;
- adapting Australian Council Healthcare Safety Standard (ACHS) to daily practice;

**Western Sydney Local Health District Mental Health Services**

Redbank Inpatient Unit

**HOPE (Healing Openness Person-centred Empowerment)**

Dr Ashwini P Adhi, Caroline McSherry, Sumithira Joseph, Julia Norcott, Elissa Yoo, Jaclyn Mitchell

**Aim**

In a twelve-month time frame, maximise patient safety through a reduction in the rates of Seclusion and Restraint, within an Acute Adolescent Mental Health Unit.

**Summary Abstract**

In 2016 and 2017, Redbank AAU held some of the highest rates of Seclusion and Restraint across all CAMHS units in NSW. The practices were restrictive, rule-oriented and coercive, and resulted in increased episodes of aggression. Consequently, a need for a change in culture was identified.

We aspired to maximise consumer safety through a reduction in the rates of Seclusion and Restraint within an Acute Adolescent Mental Health Unit. To achieve this, we formulated a new Model of Care that incorporated “The Six Core Strategies”. We revised our data and feedback, and worked alongside adolescents to establish a new vision – “Empowerment of adolescents with respect and dignity by providing adolescent centred care with a family focus.” We worked towards the communal goal of creating a collaborative, non-punitive environment. During this process we involved our consumers and carers in providing feedback and in the planning and designing of a new Model of Care that was person-centred and aligned with the principles of Recovery. We ensured the full and formal inclusion of adolescents (admitted to the ward) and worked in partnership with our adolescents to create a Trauma-Informed environment. This included the creation of a sensory room, a new timetabled with varied number of activities, a digital area to access internet, resurrected our music therapy room and the gym whilst refurbishing our courtyard to include sensory gardens. Furthermore, Family Presence was emphasised through the lifting of phone restrictions and flexible visiting hours, and the development of a Carer’s Room, which enabled carers to stay on the unit overnight and collaborate with staff to develop an environment that was least restrictive and truly empowering for our carers and consumers. The results indicated our project was a significant success.

Seclusion(32016) 16(2017) 0(2018)


Our data illustrates that we had 43 episodes of Seclusion and 37 episodes of Restraint in 2016, which has diminished to 0 episodes of Seclusion and 3 episodes of Restraint in 2018. The positive outcomes generated through the implementation of our Model of Care are exhibited through reduced rates of Seclusion and Restraint, positive consumer and carer feedback, significant improvement in staff sick leave, positive acknowledgement from official visitors and recognition through various awards. Consequently, we are able to exemplify that our trauma-informed, least restrictive care practices impact on the reduction of Seclusion and Restraint with positive consumer outcomes. We have been continually reviewing and improving both our current practices and model of care to attain sustainability with scalability.
Abstracts

Category: Clinical Excellence and Patient Safety

In 2017/2018, HKU-SZH has been designated as one of 15 key patient safety hospitals in China to assist in 1) promoting incident reporting and patient safety research nationally and 2) drafting a National Incident Management Policy and 3) developing a National Reporting System led by the National Health and Family Planning Commission of the People’s Republic of China.

By sharing our journey and experiences in incident management, we hope to inculcate the patient safety culture in other hospitals in the Mainland China.

Liverpool Hospital
Department of Medical Oncology

Repetitive blood testing in medical oncology ward inpatients – a retrospective six week audit of incidence, clinical yield and cost in a large Sydney tertiary referral hospital

Abhijit Pal (Primary Author), Wei Chua, Eugene Moylan

Aim

Repetitive blood testing in hospital inpatients is widely recognised as a low value healthcare activity both nationally and internationally. We aimed to examine the frequency, clinical yield and cost of this practice by performing a retrospective audit of our medical oncology inpatient service. We then created a guideline for junior doctors on how to order daily blood tests.

Summary Abstract

A list of 70 consecutive patient encounters were extracted from our electronic medical records. Patients admitted to ICU at any point or with a length of stay ≤1 day were excluded. Basic demographic data including length of stay, cancer-specific details and principal admission diagnosis was collected. The number of individual blood panels (FBC, EUC, LFTs, CMP, CRP and coagulation) performed for each patient was recorded, the number that were clinically indicated and the number that showed clinically significant results. The costs for collection and testing were obtained from hospital administration to calculate a potential cost saving if testing was restricted to only when clinically indicated. A total of 54 patient encounters (covering the period from May–July 2018) met the inclusion criteria and were included in the analysis (median age 63 years; average length of stay 5 days; 93% metastatic disease; 80% receiving anti-cancer therapy). The average number of blood panels performed per patient was 18 (range 0–91) and 15 (83%) were not clinically indicated. Overall 93% of repeat blood panel results (89%/957) had no clinical significance. The potential cost saving if only clinically indicated blood tests were ordered was $7853 across this six week period equivalent to $68,059/ year based on conservative measurements. Our unit recorded a high proportion of unnecessary repetitive blood tests. This represents an opportunity to reduce patient harm and potential significant cost saving. We have created a guideline for junior medical officers starting on our unit to help them make decisions regarding ordering bloods for the following day.

Ilawarra Shoalhaven Local Health District
Shellharbour Hospital – all inpatient wards. Kiama Hospital (inpatient ward). Southern Illawarra Hospitals Group (SHO). Bulli Hospital – Roper ward. Northern Illawarra Hospital Group (NIHG)

Clinical Handover – North and South United to do I Do VITALS
Amanda Paloff (Lead), Ashley Howley, Tyson Peters, Kerry Shanahan, Crinda Jones

Aim

The Australian Council on Healthcare Standards
21st Annual ACHS Quality Improvement Awards 2018

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To improve compliance with NSW Health policy Clinical Handover – Standard key Principles PD2009_060 by creating a structured person centred approach to clinical bedside handover for all patients in Shellharbour, Kiama and Bulli Hospitals by December 2017.

**Summary Abstract**

Shellharbour Hospital (SHH) and Kiama In-patient Ward (Southern Illawarra Hospital Group or SIHG) in conjunction with Bulli Hospital (BH) (Northern Illawarra Hospital Group) identified incidents from poor compliance with NSW Health policy Clinical Handover – Standard key Principles PD2009_060. Each site caters to a different patient group and has different challenges related to bedside handover. It was identified that there needed to be a collaborative approach but no singular method would cover needs of the three areas.

Working groups were established at Shellharbour and Bulli Hospital and initial data was benchmarked against the CEC/ACI data. A solution was developed and tested at SIHG. Core ideas were transferred to BDH team and adapted for that site and patients. Common themes identified across all three sites lead to the creation of an instructional video to be used as an educational tool to ensure sustainability and transferability.

Multiple options were considered, however the adoption of ‘I Do VITALS’ was agreed upon.

See Appendix 1

Better patient outcomes resulted across all three sites post implementation of the handover process through:

- ‘I Do VITALS’ identifying individual patient risk scores which has a positive impact on patient outcomes.
- Introduction of staff to patients by name to form the basis for a therapeutic relationship.
- ID bands checked to maintain patient safety as a priority at handover.
- Compliance rate of ID band checks increased from 93% increased pre to 97% post at SHH.
- Compliance to clinical handover key principles from NSW health policy increased:
  - SHH 84% pre-implementation to 96% post implementation.
  - Bulli 47% pre-implementation to 93% post-implementation
- The clinical handover script ensures partnering of patients with staff in the care planning and treatment.
- Bulli reported an increase of clinical handover occurring at the bedside from 22% pre-implementation to 100% post-implementation.

The two highest clinical risks identified across the 3 sites are medication incidents and falls. Post implementation of clinical handover, results are as follows:

- Medication Incidents reduced by 38%
- Falls reduced 7% (this data included the reporting of actual falls and near misses). Falls at the pilot SHH reduced the greatest with a 16% reduction.
- Patient safety has been the forefront of this implementation and this is proven through the process by ensuring:
  - The correct patient with correct identification bands occurs during every handover at the commencement of shift.
  - Falls and pressure injury risk scores being identified at shift change to assist nurses to identify at risk patients allowing for the adjustment of care planning to suit the individual requirements resulting in a reduction of falls and pressure injuries.
  - Review of medication charts during the course of handover safeguarding the patient’s medication management.
  - A structured handover process of Introduction, Diagnosis, Vital Signs, Fluid Balance, Treatment, Ambulation, Legal and Social (I Do VITALS) to ensure all team members communicate in a consistent method and script.
  - Patient’s being encouraged to participate in handover to allow for therapeutic partnerships to foster between all team members in the patient care journey.

**Townsville Hospital and Health Service**

**Allied Health Services Division**

**Pioneering Burns Services for Rural Kids**

Debra Phillips, Gail Kingston, Tiley Pain, Lauren Matheson, Michelle Watson, Dr Daniel Carroll

**AIM**

This unique Service development is a result of our clinicians finding better ways to improve the health of North Queenslanders. We are providing access to culturally appropriate care of clinical excellence, by treating the most vulnerable children with burn injuries in a model co-designed with families, and delivered into homes and communities across northern Australia.

Our network of hospitals supports more than 670,000 people from Mackay to Torres Strait, in one of Australia’s most geographically dispersed health catchments. And while this distance could separate us, it instead unites, motivating us to lean into challenges and find new ways to meet the needs of our region.

**Summary Abstract**

Burns are a common injury in young children. Children with deep-partial or full-thickness burns often require complicated post-surgical care and/or rehabilitation to achieve optimal outcomes such as age appropriate functional performance, minimal scarring and full range of movement (ROM). 1. Optimal outcomes from severe burns are best achieved through specialist occupational therapy intervention and review. 2. Specialist occupational therapy (OT) services to manage hypertrophic scarring and reduced joint ROM, are located in tertiary referral hospitals and rarely available in rural and remote areas. Therefore, rural and remote children post burn injuries are geographically disadvantaged compared to metropolitan residents in Australia. Studies have shown rural and remote children are more likely to require skin grafting and have increased complications. 4

The Townsville Hospital is a tertiary care facility for northern Australia, providing services for specialist care to a footprint including Torres Strait, Cape York, north-west Queensland and the tropical regions of Australia. The North Queensland Paediatric Burn Service treats between 120 and 150 children who sustain burn injuries each year. Approximately 50% of the children are outside

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of Townsville, including from remote and very remote communities. A retrospective review of cases treated revealed these remote children are reviewed 4-6 monthly whereas local Townsville children are reviewed 6-8 weekly. There were a range of barriers identified for children to receive timely and accessible care including the local availability of allied health services, families being required to travel long distances to Townsville for rehabilitation review, lack of coordination between treating clinicians involved in care, gaps in the clinical handover of care, and cumbersome referral and booking processes for patients living outside of Townsville. Therefore, children from rural and remote communities were not receiving adequate advice or treatment regarding scarring, garment fit, or compliance with therapy plans. Irregular or delayed reviews placed rural children at higher risk of complications, resulting in unnecessary reconstructive surgery.

To address this situation, an Occupational Therapy Led Paediatric Burn Telehealth Service (The Service) was developed by The Townsville Hospital and Health Service (THHS). The innovation in this model is multi-faceted. This is a novel expanded scope model, with the OT undertaking the primary treating clinician role for monitoring and treating children who are undergoing active burn rehabilitation rather than the previous Paediatric Surgeon-Led model. There is also novel use of existing telecommunications technology available in families’ homes, as well as an expansive network of telehealth technology in local small hospitals/clinics.

Lastly, the effective use of allied health assistants at the provider location, and the recipient location has been introduced to embed a delegated practice model of care. Children are reviewed by the paediatric surgeon only if there is clinical indication they require surgical intervention. Clinical indicators have been written as part of the development of the new model of care which guides the re-engagement of the paediatric surgeon when the clinical markers are evident.

The expanded scope Allied Health led model is releasing Specialist capacity by enabling the Paediatric Surgeons to address waiting lists, where they were previously continuing a traditional model of reviewing children who do not require a surgical intervention.

The Service is now integrated into the delivery framework for the THHS, and it represents the only one of its kind in Australia. The evaluated outcomes of the Service provide a compelling case for adoption across Australia. Most notably for the way care is designed with the consumer and family in mind, optimising community-available technology, with a focus on quality and safety, and utilising highly-skilled allied health professionals working to the “top-of-scope” to release capacity in the specialist workforce. It now provides a blueprint for other burn services, both adult and paediatric in Australia, with the appropriate protocols, processes and evaluation to support further adoption.

The Sutherland Hospital
Infection Prevention and Control
The T.R.Y Project
Joshua Philp, William Siu, Liz Walter, Beti Krstevska,
TSH Hand Hygiene Working Party

Aim
To increases the compliments with 5 moments of hand hygiene. Looking at new innovative approach to increasing knowledge, education, awareness and compliments rates. With a focused on of improve patient safety

Summary Abstract
Consistently poor results in hand hygiene at The Sutherland Hospital Emergency Department required an innovative approach to improve compliance. Sports methodology using a card-based system was introduced. The T.R.Y. Project issues Teal cards to acknowledge excellent hand hygiene Red cards to staff who consistently show poor compliance or breach code of conduct to auditors, and Yellow cards to staff observed to miss one moment, providing the opportunity to give further education and reflection on clinical practice. The T.R.Y. program engages staff with hand hygiene, increasing knowledge, education and awareness of the 5 moments of hand hygiene. For the first time in 10 years, the ED has met and sustained the NSW benchmark of 75%. Overall Sutherland Hospital hand hygiene increased to 84.4 %. The project is now being rolled out across the hospital.

Good hand hygiene is a simple but powerful primary health prevention strategy with particular importance in the acute care setting. Adequate hand hygiene standards keep people health, significantly reducing length of stay, patient morbidity and mortality. This project:

- Empowers individual staff members and teams to improve their hand hygiene to improve patient safety and reduce risk of hospital acquired infections
- Focuses on reducing the negative health impacts of poor hand hygiene
- Identifies and implements innovative approaches to improving compliance, engaging staff and ensuring a safe patient environment.

Exposed consumers to the hospital program, influencing their perceptions of hand hygiene

A literature search showed 2 other short term studies using a card based system with no meaningful outcome. To all knowledge of the team, the T.R.Y. Project is the first of its kind in NSW Health.

Engaging staff to role models of hand hygiene and empowering them to take action was the initial intervention. Having the staff included in posters around the department facilitated discussion and enthusiasm for being included in the project We also used senior medical and nursing staff to show staff that everyone was equal and that compliance is everyone’s role and responsibility. These posters were developed by Dr Will Siu, the medical champion for HH in the hospital. Posters continue to be reviewed to involve more staff members in the project.

The T.R.Y. system was implemented to acknowledge and reward good performance while also providing education to staff that were observed not to be meeting standards. The initial test of change started in the Emergency Department and has since been implemented in other units of the hospital.

The addition of the Red card provided auditors with a safety net against negative backlash from staff to the project; having the ability to escalate any concerns to the executive of the hospital alleviated concerns about confronting staff members observed to not be meeting HH standards.
The T.R.Y. cup was also an excellent motivation for staff, awarded to the Emergency Department in the initial stage, for most improved compliance with Hand Hygiene.

Since implementation the ED has maintained results greater than 82% for the past 3 audit periods. The T.R.Y program’s success in ED has now been rolled out to the Aged Care sector at Sutherland hospital. In their first audit period post implementation had a 7.2% increase in compliance. The improved compliance with hand hygiene standards is reflected in hospital wide audit data. Across the facility, the median rate has increased from 78% to nearly 85% over the last three audit periods. It is thought that this is as a result of the heightened activity and energy generated by the T.R.Y project.

Further rollout is planned across the rest of the hospital. A staged rollout enables us to confirm previous findings in the ED department, as well as to provide education and training to staff patients, and carers. The T.R.Y project has been rolled out to 85% of the hospital and by 2019, whole of hospital. The resources can be replicated or modified to suit other clinical settings or hospitals.

Healthcare workers are often the cause of spread of health acquired infections (HAI) to patients. Effective hand hygiene contributes to keeping patients safe and healthy. Prevention of spread and control of HAIs in hospitals are critical given the emergence of antibiotic resistance in these microorganisms. Whilst the prevention of HAIs requires a multi-faceted approach, the WHO links high compliance with hand hygiene to lower infection rates for patients.

It is difficult to link the impact of the T.R.Y project with HAIs rates given the initiative started in the ED. However, it is noted that HAI and cannula site infection rates decreased across the hospital in from November 2017 to March 2018.

Staff felt encouraged and empowered by being involved in the project. Multiple versions of the posters were generated due to the number of staff wanting to be involved and have their photo included. Staff celebrated receiving the teal T.R.Y. cards and felt that their positive performance was acknowledged. Communication was maintained in the department regarding audit results and the positive results which encouraged staff to maintain the performance. The impact of the project was evident in the hand hygiene audit results, showing significant improvement over the following audit periods.

Funding flexibility has enabled Western Health to design, develop and implement Western HealthLinks, an innovative integrated care program based on international best practice and extensive research. Data has revealed that the program is supporting patients with chronic and complex conditions to remain at home with consistent positive feedback from patients and families, reduction in hospital activity and a reduction in healthcare costs.

The western region of Melbourne is experiencing unprecedented growth, high rates of chronic illness and extensive socio-economic disadvantage.

Prior to Western HealthLinks, analysis of the patients with chronic illness such as Chronic Heart Failure (CHF), Chronic Obstructive Pulmonary Disease (COPD) and Diabetes identified an acute unplanned 30 day readmission rate ranging from 19-24% (Dr. Foster; Health Round Table, 2016). Patient case studies also identified significant service gaps and lack of integration across episodes of care for patients with chronic and complex conditions.

One such case study was, Margaret, a 72 year old patient who experienced nine readmissions over a nine month period to manage her Chronic Heart Failure (CHF) and Chronic Obstructive Pulmonary Disease (COPD). On numerous occasions, there was a lack of co-ordination with arrangement of supportive services in the community, as well as GP review in the post discharge phase.

HealthLinks has allowed Western Health to create an integrated care program for chronic illness based on international best practice, extensive literature review, benchmarking and consultation, including site visits to New Zealand and the United States. Extensive stakeholder consultation with our patients and community service providers was undertaken to further analyse where we needed to improve and to identify practical solutions to support integrated care which meets patient needs. This informed the development of the ten evidence based elements necessary to provide quality integrated care, which the Western HealthLink’s integrated care program is founded.

1. Robust systems to identify patients with chronic illness and those at risk of poorer outcomes
2. Advanced discharge program, ensuring a quality transition home
3. Post discharge support program ensuring the delivery of supportive services in the person’s home
4. Expert ‘Hospital Like’ clinical care in the home to clinically support conditions such as CHF, COPD and diabetes
5. Care Co-ordination/Health System Navigation to enable quality communication, support and linkage to services and care
6. GP integration to ensure the patients’ GP leads the care provision in the persons’ home
7. Pharmacy review both in and after hospital to ensure medications are consolidated and the person understands and can manage their medication regimen
8. E-Health program to ensure patients observations are monitored and variances are actioned
9. Advanced Care Planning to ensure we are respecting patients care choices
10. Multi-component, integrated and collaborative strategies as isolated and one off strategies have limited impact.

We have partnered with the Silver Chain Group (SCG), a not-for-profit community service provider to support the delivery of certain elements of the program. Patients are supported with 24 hour, 7 days a week phone support, enabling the connection with a Registered Nurse 24 hours per day. Furthermore patients have access to the Priority Response and Assessment (PRA) service, where a team of Registered Nurses rapidly attend the patient’s home providing clinical care with the support of the patients GP.

GP led care, self-management, health literacy development and coaching support underpin the program, along with the delivery of a comprehensive suite of home based outreach services such as Allied Health, Nursing, Pharmacy and Social Support.

A comprehensive implementation and communication plan for a three year pilot was developed with the program commencing in November 2016. Dual evaluation and research frameworks have been designed by both Western Health and CSIRO, including the assessment of the patient and carer experience. Comprehensive reviews are being conducted at six monthly intervals throughout the pilot with these reviews provided to Western Health’s Executive Committee, Board and HealthLinks Steering Committee in addition to the Victorian Department of Health and Human Services and CSIRO.

Partnering with the Victorian Department of Health and Human Services to pilot a HealthLinks Program at Western Health is supporting our vision of providing ‘Best Care’ by specifically delivering on our strategic aim of ‘connecting the care provided to our community’.

**A Sustainable Process to monitor implementation of recommendations to minimise the risk of serious incidents recurring**

Christine Polmear, Deborah Clark, Dr Paul Eleftheriou

**AIM**

The aim of this program of work was to improve governance, accountability and transparency of implementation of improvement recommendations from investigations of serious incidents.

**SUMMARY ABSTRACT**

Learning objectives: In most health services, serious incidents are investigated with in-depth case review methodology. Recommendations are then developed in order to minimise the risk of the incident recurring. A program of work was undertaken to improve oversight of incident reporting and improve the accountability of implementing improvement recommendations from serious incident investigations.

Activities, interventions, methods, innovations: all recommendations from incident investigations that were endorsed by the Serious Adverse Events (SAE) committee in the last 20 months were analysed. Operational managers and directors were guided by the Chief Medical Officer to follow and act on the status of these recommendations in a time frame of 2 months.

Outcomes, results, lessons learned: In a 20 month period, 33 investigations with 180 recommendations had been endorsed by the SAE committee. At follow up, 90 of these recommendations had been implemented. On review, some recommendations were deemed to be impractical or unnecessary and were thus closed. As a result of this follow up, a process has been put in place for all clinical areas at Western Health to record the progress of recommendations for which they are responsible. This is in a central and accessible location on Microsoft SharePoint© on the organisation’s intranet. Each clinical area has been asked by the Chief Medical Officer to review and update these on a monthly basis at their respective quality and safety meetings. The SAE committee – which has membership for all clinical divisions – will also monitor these routinely. In future, greater discussion and consideration should be facilitated to ensure that recommendations are more relevant and achievable.

Conclusions: A more sustainable process and sustained leadership from the Quality and Safety division and responsible executive are required to ensure strong governance of recommendations which in turn minimises the risk of serious incidents recurring and harming patients.

**Cabiri Health**

**Hospital In The Home:**

How well do Hospital In The Home (HITH) patients comprehend and retain Emergency Plan information provided through patient education by Hospital In The Home nurses?

Alicia Pyke, Michelle Horsnell, Ian Campbell, James McDonald

**AIM**

The aim of this survey was to identify potential safety and or functionality deficits within our escalation system pertaining to both clinical and non-clinical scenarios.

**SUMMARY ABSTRACT**

How well do Hospital In The Home (HITH) patients comprehend and retain the emergency plan information provided through patient education by Hospital In The Home nurses?

Background: A presentation on coroner’s findings at the 2016 Hospital In The Home conference prompted us to review our safety systems around the adequacy of our instructions, both written and verbal for patients in emergency and non-emergency situations. Clinical governance and risk management are two elements of quality improvement that are of paramount importance in the home setting. Ensuring that patients who deteriorate within all healthcare settings receive appropriate and timely care is a key safety and quality challenge.

Aim: The aim of this survey was to identify potential safety and or functionality deficits within our escalation system.

Methods: A questionnaire was designed to collect quantitative data on our Hospital In The Home patient’s understanding and retention of information regarding escalation processes in both emergency and non-emergency situations. A plain language statement was also established and both documents approved by Cabrini Human Research Ethics Committee. Patients admitted to our Hospital In The Home service between 1st of April 2017 and 1st October 2017 were invited to complete the anonymous survey if meeting selection criteria by being over the age of 18 and without identified cognitive impairment.

**A Sustainable Process to monitor implementation of recommendations to minimise the risk of serious incidents recurring**

Christine Polmear, Deborah Clark, Dr Paul Eleftheriou

**AIM**

The aim of this program of work was to improve governance, accountability and transparency of implementation of improvement recommendations from investigations of serious incidents.
Results: Data suggested that of 42 patients surveyed, safe quality care is being promoted and patients would escalate concerns in emergency situations. The study indicated consistent high levels of appropriateness but potential delays from patients not following the first line recommendations of escalation.

Conclusion: Areas for improving and standardising education have been identified to improve system safety and functionality. The patient survey will be included in the HITH quality improvement audit cycle.

**ACT Health**
Perioperative Services Unit, Surgery and Oral Health, Canberra Hospital and Health Services

**Improving Surgical Safety Checklist Compliance**

Kerr Reeves, Daniel Wood, Bailey de Piana, Josephine Smith, Chris Bone, Elliott Keyworth, Jeff Fletcher, Toni Gwynn-Jones

**AIM**

The World Health Organisation established the requirement for all patients undergoing an invasive procedure to undergo the Surgical Safety Checklist which was developed to have a rigorous peri operative process to improve surgical safety and reduce mortality rates and the incidence of surgical complications every patient.

The Surgical Safety Checklist aims to improve the surgical safety and reduce both mortality rates and incidence of surgical complications, matching of the patient to the correct procedure, and communication between the patient and the surgical team and within the surgical team.

The ultimate aim of the Surgical Safety Checklist is to ensure that staff consistently follow the critical steps to ensure that the patient travels through the perioperative environment avoiding risks that have the potential to endanger their lives and well-being.

The aim of this project was to improve the documentation of the Surgical Safety Checklist to 100% compliance at the Canberra Hospital and Health Services (CHHS) of all relevant and appropriate cases.

**SUMMARY ABSTRACT**

The Surgical Safety Checklist was developed by the World Health Organisation (WHO) in 2008 to improve surgical safety and reduce mortality rates and surgical complications. The requirement to perform the Surgical Safety Checklist was subsequently endorsed by Australian Health Ministers, the Royal Australasian College of Surgeons and the College of Anaesthetists. The best practice safety initiative rolled out across all states and territories, including implementation of a paper based checklist at CHHS in February 2011.

The Surgical Safety Checklist applies to all invasive and non-invasive procedures performed in the operating room. The checklist must be completed within the operating room and is the final safety check performed prior to surgery or invasive procedures. At each point of transfer of care, the staff member taking over responsibility of care must confirm the patient’s identity and correctly match the patient to the intended clinical procedure. Following a transfer of responsibility of care to the anaesthetist bay or operating room, the Surgical Safety Checklist is initiated.

There are three stages defined in the checklist policy. The first stage is called “Check In” which is performed prior to the induction of anaesthesia, and before the patient enters the operating room. The second stage is called “Team Time Out” and occurs prior to commencement of the operative procedure. The third stage is called “Check Out” and occurs prior to the patient leaving the operating room. Each discussion point in a section of the checklist form must be addressed before moving to the next stage. The Surgical Safety Checklist form is part of the patient’s clinical record and is included in the patient notes.

Prior to implementing the electronic platform, surgical checklists were completed on a paper form. An audit of compliance and quality for completion of Surgical Safety Checklists was undertaken in November 2014. Results of this audit indicated that quality, compliance and completion rates of the existing paper were sub-optimal to patient safety standards. ACT Health sought to improve patient safety through increased compliance to and quality of the information submitted in each surgical safety checklist.

The electronic platform was developed by ACT Health for completion of the “Team Time Out” and “Check Out” stages of the “SSC” and was implemented at CHHS in November 2016 by the Digital Services Division (DSD). Further improvements were made to the system between 2016 and 2017 to integrate data from the Clinical Portal and ACT Patient Administration System (ACTPAS) which allowed accurate reporting of all cases. Compliance with fully completing the Electronic Surgical Safety Checklist (ESSC) was reported as low across all surgical specialties in TCH rate of 40% was reported when data was first made available from the electronic platform in August 2017.

From late 2017, SAOH were receiving compliance data per surgical specialty which were being communicated to surgical staff. From February to July 2018, the ESSC Senior Working Group met weekly to monitor compliance against the policy and checklist completion and ensure organisation wide standardisation of approach in management of medical officers required to comply with the policy.

Reports were provided weekly to the ESSC Senior Working Group and provided to all staff in the Perioperative Unit. Overall monthly results improved from 41% in August 2017 to 96% in July 2018 for all relevant surgical cases performed in the Perioperative Unit. Surgical incidents have been continually monitored, with no wrong site surgery or potentially avoidable surgical incident occurring during the implementation of the ESSC or through the improvement and reporting process. The Surgical Safety Checklist targets three phases of a surgical procedure, specifically to flow of process. The intention of the surgical safety checklist for optimising patient safety is for all surgical staff to be identifiable, accountable, reduce errors in patient identification, and identify the site of the procedure intended is correct in order to avoid adverse actions completely as not to cause patient harm before induction of anaesthesia and knife to skin.

The following high level business benefits / outcomes as a result of the implementation of the electronic platform have been realised through the delivery of the electronic surgical safety checklist solution:

- Improved data collection and quality through the implementation of electronic system processes;
- Increased compliance with organisational requirements to complete form;
- Increase in form completion rate;
• Reduction in manual effort in relation to storing and auditing physical paper forms.

NNSW LHD Richmond Clarence Health Service Group – Clarence Emergency Department, Maclean District Hospital

Emergency Protocols

Dean Robertson, Charlotte Hall, Sabrina Pit, Margaret Rolfe, Sharene Pascoe, Megan Passey, John Mackenzie, Lindsay Murray

Aim

The aim is to create a world-first "flight manual" for the crashing patient, to help doctors and nurses better manage time-critical medical emergencies. The Emergency Protocols were developed with aviation, human factors, emergency medicine, toxicology and graphic design specialists. Evaluation with a large prospective randomised controlled trial demonstrated a 54% decrease in critical errors when the Emergency Protocols were used, compared with standard resuscitation room resources. Endorsement from peak medical organisations was achieved to successfully deliver the advances state-wide, nationally and internationally.

Summary Abstract

The Emergency Protocols started in a busy single-doctor rural emergency department. Existing resources were unsuited to emergency care, poorly integrated, and difficult to follow. Clinicians relied on their memory of rare events, while experiencing task fixation, cognitive overload and performance degradation when managing stressful situations. To achieve the highest standards of patient care, a new approach was needed.

Aviation has long developed a strong safety culture which acknowledges human frailties and instead relies on a flight manual. This safety culture has spread throughout aviation to military command, nuclear power plants, oil and gas exploration, and now, belatedly, to medicine.

The Emergency Protocols are a fresh and innovative approach to patient safety. Aviation safety practices were translated to healthcare, with a novel collaboration between specialists from aviation, human factors, emergency medicine, toxicology and graphic design. This radically new approach advances patient safety by harnessing state-wide, national and international guidelines and expert opinion, streamlining treatment algorithms, integrating protocols from disparate sources, transforming existing branching and looping algorithms into innovative linear stepwise algorithms, and making high-quality up-to-date information readily accessible at the bedside. The resulting "flight manual" is a cognitive aid for doctors and nurses managing time-critical emergencies, that is user-friendly, engaging, accessible, and freely available.

The Emergency Protocols are the first, and only, fully-integrated emergency medicine cognitive aid in the world. They incorporate 29 adult, 23 paediatric and 2 neonatal emergency protocols into a simple, innovative, easy-to-use resource.

The Emergency Protocols were extensively tested, then a collaboration formed between clinicians and academic researchers to demonstrate improved patient safety in a simulation environment. The Trial of Emergency Medicine Protocols in Simulation Training (TEMPIST) is a large randomised controlled trial that demonstrated a 54% decrease in critical errors when using the Emergency Protocols (p<0.001) compared to standard resuscitation room resources. This dramatic improvement was demonstrated across a wide range of clinical scenarios and clinician seniority. 97% of trial participants stated that they would want to use the Emergency Protocols in real life. TEMPIST has been submitted for publication in a prominent peer-reviewed open-access journal.

The Emergency Protocols are endorsed by the Agency for Clinical Innovation, who have distributed hard copies of the Emergency Protocols to every Emergency Department in New South Wales.

The Emergency Protocols are also endorsed by the Australian College for Rural and Remote Medicine, who feature the Emergency Protocols in their guidelines. This facilitates uptake by rural practitioners across Australia.

Internationally, there have been over 1,000 downloads of the full, free PDF from the Emergency Protocols website. There has been positive feedback from New Zealand, England, Canada, Japan, and beyond, with uptake from every corner of the globe. Adoption requires simply downloading the widely available PDF or obtaining the printed manual, and familiarising emergency clinicians.

The Emergency Protocols enable assertive followership and encourage teamwork within the resuscitation environment, due to all team members literally being "on the same page". This transcends professional boundaries and empowers all team members to work together to achieve the highest standards of patient safety.

Dubbo Health Service Intensive Care Unit Nursing Education Strategy Intensive Care Unit Matthew Rouse

Aim

To implement a Nursing Staff Education Pathway in the Dubbo Health Service Intensive Care Unit to enable the development of nursing skill and knowledge.

Summary Abstract

Background: It was identified in 2016 that nursing staff in the Intensive Care Unit were given no dedicated time or access to education.

Aim: To implement a Nursing Staff Education Pathway in the Intensive Care Unit to enable the development of nursing skill and knowledge.

Method: New practices were introduced into Intensive Care Unit by enabling access to learning resources to enhance clinical, mandatory and leadership skills.

Results:

• Increase in staff with post graduate qualifications are now In-Charge Nurses
• Increase of staff having Advance Life Support accreditation
• Increase of staff having post graduate critical care qualifications
• Increase of Clinical Nurse Educator dedicated teaching hours
• Increase of compliance with Mandatory Training

Conclusion: This intervention has successfully educated/upskilled nursing staff.
This project required zero financing or additional staffing, and has brought about demonstrable change. Since commencement the project has been sustained and is represented in standard business today. To ensure that the project was evaluated rigorously, an education dashboard was established and continually updated and monitored throughout the scope of the project tracking the following trends:

- Percentage of Clinical Nurse Educator shifts without a clinical load
- Availability of Clinical Nurse Educator role to provide education
- Number of in-services per month & attendees
- Number of Intensive Care Unit nurses with individual educational goals
- Number of Intensive Care Unit nurses having clinical ladders and are progressing as per timeframes
- Number of Intensive Care Unit nurses with post-graduate qualifications
- Number of Intensive Care Unit Nurses working towards and with Clinical Nurse Specialist status

Before implementation of this project there was minimal provision of nursing education with no available pathway to enhance or upskill. This has now changed through the introduction of the Professional Development Pathway integrating the following avenues of education:

- Clinical Skills:
  - Clinical Ladders
  - Transition to Practice Program
  - In-services Program
  - Intensive Care Stream Workshops
  - Individual education plan/staff appraisal

- Mandatory Skills
  - Manual Handling
  - Basic & Advanced Life Support accreditation
  - PALS accreditation
  - Personnel Protection
  - Equipment/Infection Control
  - Aseptic Technique
  - S4 & S8 medication management
  - Post graduate qualifications

- Leadership Skills
  - Clinical Nurse Specialist development process
  - Preceptoring Under Graduate students
  - Western NSW Local Health District
  - Leadership Workshop
  - HETI Online Leadership programs
  - Charge of Shift Role training

The Australian Council on Healthcare Standards

Dubbo Health Service

Intensive Care Unit

Dubbo Health Service ICU Governance Framework Matthew Rose

**Aim**

To introduce an Intensive Care Model to ensure recommended standards for the safe and efficient delivery of care in Level 4 Intensive Care Units. Underpinning this is the development of a local Intensive Care Unit operational and strategic leadership governance structure to support service delivery to meet the critical care needs of the rural community and Western NSW Local Health District.

**Summary Abstract**

**Background:** Gap in local governance of Dubbo Health Service Intensive Care Unit resulted in an “uncoordinated” operational model with no cohesive formal governance structure or networking ties throughout Western NSW Local Health District.

**Aim:** To introduce an Intensive Care Model to ensure recommended standards for the safe and efficient delivery of care in Level 4 Intensive Care Units. Underpinning this is the development of a local Intensive Care Unit operational and strategic leadership governance structure to support service delivery to meet the critical care needs of the community and Western NSW Local Health District.

**Method:** Dubbo Health Service partnered with Agency for Clinical Innovation to implement core principles of best practice for Level 4 Intensive Care Units.

**Results:** Dubbo Intensive Care Service operates under a structured governance framework within a Local Health District Level 5 networked model.

**Better outcomes for women with gestational diabetes**

Christopher W Rowe, Katie Wynne, Elise Pitt, Jacqueline Allabyrne, Alison Gebuehr, Olivia Brentnall, Andrew Woods

**Aim**

To develop an effective and safe insulin infusion algorithm for pregnant women that would reduce the risk of risky high blood glucose levels for mothers, and consequently reduce rates of low blood glucose for babies, in the setting of betamethasone administration.

This is required because there is currently no treatment protocol published anywhere in the world that reduces the risk of both of these important and common problems.

Betamethasone causes high blood glucose levels in mothers with gestational diabetes when it is given to improve the lung function of premature babies. High blood glucose levels in the mother are associated with low blood glucose levels in the baby at birth, which require treatment, monitoring, and interrupt mother-child bonding.

**Summary Abstract**

This world-first innovation is based upon our insulin-infusion algorithm designed specifically for pregnant women receiving betamethasone. We present evidence that shows how this innovation improves outcomes and directly benefits patient care.

One in seven pregnant women develop gestational diabetes (Diabetes Australia, 2017) and one in 11 deliver prematurely and require the steroid betamethasone to improve newborn lung function (AIHW, 2017). Betamethasone causes significant maternal high blood glucose (hyperglycaemia), and frequent newborn low blood glucose (hypoglycaemia) - 10% in women without diabetes (Gymaf-Bannerman, 2016) and at least double this rate in women with gestational diabetes (Barrett, 2009). Prior to developing this intervention, there was no
We demonstrated that existing care models expose mothers and babies to extended periods of risky hyperglycaemia and hypoglycaemia. We conducted an internal quality project, led by final year medical students and supported by senior clinicians, showing that the existing standard of care at John Hunter Hospital (AIIV – the Adult Intravenous Insulin infusion algorithm - a generic intravenous insulin infusion designed for non-pregnant adults) failed to control glucose levels, and that this had significant risk, as women spent 50% of IV-insulin infusion time with glucose levels above target, resulting in a one in two chance of newborn hypoglycaemia.

The local research team drove cross-departmental innovation, through multi-level collaborative research partnerships (obstetricians/endocrinologists, midwives, nurse-educators, students, managers). We developed a new model of care, based upon our Pregnancy-specific Intravenous Insulin Glucose Infusion (PIIGI) which was officially adopted as a Hunter New England Local Health District policy, and associated Clinical Form. This required a supportive culture of innovation, engaging cross-disciplinary leadership and teamwork. Sustaining practice change was informed by early pilot data fed back to frontline care-providers.

**Patient-Centered Outcome 1: Care that works:** The new PIIGI protocol keeps mothers’ glucose at the recommended target (3.8-7mmol/L) for 68% of the time, compared to 55% of the time for AIIV (p=0.0002). This is important because length of time with above-target glucose increases risk of newborn hypoglycaemia.

**Patient-Centered Outcome 2: Fewer babies with low blood glucose at birth:** Mothers cared for with PIIGI have a lower chance of newborn hypoglycaemia (29% vs 54%, p=0.02). This means that one case of newborn hypoglycaemia is prevented for every four women using PIIGI, one episode of newborn hypoglycaemia could be prevented. This is the first-ever protocol to demonstrate increased safety for pregnant diabetic mothers and babies.

**Patient-Centered Outcome 3: Less risk to baby from maternal extremes of blood glucose:** Mothers cared for by PIIGI have much smoother glucose levels. The PIIGI protocol reduces the chance of prolonged periods of critical high glucose levels (BGL>10mmol/L for more than 90 minutes) – 20% vs 38%, p=0.02, as well as reducing episodes of risky low glucose levels (2% vs 12%, p=0.02). This improved stability and increased time with glucose in the target range results in a reduced need for cardiocotography (CTG) monitoring: a time-intensive check of baby’s heartbeat that limits mothers ability to move around whilst the fetus is checked for stress.

This project was achieved without additional resources or increased burden of care for pregnant women. It establishes best-practice in the field globally, as is the only validated intervention that reduces newborn hyperglycaemia and hypoglycaemia. It is self sustaining at a local level, as it is embedded in routine practice through adoption as a formal guideline and associated clinical form. The compelling efficacy and safety data have driven scalability, such that other sites within the local health district have requested training to adopt the PIIGI protocol as a freestanding intervention. The validated algorithm built-in to the protocol will allow scalability and translation to many sites as a package.

In conclusion, PIIGI improved pregnant women’s glucose levels; reduced critical maternal hyperglycaemia and hypoglycaemia. Fewer babies developed hypoglycaemia after birth. For every four women using PIIGI, one episode of newborn hypoglycaemia could be prevented. This is the first-ever protocol to demonstrate increased safety for pregnant diabetic mothers and babies.

**Royal, Brisbane and Women’s Hospital, Metro North Hospital and Health Service**

**Quality, Innovation, and Patient Safety Service; and Surgical and Perioperative Services**

**Safety Partnerships in Action : Zero Hospital Acquired Pressure Injuries**

Catherine Ryan, Lisa Mitchell, Falteen James, Duane Watson

**AIM**

The initiative trialed key concepts in Systems Thinking and Human Factors Engineering, using a strong partnership approach to determine the effectiveness of the methodology in two key areas. Firstly, creating and embedding a robust safety culture of multidisciplinary collaboration in clinical practice based on clinical staff and consumer priorities. Secondly, enhancing effective quality improvement in clinical practice as core business. A key principle of the innovation was to understand how the system worked and address causal factors limiting the effectiveness of care.

**Summary Abstract**

To meet 21st Century demands in healthcare, achieving efficiencies and effectiveness at the point of care is crucial to meeting increasing need for services. In order to achieve this vision it is important to inspire and energise staff in clinical areas to drive a continuous improvement culture to increase positive consumer, clinical, and organisational outcomes. The Safety Partnership in Clinical Practice (SPiCP) pilot’s overarching objective was to investigate the effectiveness of a systems thinking approach to embed a culture of collaboration and continuous quality improvement at the point of care.

**Background:** Traditional models of change in healthcare often focus on strategic priorities and objectives with a planned approach. The purpose of this trial was to identify an effective emergent model to leverage outcomes at the point of care. The Safety Partnership in Clinical Practice trial was a collaboration between Quality, Innovation, and Patient Safety Service and Surgical and Perioperative Services which included:

- The Guiding team
  - 2 members of the Quality Innovation and Patient Safety Service (QIPSS)
  - A Consumer Representative
  - 7AS Nurse Unit Manager, Orthopaedics and Trauma, Surgical and Perioperative Services

- The wider team instrumental in driving the quality improvement included:
  - Nursing, allied health, operational and medical staff.

Identification of systems issues highlighted underlying causes critical for successful and sustainable quality improvement to achieve their vision to become the best Ortho/Trauma service in Queensland.
**Aim:** The pilot trial of the Safety Partnership in Clinical Practice (SPiCP) investigated the effectiveness of a systems thinking approach to embed a culture of interdisciplinary collaboration and continuous quality improvement at the point of care.

**Method:** The guiding team undertook observational and consultative approaches to identify why the hospital’s well-established, evidenced based Pressure Injury Prevention (PIP) Program was not achieving the desired outcomes. Systems issues identified included: ward culture, staff knowledge and skills, communication, patients’ perspective, equipment and environment, measurement and evaluation.

The pilot site had numerous data driven opportunities for improvement, including the highest incidence of hospital acquired pressure injuries (HAPI) in the facility with seven significant injuries in the preceding six months. Staff and consumers identified this as a priority and developed their aim statement: Zero significant HAPI on ward for next six months.

A strong governance structure was put in place with scheduled fortnightly meetings to ensure interdisciplinary participation and rapid-cycle testing for assessment of initiatives. Our focus was on building trust by addressing point of care concerns, valuing and connecting with staff, mentoring and enabling engagement with both staff and consumers.

The group collaboratively developed their priorities with practical activities they could implement and evaluate at the point of care. Leadership support and participation was invaluable in empowering the team. Interventions included: interdisciplinary PIP plan, weekly interdisciplinary PIP team huddle to discuss care of high risk patient, communication board, audit, education, leadership walkarounds and patient, family and carer feedback to staff from consumer lead.

**Results:** In the 12-months post-implementation, the team achieved zero significant HAPI, and a corresponding reduction in financial penalties and associated costs (Length of stay, nursing hours etc.) with potential savings of $1.14 Million per year (based on 14 HAPI per year). Seven of the eight dimensions of care showed improvement on The Patient Experience Survey Tool. For staff a new culture of trust, respect, inclusion and responsibility developed.

**Conclusion:** The partnership achieved enormous cultural change in a challenging and complex environment. The trial provided proof of concept for a system based partnership approach to healthcare redesign at the point of care. Understanding the complexity of systems and the way they work provided greater insight in embedding context specific improvements to enable success and sustainability. Identifying and resolving causal factors impacting effectiveness and efficiencies at the point of care was foundational for staff to drive quality improvement.

The outstanding outcomes in the project have been an artefact of empowering staff to change the culture to a collaborative, integrated, continuous learning and improvement environment. This project has identified the Safety Partnerships in Clinical Practice model is effective. A best practice model is in development for RBWH to build capacity in systems thinking approaches to care.
Planning to implement FiCare involved a review of FiCare research (4-7) and the website familyintegratedcare.com. An audit of the current practices benchmarked against FiCare principles was done. (Audit template available at: http://familyintegratedcare.com/toolkit/) The results were used by the FiCare committee to prioritize areas that needed addressing. Discussion were also held with senior nursing and medical staff in another center that had been involved in the FiCare multi-center trial (1).

Current parents were surveyed to seek feedback if they supported FiCare and what cares they would like to be involved in, as well as barriers to their involvement stay. All respondents were supportive of FiCare and 93% were interested in being actively involved in doctors’ rounds and caring for their baby. The main barrier was difficulty in accessing car parking around the hospital.

Parenting practices and the guidelines supporting these were reviewed. Additional guidelines were added as gaps were identified. Parents on the FiCare committee were integral in reviewing these. These new and revised guidelines were distributed widely among the staff for feedback and comment.

To support continuity between nurses, a FiCare folder of documentation was created for each baby. The FiCare folders were all the same colour to facilitate its clear identification amongst the baby’s paperwork.

A new parent staff communication board was developed to facilitate clear communication. Key areas to be included in this board from the veteran parents perspective included a clear statement on whether the baby was well enough for cuddles.

Staff education was undertaken. There are approximately 350 FTE nursing and medical staff so a number of teaching sessions were conducted covering both day and night shifts. In addition the sessions were recorded and were able to be accessed by staff from the bedside computers. The initial teaching sessions were focused around “why” FiCare. The talks highlighted the cultural change with parents actively involved and what advantages there are for the baby’s and parents in the FiCare model. Teaching was provided by the veteran parents, senior medical and nursing staff. Subsequent sessions were on the practicalities of FiCare. Communication skills were also taught. Nursing staff attitudes and beliefs around FiCare were surveyed prior to the implementation of FiCare. The responses from over 100 nurses helped shape the practical education sessions. Ongoing education on FiCare has been included in the nursing and medical education programme.

Parent education sessions were reviewed and enhanced. Fortnightly teaching sessions were increased to weekly and covered a range of topics identified by the veteran parents as important.

The physical facilities supporting parents were reviewed. Parking was identified as a barrier and a number of conversations have been held to try and improve parking however to date there has been no changes. The veteran parents are very involved in advocating for improved parking.

The parent lounge was better promoted to parents. The veteran parents have a proposal supported by a charity to improve the parent lounge. In addition a charity now donates drinks, nibbles and snacks on a regular basis. More chairs are now available in the Neonatal Directorate to allow parents to hold their baby. Promotional materials for parents and staff were placed in public areas in the Neonatal Directorate.

Ongoing monitoring of the FiCare model continues. Recent audits have been of parents’ experiences and the FiCare folder documentation.

**University of Hong Kong-Shenzhen Hospital Central Nursing Department Implemented MEWS with an electronic information system for identifying adult patients with deterioration conditions**

**Lanping Shi, Jianfen Cao, Qifeng Sun, Longli Wei, Fanxin Xuan**

**Aim**

Previous work shows that clinical judgement alone is less sensitive to detect patient deterioration. Physiological track and trigger scores are considered as a vital role to assist with identifying individuals at risk of critical conditions. The Modified Early Warning Score (MEWS) has been widely introduced as one of the tools to improve nurses’ ability to stratify patients with potential or established critical illnesses. This project aims to help nurses apply the MEWS in general wards in the Hong Kong University Shenzhen Hospital (HKUSZH) by adding mandatory fields with computerized calculation in the information system, and to continuously enhance nurses’ with the application of MEWS.

**Summary Abstract**

**Background:** Most of life-threatening adverse events are preceded by a gradual decline of clinical condition, which could be early detected from physiological parameters. The MEWS is one of the track-and-trigger systems which relies on vital parameters. Each specific vital sign (e.g., body temperature, heart rates, systolic blood pressure) would be converted to ratings from zero to three, and added together to a summary score. When the score reach a predetermined threshold, it reminds doctors and nurses to take timely appropriate interventions to avoid patient deterioration of general condition. According to previous literature, this tool has been adopted in single settings in China and other countries, mostly in emergency or critical illness departments. However, little is known about the application of the MEWS in general wards. And it is time-consuming to manually calculate the MEWS in clinical situation, which may affect the compliance of nurses. To ensure safety of patients in general wards, the HKUSZH conducted this project to introduce and continuously improve the implementation of the MEWS system. This is the first institution in Shenzhen to adopt a track-and-trigger system with an electronic information system for early detection of patient deterioration.

**Aim:** This project aims to establish an electronic MEWS system based on the nursing information system, to urge nurses better understand and apply the MEWS in general wards, and to continuously improve the adherence of nurses to the MEWS.

**Method:** From June to December 2014, the Central Nursing Department (CND) developed the MEWS scoring standard, and the related quality management system documentation according to local and international literature review. Based on the scoring
The Australian Council on Healthcare Standards
21st Annual ACHS Quality Improvement Awards 2018
• n-67 (96%) of nurses felt that the ORC was significantly or extremely helpful in determining the daily patient needs

Project Stage Four: We sought the views of our patients to better understand the consumer perspective. A consumer survey was developed and we engaged two of our regular volunteers to interview a number (n=22) of inpatients, results as follows.
• n=16 (75%) of consumers were very comfortable with the questions they were asked on admission
• n=17 (76%) of consumers were very comfortable about giving permission for nursing staff to contact their next of kin to discuss their wellbeing and discharge plan
• n=13 (57%) of consumers thought the conversation regarding discharge planning should occur closer to discharge day rather than on admission.

Project Stage Five: Our initial review identified there was considerable opportunity for improvement.

Our aim was to develop a single, integrated risk screening and assessment document that would be located at the front of the medical record. Screening and assessment questions were ‘grouped’ in a logical sequence and phrased so they were meaningful to both patients and nurses and questions about discharge were asked on the day following admission (in response to consumer feedback). Nurses and patients were consulted regarding the clarity of the new screening and assessment questions and changes made based on feedback.

A literature review was undertaken to ensure we had captured all relevant risk elements, especially those related to falls, pressure injury and delirium.

The new document included the requirement for nurses to reassess risk in key functional areas each day to ensure early identification of any change in the patient’s risk status.

The innovative design of the new document closely aligned with the format of the ‘track and trigger’ Observation Response Chart (well regarded by nurses) and incorporated visual cues to assist in mapping functional improvement or decline. The new document was to be reviewed daily by nurses and all members of the multidisciplinary team.

The Nursing Care Record (NCR) was also redesigned to include a harm minimisation plan directly linked to the outcomes of the risk screening and assessment. The NCR worked in tandem with the risk screening and assessment form, both to be completed on every shift to ensure appropriate strategies were initiated in response to risks identified in the risk screening and assessment document.

Version 1 of the new document was piloted alongside existing admission risk screening tools (n=22) and outcomes compared with the Falls Risk Assessment Tool (FRAT) and pressure injury risk assessment (Braden Scale). The results showed that the new forms risk rated at the same level or higher than the existing tools in all instances. Minimal staff education was undertaken prior to the initial pilot as we wanted to see whether nurses intuitively found the document easy to complete (the apple principle). Feedback from the nursing team was collected during the pilot in the form of field notes which indicated an overall positive response to the new documents and a number of suggested changes in wording and layout were put forward to improve usability.

Version 2 incorporated the feedback from nursing staff and was implemented in one ward only. Auditing of risk status continued to show consistency in risk rating (equal to or higher) compared with FRAT or Braden.

A six hour workshop was conducted with a cross-section of nursing staff (RN’s, ANUM, EN’s) to seek feedback on version 2. Adjustments based on feedback were made and version 3 was rolled out for all patients in the acute ward areas.

Post implementation of version 3, a second survey of nursing staff (N=180) was undertaken to determine nurses attitudes and confidence with the new documentation. A small number of respondents (n=15) completed the survey with results indicating a higher level of satisfaction with the new documentation.
• 83% felt the documents were user-friendly
• 53% found them useful in determining daily patient needs
• 67% frequently reviewed or referred back to the documents

An audit of completion rates of the new documents revealed substantial improvement with daily reassessment of risk and functional improvement/decline, increasing from 15% to 98%.

Version 4 was introduced across the acute wards in August 2018 with improvements based on an ongoing Plan Do Study Act (PDSA) cycle. Version 4 also included the introduction of a modified version for the subacute ward with minor changes to accommodate the longer length of stay experienced in subacute services and the assessment requirements related to activities of daily living.

Although the project did not specifically aim to reduce the rate of falls or pressure injuries acquired in care, these areas were monitored for quality purposes throughout the project.

Sydney LHD
Mental Health / Marrickville CHC / Marrickville Core Mental Health Team
The Development of the Marrickville Side Effect & Preventative Health Screening Tool (MSEPHT)
Mr. Andrew Simpson, Mr. Marc Lamond, Mr. Lorne Hyde, Ms. Sophie Isobel

AIM
To screen mental health consumers for side effects and intervene to reduce these side effects when indicated.
To screen mental health consumers for preventative health screening status and intervene to improve adherence to best practice guidelines around preventative health screening.
To monitor mental health consumer’s engagement with GP & dentist and attempt to improve levels of engagement.
To offer a feedback tool to consumers which will enable them to tell us how they feel about being asked these questions.
**SUMMARY ABSTRACT**

Mental health consumers typically experience a range of side-effects from anti-psychotic medication which are often under-reported. Many neglect their physical health, and life expectancy for people with severe & enduring mental illness is 20-30 years less than the population average. Currently mental health services routinely check metabolic monitoring every 13 weeks and recommend annual physical health reviews with the GP, but there is no routine monitoring of side effects or preventative health screening status. The M-SEPHS: Marrickville Side Effects & Preventative Health Screening Tool has been developed to quickly and concisely identify side-effects and preventative health screening status and is designed to be completed every 13 weeks alongside metabolic monitoring. A 12-month pilot of consumers who attend Marrickville Health Centre for their Long Acting Injection has been completed. During this pilot, 100 individuals completed 149 screening tools, with a total of 235 side effects reported. While 28% of individuals reported no side-effects, 31% experienced three or more. Adherence to best practice guidelines for preventative health screening were extremely low. For individuals who were screened twice or more (n=41) there was no significant change in number of side effects reported or preventative health screening status, but there was a significant improvement in engagement with GP and dentist, and a reduction of smoking. Recommended interventions will be developed to assist clinicians to respond appropriately to the findings. A consumer feedback tool has been developed and will be issued at Marrickville Health Centre. The tool is now being implemented further across Sydney LHD.

**Correct Care Australasia**

Health Centre at Barwon Prison

**Men’s Health & Wellbeing Clinic (Barwon Prison)**

Amanda Smith

**AIM**

The pilot of a Men’s Health and Wellbeing Clinic (the Clinic) at Barwon Prison proposed to engage male prisoners in preventative healthcare and more active involvement in the self-management of chronic disease. It was envisaged that using a multifaceted approach improves health literacy, encourages positive lifestyle modifications, and motivates individuals to make decisions about their own health.

The clinic was planned in response to an analysis of the health service data and involved active collaboration with the prisoner population. The model of care continues to evolve, being informed by ongoing process evaluation, stakeholder consultation and consideration of other men’s health models of practice.

Through an enhanced nurse-led model of care, two nurse leads were responsible for assessment, care coordination and health promotion activities. The Clinic incorporated principles of health coaching, in which the client led the development of actions necessary to help them achieve their goals, with the nurse supporting and encouraging them along their journey.

The Clinic was conducted one day a fortnight with an appointment involving the nurse lead performing a comprehensive men’s health risk assessment. This assessment included family history; investigation of cardiovascular and diabetes risk factors (weight, exercise, diet, cholesterol, smoking and blood pressure); alcohol and drug assessment; communicable disease, mental health and a sexual health assessment.

At the initial consultation, the nurse lead was also able to assess health education requirements and opportunities for action and clarify terms, concepts and health consequences. Through a partnering relationship, the nurse lead was able to positively engage with male offenders to help them develop the knowledge, skills, tools and confidence to become active participants in their health care.

The introduction of the Clinic has been made possible through a strong partnership between the nurse leads and the Health Centre’s Medical staff. One of the Medical Officers was a member of the initial advisory group that helped to establish the model of practice for the men’s health and wellbeing clinic and continues to offer support and clinical advice to enhance the running of the clinic.

In the first 6 months of implementation over 28% of men attending the clinic have been diagnosed with a new chronic health condition following their health assessment and subsequent review by the Medical Officer.

Results have also identified 48% of men attending the clinic were at moderate to high risk of developing diabetes.

Patient feedback demonstrates positive outcomes, enabling nursing staff to promote a state of wellness rather than focus on illness.

“I got a lot out of today, very informative and easy to talk about my concerns. I walked away from this with more of an idea about how healthy I can be”. Prisoner Testimonial

The introduction of the Clinic has proven successful in identifying men at risk of developing chronic disease and improving the early detection and management of chronic disease amongst this population cohort.

**Bankstown-Lidcombe Hospital**

Aged Care & Rehabilitation

**Multi-Factorial Falls Prediction Tool: Prevention of Falls in the Elderly Patient**

Katrina Scott

**AIM**

To develop a screening tool to assist with the early identification, risk stratification and management of patients whom are at risk of Falls by being able to provide an individualised care plan according to the risks identified.

**SUMMARY ABSTRACT**

A retrospective review of patients aged over 65 years was conducted to determine the significant statistical correlations of known falls risk factors according to the literature to create a multi-factorial screening tool. This tool was applied to another sample of patients who were reported to have a falls history and a separate sample of patients whom were identified as having no falls history. The average score for patients with a falls history (11.2) and patient with no falls history (1.8). The discharge destination for the patients were also correlating with the
falls scores with higher scores often requiring residential care post leaving the hospital, medium scores requiring rehabilitation and lower scores requiring minimal assistance to return home.

**Bankstown-Lidcombe Hospital**  
Aged Care & Rehabilitation  
Predicting and Care Planning to prevent Delirium in the Elderly Patient  
*Katrina Stott*

**AIM**  
To develop a screening tool based upon statistically significant correlations determine whether delirium can be predicted / prevented.

To develop a tool that will provide an individualised, multi-disciplinary care plan to minimise the risk factors associated with Delirium in the elderly patient.

**SUMMARY ABSTRACT**  
A sample of patients who were coded as having a delirium and a sample of patients who were coded not to have a delirium were analysed using SPSS to determine the significant correlations of risk factors associated with delirium. A risk assessment tool was developed from the 36 significant correlations from this analysis and was applied to 350 patients who were admitted or developed a delirium during their admission and another 112 patients who were admitted and were not diagnosed with a delirium.

Preliminary studies of the application of the delirium prediction tool indicated that patients could be predicted to develop a delirium. The average score for patients diagnosed with a delirium was 12.10 and patients not diagnosed with delirium was 4.23. These scores were also able to risk stratify the patient according to their prognosis and future care needs.

**Melbourne Health**  
Sepsis Working Group  
*Kelly Sykes, Karin Thursky, Tristan Vasquez, Dominic Gasparini, Robert McCubbin, Thao Nguyen*

**AIM**  
The aim of this project was to translate evidence-based clinical guidelines for sepsis identification and management into practice and in doing so achieve the following: decrease sepsis related mortality, ICU admissions, and length of stay, improve time to first dose antibiotic therapy, improve bundle compliance, reduce last line antibiotic therapy, and increase services utilising a standardised sepsis pathway.

**SUMMARY ABSTRACT**  
The ‘Think sepsis. Act fast’ initiative was launched across the Royal Melbourne Hospital in January 2017. The initiative consisted of the implementation of an evidenced-based clinical pathway, comprehensive communications plan, and multidisciplinary education package. The pathway, previously developed as a cancer pathway by Peter MacCallum Cancer Centre and New South Wales Clinical Excellence Commission, was adapted for a whole of hospital. The clinical pathway is now used across campuses, the Emergency Department, and all 25 wards. In preparation for the implementation of the pathway, a hospital-wide needs assessment was undertaken and found significant practice variance in relation to sepsis recognition and management. The sepsis pathway standardised sepsis recognition and management with an evidence-based six hour care bundle. Importantly, the pathway supports nurse initiation and a multidisciplinary approach to care. Hospital-wide education of all nurses, doctors and pharmacists and strong Executive support facilitated the rapid adoption across the hospital in 7 weeks. The project has led to increased awareness of the importance of sepsis as a life-threatening condition, and has resulted in significant and sustained improvements in management of sepsis, health care utilisation and patient outcomes. In the first 6 months after implementation, the sepsis pathway was used in more than 700 episodes of care resulting in a significant improvement in clinical and process outcomes for patients with sepsis: 50.4% reduction in mortality, 65.4% reduction in admission to the ICU, 51.9% reduction in time to receive antibiotics and 42.9% decrease in the length of stay in hospital. The Royal Melbourne Hospital is now leading the Better Care Victoria scale up of the ‘Think sepsis. Act fast.’ initiative to 23 hospitals across 11 other Victorian health services.

**Northern Adelaide Local Health Network**  
Speech Pathology Department, Allied Health. Lyell McEwin Hospital  
Lyell McEwin Hospital Implementation of the South Australian Swallow Screening Protocol  
*Jana Havis, Nicolette Vanvounis, Linda Nimmo*

**AIM**  
Prior to mid-2017, any patient admitted with a stroke to Lyell McEwin Hospital would be made nil by mouth pending Speech Pathology assessment. Lyell McEwin Hospital implemented the SA Stroke Swallow Screening Protocol for nursing and medical staff use and evaluated the effectiveness of the protocol for early identification of swallowing impairment and capacity for oral intake within four hours of stroke admission consistent with SA Health Stroke Model of Care.

**SUMMARY ABSTRACT**  
SA Health Stroke Model of Care had a strong focus on redesign of acute stroke care, prompting the development and implementation of the Stroke Clinical Improvement Project1, 2. A key project recommendation was development of a standard swallow screen protocol and tool, which would facilitate activation of nil by mouth for failed swallow screens with referral onto Speech Pathology for more in-depth assessment for these patients. Patients passing the screen would commence a ward diet and thin fluids.

The SA Stroke Swallow Screening Protocol has been embedded into the code stroke response at Lyell McEwin Hospital and has facilitated an efficient and effective process for rapid and consistent swallow screening of newly admitted stroke patients.

Lyell McEwin Hospital Speech Pathology completed evaluation for the first 6-months post implementation (October 2017-March 2018) where 96/162 (60%) patients admitted to Lyell McEwin Hospital with a stroke had a swallow screen conducted. In March 2018, 19/32 (60%) of patients had a swallow screen conducted or Speech Pathology assessment within four hours of admission.

The target is for 100% of patients admitted with stroke to (a) have a swallow screen conducted; and (b) have a swallow screen conducted within 4 hours of stroke admission. We acknowledge there is work still ongoing work to achieve this. Following initial evaluation, minor changes to the documentation tool have been identified and training for additional nursing staff has scheduled to assist with natural attrition of nursing staff working within
the stroke unit to ensure there are enough trained nursing staff available from shift to shift to conduct swallow screening.

Ryde Hospital
Speech Pathology
Evaluating FEES Service at Ryde Hospital.
Nicola Veness, Berna Gurisik, Alyssa Curtis

Aim
To review the benefit of the new Fibreoptic Endoscopic Evaluation of Swallowing (FEES) service being rolled out at Ryde Hospital through:
- Service enhancement of instrumental assessment being completed
- Cost comparison of historical data 12 months pre-FEES to 12 months post-FEES of patients transported to RNSH for FEES/MBS
- Staff satisfaction of the Ryde hospital FEES service

Summary Abstract
Historically all Ryde hospital patients who required an instrumental swallow assessment - Modified Barium Swallow (MBS) or Fibreoptic Endoscopic Evaluation of Swallowing (FEES) were transported to RNSH. This came at an increased cost associated with transport and length of stay while patients were waiting for an instrumental swallow assessment. Not all patients that would have benefited from instrumental assessment were medically stable to be transferred to RNSH.

In 2016, funding was secured to purchase a CMOS Video-Rhino-Laryngoscope with monitor plus stand and storage and 2x nasendoscopes. Training and support was provided by RNSH to a senior speech pathologist based at Ryde Hospital to gain competency in both passing the scope and interpreting FEES.

April 2017 saw the FEES service (with onsite support provided by RNSH SP) established at Ryde Hospital.

The development of the FEES service at Ryde Hospital has reduced the time for patients to receive the procedure, has increased the number of patients being able to access the service and has significantly cut costs for the hospital whilst improving over all patient care for patients with dysphagia.

Logan Beaudesert Hospitals
Clinical Governance Unit
48-hours notice before hospital accreditation: More cost effective, more staff engagement and more opportunities for improvement
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Aim
The objectives of moving Logan and Beaudesert onto an organisation of “Quality Care Everyday” are:

Primary Objectives
1. To provide a consistently high level of quality and safety in patient care irrespective of the accreditation survey timing or process

Secondary Objectives
2. To reduce the impact of concentrated accreditation preparation (financial and workforce wellbeing)

3. To increase workforce engagement in continuous quality improvement and systematic approach to compliance with the NSQHS.

4. To ensure that the accreditation assessment is a true reflection of the day-to-day quality and safety culture in the organisation.

Summary Abstract
Logan and Beaudesert Hospitals (LBH) have recognised that a change in culture is required from one that is compliant to National Safety and Quality Health Service (NSQHS) Standards for accreditation purposes to one that views quality and safety of the NSQHS standards as critical to day to day provision of care. An organisation of “Quality Care Everyday” has embedded a consistently high level of compliance with the NSQHS standards into “business as usual”, irrespective of the accreditation survey timing or process, and thus could be assessed any time and achieve consistent, replicable results with no additional resource requirements for preparation.

The process taken to move LBH into "Quality Care, Everyday" hospitals have been evaluated through a ‘Short Notice Survey’ Accreditation Assessment Process (SNAAP) and associated research. LBH partnered with the ACSQHC, The Australian Council on Healthcare Standards (ACHS), Queensland Health and Wide Bay HHS to pilot SNAAP.

Under the SNAAP process, the organisation is assessed on the ten mandatory NSQHS standards and five EQuIPNational standards, with two on-site assessment visits held per year, each visit 2-3 standards are assessed. National Standards 1, 2 and 3 and the mandatory criteria for EQuIPNational standards 11-15 are assessed twice in the 4-year accreditation cycle, all other standards are assessed once in a four-year cycle.

The organisation is contacted 48-hours prior to the accreditation assessment by ACHS to notify the organisation of the date of the assessment.

An 18-month interventionist, multi-centre study was designed using mixed methods to validate the objectives of whether the organisation has:

1. Embedded minimum acceptable standards of quality and safety into business as usual

2. Reduced the impact of concentrated accreditation preparation

3. Ensured that the accreditation assessment is a true reflection of the day-to-day quality and safety culture in the organisation.

LBH received no recommendations (indicating that all action items in the standard were satisfactorily met) in any of the standards assessed during the SNAAP assessment. These results mirrored the results Logan and Beaudesert Hospitals received in the previous “standard” notice accreditation assessment, which is a validation that the organisation has embedded the systems and processes of “Quality Care Everyday” into “business as usual”.

Year 1 interim results of the research have found that under the SNAAP, there was a significant reduction in hours that staff members spend preparing for accreditation in the lead up to accreditation date.
The research also determined that stakeholders of Logan and Beaudesert Hospital found the SNAAP to more accurately capture the true level of quality and safety in the organisation.

It is essential that an external, independent assessment of the quality and safety of hospital and health system is a true reflection of the actual standard of the organisation.

Significantly increasing staffing resources to prepare for accreditation not only is a financial burden on the organisation, but can contribute to staff fatigue which consequently can lead to staff disengagement in quality and safety activity. It is essential to the patients that a hospital maintains a high level of quality and safety regardless of whether the onsite arrival of accreditors is 2 years or 2 days away.

**AIM**

The primary aim of this program of work was to improve timely access for patients referred for specialist outpatient services at the John Hunter Hospital (Newcastle, NSW, Australia).

**SUMMARY ABSTRACT**

Many public hospital specialist outpatient services within Australia are challenged by increasing demand and escalating patient waiting times (Schoch and Adair 2012, Stainkey et al 2010). Within the John Hunter Hospital, the volume of patients awaiting an outpatient specialist consultation had been increasing; with a concurrent gradual increase in the number of patients waiting for more than a year without a scheduled appointment.

To help address escalating outpatient waitlists, strategies such as allied health / nurse screening clinics (Oldmeadow et al 2007), waitlist auditing (Sanmartin et al 2000) and SMS appointment reminder systems (Hasvold and Wootton 2011) have been implemented in many outpatient services with demonstrated positive effects. The redesign project of the John Hunter Hospital Outpatient Service extends upon the un-modal evidence-based strategies by the implementation of a ‘bundle’ of initiatives that are data-informed and clinically-led (Appendix 1).

A central component of this ‘bundle’ was the conscientious use of data to identify opportunities for improvement, inform redesign initiatives and to evaluate their impact on meaningful outcomes. Significant investments were made to address identified data gaps, improve data quality and completeness, and to improve data accessibility. Feedback from clinical teams and other stakeholders helped to identify key data requirements and facilitated the development of reports to provide consistent meaningful information.

Redesign bundles were ‘clinically-led’. Clinical leads representing medical/surgical specialists as well as primary care clinicians were appointed in services undergoing redesign. Their combined support ensured that strategies aligned with key stakeholder needs as well as helping to embed changes and address barriers to their implementation.

In the context of the John Hunter Hospital’s Neurosurgery Outpatient Service, the redesign strategies included: the introduction of parallel Physiotherapy clinics for patients with non-urgent back pain presentations; routine administrative audits of the outpatient waitlist; the development of updated HealthPathways to help inform best practice care and referral pathways; the introduction of a standardised referral template for non-urgent spine pain presentations; the development of clinical triage guidelines to reduce unwarranted variation in referral triage outcomes; and participation in a clinical trial providing an alternative pathway for referred patients not requiring Neurosurgical consultation. As part of the development of the updated back pain HealthPathway, a multi-disciplinary team worked together to develop agreed referral pathways for patients with differing subclassifications of low back pain, providing a broader benefit across multiple specialty teams as well as the community.

The impact of the redesign initiatives implemented within the John Hunter Hospital Outpatient Service has led to improved access for patients referred for specialist outpatient services. Over the past 4 years, there has been a 68% reduction (5,731 patients) in the number of patients waiting for more than 1 year without a scheduled appointment on a John Hunter Hospital Outpatient Service waitlist (Appendix 2). Within the Neurosurgical outpatient service, the overall volume of patients awaiting a scheduled appointment has reduced by 86% over the past 2½ years and there are no longer patients waiting for more than a year without a scheduled appointment in that service (Appendix 3).

There is strong evidence that the JHH Outpatient Service redesign project has led to substantial and lasting changes within the organisation, that are replicable in other services and settings.

**Calvary Public Hospital Bruce**

**Physiotherapy Department**

**Expansion of the ACT Lymphoedema Service**

Elizabeth Webb, Gemma Arnold, Marie-Michelle Coulombe, Jennifer Azurin

**AIM**

In response to continuing high and growing demand the ACT Lymphoedema Services Plan 2015-2018 was established to expand lymphoedema services. The aim of the Plan was to expand and deliver an innovative, coordinated, efficient and high quality lymphoedema assessment and management service in the ACT. This Service was based at Calvary Public Hospital Bruce and delivered by a multidisciplinary team via a hub and spoke model.

**SUMMARY ABSTRACT**

Lymphoedema is a chronic condition that occurs when an individual’s lymphatic system fails in its ability to maintain the fluid balance in the extracellular space resulting in chronic oedema of one or more areas of the body. It usually affects the arms or legs, although it may also involve the trunk, breast, head and neck or genital area. Lymphoedema can subsequently lead to an increased risk of developing cellulitis, poor wound healing and mobility dysfunction. The lymphatic failure may be the result of a congenital abnormality or be secondary to cancer treatment, injury, venous disease and or obesity. As such it may be present as a co-morbidity in a diverse range of primary diagnoses and does not primarily fall under the responsibility of any particular medical speciality. Management in Australia is largely delivered by physiotherapists and occupational therapists. Services available in the Australian public.
health system for consumers living with lymphoedema are often limited and under high demand. A service was established at Calvary Public Hospital Bruce (CPHB) in 2001. By 2010 this service was experiencing high demand evidenced by long wait times (up to 18 months for treatment), consumer complaints and high levels of stress experienced by staff.

As the problem continued to escalate, a review of lymphoedema services in the ACT and surrounding region was conducted in 2011 which included benchmarking against four leading interstate providers. A report from the review was released in 2012, recommending a territory-wide lymphoedema service, including strong links between Calvary and Canberra Hospital, outreach community-based services and palliative care. The review also recommended stronger links with lymphoedema service providers in the surrounding region and in the private sector. Subsequently, additional funding was announced in the 2014-15 ACT Budget. A plan and formal agreement were developed in 2015 between Calvary Public Hospital Bruce and ACT Health to implement the lymphoedema service expansion over three financial years (2015-16, 2016-17 and 2017-18).

The proposed model was for a territory-wide lymphoedema service, similar to a "hub and spokes" model, with Calvary as the hub and formal linkages or "spokes" to other facilities. Additional resources were proposed for Calvary Hospital to develop an outreach service in community health centres in the north and south of Canberra, provide Lymphoedema Management within a specialised multidisciplinary palliative care service in a hospice, with increase education provision to healthcare staff, and to engage in research. A network was established to oversee the implementation of the plan. It included senior representatives from ACT Health, Canberra Hospital and Health Services, Southern NSW Local Health District, ACT Health Cancer Nurse Care Coordinator, ACT Community Nursing, and the ACT Primary Health Network, as well as a consumer representative, the Calvary Director of Physiotherapy, the Lymphoedema Service Coordinator and a Lymphoedema Service therapist.

The expanded Lymphoedema Service comprised of therapists with specialist lymphoedema training, an administrative officer, a research officer and a consultant Vascular Surgeon. Based in Canberra, it serves the population of over 500,000 living in the ACT and the surrounding regions of NSW. The total staffing for specialised public lymphoedema services in Canberra, including services at Calvary Public Hospital Bruce, Canberra Hospital and Health Services, Clare Holland House and the Community Specialist Palliative Care Service increased from a total of 2.45 to 6.45 full-time equivalent staff. Outreach lymphoedema clinics were established at Belconnen and Tuggeranong Health Centres and a specialised palliative care lymphoedema service was developed.

The expanded Lymphoedema Service achieved remarkable outcomes. From June 2015 (just prior to the service expansion) to May 2018, the average wait time for outpatients to receive treatment reduced from 118 days to 43 days and occasions of service increased from 94 to 280. Over the three-year expansion, the service increased capacity to manage an additional 388 active patients, being a 44% increase in individual patients seen. Major and minor capital items were acquired, including gold standard measurement tools such as a bioimpedance spectroscopy device and perometer to allow early detection and intervention for lymphoedema, facilitating best-practice in patient care.

Referral pathways and linkages were established with GP’s, community nursing, oncology and obesity management services. Education on lymphoedema and its management was provided to a wide range health professionals and health professional students, with over 42 presentations being delivered to a total of 1094 registered attendees. A significant increase in awareness of the service and number of referrals occurred during the lymphoedema expansion, which was very likely related to the extensive education delivered. Both consumer and stakeholder surveys were completed to assess satisfaction with the service. The consumer response was overwhelmingly positive, with 90% believing that the service helped them manage their condition better and more independently, and was valuable in improving their daily function, health and wellbeing.

Major research projects were completed and commenced. An audit of the Calvary patient population was completed as part of an international epidemiological study (LIMPRINT), with the results being presented at national and international conferences and submitted for publication in a peer-reviewed journal article. A randomised controlled trial has been commenced, and with support from the the Australian National University and the University of Canberra will be progressed as part of a PhD. This trial has received substantial sponsorship and has also been presented on a local and national conferences. Other significant quality improvement activities have been completed.

The Lymphedema Service continues to review, monitor and enhance current services to provide patient centered care in line with evolving evidence and consumer needs. Furthermore, the cost of lymphoedema current services can be fully funded under an Activity-Based Funding model, ensuring its sustainability.

**Sunway Medical Centre Sdn Bhd**

**Pharmacy**

**Improving Medication Safety via Reduction in Medication Errors: An Innovative Approach in Managing Look-alike Sound-alike Medications**

Wan Mui Yi, Chow Hoong Seng

**AIM**

In an effort to improve the level of medication safety in the hospital, a 2-year quality improvement project was initiated in 2016 with the aim to reduce medication errors, specifically dispensing errors in the pharmacy, guided by a systematic root cause analysis. Particular focus was given to reduce errors related to look-alike sound-alike (LASA) medications as these had contributed significantly to the occurrence of medication errors.

In planning and implementing this project, the elements of benchmarking and innovation were incorporated in order to derive strategies that were effective and sustainable among the team of staff.

**SUMMARY ABSTRACT**

Medication error is any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the healthcare professional, patient or consumer. It remains the bane of many healthcare organisations, making it essential to continuously improve the system and work processes through quality improvement initiatives to
enhance safe medication practice in the hospital and ultimately, for patient safety.

A quality improvement project was initiated since 2016 with the objective to improve medication safety via reducing in medication errors. From the medication dispensing errors in 2015 (both actual and near misses) was done to identify opportunities to enhance existing processes and activities in the department. It was observed that there was a significant number of errors related to look-alike sound-alike (LASA) medications, in which based on the root cause analysis, encompassed approximately 20% of the root causes identified. LASA medications can cause potential confusion to staff due to similar medication names and/or similar product packaging.

Furthermore, the LASA factor also directly contributed to another identified root cause of ‘Incomplete 6R Verification’ (i.e. right patient, right drug, right dose, right strength, right formulation and right quantity), and thus was an area identified for improvement. This observation is consistent with the report from the Institute for Safe Medication Practices (ISMP) that cited LASA medications as one of the most common causes of medication error worldwide ISMP Canada, 2014]. Moreover, based on a 4-year retrospective study in Malaysia [Samsiah et al., 2016] out of 17,357 medication errors reported voluntarily, 30.7% are related to wrong dose or strength, which could have been contributed by LASA medications as well.

In order to brainstorm on possible approaches to reduce errors related to LASA medications, the hospital’s current practices in handling LASA medications was benchmarked against guidelines by ISMP Canada (2014) and the World Health Organization (WHO) (2007). These guidelines were selected for benchmarking as both the ISMP and WHO are widely-recognised bodies that advocate for patient safety and medication safety. Benchmarking the hospital’s current practices against these guidelines also enabled ‘best-practice’ approaches to be identified and considered for implementation in the hospital to reduce LASA-related errors. The key outcomes identified were then categorised as: i) Recommended strategies already in place in the hospital, but with opportunity to enhance further (placing auxiliary alerts on medication storage bins or shelves where LASA drug pair are potentially stored, perform independent double checks, highlight the importance of LASA drug names as part of pharmacy staff trainings and internal communication); and ii) Recommended strategies with opportunity to implement in the hospital (emphasise drug name differences using methods such as Tall Man lettering).

A team consisting of pharmacists and pharmacy technicians led by the medication safety pharmacist was formed to lead the project. From the information obtained from the benchmark exercise, brainstorming sessions were conducted for innovative strategies. Following the analysis by the team, strategic improvement plans were developed that centred on the three core pillars of Process, People and Environment. Throughout the planning of this project, considerable thought was given to ensure the activities conducted took into account feedback from staff, as all strategic plans would not work nor be sustainable without engaging them in the process. Key strategies that were implemented by the team during the project period include:

- The introduction of the 'double signature checking tool' to improve accuracy of final prescription checks, innovating the method of staff training by engaging several team projects based on medication safety themes that increased staff awareness on LASA medications via engaging and fun games and quizzes, implementation of LASA pictures and Tall Man lettering on drug containers, and initiating the ‘Medication Error Half Life Campaign’ where posters that trended the occurrence of medication errors were used to engage staff and provide a platform for reflective learning as a team.

Following the implementation of the strategic improvement activities, a positive outcome was observed with a progressively reducing trend of medication errors in 2016 (0.000%) and 2017 (0.007%), compared to the increase observed in 2015 (0.013%). This achievement was made more significant as it occurred amidst a background of continuously increasing census and workload as the hospital expanded from a 300-bedded hospital in 2015 to a 535-bedded hospital in 2017. Specifically, LASA-related errors had reduced by an overall 35% over the 2-year study period in 2016 and 2017 compared to 2015, demonstrating that the activities implemented have been effective and the results sustainable.

The key enabler that resulted in the positive outcome observed can be attributed to the spirit of continuous improvement, whereby the existing hospital LASA practices were benchmarked against recognised standards, in order to identify ‘best-practice’ opportunities for improvement. Furthermore, the magnitude of the improvement would not have been as significant without utilising an innovative approach to improve the process and engage the staff. A combination of process change that was easily adoptable by the staff, innovating the method of training delivery (involving the staff, introducing serious concepts with engaging and ‘fun’ games to stimulate interest) and strategic placements of warning alerts to staff that were more attention-grabbing, have been instrumental and the key turning points of the project.

Throughout the project, the P-D-S-A (Plan-Do-Study-Act) model recommended by the Institute for Healthcare Improvement (2016) was utilised whereby methods that did not work as well after a trial, were further improvised to make them more effective. Most of the improvisations took into consideration feedback from the staff, and hence enabled more effective outcomes post-implementation.

Globally all hospitals face the challenge of medication errors and while there is no perfect solution in sight, it is important to adopt the mindset of continuous improvement to reduce errors due to their potential risk to patient safety. The positive results achieved from the implementation of this project show that planning of strategic actions based on a systematic root cause analysis, benchmarking, utilisation of innovative approaches and continuous improvement using the P-D-S-A model are effective tools to reduce medication errors.

**Hong Kong Baptist Hospital Dietetics Department**

**Enteral feeding blended diet to patients with swallowing difficulty: a quality improvement on the control of blend viscosity and feeding pump efficiency**

Wong Yuen Ling, Yu Pik Ling, To Ka Wing, Yu Wai Kong

**AIM**

This project aim to review process of enteral feeding blended diet for patients with swallowing difficulty.
There are quality improvement on the control of blend diet viscosity (standardized the blended diet ingredients, formula and viscosity fit for enteral feeding) and feeding pump efficiency (upgrade enteral feeding pump to provide consistent flow rate, high accuracy and efficiency). Through this project, we also aim to improve the communication among nurse, dietitian and catering staff with clear preparation instruction, specific ingredients, measurable viscosity, accurate flow rate and volume of blended diet being served to patients. Frontline nurse can reduce time spending on enteral feeding, increase efficiency of the feeding process as well as gain stakeholder’s satisfaction.

**Summary Abstract**

Hong Kong Baptist Hospital is committed to enhance nurse’s efficiency in handling patients on Enteral feeding blended diet by improving viscosity of blended diet and feeding pump efficiency. This improvement plan was raised in the Nutrition Management Advisory Committee. Our project team mapped out the flow chart of the entire process from the blended diet preparation to the administration of enteral feed at bedside (Appendix 1). Cause and effect diagram was applied to diagnose the potential areas for change followed by PDSA cycles (Appendix 3). Results showed an improvement on shorten time spent on enteral blend diet feeding by 77.8% when feeding the same volume of blended diet. Viscosity of blended diet was controlled within 4-8 dPa’s to fit for enteral feeding. Nurses and catering staff satisfaction were increased. Verbal complaint was reduced.

**Title:** Enteral feeding blended diet to patients with swallowing difficulty: a quality improvement on the control of blend diet viscosity and feeding pump efficiency.

**Problem/ Aims Statement:** There were 2903 orders of blended diet from medical wards and ICU in 2017. 156 verbal complaints were received by catering staff regarding the inconsistent texture of blend diet (Appendix 4). A column type viscometer was used to measure the viscosity of blended diet. The blended diet run through the column within 3 seconds, which reflect the column viscometer was not sophisticated to measure liquid in low viscosity. No proper viscometer was available in the kitchen to measure and monitor the viscosity of blend diet. Catering staff was confused on how to fulfill nurse’s request on proper texture fit for enteral feed. Dietitian set ingredients and formula for preparing blended diet did not realize the water content of real food varied. Nurses feed blend diet at bedside by syringe or gravity and experienced difficulty to deliver blend diet to patients at consistent flow rate. The aim of this project cover the areas from the standardization of the blended diet ingredients, formula and viscosity to fit for enteral feeding, to the upgrade of enteral feeding pump for consistent flow rate, high accuracy and efficiency. This project also aims to improve the communication among nurse, dietitian and catering staff with clear preparation instruction, specific ingredient information, measurable viscosity and accurate flow rate of blended diet being served to patients.

**Background:** Patients suffered from swallowing difficulty rely on enteral feeding as main source of nutrition support (2,7). The use of sterile, ready to hang complete nutrition feeds is considered to be the gold standard for patients requiring enteral nutrition in the hospital. Despite the fact that there was a trend of feeding household food and fluids blended to a consistency whereby it can be administered via an enteral feeding device. Patients reported benefits from changing to this method of feeding including reduced diarrhea, bloating, and abdominal distension (3). There is a need for all stakeholders to support and maintain safe practice when enteral blend diet feeding is decided to use (2).

**Measurement Process and Outcome (Quality and Quantity Data):** Stakeholders experience was collected as quality measures, which include catering staff was confused on how to prepare blended diet with proper texture, frontline nurse feel difficult to feed blended diet to patient successfully through the enteral tube, and the dietitian was confused on how to give clear instruction to catering staff in order to prepare blended diet based on frontline nurse’s request (Appendix 2). Frequency of verbal complaint from nurses, consistency of blend diet viscosity, and the time spent on enteral blended diet feeding were collected as quality measures (Appendix 4).

**Design:** Team approach was applied in this project including General Manager, Nursing Officer, Advanced Practice Nurse, Catering staff, and Dietitians. Problem was reported benefit from changing to this method of feeding including reduced diarrhea, bloating, and abdominal distension (3). There is a need for all stakeholders to support and maintain safe practice when enteral blend diet feeding is decided to use (2).

**Strategy (PDSA Cycles):** Several comments were made and suggestions are listed out followed by a sequence of tests in four PDSA cycles. Changes were made for improvement under supervision of project team, which include standardization of food ingredients, the use of proper viscometer to monitor blended diet consistency, and upgrade the Enteral feeding pump (Appendix 7).

**Results:** Nurses spent time on enteral blend diet feeding was shorten by 77.8% when feeding the same volume of blended diet. Viscosity of blended diet was controlled within 4-8 dPa’s to fit for enteral feeding. Accuracy of feeding flow rate and volume being fed to patients was increased within +/-5%. Stakeholder satisfaction increased and less verbal complaints were received.

**Conclusion:** The project team was able to identify specific process areas required to be changed. Intervention with four PDSA cycles tested and adopted the suggestions collected in the Nutrition Management Advisory Committee. Satisfaction outcome ensure enteral blend diet feeding can be performed safely and efficiently.

**Plans for next steps:** Despite this project demonstrated the improvement on the consistency and efficiency of enteral blend diet feeding process, the participation of patients and family members was not enough. They will be invited in the next PDSA cycle for more experience sharing. The nurse turnover rate was high, therefore continual staff training is required to maintain good service quality level. This improvement has been sustained and training was provided to all medical and ICU wards. The PDSA cycle continued and reviewed on nurse’s satisfaction. We hope this quality improvement project provide enteral nutrition support not only for feeding commercial nutritional supplements, but also fit to feed blended diet which fulfill patient’s nutritional need and tolerance, especially for those experienced discomfort after feeding commercial products. Our team appreciated the establishment of the close communications among dietitians, nurses, patient, family member and catering staff to deliver enteral blended diet to patients safely and efficiently.
**Aim**
Our program aims to utilize simulation training to improve junior doctor knowledge, confidence and clinical judgment around common 'Rapid Response' emergency scenarios. The focus is to mimic stressful clinical environments to foster a systematic approach to medical assessment and management, but also focus on core non-medical aspects of clinical medicine, often neglected beyond medical school. This includes communication, teamwork, graded assertiveness and debriefing skills. These skills may improve junior doctor self-efficacy, mitigating sources of work related stress. Improving clinical skills and collective thinking during stressful situations may improve service delivery and patient safety.

**Summary Abstract**
Medical simulation training has huge promise in bridging the educational gap that can sometimes occur between classroom-based learning and clinical medicine, and is especially useful in acute medical settings where high pressure scenarios can be practiced and reflected upon in a safe and nurturing learning environment (Okuda et al., 2009; McFetrich, 2006). These scenarios require a systematic approach to clinical assessment and management, but also an understanding and appreciation of 'human factors' such as communication and teamwork that are frequently implicated in adverse events (Vincent et al., 1998). Fostering these interpersonal skills is critical as caregivers have identified poor communication in crisis or emergency situations (Pittman et al., 2001).

In an attempt to redesign the junior doctor teaching program, educational feedback from junior doctors at Bankstown-Lidcombe Hospital was sought via a formal meeting. Feedback revealed increasing junior doctor anxiety and medical uncertainty towards 'Rapid Response' emergency scenarios. This feedback is supported in the literature (Bovier et al., 2007). Anxiety was most pronounced during after hours and weekend shifts where the provision of senior staff is reduced. Often, junior doctors can be the first on scene to a 'Rapid Response', however they report a lack of confidence and experience when approaching these situations. Nevertheless, this response to acute physiological deterioration is critical to averting adverse outcomes and is an essential standard of care (Australian Commission on Safety and Quality in Health Care, 2010). Simulation education provides doctors with the opportunity for deliberate practice of knowledge and skills in a controlled environment without jeopardizing patient safety (Issenberg et al., 2005).

Moreover, increasing junior doctor performance in Rapid Responses may improve junior doctor self-efficacy. The general work experience by junior doctors is stressful and demanding. The National Mental Health Survey of Doctors and Medical Students (2013) identified increasing responsibility at work, fear of making mistakes, dealing with difficult patients and keeping up to date with knowledge as sources of work related stress by junior doctors.

**Our program**

We developed a 'Rapid Response' simulation training program for junior doctors at Bankstown-Lidcombe Hospital addressing common emergency clinical scenarios e.g. hypotension, loss of consciousness, hypoglycaemia. A one-hour simulation session was held monthly during junior doctor protected teaching time to encourage attendance, and the sessions were facilitated by two experienced Emergency Physicians. The Mega-Code Kelly (Laerdal Medical, Norway) was used (life-sized mannequin and voice, programmable vitals and clinical signs). Pre-reading material was emailed to junior doctors prior to each simulation session, to encourage familiarity of topic.

The simulation scenarios had defined goals centered around building knowledge, developing confidence, communication, teamwork including organization and graded assertiveness. The scenarios were supported by a 30 minute debriefing session—where the ‘bang for buck’ learning occurred. Debriefing encourages transfer of knowledge from the simulation to real-life (Driefuerst et al., 2009). It provides an opportunity for learners to make sense of the experience and determine how to apply lessons learned to future clinical performance (Driefuerst et al., 2009).

Simulation effectiveness was measured through an evaluation form that was a modified version of a published, validated tool (Elfrink et al., 2012). This tool evaluated learning and self-confidence through predominantly Likert-type scale statements and key qualitative questions (see Appendix 1).

**Familiarisation session**
All junior doctors attended a familiarisation session prior to commencement of the simulation program. This session focused on minimizing barriers to learning in simulation. Learners were introduced to simulation equipment and oriented to the environment to ensure that they would be able to “buy into” scenarios. The lead Emergency Physician facilitators focused on fostering a “safe container” for learners—this is, a space for learning that does not threaten to intimidate or humiliate (Rudolph et al., 2014). This dedicated session was supported by an ongoing pre-brief at the beginning of each simulation to continually minimize barriers to learning and ensure learners felt safe to take risks and actively participate.

**Nursing involvement**
Open invitation for nursing participation was sent to simulate real life interdisciplinary communication and teamwork, however only 1 nurse attended one session, highlighting issues of nursing time pressures.

**Course Endorsement**
We submitted our simulation program for endorsement to South Western Sydney’s Centre for Education and Workplace. This enabled a My Health Learning setup, with participant attendance recognized via a certificate.

**Results**
A total of 48 participants responses have been collected to date with Microsoft excel used for data analysis. The Likert-type scale items were given numerical values to facilitate descriptive statistical analysis. Qualitative data was entered word for word with colour coding used to identify common themes.

40 participants identified as interns and 8 as residents. 85% had participated in some form of simulation education prior to commencing our rapid response simulation program. Most participants had minimal exposure to real-life MET call scenarios with 43.75% identifying as attending less than 5 MET calls.
Participants were asked about career interest, with a distribution across multiple specialties noted. Across the simulation sessions, 40 participants identified which role they played in the scenario with 30 of these (75%) identifying as active participants rather than observers.

The scale items demonstrated good internal validity with a Cronbach's α of 0.86 (see Appendix 2). 97.9% of participants agreed-strongly agreed (A-SA) that simulation scenarios were relevant to clinical practice and enabled an opportunity to practice a structured approach to emergencies. In regards to confidence, 96.8% A-SA that they now felt better prepared to respond to changes in a patients condition; and 97.9% A-SA that they felt more confident with the simulated MET scenario. 86.0% of participants A-SA that debriefing contributed to learning, was valuable in improving clinical judgement and a constructive evaluation of the simulation scenario. 56 participants identified a key take home message. 13 (35%) of these described role allocation and 8 (22%) identified communication as the number one take home message. 10 (27.7%) reported a content specific item from the scenario they attended as their number one message.

Conclusions: Medical simulation training provided a safe and controlled environment for learning. Frequent and structured simulations improved junior doctor knowledge, confidence and clinical judgment around common 'Rapid Response' emergency scenarios. All junior doctors practiced leadership roles, organizational and team building skills. This collective thinking during stressful situations could improve clinical efficiency, service delivery and patient safety.

Further evaluation and early introduction of medical simulation training throughout internship and residency may improve junior doctor proficiency and self-efficacy, making a case for incorporating early medical simulation training into junior doctor teaching.

**University of Hong Kong-Shenzhen Hospital Pharmacy**

**Antimicrobial Stewardship Programme – Achieving Excellence through Multidisciplinary Approach**

Bill Leung, Helen Chan, Ying Li, Yu Bo Zhuo

**AIM**

To reduce inappropriate use of antibiotic and emerging antimicrobial resistance and control the antimicrobial usage rate to improve patient outcome in compliance with national regulation by implementing an Antimicrobial Stewardship Program based on a multidisciplinary approach.

**SUMMARY ABSTRACT**

Antimicrobial resistance has been identified as a major threat by the World Health Organisation due to the lack of new antibiotics in the development pipeline and infections caused by multi-drug resistant pathogens becoming untreatable (Goossens et al. 2011; Carlet et al. 2011). Inappropriate use of antibiotics and antimicrobial resistance is a prevalent problem in China necessitating implementation of national regulatory control in 2014.

The Hong Kong University - Shenzhen Hospital was established through a collaborative agreement between the Shenzhen Government and the University of Hong Kong with the aim of bringing in modern management and healthcare reforms in China. To ensure appropriate use of antibiotics and reduce microbial resistance in our hospital, we have introduced an Antimicrobial Stewardship programme based on our previous experience in Hong Kong and overseas with involvement and participation of a core multidisciplinary team comprising clinical microbiologists, clinical pharmacists, infection control experts and nurses. The programme was supported by the senior hospital management, led by our internationally renowned infectious disease physician, Professor KY Yuen, and governed by the Antimicrobial Management Committee and Drug and Therapeutics Committee. The programme consists of implementation of the following core strategies:

"Front-end strategies" where antimicrobials are only prescribed through the following approval process:

1.1. Formulary restrictions: The number of antimicrobial and antifungal agents available for prescription in the hospital formulary is restricted to no more than 50 and 5 respectively. The formulary would be reviewed regularly. In accordance with nationwide requirement, use of certain broad spectrum and newer generation antimicrobials is restricted and a list of restricted special antimicrobial agents has been compiled.

1.2. Antimicrobial prescribing authority: Medical staff having attended regular antimicrobial stewardship trainings and passed the assessment by the core multidisciplinary team will be conferred antimicrobial prescribing authority. e-learning platform to enable prescribers to maintain their annual accreditation via e-learning module.

1.3 Preauthorisation process: Use of restricted special antimicrobial agents must be endorsed by the specialist team which includes clinical microbiologists. With enhancement of our electronic prescribing system, this preauthorisation process and follow up audit has been expedited and simplified.

1.4. Promulgation of Clinical guidelines: Guidance on choice of antimicrobials for treatment and prophylaxis has been made available for healthcare professionals. A function is added on the electronic prescribing system to ask prescribers to indicate whether the antimicrobial use is for treatment or for prophylaxis at the point of prescribing. The antimicrobial guidelines and policies are supported by ongoing education provided by the core multidisciplinary team.

1.5. Clinical Support management: The decision support on the electronic prescribing system has been enhanced to prompt and alert prescribers on antimicrobial prescriptions which are over 3 and 5 days. This triggers "DE-ESCALATION" process for prescribers to review and "STOP" the prescription if no evidence of infection, or to "SWITCH" from intravenous to oral therapy and "CHANGE" to narrow spectrum if indicated.

1.6. Clinical Pharmacy Services: Clinical pharmacists check antimicrobial orders and provide timely feedback on optimal dosing based on pharmacokinetic and pharmacodynamic considerations to doctors.

"Back-end strategies" where antimicrobials are reviewed after initiation of therapy:

1.7. The core team conducts Surveillance of antimicrobial use by using the following review methods:

- Review of appropriateness of antibiotic choice, dose, route and planned duration
- Review of drug allergy
- Review of the use of restricted special antimicrobials
• Review of indication for antimicrobial and compliance with guideline and policy
• Identify potential conversion from intravenous to oral therapy.
• Review requirement for therapeutic drug monitoring
• Review any related adverse events

During clinical review, point of care interventions can be made by the team to improve appropriate prescribing.

1.8 Data analysis: Data collected on antibiotic resistance, usage on treatment or perioperative prophylaxis are analysed and trended using Defined Daily Dosage (DDDs) to provide feedback to prescribing teams at our regular Antimicrobial Management Meetings to identify areas for improvement. Since the implementation of our multidisciplinary antimicrobial stewardship programme being launched, significant improvement is observed from 2014 to 2017 as shown in the following:

1. inpatient antimicrobial usage rate: 45.42%, 43.69%, 40.19% and 37.20% ;
2. outpatient antimicrobial usage rate: 13.44%, 12.71%, 10.95% and 10.94%;
3. Inpatient DDDs: 58.85, 54.21, 48.84 and 32.87;
4. The antimicrobial prophylactic usage rates for perioperative surgery: 37.30%, 35.54%, 24.71% and 27.24%.

Conclusion: The above figures are much lower than the national regulatory requirement and the lowest among all Shenzhen hospitals. It is evident that our antimicrobial stewardship programme with multidisciplinary approach has demonstrated the effectiveness of reducing inappropriate and unnecessary use of antimicrobial drugs.

Dubbo Health Service
Medical Administration
Electronic Task Management and Handover Tools in Dubbo
Dr. Robert Thomson

Aim
To critically evaluate the current system of white board based non-urgent task allocation and paper based handovers, with a view of designing and implementing an electronic task manager and handover tool using Census Task List, aiming to improve efficiency, accountability, and ultimately patient safety.

Summary Abstract
Initially, we undertook an electronic survey of 100 nursing staff from across all three shift periods over the course of fourteen days. Following this we designed workflows and tools utilising the Cerner Census Task List to create a system of electronic task allocation and handover. This was subsequently tested over 5 weekends with feedback from nursing and medical staff prior to a one week trial on Dubbo Health Service’s medical ward. The system was further refined and eventually rolled out in a twelve week whole hospital trial, accompanied with a training package and role specific quick reference guides. Feedback was sought throughout the trial, and the system was evaluated and modified every two weeks. A post implementation electronic survey of one hundred nursing staff was again undertaken across all three shift periods over the course of fourteen days. These surveys were then assessed using Chi Squared analysis.

Results: Pre-implementation, eighty percent of surveyed nursing staff believed the previous system required change, with sixty-six percent being dissatisfied with the white board method, and 72% believing that non-urgent tasks did not happen within an acceptable time frame. Following roll out of the electronic system we demonstrated a statistically significant change in nursing satisfaction, with eighty-eight percent being satisfied with the new system and seventy-two percent believing tasks now happened in an acceptable time frame. Eighty-six percent of surveyed nursing staff and all surveyed medical staff believed the electronic system had improved their work. The surveys also suggested a statistically relevant secondary outcome of improved nursing familiarity with electronic medical records and ordering functionality.

Conclusions: Electronic task management and handover processes at Dubbo Health Service have greatly improved the time in which non-urgent tasks are completed, added documented accountability, formalised workflows, improved staff satisfaction and ultimately improved patient safety. We hope to work with other hospitals in Western NSW Local Health District to implement similar systems.

Sunway Medical Centre Sdn Bhd
Nursing Division
Fall Prevention - Breathe New Air
Chan Lai Hong, Serene Lum Fui Sian, Lim Sew Cui, Ong Yee Wei, Electra How Siou Wen

Summary Abstract
After the implementation of Nemuri Scan in Tower C, there is zero high risk patient fall at bedside reported. In contrast, bedside fall with high risk patient in Tower B & C bed without Nemuri Scan reached up to 28 cases from June 2017 to June 2018. However, there was a case reported in Tower C on patient bedside fall. That particular fall incident was unanticipated as Nemuri Scan was not powered on for that particular patient i.e. not monitored. Therefore, it can be safely said that Nemuri Scan is as functionally reliable as it has proven to be.

A study was done to further enhance the reliability of Nemuri Scan in Tower C. A comparison was done between second floor with Nemuri Scan installed and third floor without Nemuri Scan. There was a reported case on patient fall not long after third floor operated. Soon after, another case of fall followed. On the other hand, second floor of the same tower with Nemuri Scan maintain to achieve our mission of zero patient fall.

The bar graph denotes the number of staff needed in each shift with and without Nemuri Scan. A study was collected from Ward 2C (Tower C) and Ward 3C (Tower C). Similarly, both wards serve a constant of equal number of beds as well as same departmental layout. Result shows that there are only 4 staffs needed per shift in Ward 2C with Nemuri Scan compared to a number of 5 staffs per shift for Ward 3C without Nemuri Scan. This study denotes that not only does Nemuri Scan is functionally reliable, it has also indirectly reduces the number of staffs needed per shift due to its capability in systemically analyze and communicative nature. Thus, there is no need for staff to do ward round all the time to disturb and check on patient while compromising a needier patient next door which brings about a logical solution to increase staff per shift to overcome the issue.

A study had conducted according to the bar graph below shows that Ward 3C and Ward 3D in Tower C after installation of Nemuri Scan and before implementation.
Significantly post Nemuri Scan implementation, there is a reported case of patient fall only. Even so, the fall incident was due to incompliance from staff that did not operate Nemuri Scan for the patient. Conversely, if Nemuri Scan is operating, the case of fall could have been avoided.

Results from the above questionnaire shows that, Nemuri Scan had achieve expected result i.e. patient do have better sleep at night due to less disturbance from nurses in order to do frequent ward rounds. As Nemuri Scan analyzes and communicates fundamentally, nurses on duty will be able to attend to them more quickly as a precaution when the alarm rings to check on patient’s activity or their need to get out from bed. Similarly, the final part of questionnaire also proved that patient prefer to stay in Tower C not only because it is environmentally better but also their needs and standard of safety are taken care of better with Nemuri Scan in Tower C. It serves as insurance to them in another word.

Feedbacks and evaluations were also taken from Nurses at Tower C after implementation of Nemuri Scan. Generally, 92.77% of nurses agree that Nemuri Scan reduces their worry towards unwanted bedside trip or fall and therefore they are able to increase patient touch time towards the needy as they can fully rely on the integrated system. Dominantly, nurses find that Nemuri Scan is helpful in their daily routine. Some who transferred from Tower B (without Nemuri Scan) to Tower C (with Nemuri Scan) even verbalized that their job scope has reduced vastly as the technology is personify as a part of their “staff in a team”.
AIM
The aim of this initiative was to conduct a gap analysis against the Clinical Excellence Commission’s (CEC’s) Patient Based Care Challenge and;
• provide a structure for Marie Stopes Australia (MSA) to enhance its patient-centred care and consumer participation strategic direction,
• make ‘patient-centred care’ more broadly recognized as everyone’s responsibility from the Executive team to clinical staff at the bedside ensuring ‘patient-centred care’ is a focus at all levels of the organisation and;
• in turn, ‘Improve the Patient Experience’

SUMMARY ABSTRACT
Marie Stopes Australia (MSA) is the national not-for-profit provider of sexual and reproductive health services including contraception and abortion care. This is a stigmatized area of health and can be challenging to involve the consumer in service planning and designing care.

To facilitate discussion and provide a structure for MSA to enhance its patient-centred care and consumer participation strategies, a gap analysis was conducted against the Clinical Excellence Commission’s (CEC) Patient Based Care Challenge in May 2017. MSA’s Nurse Unit Managers, the Executive team (including the CEO and Medical Director), the National Quality and Risk Manager, Clinical Nurse Consultant and MSA’s Consumer Advocate participated.

The group provided evidence of how MSA achieved the actions against the 27 strategies of the Challenge. The pre-intervention results were 37% (10) Achieved, 48% (13) Partially Achieved, 15% (4) Not Achieved. Actions and opportunities identified during the gap analysis;

1. Quality, Safety and Patient Outcomes:
   • Increase transparency in public reporting
   • Commence each Executive meeting with a complaint/compliment for continuous improvement

2. Workforce development:
   • Implement training in engagement techniques including ‘empathy’ training for front line staff
   • Involve consumers and consumer advocates in staff education

3. Co-design of services:
   • Develop Consumer and Specialist Advisory groups in each state and territory to understand client needs
   • Involve more consumers in service delivery planning and design
   • Conduct regular meetings with Nurse Unit Managers to identify potential consumers to sit on Consumer and Specialist Advisory Groups

4. Advocacy:
   • Implement a policy that all women are seen on their own initially during medical/nurse consultation and counselling sessions to ensure women are not being coerced into a termination by a third party.

Actions to date include;
1. Initiatives integrated into MSA’s Strategic Plan 2018 – 2020 with KPI indicators

2. MSA Patient-Centred Care/Consumer Participation Model (Appendix G) highlights the interaction between listening and serving the patients and the community internally and externally, which directs both patient-centred care and advocacy. This model is based on the key principles of CEC’s Patient Based Challenge. The patient is at the centre
and is the source for directing how the organisation interacts with patients at all levels of the organisation and the broader community. It highlights the key issues that impact on the patient and what advocacy MSA should prioritise. The model includes creation of Consumer and Specialist Advisory Groups to test and direct the work of the organisation and including media engagement.

3. Quality, Safety and Patient Outcomes:
   - Complaints and compliments tabled at Executive Team meetings for continuous improvement. An improvement example is the enhancement of health literacy for patients. MSA now sends MSA website links to short patient videos on Surgical Abortion, Medical Abortion and Vasectomy prior to patient appointments
   - Increased transparency in public reporting: Patient Satisfaction rates, Complication rates (compared with internationally reported anticipated rates) and ACHS Clinical Indicator outcomes are published on the MSA website https://www.mariestopes.org.au/about-us/our-standards/
   - MSA Patient-centred care/consumer participation model presented to all staff, the Consumer and Specialist Advisory Group and incorporated into MSA’s Quality Quest Newsletter.

4. Workforce development:
   - All Executive, Senior Management, Nurse Unit Managers and Clinic front line staff have completed “Empathy” training
   - Involved the consumer advocates in staff education.

5. Co-design of services:
   - MSA currently works with five consumer media spokespeople
   - Established routine review of google comments and redirect any complaints into the formal complaints system for investigation and corrective action
   - Established MSA’s first Consumer and Specialist Advisory Group in Victoria
   - Engaged consumers at the local clinic level in the design of Clinic Quality Data Outcome posters and a ‘Way Finding’ Quality improvement initiative.

6. Advocacy:
   - All media has a core focus on patient-centred care

Pre and Post Intervention Evaluation includes:

1. Quality, Safety and Patient Outcomes:
   - An increase in achievements against the CEC’s Patient Based Challenge as follows:

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<thead>
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<td>30%</td>
</tr>
<tr>
<td>Not Achieved</td>
<td>15%</td>
<td>7%</td>
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   - An increase in patient satisfaction from 89% in year end 2017 to 92% in 2018 YTD (end of June 2018)
   - An increase in patient satisfaction on google review from approximately 2.5 stars in 2016 to 3.5 in 2018
   - An increase in reporting through the formal complaints process. A routine review of google reviews redirects any complaints into the formal complaints system for investigation and corrective action as required
   - Awarded two ‘Met with Merits’ in NSQHS Standard 2 Partnering with Consumers; 2.1.1 and 2.2.1, at the 2017 onsite Victorian Accreditation survey.

2. Co-design of services:
   - State Consumer and Specialist Advisory Groups established in two jurisdictions
   - Consumer advocates involved in branding redesign for Westmead Clinic.

3. Advocacy:
   - All women are now seen initially on their own in the medical/nursing and counselling sessions at all MSA clinics – refer below to ‘Reproductive Coercion’. Compliance is monitored via complaints, incidents and regular clinic onsite mock surveys/reviews where the Clinical Nurse Consultant follows a patient through her journey
• Five consumer-driven advocacy campaigns implemented with one campaign successfully completed.

Next Steps:
• Secondary quality improvement initiatives identified through the State Consumer and Specialist Advisory committees, for example, the BMI initiative is being developed with the consumer advocates
• Developing MSA short patient videos on Surgical Abortion, Medical Abortion and Vasectomy in multiple languages
• With Australian National University, commenced international collaborative Research Program ‘What Women Want in Abortion Care Services’ to guide future service delivery from a patient-centred perspective. Past patients and the community participation will provide predictive pathways to customize MSA’s services in line with patient expectations
• Further establish Consumer and Specialist Advisory Groups in three remaining states
• Provide communication skills training to clinical staff
• Implement a Health Literacy initiative
• Implement a Staff Patient Safety Climate Survey
• Continue Open Disclosure.

REPORT
APPLICATION OF ACHS PRINCIPLES

1. Consumer Focus
• The overall aim of the initiative was to ‘Improve the Patient Experience’.
• A session was dedicated at the Nurse Unit Manager’s conference, also attended by the CEO, Executive, Senior Management and Consumer Advocate from the Women’s Health Issues Centre, to discuss patient-centred care utilising the CEC’s Patient Based Challenge as a platform for focus and discussion.
• The Nurse Unit Managers had a wealth of knowledge at a local clinic and state level of patient experience including the varied cultural components of the patient experience eg Aboriginal and Torres Strait Islander women and other multicultural representative groups such as Asian, Indian, African, Pacific Islander and Arabic.
• The Consumer Advocate was able to provide a perspective that some women may be coerced by a partner or family member into having an abortion. This is called ‘Reproductive Coercion’. MSA has now taken steps to ensure women have the opportunity to speak freely in a medical/nurse or counselling session, without the potential influence of partners, friends or relatives, regarding their decision to have or not to have an abortion.
• The investment in the staff ‘Empathy’ training across all states and the Research project ‘What women want in Abortion Care’ demonstrates the level of MSA’s commitment to providing a patient focused service delivery.
• Evaluating the service from a patient perspective includes review of complaints (including those tabled at Executive meetings), patient feedback including google reviews, regular onsite clinic reviews/mock surveys, feedback from the State Consumer and Specialist Advisory Groups, regular attendance of the Consumer Advocate at all MSA Clinical Governance Meetings, patient feedback at the clinics, GP and hospital feedback, and review of incidents and adverse events. MSA convenes a critical incident panel 72 hours post an Adverse Event. Open disclosure practice is discussed at these meetings as one incident review components and an ongoing Patient Liaison Person is assigned as required.
• MSA develops all of its advocacy campaigns with the patient at the centre of its efforts. Since the establishment of the Patient Centred Care/Consumer Participation Model (Appendix G), the organisation has developed and is currently active with five campaigns;
  o establishment of safe access zones in NSW, QLD and WA (MSA was part of a collaborative effort that successfully achieved the zones in NSW in July)
  o decriminalisation of abortion in NSW and QLD (MSA works collaboratively with partners and consumers in these states to lobby for law reform)
  o greater access to public support for abortion care: MSA currently leads a national reform agenda to move abortion care into the primary health care space so as to increase access and public funding for the service. This has
been directed by the challenges reported to us through our patients
  o development of the reproductive coercion White Paper to better assist our staff to manage and support patients who may experience coercion
  o lobbying for reform in the pregnancy crisis counselling area so counselling organisations are transparent about any agenda that may coerce their decisions. This campaign has been driven by a number of former patients who have had challenging and traumatic experiences when accessing third party crisis counselling services that do not agree with abortion.

• MSA works with consumers who wish to have their stories told to the community. We work with consumers to sensitively, respectfully and appropriately feature their stories. We have done a significant amount of work to build trusted, respectful relationships with key media who will help consumers tell their story in the most compassionate way possible.

2. Effective Leadership
• The CEC patient based challenge provided MSA with an opportunity to focus on our patients at a senior level and provide future direction for the service delivery.
• Improving the patient initiative includes the research project ‘What women want in Abortion Care Services’ has the complete support of the CEO and Executive team. Focus groups are attended by patients, front line staff and senior management. This innovative research may have international applicability.
• Full day staff empathy training sessions, facilitated by an external consultant, have been held in head office and throughout the clinic network in all states. Each training session was attended by the CEO and the Executive team which demonstrates the level of commitment to improving the patient experience initiative.

MSA works within a Quality Improvement Framework and continually strives to improve the quality of care for our patients. As demonstrated in MSA’s onsite 2017 ACHS Accreditation Surveyors’ comments; ‘There is evidence of a culture of safety, evaluations, improvements and sustainability’.

This quality culture is also demonstrated by:
• Our willingness for transparency in publically reporting our outcomes both locally in clinics via the Quality Data Posters and on our website
• Our determination to establish the Consumer and Speciality Advisory Groups in each state to hear our patients and their representatives’ perspectives and appropriately act on their feedback.
• Our willingness to fund and promote extensive research in this area of women’s health
• Our ‘next steps’ to progress the secondary Quality Improvement initiatives
• Our Continuous monitoring, reporting and evaluation of patient feedback at all levels of the organisation including the Consumer Specialist Advisory, the Executive/Corporate, Consumer Clinical Governance and Clinic levels of MSA’s Health System
• MSA is embarking on its 18 month accreditation journey to secure White Ribbon Workplace Accreditation to better equip staff to deal with circumstances where women are experiencing violence.

4. Evidence of Outcomes
MSA’s evidence of improvement through the ‘Improving the patient experience’ initiative is evident in its Pre and Post Implementation Intervention Evaluation as outlined in the abstract. This includes;

1. Quality, Safety and Patient Outcomes;
• An increase in achievements against the CEC’s Patient Based Challenge as follows:

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• An increase in patient satisfaction from 89% in year end 2017 to 92% in 2018 YTD (end of June 2018)
• An increase in patient satisfaction on google review from approximately 2.5 stars in 2016 to 3.5 in 2018 in MSA’s Clinic reviews
• An increase in complaints from 0.30% in 2017 to 0.54% 2018 YTD. MSA attributes this to increase to a more transparent, formal complaints process, where staff are actively encouraging all our patients to formally tell us about their experience, whether negative or positive, so that we can learn, take corrective action as required and continue to improve our service delivery
• Awarded two ‘Met with Merits’ in Standard 2 Consumer Partnership in Service Planning, 2.1.1 and 2.2.1, at the 2017 onsite Victorian Accreditation survey.

Surveyors’ comments included: ‘There is evidence of a culture of safety, evaluations, improvements and sustainability at the MSA Victoria Centres in relation to consumer partnership in service planning deserving an increase of ratings for actions 2.1.1 and 2.2.1 to ‘Met with Merit’.

‘The mechanisms for involving consumers in safety, evaluation and improvement strategies are evident in the corporate structure and sustained in both centres and therefore this action is assessed as ‘Met with Merit’.

‘The involvement of consumers in the evaluation of care and service delivery demonstrates improvements as a result of senior staff attendance at CEC Patient based Care Challenge and ongoing training through eLearning modules on Open Disclosure. It is expected to improve through the activities of the planned Consumer and Specialist Advisory Groups planned for each state’.

2. Co-design of services:
• State Consumer and Specialist Advisory Groups established now two states
• Consumer advocates involved in branding redesign for Marie Stopes Westmead clinic.

3. Advocacy:
• All women are now seen initially on their own in the medical/nursing and counselling sessions at all MSA clinics – refer below to ‘Reproductive Coercion’.

Compliance is monitored via complaints, incidents and regular clinic site mock surveys/reviews where the Clinical Nurse Consultant follows a patient through her journey.

• Five consumer-driven advocacy campaigns have been implemented with one campaign:
  o establishment of safe access zones in NSW, QLD and WA (MSA was part of a collaborative effort that successfully achieved the zones in NSW in July)
  o decriminalisation of abortion in NSW and QLD (MSA works collaboratively with partners and consumers in these states to lobby for law reform)
  o greater access to public support for abortion care: MSA currently leads a national reform agenda to move abortion care into the primary health care space so as to increase access and public funding for the service. This has been directed by the challenges reported to us through our patients
  o development of the reproductive coercion White Paper to better assist our staff to manage and support patients who may experience coercion
  o lobbying for reform in the pregnancy crisis counselling area so counselling organisations are transparent about any agenda that may coerce their decisions. This campaign has been driven by a number of former patients who have had challenging and traumatic experiences when accessing third party crisis counselling services that do not agree with abortion.

5. Striving for Best Practice
Utilising the CEC’s Patient Based Challenge to compare the current status of MSA’s service delivery, provided MSA an opportunity to focus its attention on best practice principles and a platform to grow its patient-centred care/consumer participation strategy. The CEC’s published evaluation of the Patient Based Challenged also indicated its benefits to other health services, demonstrating the Challenge’s value and worth to the MSA group. The challenge was a simple tool and fun to complete which motivated staff participation at all levels of the organisation.
As demonstrated by MSA’s 2017 ACHS Accreditation outcomes (as above), this initiative also aligns with the requirements of the National Safety and Quality Health Service Standards, in particular, Standard 2: Partnering with Consumers.

INNOVATION IN PRACTICE AND PROCESS
Conducting a gap analysis against the CEC’s Patient Based Care Challenge facilitated discussion regarding the deficit of knowledge and research regarding what women really wanted in abortion care services. These discussions generated the idea of conducting one of our next step initiatives: the collaborative MSA/ANU Research Project of ‘What Women Want in Abortion Care Services’.

MSA’s Patient Centred Care/Consumer Participation Model (Appendix G) directly links patient experience to its advocacy campaigning efforts. This ensures that advocacy campaigns are patient-centred, patient-directed and feature the voice of the patient.

APPLICABILITY TO OTHER SETTINGS
MSA’s work in engaging and encouraging consumer participation could be applied across a variety of settings, particularly those that can be stigmatised. MSA’s Patient Centred Care/Consumer Participation Model (Appendix G) provides a means of directing patient-centred care and advocacy for any health care setting wishing to engage in broad societal change that will ultimately improve the experience of future patients.

REFERENCES
Australian Commission on Safety and Quality in Health Care, National Safety and Quality Health Service Standards (September 2012). Sydney. ACSQHC, 2012


APPENDIX

MSA’s Patient Centred Care/Consumer Participation Model*

*Adapted from CEC’s Patient Based Care Model 2014
**NON-CLINICAL SERVICE DELIVERY**

**HIGHLY COMMENDED**

**Royal Perth Hospital, WA**

Wellbeing/Pastoral Care/Postgraduate Medical Education

I worry about the ones trying to go it alone: An interdisciplinary project to improve the wellbeing of Junior Doctors and the culture in which they serve

Richard Read, Michael Hertz, Lucy Kilshaw, Roger Lai

**AIM**

A collaborative interdisciplinary team supporting a dedicated Wellbeing Officer aims to improve the wellbeing of junior doctors while fostering an organisation-wide culture that is conducive to delivering high quality medical education and safe patient care. We do this by providing junior doctors a deeper sense of community, value, purpose and accountability through one-on-one care, peer group support and a coordinated referral plan, and by advocating on their behalf across all levels of hospital management.

**SUMMARY ABSTRACT**

In just two years, Royal Perth Hospital has emerged as a leader in the development and delivery of services to improve the wellbeing of junior doctors and to foster an organisation-wide culture of wellbeing. As has been the case in hospitals across the country, Royal Perth junior doctors were experiencing disturbing levels of burnout, mental health challenges, self-harm and suicidal thoughts and acts. Conversation and collaboration between pastoral care, medical education, junior doctors, occupational health experts and hospital executive has morphed into a transformative group of services that is already generating empirical and anecdotal results. Key to the success of the program was the creation of a dedicated Wellbeing Officer position, the appointment of a Pastoral Care professional to that role and the high level of collaboration between the Wellbeing Officer, Medical Education, Workplace Health and Safety, the Industrial Physician, the Pastoral Educator and key leaders across the hospital.

Published literature confirms that there is a positive correlation between a doctor's wellbeing and his or her capacity to provide attentive, compassionate and safe patient care. Simply stated, healthy doctors provide better care, and the early signs are confirming that this is the case at Royal Perth Hospital.

The Wellbeing Program’s success is due to strong leadership at all levels—from supportive senior executives, through to the junior doctors who called out for help and assisted in the design of the program, and to all those in between who collaboratively invested their time, skills, creativity and passion for helping our new doctors learn to thrive at this critical early time in their careers.

Whilst this new program is already demonstrating amazing results, we know we can always do better; we use evidenced based literature and feedback from the doctors to continually revise our practices. In our second year we have added events and outings to the services we offer, amended the format of the groups we provide, and launched a comprehensive research project.

The soul and spirit of the Doctor’s Wellbeing Program is its emphasis on forming relationships and deepening the sense of community with and amongst the junior doctors. To some, those values might seem in conflict with the data-driven empiricism of healthcare culture, but that is not the case. A current research project is tracking the empirical emotional and physiological measures of wellbeing and the impacts of the wellbeing program. A recent Australian Medical Association study demonstrated reduced burnout and increased wellbeing and morale of junior doctors at Royal Perth Hospital compared to those at other public hospitals in Perth. Numbers of medical students and resident doctors nominating Royal Perth Hospital as their preferred training hospital have increased markedly since the Wellbeing Program was initiated.

The Wellbeing program is recognised as demonstrating best practice by a variety of
professional disciplines. In the past two years, the program has been presented to the Pre-vocational Medical Education Forum, Australian Medical Association, Doctors’ Health Advisory Service, Post Graduate Medical Council of Western Australia, Australia-New Zealand Association for Clinical Pastoral Education and Spiritual Care Australia. The program was a finalist in the 2017 Western Australia Health Excellence Award and has been nominated again in 2018. Other current award nominations include Rotary’s Allied Health Award and the Innovative Education award of the Association for Clinical Pastoral Education in the USA.

Whilst other hospitals in Australia have taken steps to improve doctors’ wellbeing, Royal Perth Hospital’s Wellbeing Program is innovative in several ways. First, we are the only hospital to employ a Wellbeing Officer, whose role is to travel alongside the doctors throughout their internship, attending induction, teaching sessions, visiting them on their wards, meeting for coffee, intervening with those who experience distress, and working with a collaborative wellbeing group to find the best support and expertise for those with greatest need. Second, the program utilises peer groups; less a clinical debrief and more a community-building exercise in which anything of personal or professional manner can be shared in confidence and safety. Third, the Wellbeing Program is co-housed within Postgraduate Medical Education and the “Centre for Wellbeing and Sustainable Practice” alongside Pastoral Care and Clinical Pastoral Education; the program is distinctly pastoral in nature, not in any religious sense, but in its emphasis on the deep human longings for connection, relationship, meaning, value and personal growth.

One goal for the future is to replicate this program in other hospitals and to other healthcare staff. To that end we have developed a set of core competencies for Wellbeing Officers, based on the competencies required of Pastoral Care professionals. We have developed a training curriculum based on the methods used to train Clinical Pastoral Educators. We have hosted “model” peer groups for healthcare professionals who are interested in offering doctors peer groups in their institutions.

Nothing communicates the impact and effectiveness of Royal Perth Hospital’s Doctors’ Wellbeing Program better than the voices of the participants. Below is a small sample of the volumes of comments made by doctors who have participated in the Wellbeing Program:

I realised I needed to make greater effort to get to know my patients... I saw things that concerned me which need to change... I was not so numb to issues I read in medical records...I got better at managing my time...I heard the mistakes of others and am less likely to repeat them...I got better at communicating with my patients...I became less critical of colleagues and patients...I take better care of myself and therefore better care of my patients...my sense of professional values was upheld... I am more mindful when I practice medicine...I feel very lucky to be in RPH because of this program...I worry about the ones who are trying to go it alone.

I just wanted to extend my sincerest thanks for your support in escalating the incident I encountered ......I’m so grateful that the culture is changing in medicine and that there’s a shift in what’s tolerated in the workplace. I’ve been pleasantly surprised by how supportive and validating everyone has been. Thank you for listening.

Healthy food in childcare: an online solution

Sze Lin Yoong, Alice Grady, Luke Wolfenden, John Wiggers, Meghan Finch, Karen Gillham

AIM

The “healthy food in childcare” program is a population-based health improvement initiative that aimed to improve the diets of young children by supporting childcare services to provide meals consistent with nutrition guidelines. The initiative employed a staged program development and evaluation approach to identify an effective and scalable strategy of population health staff support for childcare services to provide healthier meals to children.

SUMMARY ABSTRACT

Poor nutrition is a primary modifiable risk factor for the development of chronic
Childcare services are a recommended setting to deliver population-based nutrition interventions to improve child diet as they provide access to the majority of young children. In Australia, almost 90% of children aged 4-5 years old attend childcare services for an average of 18 hours a week (Australian Bureau of Statistics 2015), where they can consume up to 67% of their daily energy requirement (Radcliffe, et al. 2002). As such, the implementation of nutrition guidelines in childcare services to improve child nutrition is a local (Hunter New England Local Health District 2018), state (NSW) (NSW Ministry of Health 2014) and national priority (Australian Government Department of Health & Ageing 2013). However, despite significant efforts to improve the implementation of nutrition guidelines, our research shows that less than 5% of childcare services in NSW meet nutrition guidelines (Yoong, et al. 2014). Without initiatives to support childcare service implementation of nutrition guidelines, the opportunity afforded by this setting to significantly improve child health cannot be achieved. The delivery of initiatives to support childcare services meet the nutrition guidelines is a performance requirement of population health services in NSW.

The “healthy food in childcare” initiative is the first globally to use a scientifically rigorous and staged quality improvement approach to identify an effective and scalable solution to this significant problem. The initiative was co-developed by end-users and experts in population health service delivery and behavioural science, and was based on systematic assessment of the barriers to guideline implementation among childcare service staff. The main barriers identified in this process were the i) lack of knowledge and skills of cooks and menu planners in childcare services to interpret and apply nutrition guidelines; ii) computational complexity of assessing whether the menu met guidelines (i.e. provided adequate amounts and types of healthy foods while not providing ‘unhealthy’ foods); and iii) lack of knowledge of how to modify/substitute unhealthy recipes to become healthy.

As such, phase one of program development resulted in a high-intensity support strategy delivered by population health service dietitians to build the capacity of childcare services to interpret and apply nutrition guidelines. This strategy was evaluated with 45 childcare services within the Hunter New England region and was found to be effective in improving the provision of healthier foods and improving child dietary intake and quality (Seward, et al. 2018). However, the high cost of delivering this support limited its ability to be delivered at-scale by population health services across jurisdictions.

In phase two of program development, the population health team partnered with information technology providers to develop an online menu-planning program (feedAustralia) to support childcare services to provide healthier foods consistent with nutrition guidelines. The online program was designed to support childcare cooks and menu planners with interpreting the guidelines, and reduce the computational complexity associated with assessing menu compliance. Drawing on a national database of food items, the program provides real-time automated menu feedback on guideline compliance based on recipes entered into the software (Appendix 1). The program also provides dietetics advice including suggestions for meal modifications and new recipes to align with guidelines. In effect, the program was built to provide ‘a dietitian in every childcare service’. Further, the program provides over 200 healthy recipes and snack suggestions with established energy, macronutrient profiles and serve size recommendations and the ability to share meals and recipes with parents of children in care.

The online program was evaluated in a trial across childcare services in NSW. Evaluation via randomised controlled trial with approximately 52 childcare services and 500
children found significant reductions in the provision of unhealthy foods by childcare services, improved child dietary intake, and a 10% difference in the proportion of children in the healthy weight range in the intervention group (compared to the control group) at 12-months follow up. The program was also found to be highly acceptable and useful among childcare service cooks and menu planners.

The online menu planning program is available free of charge to all childcare services nationally, and accessible by parents of young children. With funding support by the Commonwealth Department of Health, the program has now been disseminated nationally, with over 1,800 childcare services accessing the program since March 2018, improving the diets of hundreds of thousands of children across Australia.

**Physical activities**

Extensive manual handling of patients is one of the core daily tasks of our frontline staff members. In this regard, all staff who are involved in patient handling and heavy manual work are mandatorily required to attend MHO training classes in our OSH training center which imitated the real-life hospital setting with bed unit, toilet, pantry and a ramp. Staff are equipped with practical skills, correct working posture and use of MHO equipment. Core muscle training is added to encourage staff to be physically fit to handle the task. Besides, the Square Stepping Exercise which has high reputation on balancing training is also added to prevent fall injury and train mental focus. In 2017 & 1Q-2Q2018, 963 and 384 staff have completed the required course respectively. Active participation was observed with 100% passing rate.

To encourage staff doing stretching exercise before or during work, a promotional program on workplace stretching exercise was implemented since 2017. Our physiotherapists visited various departments to do the onsite training with staff, with particular reference to the unique workplace and work process hazards.

To advocate the habits of doing regular exercise, a 13 months-long fit and fun program to promote 10000 steps daily was launched by OSH department in June 2017 to start a healthy journey for each participant. There was a total of 637 staff enrolled to the program with record of 1,257,874,438 steps which measures ‘around-the-earth’ by 21 times obtained. 17.7% of participants have achieved improvement or maintain a steady
pace in normal Body Mass Index (BMI). The program also included a series of physical activity such as OSH Sports Fun Day, towel exercise in OSH carnival, hiking, jogging class, yoga class, and participation in Hong Kong Marathon, "Green Power Hike for a Green Future" and "Run for Paralympians", etc. From 2017 to Aug 2018, around 700 participants had taken part in.

Potential health hazards induce by prolonged inactivity and excessive sitting for office workers are also addressed. An ergonomic program was implemented in June 2018 to engage sedentary staff in taking decisions about health and safety of their own work stations. Special ergonomic stations for computers have been set up as when needed.

**Mental wellbeing**

To enhance mental well-being of staff by creating a positive, happy and joyful environment in the workplace. A series of activities was organized for promoting “Sharing”, “Mind” and “Enjoyment” elements to be added in life. We held the Joyful Everyday Video Competition to encourage staff to share their tips on how to maintain psychosocial health in the workplace with the actual scenario during daily operation; issued posters of tips in every department; organized the annual Award & Appreciation Day / Dinner to recognize staffs’ good performance; provided special birthday/new year meal and encouraged volunteer service. From 2017 to Aug 2018, 428 staff volunteers have joined community service to contribute 1871 service hours.

In addition, we arranged diverse types of activities to staff and their families to build and maintain harmonious relationship among staff; cultivate sense of belonging and foster work-life balance. From 2017 to Aug 2018, 250 participants had taken part in.

To help staff to cope with stress and anxiety arising from work, family and personal problems, there’s an independent external professional institution (Employee Assistance Program) to provide counselling service to staff. Staff members may also solicit our pastoral care service when needed. Besides, our Counselling and Patient Support Center also provide platform on mental wellbeing screening (staff’s happiness level) and counselling for staff in need, e.g. set up "Joyful Everyday’ booth in the OSH Carnival, support candidates of the voluntary return-to-work program.

Despite limited space, we provide relaxation space for staff for their enjoyment and relief of stress. Staff can enjoy gardening at the Support Services Centre and Hydroponic Gardening at Hospital Building.

**Healthy eating**

In our staff canteen, we supply cup fruit and veggie box with a discounted price. There is also “Green Monday” program to promote vegetarian food for staff. We regularly organize bazaar for promotional sales of healthy foods and organic vegetables to staff. We also promote habits of eating healthy fruits by distributing free fruit to staff on hospital activities. Our Dietetics Department regularly organized healthy eating talk, e.g. key nutrition to maintain muscle strength and prevent sarcopenia. In addition, OSH newsletter provides an excellent vehicle for keeping employees up-to-date on healthy eating, e.g. how to avoid energy overload during festivals.

In conclusion, a healthy workplace not only protects the physical well-being of employees, it also enhances productivity and competitiveness; helps to establish a positive image for the organization; promotes a win-win situation for both employers and employees. By implementing the J@HWP, staff awareness toward health and work safety is raised; significant reduction of Injury on duty (IOD), incurred sick leave day are recorded and high rating in staff opinion survey is obtained.
# Non-Clinical Service Delivery

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**Non-Clinical Service Delivery**

**Abstracts**

**Royal Perth / Bentley Hospital Group WA**

**5 Minute Education for Busy People**

**Nick May**

**Aim**

To design an innovative way of delivering core education to staff who were ‘unreachable’ due to the demands of their work without compromising quality of content. Additionally, we sought to:

1. Demonstrate a minimum ten-fold increase in staff participation in inter-professional education
2. Develop an inter-professional mode of education that would inspire engagement from all staff and expert stakeholder to engage and participate in the development of education content
3. Develop a format of education that would supplement and enhance established successful modes of delivery
4. Attempt to achieve collaboration between hospitals by sharing education resources for the benefit of all staff and patients, thereby breaking down well-established silos and avoiding duplication.

**Summary Abstract**

**Introduction:** Every hospital has large groups of staff from every profession or role group who find it impossible to attend critically important education due to workload pressures. For these staff, traditional education methods can be inaccessible. Missing out on key safety and quality messages leaves these staff vulnerable and has potential to put patients at risk.

**Aim:** To design an innovative way of delivering core education to staff who were ‘unreachable’ due to the demands of their work without compromising quality of content. Additionally, we sought to:

1. Demonstrate a minimum ten-fold increase in staff participation in inter-professional education
2. Develop an inter-professional mode of education that would inspire engagement from all staff and expert stakeholder to engage and participate in the development of education content
3. Develop a format of education that would supplement and enhance established successful modes of delivery
4. Attempt to achieve collaboration between hospitals by sharing education resources for the benefit of all staff and patients, thereby breaking down well-established silos.

**Methods:** Different education formats were explored before the final model was chosen. Collaboration with medication safety pharmacy colleagues at King Edward Memorial Hospital (KEMH) revealed some success with short, face-to-face “Lightning Talks”. However at RPBG, unsustainably low attendance at face to face education remained the major problem. The short education concept was radically re-designed. Education content was distilled from the traditional “full” lecture version with two or three ‘take home messages’ into a framework designed around the ‘must know’ information. The goal was to deliver what worked for the customer, not what was traditional or familiar to the Educator. The new Take 5 format required a flexible mode of delivery and high profile marketing to support asynchronous learning for all professions.

Take 5 was born out of the understanding that regardless of the professional role group, 5 minutes is a realistic attention span for busy staff in a public hospital. Rather than fight against this frustrating reality, we decided to work with it to the advantage of the customer. If the customer needed a five minute version, then this is what would be delivered, without reducing quality.

A unique Take 5 brand icon was developed in-house and attached to all communication, promoting just 2 simple rules: Take 5 would never take more than 5 minutes to read, or utilise more than 5 uncluttered PowerPoint slides. Delivery is via the WA Health intranet hub page, with regular promotion of subjects via email, RPBG “Servio News Magazine” and smartphone app.

**Results:** The Take 5 library was launched in March 2017 with just 5 subjects. In August 2018, the library offers 68 clinical and non-clinical subjects, with subjects added regularly. Selected content is “featured” every 2 weeks in promotional emails and the hospital magazine. To date, 1359 electronic evaluations have been recorded in the database. Participation includes all role groups. Medicine is the second highest participant group. Satisfaction has been sustained at 93 – 95% since Take 5 was launched.

Take 5 education and safety messages have been utilised by Metropolitan, Regional, Rural and Remote area staff working across Western Australia. There are now 5 participating WA hospitals that use Take 5. These partner hospitals have developed an additional 52 unique education subjects using the Take 5 brand. Sharing this education content increases efficiency, breaks down silo barriers and develops strong collaborative relationships. Inter-organisation collaboration and content sharing occurs across RPBG, King Edward Memorial Hospital (KEMH), Western Australian Country Health Service (WACHS) and Health Services Support, Sir Charles Gairdner Hospital (SCGH), Child and Adolescent Health Services (CAHS) and North Metro Health Service (NMHS). The WA Department of Health (DOH) are currently evaluating if the Take 5 education model could supplement and enhance education delivery internally to DOH staff and externally for state-wide education content.

Approximately one in six participating staff complete the formal, 60 second, 4 – question Survey Monkey evaluation embedded in each subject. Tracking of staff engagement and visits to the Take 5 library reveals between 700 – 1200 visits per month. This exceeds the 10-fold increase in staff engagement we had hoped for, and translates to over a 100 fold increase in staff engagement in education.
In July 2017, Take 5 was presented to the Health Round Table Innovations Awards in Brisbane, Queensland. Of 273 innovations presented, Take 5 was awarded one of three top prizes. Subsequent promotion and endorsement by the HRT has resulted in the work being shared with hospitals in every state of Australia and hospitals in New Zealand.

**Conclusion:** Five minute education can be a winning format, but only if careful attention is paid to delivering what the customer needs, not reducing the quality of the content and most importantly - effective promotion and marketing. If you can’t change the customer, you must change the product! The early creation and promotion of a recognisable brand identity was critical to the success of Take 5.

By applying counter-intuitive thinking and challenging the traditional approach to education, the Take 5 formula delivers what the busy health professional needs. Giving Take 5 away freely to anyone that might benefit from the resource proved to be the biggest success of all. Instead of becoming weaker, the more we shared, the stronger the Take 5 concept and brand became.

Take 5 is a successful and sustainable format of education that appeals to healthcare staff. More importantly, by reaffirming ‘your patients are our patients – your staff are our staff’ and freely sharing content with others, Take 5 has changed the education environment in WA for the better, breaking down silos and fostering collaboration.

**Ilawarra Shoalhaven Local Health District**
**Adolescent Mental Health Inpatient Unit**
**PAWS Open Doors to Recovery - A Collaborative Approach to Adolescent Mental Health Care**
Rachel Wade (Lead), Nathan Boulton

**AIM**
The aim of the project was to create a positive culture of care through building therapeutic relationships, establishing rapport, engaging, and creating a sense of common humanity. The project team aimed to reduce emotions associated with self-harm, seclusion and/or restraint, in a non-restrictive and collaborative manner. Using a therapy dog to focus attention to the present moment, the project complemented our existing therapeutic modalities such as compassion-focused therapy and mindfulness. We also aimed to increase repertoire of self-regulation skills, and actively involve consumers in their recovery whilst reducing restrictive practices.

**SUMMARY ABSTRACT**
The Adolescent Mental Health Inpatient Unit (ages 12-18) has implemented a Quality activity involving a weekly pet therapy program. Mental Health is stigmatised and inpatient units often have an uninviting environment. This can increase the risk of using restrictive practices such as seclusion and restraint. Studies have found that the use of animals within psychiatric inpatient facilities provide service users with a sense of security, comfort and companionship; animal interventions also foster socialisation and prosocial behaviours, and encourages service users to participate in traditional therapies (Maridith 1998; Maharaj, Kazanjiin & Haney 2016; Rossetti & King 2010).

Animal interventions have been shown to reduce the effects of psychological arousal and dysphoria, increase the display of positive affect, improve the attendance, compliance and retention in therapies, whilst also not interfering with emotional processing or traditional therapeutic modalities (Diamond & Lee 2011; Hunt & Chizkov 2015; Kaminski, Pelino & Wish 2002; Kruger, Trachtenberg & Serpell 2004). This was evidenced in a study that found the use of animals re-enforced treatment compliance in electro-convulsive therapy, and therefore may have a role in procedures that are fear-inducing or have negative societal stigma’s (Barken, Pandurangi & Best 2003).

Using best practice, consumer feedback and a Multidisciplinary Team approach to identify a need for change, a program with the aim of increasing resilience, self-compassion and repertoire of self-regulation skills was implemented.

Interest was driven by the need to build relationships with young people outside the ‘therapist’s chair’, in an effort to engage, foster relationships and therefore reduce the incidents of self-harm, seclusion and restraint. The young people attending the adolescent mental health inpatient unit often have poor soothing skills and are not actively engaged in their recovery.

Using the literature available on animal-assisted interventions, we developed a program that would aim to increase positive engagement, complement traditional therapeutic modalities, de-stigmatis medical health and promote a positive culture and therapeutic milieu on the unit.

The integral aim of the project was to actively involve consumers in their recovery whilst reducing restrictive practices. Following a three month trial period of weekly visits, we established an innovative approach to the provision of these visits which are not typically utilised by PAWS. These included the use of pet therapy to facilitate conversations with consumers about difficult topics such as self-care, promote physical activity by walking the dog, and encourage social and communication skills through interactions with peers, volunteer and staff. This included a presentation and education package to PAWS volunteers and executive staff.

In terms of animal safety, the Adolescent Inpatient staff are aware of the importance of the animals five freedoms – Freedom from hunger or thirst; discomfort, pain, injury; disease; freedom to express normal behaviour; freedom from fear and distress (Winkle & Jackson 2012). By ensuring practice is informed by NSW policy and the guidelines developed by the Adolescent Pet Therapy team, the welfare, rights and safety of everyone involved have been pre-empted (Ormerod 2005).

Data collections, over a twelve month period have demonstrated an increase in happiness, sociability, and skills such as distraction, soothing and self-compassion with an overall indication of a positive effect on mental health. Results show that there was a reduction in reported sadness, fear and anger after the intervention, representing the emotions we consider most likely to be involved in self-harm or aggressive incidents. Data also captured 92% rated pet therapy as beneficial to their mental health. 80% rated it as helpful in increasing their engagement/socialisation with others. 78% reported that it helped distract from their thoughts, and 54% stated it helped with self-soothing.

The pet therapy team have presented and promoted the project and results in many different forums including in service education to other ISLHD mental health units, the CAMHS benchmarking forum, and have promoted the project in internal and community media forums with the Australian Council on Healthcare Standards.
aim of demonstrating effective leadership and encouraging roll out of this project on other mental health units.

**Hong Kong University Shenzhen Hospital**

*Quality and Safety*

**Our Quality Improvement Journey – from Australian Council on Healthcare Standards to China Class 3A Hospital Accreditation**

Kate KY CHOI, Anne WM LEE

**AIM**

Our Quality Improvement Journey – from Australian Council on Healthcare Standards to China Class 3A Hospital Accreditation – and the improvements in quality and safety in our healthcare services along the way.

**SUMMARY ABSTRACT**

The Hong Kong University Shenzhen Hospital (HKUSZH) is the only hospital in China that has been doubly accredited by both Australian Council on Healthcare Standards (ACHS) (in 2015) and the China National Class 3A Accreditation System (in 2017). In our journey to attain international and national accreditation, we have reaped the benefits of continuous quality improvements in many aspects of our services with beneficial outcomes along the way.

**Australian Council on Healthcare Standards**

The ACHS Evaluation and Quality Improvement Program (EQuIP) was launched in 1996 and updated to EQuIP 6th edition (EQuIP6) in 2017. One of the main changes is “Organisations must show distinction in the criterion to achieve an Extensive Achievement (EA) rating.” Consequently, it would be more difficult for an organisation to attain an EA rating.

**China Class 3A Hospital Accreditation System**

China started its national hospital accreditation system (The System) by using the Class 3A Hospital Accreditation Standards in 1989. The System has been modified and officially implemented since 2011. The current Class 3A Hospital Accreditation Standards comprise seven sections (namely, serving the public, patient centred care, patient safety, quality safety management and continuous improvement, nursing management, hospital management and data evaluation) with a total of 674 criteria. Up to present, there are over 100 hospitals in Guangdong province being Class 3A accredited.

**The Hong Kong University Shenzhen Hospital Accreditation Journey**

The HKUSZH went through the first ACHS Organization Wide Survey (OWS) in 2015. With the experiences gained, we started preparing for the Class 3A Hospital Accreditation which is of crucial importance for the hospital to be recognized by the Government as a high standard major comprehensive hospital. In our accreditation journey, we tried to map and merge the 674 criteria in Class 3A Hospital Accreditation System with the ACHS’s 13 standards and 47 criteria in EQuIP6. In the process, we have ascertained that over 90% of the Class 3A criteria can be similarly categorized or merged with ACHS, with the exception that some of the Class 3A criteria, such as legislation and regulation, professional training and competence, are more stringent than comparable ones in ACHS. Hence, in our preparation of Class 3A Hospital Accreditation, we have planned and implemented various quality improvement programs with quantifiable outcomes since 2015. As a result of our quality improvement efforts, we have undergone Class 3A Hospital Accreditation successfully in 2017. Our improvements have also been recognized by ACHS as evidenced by five EA ratings in the 2018 Periodic Review.

**Improvements**

The following are some examples of improvements and achievements in our accreditation journey:

Informed consent

1. Consultant doctors are required to obtain informed consent personally. They have to provide detailed information on the procedures, the risks, alternatives and costs in the informed consent process, and clarify patients’ queries. This thirty-minute process is unique in China.

2. Communicable and competent patients instead of their relatives are requested to sign on the consent form. This is different from the usual practice in China.

**Medical emergency**

3. Modified Early Warning Score (MEWS) and Paediatric Early Warning Score (PEWS) Systems were introduced to enhance early detection of deteriorating patients. A software was developed which can enable patients’ vital signs to be captured, displayed and trended.

**Medication management**

4. Barcode-enabled medication administration (BCMA) system was implemented to ensure correct patient identification on drug administration.

5. We are the first hospital in Shenzhen to establish an approved Pharmacy Intravenous Admixture Services (PIVAS) for centralized aseptic preparations of intravenous (IV) and cytotoxic medications and total parental nutrition products to ensure quality IV therapy.

6. Pre-mixed potassium chloride infusion bags, which are not available commercially in China, are prepared to ensure correct concentration and dosage for correct patient.

**Infection Control**

7. We are the pioneer in China to follow evidence based practice to prohibit the injudicious practice of administering IV fluid and board spectrum antibiotics in out-patient clinics which is a common practice in China. It is estimated that about 50 billion bottles of IV fluid are given to out-patients in China each year. By sharing our practice, most hospitals in Shenzhen municipality as well as Guangdong and other provinces have ceased administration of IV fluid and medications to out-patients, resulting in drastic reduction in inappropriate use of IV fluid in the out-patient setting throughout China. This has been recognized as a successful healthcare reform initiative that will reduce the wasteful use of IV therapy and benefit millions of out-patients in China.

8. We have maintained antibiotics usage rate for out-patient episodes of care at 15.4% in recent year, which is about 50% of the national usage rate (30%). Our antibiotics usage rate for in-patient episodes of care was 35%, which is markedly lower than the national usage rate (60%).

**Incident management**

...
9. We have pioneered the practice of Open Disclosure and was the first to set up a Patient Relations Office in China to foster better partnership with patients.

**Kowloon Hospital, Hospital Authority Hong Kong**

**Quality and Safety Office**

**Mobile Application to enhance hospital accessibility**

Dr. LAM Chun, Mr. Ho Wan CHAN, Mr. Timothy WONG, Mr. Kam Hon CHUNG, Ms. Kathleen CHUEN, Ms Pik Ka FUNG, Mr. Sum YEUNG

**Aim**

The aims of the quality improvement program are

1. to demonstrate hospital commitment to customer focus care by meeting their needs from feedback received
2. to enhance hospital accessibility by using modern technology – mobile apps
3. to fulfil the EQuIP criteria 1.2.2 Access and admission to the system of care

**Summary Abstract**

Kowloon Hospital conducts service user forum regularly in order to collect feedback for improvement. It is the common feedback received about visitors having difficulties to locate the target ward or unit to visit. The hospital Quality and Safety Team initiated a continuous quality improvement project to address customer’s need by developing a mobile App to improve the searching of hospital facilities in 2016. As the Team has talented staff in App’s writing and programming, a project team was formed to work out the issue. After lengthy information collection, programing, testing, discussion and reporting meetings at local and cluster levels, the first App version using Android as interface was completed in Feb 2017. The key functions of the App include (i) You are here, (ii) Search, (iii) Transport and (iv) Useful information. User can choose either Chinese or English to view the content. An App naming completion was organized in order to engage more staff and visitors in the development process. Out of 60 entries, “九龍醫院一健通”/ “Kowloon Hospital Guide” was elected as the official name of the App in Jun 2017. The first draft of IOS version was completed in Dec 2017. Information stands to introduce the App with location QR codes were erected within and outside hospital buildings. Solar light devices were installed to information stands outside hospital buildings to shed light in the dark environment to ease the scanning of location QR codes. With continuous refinement and function testings, the App was about in the final shape in March 2018. After the App’s user acceptance test done in April 2018, the App became downloadable from App Store and Google Play in May 2018 with the support from the Head Office Hospital Authority. Promotion through local newspaper columns, internet and intranet websites in Head Office Hospital Authority and Kowloon Hospital. Internal newsletters/weekly digest, introduction leaflets at information counters and volunteers participated promotion booths at hospital entrances were timely organized. The post hospital App implementation evaluation survey using questionnaires were done in Aug 2018. There were 50 returns from staff and volunteers/visitors. The result was positive and encouraging. This continuous quality improvement project demonstrates hospital commitment in meeting customer’s need through service evaluation and team work.
Results: We identified that 331 patients fulfilled the definition of VIP across the 3 hospitals, with VIP care costing at a minimum of $3.1M annually. Following implementation, results showed that VIPs’ unplanned readmissions reduced by 44% in the first three months. By March 2016 the program had achieved a further 21% average reduction across all three sites, which has been maintained into 2018. From 2015-2018 Calvary Mater Newcastle has avoided approximately 350 hospital admissions which is equivalent to a saving of 1,400 bed days. As a dollar value this would equate to more than $1.2M in acute care costs. The initiative was implemented within existing funds and resources by restructuring the hospital workforce to wrap around this challenging issue.

Conclusion: Identifying and addressing the needs of VIPs within the community has improved the quality of care offered in the hospital to the benefit of the whole community. The program has delivered decreasing numbers of VIP representations and readmissions to hospital, allowing hospital resources to be more efficiently utilised. The initiative’s success has been achieved through strong collaboration across inter-agency integrated care programs and stakeholders within the community; ensuring that less pressure is being placed on emergency departments and assisting in improving patient flow across the system.

Calvary Public Hospital Bruce
Innovation and Redesign
Teaching, Training and Research in an Activity Based Funding Environment – an ongoing model for data collection, collation and costing
Rachael Henson

AIM
To analyse the current quantum of Teaching, Training and Research (TTR) activities at Calvary Public Hospital Bruce (CPHB), and develop a repeatable, scalable and objective methodology and process that will support ongoing collection of TTR activities and allow costing of same across the organisation.

SUMMARY ABSTRACT
Calvary Public Hospital Bruce (CPHB) is a 256 bed public hospital that services the northern suburbs of the Australian Capital Territory (ACT). The hospital is classified as a secondary care facility and has a 24 hour Emergency Department and offers a mix of acute and subacute services. It is the second largest public hospital in the ACT next to the primary tertiary facility, the Canberra Hospital. CPHB has teaching and training responsibilities for clinical staff across multiple disciplines (medical, nursing, allied health) for different stages of traineeship (undergraduate, new graduate and post graduate). CPHB also participates in national and local research activities.

Teaching, Training and Research (TTR) is classified as block funded activity according to a national best endeavors data set under the Activity Based Funding (ABF) framework. In the last few years the Independent Hospital Pricing Authority (IHFA) have invested considerable effort in further developing the classification system for TTR. Despite efforts, this data remains universally problematic for hospitals to collect; activities are undertaken within different disciplines in clinical and non-clinical areas, coordinated and provided by numerous staff to trainees in different stages of training and with vastly differing training requirements; some of which are mandatory to meet medical accreditation requirements. This diversity, along with poor historical governance systems facilitating the centralised reporting of TTR activity, was the impetus for this project.

The annual collection of the 2016-17 TTR data set at CPHB resulted in a significant investment of time and resources. This exercise identified a need to accurately map all areas undertaking TTR activities and develop an agreed, accurate repeatable process to collect eligible TTR activities for future IHFA data submissions. This need also provided an opportunity to develop a methodology that would assist with annual hospital costing exercises and allow TTR information to be sorted and collated into an auditable tool for hospital training accreditation and for jurisdictional evidence of TTR funding requirements.

The project was divided into two phases. In the first phase TTR requirements, definitions and future responsibilities were socialised and areas undertaking TTR activities were mapped. This exercise identified a need to collect TTR activities twice per year, once at the beginning of the university calendar year to leveraged of available and contemporary information, and again at the completion of the financial year, to meet IHFA financial year reporting requirements.

For this initial mapping, training providers for medical, nursing and allied health disciplines were interviewed to ensure all areas contributing to TTR had been identified. An appropriate delegate (responder) was nominated to be responsible for documenting and coordinating the collection of the information for their area. Three groups of responders were identified: responders who organised/delivered training plus or minus coordination of specific intakes of specialty students or new graduates, medical administration who coordinated medical new graduate and post graduate placements, and the research support office who coordinate ethics approvals and keep records of research activity.

The second phase of the project commenced in early 2018 and each area was asked to provide TTR activities for the complete 2017-18 year. The activities were collected, collated and costed using a coordination process and standardised electronic spreadsheet. The template included a request for Full Time Equivalent (FTE) of students, new graduates and post graduate/vocational employees. The responders were asked to provide TTR activities for each group including provider preparation time for the activities using the definitions provided by IHFA.

This first request for information also asked for each area to indicate any ethics approved research activities, including funding arrangements. The intent was to compare the research activities provided with the list provided by the research office, and to ascertain the breadth and complexity of funding arrangements to assist with future changes to classification of research activities.

In total, 23 templates were completed. The information was checked and amended against IHFA TTR classifications and re-checked with areas. Following this the cost of TTR activities was calculated using standard costing assumptions for staff providing and supporting TTR, and staff receiving TTR.

Responders were asked for feedback on the electronic spreadsheet. The amended spreadsheet will form the basis of a web-based semi-automated electronic tool, which will further improve the efficiency of ongoing collection, improve ease of access and almost completely automate costing. The next collection of TTR activities is due in September 2018 and will provide an opportunity to confirm or amend activities for the 2017-

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Regional Imaging Cardiovascular Centre (RICC) aim is to provide a foundation and active involvement for other consumer groups to engage and work together to provide health literacy for consumer representatives. We endeavour to provide safety and high-quality health care and to allow consumers to find, understand, use and act on information about health outcomes.

**SUMMARY ABSTRACT**
RICC is a licensed day procedure centre co-located at Calvary Health Care Riverina (CHCR). It is registered for six recovery beds and licensed to perform a range of Cardiac and Interventional Radiology services to private and public patients. RICC has staff interventional radiologists who perform a wide range of vascular interventional services on a referral basis. RICC also provides sessional access to the centre for visiting vascular surgeons and cardiologists.

Regional Imaging Riverina (RIR) owns and operates the centre and has a contractual arrangement with CHCR to provide interventional vascular radiology, percutaneous coronary intervention (PCI) and diagnostic cardiac catheterisation for private patients. There is a current contract that is nearing the end of tenure to provide public hospital interventional services for Murrumbidgee Local Health District. Some services will remain at Wagga Wagga Rural Referral Hospital (WWRRH) during the transition phase.

RICC has provider agreements with a range of Private insurers and in general no out of pocket costs are charged to patients who use the service. RIR manages the centre and clinical governance is provided by the RICC Medical Advisory committee (MAC) which meets quarterly and is responsible for credentialing of medical practitioners, approval of procedures and monitoring of professional standards. Terms of Reference (TOR) of this committee are available for review.

Agreements are in place with CHCR for provision of additional medical emergency assistance and for the transfer of patients to theatre in an adverse event and RICC has access to the WWRRH emergency service.

The centre is fully accredited with Australia Council of Health Standards (ACHS) and a range of clinical indicators are undertaken.

RICC are licensed with NSW Private Health Facilities Act 2007 and Private Health Facilities Regulation 2010; RICC operating licence covers the days and hours of: Monday to Sunday 7.30 am to 7.00 pm with emergency procedures performed out of these hours.

Our promise encompasses and proudly communicates the service our doctors and teams aim to provide patients and referring health professional’s day in, day out. We can meet the imaging or service need – from the range of modalities and procedures to our commitment to care for the individual needs of each patient, referrer and to staff. We will not compromise on quality and will be continually looking on ourselves to make sure the highest quality is always delivered.

Regional Imaging is committed to assisting those in need and we encourage our clinic team, patients and referring doctors to join with us whenever they can.

RICC created a Member and Committee Evaluation Questionnaire in September 2017 to determine the effectiveness of the committee and provide an opportunity for member’s feedback. The outcome from this questionnaire was to seek active involvement from other likewise facilities within Riverina. This was also mentioned in our 2016 report to develop governance partnerships with a range of organisations representing patient and community groups to develop consumer participation at the strategic level within the service.

We held an afternoon tea on Wednesday 22nd August 2018 to promote a future plan to build a strategic alliance using a combination of methods: workshops, round tables, patient forums, surveys and focus groups going forward. RICC would also like to engage other consumer groups around the systematic process for sourcing consumer’s feedback about patient information publication using this feedback to inform the development and refinement of patient information publications as we have shown at our Organisation Wide Survey in March 2018 by achieving Met with Merit for both these criteria’s (2.4.1 and 2.4.2).

We used this day to also acknowledge the hard work and dedication from not just our consumer representatives but all who volunteer their time as a consumer representative on these groups.

Dubbo Health Service
Physiotherapy Department
Dubbo Health Service Physiotherapy Screening Referral Process
Craig Lennox

**AIM**
To increase the number of patients being referred to an orthopaedic service at Dubbo Health Service.

**SUMMARY ABSTRACT**
Between fifty and eighty individuals from Dubbo and surrounds are referred by General Practitioners to the Dubbo Health Service orthopaedic service. All of these referrals are triaged by the orthopaedic team and wait between one and four months to be seen.

The aim of this project was finding out how many patients would benefit from physiotherapy before coming to the orthopaedic clinic. It was also found that no patients were referred to physiotherapy by the triaging orthopaedic registrar.

It was found that a significant percentage of referred patients would benefit from physiotherapy before coming to the orthopaedic clinic. It was also found that no patients were referred to physiotherapy by the triaging orthopaedic registrar, and that a small number were referred to physiotherapy by their General Practitioner.
There is a significant amount of evidence being published worldwide showing that referral of patients with orthopaedic or musculoskeletal problems to physiotherapy and other conservative treatment options can greatly reduce the need for surgical intervention. This project shows that orthopaedic surgeons and General Practitioners do not refer appropriate patients with these conditions to physiotherapy.

These conservative options are more likely to be local to patients (particularly those outside Dubbo), less invasive and risky (considering infection risks, comorbidities). Less expensive for the patient and the healthcare system (both financially and in time), and more likely to support a patient in becoming more engaged in their health and wellbeing with the guidance of their General Practitioner. This model is easily transferable to other settings requiring referral action.

**The University of Hong Kong-Shenzhen Hospital**
Central nursing department ; surgical department
**Evaluation of implementation effect of electronic document management system**
LIU CHUNHONG, SHI LANPING, HUO RAN, XU YINLING, ZHOU JINYANG, LIU CHANG, GUO QING, DENG YAYUN

**AIM**
1. To ensure consistency, integrity and timeliness in updating system documents by developing and introducing a new electronic document management system;
2. To reduce management cost through efficiency gains in the whole process of document preparation and management;
3. To enhance nurses’ work efficiency and job satisfaction by achieving timely tracking and retrieval of all documents

**Summary Abstract**

**Background:** Since the hospital commenced operation in July 2012, a total of 397 copies of various documents, which include quality management, nursing practice and procedure guidelines and record forms, have been compiled. In the nursing department and each nursing unit, there used to be a set of system file hard copy which played an important role in standardizing nursing practice and promoting nursing education and guidelines during nursing activities.

With the continuous development of the hospital and expansion of its clinical activities, managing paper documents had become increasingly difficult especially with opening of new wards, recruitment of new staff as well as frequent and regular revision of documents. The document administrator needed to put in extra time in printing new document and retrieving the replaced one, at an estimated average annual cost of RMB¥100,755 or about US$ 15,000 per ward. There were also problems in: (i) information sharing with paper documents, such as accessibility or convenience in searching, retrieving and returning files; and (ii) document management as the file version may be inconsistent, not up to date or get lost easily. There was also no way of tracking of when, who or purpose for which the paper documents were retrieved. With the development of document life cycle theory and information technology, it is an inevitable trend to use information technology to implement electronic management of system documents.

1. Design and develop an electronic document management process management system to manage the whole process from document preparation, approval, issuance, usage, revision to scraping and recycling.
2. Evaluate the effect of the electronic document management system from 3 aspects: (A) economic indicators (such as cost in time, labor, paper and other consumables), (B) documents Management indicators (such as version consistency and integrity of system files) and (C) user experience.
3. Use Questionnaire survey to collect nurses’ satisfaction data.

**Result**

1. **Cost effectiveness:** With the use of document management systems, the process of issuance and recovery would be skipped. Documents would no longer need to be printed out, and only system update would be required. As a result, the time taken for document issuance and retrieval was decreased from 81.6 min to 0 min before and after implementing the system. The manpower needed was reduced from 135.2 working days to 0 working days. The printing cost saved is RMB¥9,917.59.

2. **Management indicators:** Document inconsistency and loss rate of paper version is 5.66% and 2.78% respectively, compared with 0% with the electronic version.

3. **User experience:** Electronic document management system was used to achieve synchronous updating, intelligent retrieval, learning reminder and trace management, cross nursing unit sharing, multi-terminal and multi-location access, and other functions, which improved nurses’ learning accessibility and convenience. Questionnaire was designed to study nurses’ satisfaction regarding the new electronic system in terms of search time, index convenience, whether to meet learning needs, document consistency and integrity. A total of 432 questionnaires was collected. Using Pearson hi-squared test in SPSS 22.0, results showed that the nurses’ satisfaction rate increased from 37.73% before implementation to 69.01% after implementation of the electronic system, with p value < 0.01 which indicates statistical significance.

**Conclusion:** The use of electronic document management system can ensure consistency, integrity and timeliness of system documents; reduce the cost of document management (such as time, manpower, paper, etc.); improve work efficiency and nurses’ satisfaction as well as achieve track and trace management. The system can also be employed for use in other departments of the hospital or other hospitals.

**The University of Hong Kong Shenzhen Hospital**
Department of Gynaecology
**Use PDCA to enhance accuracy of medical record documentation**
LIU Chaoxia, NGAN HY Hextan, ZHANG Li

**Aim**

Use Plan-Do-Check-Act cycle to enhance accuracy and minimise defective documentation of medical records, which is effective to prevent medical disputes.

**Summary Abstract**
Background: Medical records are legally binding. In China, there are legal requirements for proper documentation of patient medical records. Accurate and comprehensive medical record documentation is also one of the requirements for the accredited Class 3A Hospitals in China.

As stipulated in the China Class 3A hospital accreditation standards, medical record documentation can be categorized as grade A, B and C. A major comprehensive hospital will not attain Class 3A accreditation if X or more % of its total number of medical records are rated as grade C or B. Hence, in China, it is imperative for hospitals to ensure that its medical record documentation are up to Class 3A standards.

However, in the first quarter of 2018, there were two grade B and twelve grade C records in Department of Gynaecology alone, which is a serious problem that need to be solved. Researches suggest that reducing defective medical records is effective to prevent medical disputes [1]. For the above reasons, this program attempts to use Plan-Do-Check-Act (PDCA) to enhance documentation in medical records with the target to minimise grade B and grade C medical records rate to less than 0.05%.

Method: Firstly, we set up the quality control circle group under the lead of our director Li zhang. Secondly, we analyzed the cause of poor documentation in the medical documents. Thirdly, doctors and nurses designed a flow chart for proper medical record documentation and a medical record quality control form. Doctors were encouraged to strictly adhere to the proper medical record documentation. Finally, all stakeholders together with the quality nurses would check all medical records before sending them to the Medical Record Office. Once a defect is found, it is obligatory to be marked and amended by the responsible resident doctors. The amended medical record will be rechecked for accuracy before returning to Medical Record Office.

Improvements
1. Conduct education and training for relevant staff, reiterating the specified requirements for proper medical record documentation.
2. Establish residents’ accountability standards by drawing residents’ attention to the fact that medical records are legal documents.
3. Discuss the improvements related to medical documentation to other staff in the department and hospital for sharing and learning.

Result: The rate of grade B and grade C medical records decreased significantly from 2.6% and 2.1% to 0% and 0.02% respectively. (see Appendix Table 1.1). The score of our team spirit increased from 4 to 6, mental development from 4.5 to 7, communication and coordination from 4.6 to 6.8, activity of confidence from 4.7 to 6.6 and responsibility to honour from 4.2 to 6.9 after this PDCA program (see appendix Table 1.2).

Conclusion: Our team feel the sense of accomplishment by using PDCA in improving medical documentation. PDCA is a starting point but there is no ending point. We will continue to strive for continuous quality improvement in medical record documentation and other endeavors.

WA Country health Service, Kimberley
Kimberley Palliative Care Service
Leading the way with Aboriginal Elders: A collaborative approach in building capacity of health professionals to deliver culturally appropriate palliative care for Aboriginal people.

Fiona Mardling

AIM
To demonstrate the benefit and importance of partnerships and collaboration between health, consumers and community to enable culturally appropriate palliative care for Kimberley Aboriginal people.

To enable health care providers to deliver the best cultural care during the end of life journey while being respectful of intercultural variations and individual choices.

SUMMARY ABSTRACT
The project evolved following an invitation by the Yiriman Women’s cultural Health Service to Kimberley Palliative Care service to attend their development focus workshop. The Yiriman Women Cultural Health Service is part of the Yiriman Project which is an intergenerational ‘On-Country’ cultural program, conceived and developed by Elders from four Kimberley language groups- Nyikina, Mangala, Karajari and Walmajarri. Their aim is to pass on cultural knowledge and bush medicine.

The collaboration between the Kimberley Palliative Care Service and Yiriman Women’s cultural health was able to meet a recognized need for the provision of specific and relevant cultural considerations for health workers and other care providers such as residential age care facilities and acute services, to understand, support and provide culturally appropriate palliative care for Aboriginal people.

This enabled the Kimberley Palliative Care Service and the Yiriman Women’s health service to meet key requirements in relation to two state frameworks that guide palliative care and deliver the following outcomes:

1. Advanced Care Planning – to enable individuals to make plans for their future care. The process encourages individuals to reflect on what is important to them, on their beliefs, values, goals and preferences in life, and how they want to be cared for if they reach a point where they cannot communicate decisions about medical care for themselves.

2. End of Life Framework – builds upon existing programs that have been established in Western Australia. It aims to guide and influence system wide change in end-of-life care, to support clinicians in this essential and inevitable aspect of their work, and to help patients, irrespective of their diagnosis, to live well and to die well.

The benefits of the collaboration were able to manifest in:
- Educating the health professionals working in Palliative Care
- Enabling informed and better care for Kimberley Aboriginal people
- Transferring important cultural knowledge to the younger Yiriman women which will increase self-confidence and capabilities
Preserving, accuracy and transfer of culturally significant considerations for Aboriginal people in relation to death and dying.

The outcome of the initial Development focus workshop identified three achievable projects: (to be achieved within a 12 month period).
1. An educational Workshop for health workers in care centered palliative care
2. A Brochure in relation to Aboriginal Palliative Care
3. An educational resource for health workers in relation to Aboriginal Palliative Care.

Additional partnerships and collaboration formed between PEPA (Program of Experience in the Palliative Approach) who provided funding and facilitated a two day Aboriginal Culture Centered workshop (presented by the Yiriman Elders, and Fiona Mardling, Kimberley Palliative Care Service); and the production of an educational DVD resource.

Partnering with the WA Cancer and Palliative Care Network, Aboriginal Advance Care Planning, working party, enabled the Yiriman Women to contribute to the development and production of an Advance Care Planning brochure for Aboriginal people.

The feedback from workshop attendees was 100% positive. The intention is to provide additional workshops in 2019 and 2020. This project has enabled a ‘voice’ to community Elders. It has opened pathways, and contributed to ‘normalising’ conversations in relation to death and dying for Aboriginal people and in the provision of culturally appropriate, person centered, end-of-life care.

Educating Rural Oncology Patients to Minimise the Effects of Chemotherapeutic Agents
Ian Mawbey, Ashleigh Boatman

Aim: To reduce medication-related incidences associated with mishandling of oral chemotherapeutics by educating patients on these treatments.

Summary Abstract
Background: It was identified that there was a gap in education/communication when patients were initiated on oral chemotherapeutics due to mishandling of these agents.

Aim: To reduce medication-related incidences associated with mishandling of oral chemotherapeutics by educating patients on these treatments.

Method: Patients prescribed oral chemotherapeutics in the community were identified. Patients of a regional Oncology Clinic were asked to remain in the clinic after their consultation and participate in an individualised education session with the pharmacist.

Results: All Oncology patients can now safely handle their medications and will refer to the information provided in the future.

Conclusion: This intervention has successfully educated rural oncology patients on the importance of medication safety with oral chemotherapeutics. Patients are now capable of handling their oral medications.
principles and practices to describe the population characteristics. Describing these characteristics enables service direction articulation toward service accessibility for improved population-level oral health from a suite of service delivery settings capable of providing the right care in the right place at the right time.

**Summary Abstract**

Health inequalities are unjust health differences that occur between social groups and shape individual and group exposures to factors which promote ill-health or damage health (Marmot et al., 2008). Paradoxically, health equity remains a cornerstone within the Australian healthcare system. Literature suggests that countries with a more equitable health system spend less on healthcare and achieve better health outcomes (AHCSRA, n.d.). Thus, increasing the health status of disadvantaged populations can deliver population-wide health improvements. However, to apply interventions with a scale and intensity that is proportionate to the level of disadvantage requires both a high level of understanding of the characteristics of the population and a tailored business and service delivery model capable of meeting the needs of the population.

The drivers for MSOH to review the existing model of care and model of service delivery was two-fold: improve the oral health status of its catchment population and streamline access pathways into multipurpose oral health centres. In relation to the oral health status of the MSOH consumer, it is important to appreciate that whilst there have been improvements in oral health status over the last two decades there remains evidence of poor oral health among Australians (Spencer & Harford, 2001). Indeed, within the 3,856 square kilometre catchment of the health service, there is clear evidence of residential areas characterised by both disadvantage and poor oral health; disturbingly, a MSOH (lead study identified that by Year One (mean age 6.4 years), 78% of children in the Logan City area experienced decay in their deciduous dentition which is 25% higher than the state and national averages (Newman, Seow, Kazoullis, Ford & Holcombe, 2009).

In relation to access, MSOH completed a value management exercise of the oral health service delivery settings with the goal of ensuring family-centred care capability; that is, care that is integrated (enabling children, adolescents and adults to receive care at the same facility from a multidisciplinary oral health team) but considers the child, their particular needs and needs of their family as core concepts in delivering effective, efficient, appropriate care with parent/guardian participation (as a partner) in treatment and care management activities. The concerns with the service delivery settings were that the dental chair stock was not always in a location aligned to where the eligible population live; this alone is counter to the principle of equitable access. In addition, the infrastructure defined the activity delivered by each chair as it catered to specific population groups. This rendered a chair as unsuitable to the wider eligible population; for example, fixed school clinics are in locations which are unsuitable for adult service delivery. Further, the mobile dental van fleet posed challenges including (mobility impaired) access, safety and professional isolation of staff rostered to a van.

Organising a response to the issues of dental disease prevalence rates and poor infrastructure required identifying the relationship between policy and context. Healthy Mouths Healthy Lives, Australia’s National Oral Health Plan, describes targeted strategies to achieve the national strategic directions that include (but not limited to) access, system integration and safety and quality (COAG, 2015). At a jurisdictional level, the Metro South Health Service Plan echoes service directions that include (but are not limited to) promoting health equity, healthcare connectedness and putting patients first (Queensland Health, 2017). This drove data collection; identifying and describing demographic elements (population, gender, age range, place of residence, remoteness, disadvantage index, homelessness, culturally and linguistically diverse and Aboriginal and Torres Strait Islander). This process enabled the development of meaningful datasets and a service-wide map depicting Index of Relative Socio-economic Disadvantage (IRSD) by Statistical Area Level 2 (SA2) against the location of oral health centres – Appendix 1: MSOH Service delivery site by SA2 and IRSD.

The production of a map enabled visual articulation that the location of dental chair stock was not always aligned to where the eligible population live, or where populations who experience greatest disadvantage live, and that clustering of service delivery settings contributes to inequity and inequality. This facilitated the articulation of Service Planning Principles (for population-derived health service supply, productivity and infrastructure) and enabled the development of Service Directions within the Health Service Plan for MSOH. The Service Directions included a strategy to strengthen collaborations with the oral health private and for-profit sector (that is, improve oral health sector integration), increase productivity (that is, deliver more dental appointments) and efficiency (that is, deliver integrated care fostering a ‘dental home’ from sites that are 4-or-more dental chairs); improve access through improved facilities (that is, fit-for-purpose and purpose-built oral health centres).

**Marie Stopes Australia**

**Improving the patient experience**

Annelette Parney, Jacqueline O’Brien

**Aim**

The aim of this initiative was to conduct a gap analysis against the Clinical Excellence Commission’s (CEC’s) Patient Based Care Challenge and:

- provide a structure for Marie Stopes Australia (MSA) to enhance its patient-centred care and consumer participation strategic direction.
- make ‘patient-centred care’ more broadly recognized as everyone’s responsibility from the Executive team to clinical staff at the bedside ensuring ‘patient-centred care’ is a focus at all levels of the organisation and;
- in turn, ‘Improve the Patient Experience’

**Summary Abstract**

Marie Stopes Australia (MSA) is the national not-for-profit provider of sexual and reproductive health services including contraception and abortion care. This is a stigmatized area of health and can be challenging to involve the consumer in service planning and designing care.

To facilitate discussion and provide a structure for MSA to enhance its patient-centred care and consumer participation strategies, a gap analysis was conducted against the Clinical Excellence Commission’s (CEC) Patient Based Care Challenge in May 2017. MSA’s Nurse Unit Managers and Executive team (including the CEO and Medical Director), the National Quality and Risk Manager, Clinical Nurse Consultant and MSA’s Consumer Advocate participated.
The group provided evidence of how MSA achieved the actions against the 27 strategies of the Challenge. The pre-intervention results were 37% (10)Achieved, 48% (13) Partially Achieved, 15% (4)Not Achieved.

Actions and opportunities identified during the gap analysis:
5. Quality, Safety and Patient Outcomes:
   • Increase transparency in public reporting
   • Commence each Executive meeting with a complaint/compliment for continuous improvement

6. Workforce development:
   • Implement training in engagement techniques including ‘empathy’ training for front line staff
   • Involve consumers and consumer advocates in staff education

7. Co-design of services:
   • Develop Consumer and Specialist Advisory groups in each state and territory to understand client needs
   • Involve more consumers in service delivery planning and design
   • Conduct regular meetings with Nurse Unit Managers to identify potential consumers to sit on Consumer and Specialist Advisory Groups

8. Advocacy:
   • Implement a policy that all women are seen on their own initially during medical/nurse consultation and counselling sessions to ensure women are not being coerced into a termination by a third party.

Actions to date include:
7. Initiatives integrated into MSA’s Strategic Plan 2018 – 2020 with KPI indicators

8. MSA Patient-Centred Care/Consumer Participation Model (Appendix G) highlights the interaction between listening and serving the patients and the community internally and externally, which directs both patient-centred care and advocacy. This model is based on the key principles of CEC’s Patient Based Challenge. The patient is at the centre and is the source for directing how the organisation interacts with patients at all levels of the organisation and the broader community. It highlights the key issues that impact on the patient and what advocacy MSA should prioritise. The model includes creation of Consumer and Specialist Advisory Groups to test and direct the work of the organisation and including media engagement.

9. Quality, Safety and Patient Outcomes:
   • Complaints and compliments tabled at Executive Team meetings for continuous improvement. An improvement example is the enhancement of health literacy for patients. MSA now sends MSA website links to short patient videos on Surgical Abortion, Medical Abortion and Vasectomy prior to patient appointments
   • Increased transparency in public reporting: Patient Satisfaction rates. Complication rates (compared with internationally reported anticipated rates) and ACHS Clinical Indicator outcomes are published on the MSA website https://www.mariestopes.org.au/about-us/our-standards/
   • MSA Patient-centred care/consumer participation model presented to all staff, the Consumer and Specialist Advisory Group and incorporated into MSA’s Quality Quest Newsletter.

10. Workforce development:
    • All Executive, Senior Management, Nurse Unit Managers and Clinic front line staff have completed “Empathy” training
    • Involved the consumer advocates in staff education.

11. Co-design of services:
    • MSA currently works with five consumer media spokespeople
    • Established routine review of google comments and redirect any complaints into the formal complaints system for investigation and corrective action
    • Established MSA’s first Consumer and Specialist Advisory Group in Victoria
    • Engaged consumers at the local clinic level in the design of Clinic Quality Data Outcome posters and a ‘Way Finding’ Quality improvement initiative.

12. Advocacy:
    • All media has a core focus on patient-centred care
    • MSA runs five patient-centred advocacy campaigns to achieve societal change to decrease stigma and increase access to abortions. An example is the development of the reproductive coercion White Paper produced with broad community and consumer input: https://www.mariestopes.org.au/wp-content/uploads/Draft-White-Paper_Reproductive-Coercion_Final.pdf

Pre and Post Intervention Evaluation includes:
4. Quality, Safety and Patient Outcomes:
   • An increase in achievements against the CEC’s Patient Based Challenge as follows:

<table>
<thead>
<tr>
<th>Gap analysis</th>
<th>Pre-intervention 2017 Results</th>
<th>Post-intervention 2018 Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieved</td>
<td>37%</td>
<td>63%</td>
</tr>
<tr>
<td>Partially achieved</td>
<td>48%</td>
<td>30%</td>
</tr>
<tr>
<td>Not Achieved</td>
<td>15%</td>
<td>7%</td>
</tr>
</tbody>
</table>

   • An increase in patient satisfaction from 89% in year end 2017 to 92% in 2018 YTD (end of June 2018)
   • An increase in patient satisfaction on google review from approximately 2.5 stars in 2016 to 3.5 in 2018
   • An increase in reporting through the formal complaints process. A routine review of google reviews redirects any complaints into the formal complaints system for investigation and corrective action as required
   • Awarded two ‘Met with Merits’ in NSQHS Standard 2 Partnering with Consumers: 2.1.1 and 2.2.1, at the 2017 onsite Victorian Accreditation survey.

5. Co-design of services:
   • State Consumer and Specialist Advisory Groups established in two jurisdictions
   • Consumer advocates involved in branding redesign for Westmead Clinic.

6. Advocacy:
   • All women are now seen initially on their own in the medical/nursing and counselling sessions at all MSA clinics – refer below to ‘Reproductive Coercion’. Compliance is monitored via complaints,
incidents and regular clinic onsite mock surveys/reviews where the Clinical Nurse Consultant follows a patient through her journey.
- Five consumer-driven advocacy campaigns implemented with one campaign successfully completed.

**Next Steps:**
- Secondary quality improvement initiatives identified through the State Consumer and Specialist Advisory committees, for example, the BMI initiative is being developed with the consumer advocates.
- Developing MSA short patient videos on Surgical Abortion, Medical Abortion and Vasectomy in multiple languages.
- With Australian National University, commenced international collaborative Research Program “What Women Want in Abortion Care Services” to guide future service delivery from a patient-centred perspective. Past patients and the community participation will I provide predictive pathways to customize MSA’s services in line with patient expectations.
- Further establish Consumer and Specialist Advisory Groups in three remaining states.
- Provide communication skills training to clinical staff.
- Implement a Health Literacy initiative.
- Implement a Staff Patient Safety Climate Survey.
- Continue Open Disclosure.

**Royal Perth Hospital**

**Wellbeing/Pastoral Care/Postgraduate Medical Education**

**I worry about the ones trying to go it alone: An interdisciplinary project to improve the wellbeing of Junior Doctors and the culture in which they serve**

Richard Read, Michael Hertz, Lucy Kilshaw, Roger Lai

**AIM**

A collaborative interdisciplinary team supporting a dedicated Wellbeing Officer aims to improve the wellbeing of junior doctors while fostering an organisation-wide culture that is conducive to delivering high quality medical education and safe patient care. We do this by providing junior doctors a deeper sense of community, value, purpose and accountability through one-on-one care, peer group support and a coordinated referral plan, and by advocating on their behalf across all levels of hospital management.

**SUMMARY ABSTRACT**

In just two years, Royal Perth Hospital has emerged as a leader in the development and delivery of services to improve the wellbeing of junior doctors and to foster an organisation-wide culture of wellbeing. As has been the case in hospitals across the country, Royal Perth junior doctors were experiencing disturbing levels of burnout, mental health challenges, self-harm and suicidal thoughts and acts. Conversation and collaboration between pastoral care, medical education, junior doctors, occupational health experts and hospital executive has morphed into a transformative group of services that is already generating empirical and anecdotal results. Key to the success of the program was the creation of a dedicated Wellbeing Officer position, the appointment of a Pastoral Care professional to that role and the high level of collaboration between the Wellbeing Officer, Medical Education, Workplace Health and Safety, the Industrial Physician, the Pastoral Educator and key leaders across the hospital.

Published literature confirms that there is a positive correlation between a doctor’s wellbeing and his or her capacity to provide attentive, compassionate and safe patient care. Simply stated, healthy doctors provide better care, and the early signs are confirming that this is the case at Royal Perth Hospital.

The Wellbeing Program’s success is due to strong leadership at all levels—from supportive senior executives, through to the junior doctors who called out for help and assisted in the design of the program, and to all those in between who collaboratively invested their time, skills, creativity and passion for helping our new doctors learn to thrive at this critical early time in their careers.

Whilst this new program is already demonstrating amazing results, we know we can always do better; we use evidenced based literature and feedback from the doctors to continually revise our practices. In our second year we have added events and outings to the services we offer, amended the format of the groups we provide, and launched a comprehensive research project.

The soul and spirit of the Doctor’s Wellbeing Program is its emphasis on forming relationships and deepening the sense of community with and amongst the junior doctors. To some, those values might seem in conflict with the data-driven empiricism of healthcare culture, but that is not the case. A current research project is tracking the empirical emotional and physiological measures of wellbeing and the impacts of the wellbeing program. A recent Australian Medical Association study demonstrated reduced burnout and increased wellbeing and morale of junior doctors at Royal Perth Hospital compared to those at other public hospitals in Perth.

Numbers of medical students and resident doctors nominating Royal Perth Hospital as their preferred training hospital have increased markedly since the Wellbeing Program was initiated.

The Wellbeing program is recognised as demonstrating best practice by a variety of professional disciplines. In the past two years, the program has been presented to the Pre-vocational Medical Education Forum, Australian Medical Association, Doctors’ Health Advisory Service, Post Graduate Medical Council of Western Australia, Australia-New Zealand Association for Clinical Pastoral Education and Spiritual Care Australia. The program was a finalist in the 2017 Western Australia Health Excellence Award and has been nominated again in 2018. Other current award nominations include Rotary’s Allied Health Award and the Innovative Education award of the Association for Clinical Pastoral Education in the USA.

Whilst other hospitals in Australia have taken steps to improve doctors’ wellbeing, Royal Perth Hospital’s Wellbeing Program is innovative in several ways. First, we are the only hospital to employ a Wellbeing Officer, whose role is to travel alongside the doctors throughout their internship, attending induction, teaching sessions, visiting them on their wards, meeting for coffee, intervening with those who experience distress, and working with a collaborative wellbeing group to find the best support and expertise for those with greatest need. Second, the program utilises peer groups; less a clinical debrief and more a community-building exercise in which anything of personal or professional manner can be shared in confidence and safety. Third, the Wellbeing Program is co-housed within Postgraduate Medical Education and the “Centre for Wellbeing and Sustainable Practice” alongside Pastoral Care and Clinical Pastoral Education; the program is distinctly pastoral in nature.
not in any religious sense, but in its emphasis on the deep human longings for connection, relationship, meaning, value and personal growth.

One goal for the future is to replicate this program in other hospitals and to other healthcare staff. To that end we have developed a set of core competencies for Wellbeing Officers, based on the competencies required of Pastoral Care professionals. We have developed a training curriculum based on the methods used to train Clinical Pastoral Educators. We have hosted “model” peer groups for healthcare professionals who are interested in offering doctors peer groups in their institutions.

Nothing communicates the impact and effectiveness of Royal Perth Hospital’s Doctors’ Wellbeing Program better than the voices of the participants. Below is a small sample of the volumes of comments made by doctors who have participated in the Wellbeing Program:

I realised I needed to make greater effort to get to know my patients. I saw things that concerned me which need to change. I was not so numb to issues I read in medical records. I got better at managing my time. I heard the mistakes of others and am less likely to repeat them. I got better at communicating with my patients. I became less critical of colleagues and patients. I take better care of myself and therefore better care of my patients. I am more mindful when I practice medicine. I feel very lucky to be in RPH because of this program. I worry about the ones who are trying to go it alone.

I just wanted to extend my sincerest thanks for your support in escalating the incident I encountered. …… I’m so grateful that the culture is changing in medicine and that there’s a shift in what’s tolerated in the workplace. I’ve been pleasantly surprised by how supportive and validating everyone has been. Thank you for listening.

Ben Hope, MB BS, FRACP, FRANZCP, FRANZCCCP, FRCP (UK) & (Can)

The Australian Council on Healthcare Standards
21st Annual ACHS Quality Improvement Awards 2018
Dubbo Health Service
Oncology Department
Accessing The Allies
Jodie Spittles

AIM
To increase the number of allied health referrals for oncology patients who attend the Alan Coates Cancer Centre at Dubbo Health Service.

SUMMARY ABSTRACT
Through staff rounding at the Alan Coates Cancer Centre, it was noted that there were concerns that patients were not being appropriately referred to Allied Health Services.

The team addressed the shortfall in the person-centred care that we were offering for our patients. By taking a multidisciplinary approach, a streamlined referral process and capacity to create a better patient journey for those patients with cancer was created, whereby the staff can offer referrals to patients for a number of Allied Health services, such as Dietitian, Social Work, Physiotherapy, Occupational Therapy, Speech Therapy, Palliative Care and Counselling services.

Hong Kong Baptist Hospital
Environmental and Occupational Safety & Health Committee
Jodie Spittles

Joyful @ healthy workplace program at Hong Kong Baptist Hospital
Clara SUEN Yuk-ha

AIM
The aim of the Joyful @ healthy workplace program is to advancing holistic healthy living for staff; building-up of health, safety and well-being culture; and help to enhance productivity and competitiveness of the hospital.

SUMMARY ABSTRACT
The ‘Promoting Health in Hong Kong: A Strategic Framework for Prevention and Control of Non-communicable Diseases’ was first proposed by Department of Health (DH) of Hong Kong SAR Government in 2010, suggested that work and health are closely related and workplace is an ideal setting for promoting health. Basing on this strategy, DH, Labour Department (LD) and the Occupational Safety and Health Council (OSHC) of Hong Kong launch the ‘Joyful @ Healthy Workplace’ programme (J@HWP) in 2016. Hong Kong Baptist Hospital (HKBH) signs the charter and pledges to promote physical and mental wellbeing among staff with emphasis on areas of physical activities, mental wellbeing and healthy eating.

Inherently, hospital service is complex and operating at a unique workplace and work process hazards. On-site training with staff, with particular reference to the unique workplace and work process hazards.

Potential health hazards induce by prolonged inactivity and excessive sitting for office workers are also addressed. An ergonomic program was implemented in June 2018 to engage sedentary staff in taking decisions about health and safety of their own work stations. Special ergonomic stations for computers have been set up as when needed.

Mental wellbeing
To enhance mental well-being of staff by creating a positive, happy and joyful environment in the workplace. A series of activities was organized for promoting “Sharing”, “Mind” and “Enjoyment” elements to be added in life. We held the Joyful Everyday Video Competition to encourage staff to share their tips on how to maintain psychosocial health in the workplace with the actual scenario during daily operation; issued posters of tips in every department; organized the annual Award & Appreciation Day / Dinner to recognize staff’s good performance; issued festive subsidy; provided special birthday/new year meal and encouraged volunteer service. From 2017 to Aug 2018, around 700 participants had taken part in.

In addition, we arranged diverse types of activities to staff and their families to build and maintain harmonious relationship among staff; cultivate sense of belonging and foster work-life balance. From 2017 to Aug 2018, 250 participants had taken part in.

To help staff to cope with stress and anxiety arising from work, family and personal problems, there’s an independent external professional institution (Employee Assistance Program) to provide counselling service to staff. Staff members may also solicit our pastoral care service when needed. Besides, our Counselling and Patient Support Center also provide platform on mental wellbeing screening (staff’s happiness level) and training center which imitated the real-life hospital setting with bed unit, toilet, pantry and a ramp. Staff are equipped with practical skills, correct working posture and use of MHO equipment. Core muscle training is added to encourage staff to be physically fit to handle the task. Besides, the Square Stepping Exercise which has high reputation on balancing training is also added to prevent fall injury and train mental focus. In 2017 & 2Q2018, 963 and 384 staff have completed the required course respectively. Active participation was observed with 100% passing rate.

To encourage staff doing stretching exercise before or during work, a promotional program on workplace stretching exercise was implemented since 2017. Our physiotherapists visited various departments to do the onsite training with staff, with particular reference to the unique workplace and work process hazards.

To advocate the habits of doing regular exercise, a 13 months-long fit and fun program to promote 10000 steps daily was launched by OSH department in June 2017 to start a healthy journey for each participant. There was a total of 637 staff enrolled to the program with record of 1,257,874,438 steps which measures ‘around-the-earth’ by 21 times obtained. 17.7% of participants have achieved improvement or maintain a steady pace in normal Body Mass Index (BMI). The program also included a series of physical activity such as OSH Sports Fun Day, towel exercise in OSH carnival, hiking, jogging class, yoga class, and participation in Hong Kong Marathon, “Green Power Hike for a Green Future” and “Run for Paralympians”, etc. From 2017 to Aug 2018, around 700 participants had taken part in.

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counselling for staff in need, e.g. set up “Joyful Everyday” booth in the OSH Carnival, support candidates of the voluntary return-to-work program.

Despite limited space, we provide relaxation space for staff for their enjoyment and relief of stress. Staff can enjoy gardening at the Support Services Centre and Hydroponic Gardening at Hospital Building.

Healthy eating In our staff canteen, we supply cup fruit and veggie box with a discounted price. There is also “Green Monday” program to promote vegetarian food for staff. We regularly organize bazaar for promotional sales of healthy foods and organic vegetables to staff. We also promote habits of eating healthy foods by distributing free fruit to staff on hospital activities. Our Dietetics Department regularly organized healthy eating talk, e.g. key nutrition to maintain muscle strength and prevent sarcopenia. In addition, OSH newsletter provides an excellent vehicle for keeping employees up-to-date on healthy eating, e.g. how to avoid energy overload during festivals.

In conclusion, a healthy workplace not only protects the physical well-being of employees, it also enhances productivity and competitiveness; helps to establish a positive image for the organization; promotes a win-win situation for both employers and employees. By implementing the J@HWP, staff awareness toward health and work safety is raised; significant reduction of Injury on duty (IOD). incurred sick leave day are recorded and high rating in staff opinion survey is obtained.

Central Coast Local Health District
Health Information Services Gosford Hospital
Deceased Documentation Improvement
Kirsty Toms

AIM
To improve the accuracy, timeliness and availability of deceased documentation through interdepartmental collaboration.

SUMMARY ABSTRACT
The process of deceased documentation processing was very fragmented and lacked accountability. Doctors were unsure of their role in the process, as were administrative staff on the ward and Health Information Services (HIS). This resulted in documentation being incomplete, often going missing, and mortuary staff spending hours following up documentation to allow patients to be released to funeral homes.

HIS took ownership and accountability of the deceased documentation process from ward to health record at Gosford Hospital and are now the central point of contact for ward staff and the mortuary to ensure timely and accurate processing of deceased documentation. This involved collaboration with all stakeholders to communicate roles, responsibilities, and expectations; provide education and feedback; and empower HIS staff to own the process and be accountable. A coversheet was developed by HIS to assist both clinical and administrative staff on the ward to ensure correct and complete documentation was done at the bedside; priority scanning processes were implemented in HIS to ensure timely scanning to the eMR; and HIS was made the central contact for mortuary staff to collect original deceased documentation which is needed to release a patient to a Funeral Director.

South East Health Service
South East Health Service - Volunteers
Mount Gambier Volunteer Guide Program
Amy Watt, Yasir Arfat

AIM
The aim of the volunteer Mount Gambier Site Volunteer Guide Program is to assist consumers, patients and visitors entering the main Health campus in Mount Gambier inclusive of Mount Gambier and District Health Service (hospital), Country Health Connect and Country Health SA Local Health (CHSALHN) Network Mental Health to navigate the building with ease, provide information regarding services and facilitate consumer feedback.

SUMMARY ABSTRACT
This volunteer guide initiative was implemented as response to an identified need to improve the consumer experience for those accessing our local health service in Mount Gambier, South Australia. As well as assisting people with wayfinding within the building, the volunteer guide program also engages consumers to capture feedback. Further enabling South East Health Service to improve the quality of our services. Planning for this new initiative involved extensive consultation with consumers, volunteers and hospital employees about what they wanted to see, and what would add value to the consumer journey to assist consumers attending the campus for Health services. Planning also included research into programs at Adelaide metropolitan hospitals where similar initiatives have been implemented. A number of guiding documents have also been developed to formalise the program. We believe the South East Health Service volunteer guide program in Mount Gambier is unique, as it allows the consumers voice to be heard with the aim of continuous quality improvement. There has been review and evaluation of the program since implementation in July 2018. Inclusive of input from consumers, volunteers and employees. Feedback received from participating guides and staff, as well as the feedback obtained from consumers has positively indicated that the program has been well received by all stakeholders. We continue to evaluate and improve this program.

Hunter New England Local Health District
Hunter New England Population Health
Healthy food in childcare: an online solution
Sze Lin Yoong, Alice Grady, Luke Wolfenden, John Wiggers, Meghan Finch, Karen Gillham

AIM
The “healthy food in childcare” program is a population-based health improvement initiative that aimed to improve the diets of young children by supporting childcares services to provide meals consistent with nutrition guidelines. The initiative employed a staged program development and evaluation approach to identify an effective and scalable strategy of population health staff support for childcare services to provide healthier meals to children.

SUMMARY ABSTRACT
Poor nutrition is a primary modifiable risk factor for the development of chronic diseases including cardiovascular disease, overweight and obesity, and cancer (Fouzanzafar, et al. 2015). In 2011, only 4% of the Australian population met national dietary guideline recommendations for consuming sufficient serves of vegetables, and over one third (35%) of total daily energy intake came from foods that are nutrient poor and high in saturated fat, salt and/or sugar (“discretionary foods”) (Australian Bureau of Statistics 2017). As early childhood
is a formative period for establishing eating behaviors that track into adulthood (Craigie, et al. 2011). Efforts to improve child nutrition and prevent obesity is a national priority to reduce the burden from chronic disease in the population.

Childcare services are a recommended setting to deliver population-based nutrition interventions to improve child diet as they provide access to the majority of young children. In Australia, almost 90% of children aged 4-5 years old attend childcare services for an average of 18 hours a week (Australian Bureau of Statistics 2015), where they can consume up to 67% of their daily energy requirement (Radcliffe, et al. 2002). As such, the implementation of nutrition guidelines in childcare services to improve child nutrition is a local (Hunter New England Local Health District 2018), state (NSW) (NSW Ministry of Health 2014) and national priority (Australian Government Department of Health & Ageing 2013). However, despite significant efforts to improve the implementation of nutrition guidelines, our research shows that less than 5% of childcare services in NSW meet nutrition guidelines (Yoong, et al. 2014). Without initiatives to support childcare service implementation of nutrition guidelines, the opportunity afforded by this setting to significantly improve child health cannot be achieved. The delivery of initiatives to support childcare services meet the nutrition guidelines is a performance requirement of population health services in NSW.

The "healthy food in childcare" initiative is the first globally to use a scientifically rigorous and staged quality improvement approach to identify an effective and scalable solution to this significant problem. The initiative was co-developed by end-users and experts in population health service delivery and behavioural science, and was based on systematic assessment of the barriers to guideline implementation among childcare service staff. The main barriers identified in this process were the i) lack of knowledge and skills of cooks and menu planners in childcare services to interpret and apply nutrition guidelines; ii) computational complexity of assessing whether the menu met guidelines (i.e. provided adequate amounts and types of healthy foods while not providing ‘unhealthy’ foods); and iii) lack of knowledge of how to modify/substitute unhealthy recipes to become healthy.

As such, phase one of program development resulted in a high-intensity support strategy delivered by population health service dietitians to build the capacity of childcare services to interpret and apply nutrition guidelines. This strategy was evaluated in a trial across 45 childcare services within the Hunter New England region and was found to be effective in improving the provision of healthier foods and improving child dietary intake and quality (Seward, et al. 2018). However, the high cost of delivering this support limited its ability to be delivered at-scale by population health services across jurisdictions.

In phase two of program development, the population health team partnered with information technology providers to develop an online menu-planning program (feedAustralia) to support childcare services to provide healthier foods consistent with nutrition guidelines. The online program was designed to support childcare cooks and menu planners with interpreting the guidelines, and reduce the computational complexity associated with assessing menu compliance. Drawing on a national database of food items, the program provides recommendations for healthy foods that align with guidelines. In effect, the program was built to provide 'a dietitian in every childcare service'. Further, the program provides over 200 healthy recipes and snack suggestions with established energy, macronutrient profiles and serve size recommendations and the ability to share meals and recipes with parents of children in care.

The online program was evaluated in a trial across childcare services in NSW. Evaluation via randomised controlled trial with approximately 52 childcare services and 500 children found significant reductions in the provision of unhealthy foods by childcare services, improved child dietary intake, and a 10% difference in the proportion of children in the healthy weight range in the intervention group (compared to the control group) at 12-months follow up. The program was also found to be highly acceptable and useful among childcare service cooks and menu planners.

The online menu planning program is available free of charge to all childcare services nationally, and accessible by parents of young children. With funding support by the Commonwealth Department of Health, the program has now been disseminated nationally, with over 1,800 childcare services accessing the program since March 2018, improving the diets of hundreds of thousands of children across Australia.
Patient reported outcomes (PROs) are increasingly important in patient-centred healthcare; however, integration into clinical practice remains challenging. Our innovation is an Australian-first eHealth system, PROMPT-Care (Patient Reported Outcome Measures for Personalised Treatment and Care) which supports the electronic capture of PROs in the oncology setting and utilises that information to a) support patient-centred care in real-time, and b) empower patients to self-manage their cancer related concerns. Our research has demonstrated the acceptability and feasibility of PROMPT-Care to patients and oncology staff, and the eHealth system is now implemented in four cancer centres in South Western Sydney and Illawarra Shoalhaven LHDs (SWSLHD & ISLHD), with long term planning for adaptation and state-wide roll out by the Cancer Institute NSW.

**SUMMARY ABSTRACT**

High-quality symptom management and supportive care are essential components of comprehensive cancer care. Despite improvements in survival rates and prognosis, a cancer diagnosis remains a major life stressor because treatment often leads to significant short- and long-term toxicity and places significant psychological, physical, social, and existential demands on the person diagnosed (Meyerowitz and Oh, 2009). The physical and psychosocial issues experienced following a cancer diagnosis and treatment persist into long-term survivorship. Ongoing health issues such as fatigue, pain, musculoskeletal dysfunction, endocrine imbalances, impaired cognition, and psychological and emotional problems, have the potential to span and evolve over many years and, in many patients, these issues precipitate unnecessary hospitalisation, resulting in significant burden to the individual and the health system.

Unfortunately, much of the morbidity experienced by cancer patients is not detected by healthcare providers and, as a consequence, remains untreated (Fallowfield et al., 2001, Newell et al., 1998, Ryan et al., 2005). The collection of Patient-reported outcomes (PROs) is one approach to address this deficit in patient care. PROs are increasingly important in patient-centred healthcare, with accumulating evidence in oncology as well as other health areas that collecting PROs and transferring results to the treating health professional in real-time has the potential to improve patient well-being and the efficiency of the use of the medical system (Basch et al., 2016, Barbera et al., 2015, Basch et al., 2017, Yang et al., 2018). Research has demonstrated significant improvements in patient outcomes, including in a study of 766 patients at Memorial Sloan Kettering Cancer Center (n=766) who were randomly allocated to report 12 common symptoms via tablet computers (PRO-intervention) or to receive usual care consisting of symptom monitoring at the discretion of clinicians. Significantly more PRO-intervention patients demonstrated improved health related quality of life compared to the usual care group (34% v 18%). In addition, the PRO-intervention group also demonstrated significantly improved survival outcomes, both at 1-year and at 7-years (Basch et al., 2016, Basch et al., 2017). Despite this, the practice of routinely collecting PROs is not widespread in clinical practice and remains challenging, partly because of a lack of easy to use tools, lack of a systematic approach for how the collected PROs will inform patients’ treatment plans...
and limited or no capabilities for integrating PRO results into electronic patient records.

Collecting PRO assessments can provide health professionals with the opportunity to tailor interventions based on the reported outcomes in order to better systematically manage patient care. However, for this to be effective, they need to be integrated into the workflow and available at the point of care, with pathways needing to be evidence-based. The use of computing devices and automated data collection in clinical settings enables rapid execution of automated algorithms. Those algorithms can incorporate a variety of patient factors into patient-specific recommendations (Souza et al., 2011), thereby standardising care in an effort to optimise patient care.

Our team’s innovation is an eHealth system, PROMPT-Care (Patient Reported Outcome Measures for Personalised Treatment and Care), the first system internationally that has achieved full electronic integration into hospital oncology information systems (OIS). PROMPT-Care facilitates the routine collection of PROs to support and enable cancer patients to achieve and maintain improved health, well-being, and cancer outcomes. PROs are collected electronically from patients approximately monthly and presented as summary reports which are accessed in real-time and used by the medical staff to address “red flag” issues. To support and empower patients to self-manage their symptoms and concerns, patients also concurrently receive an email with links to information and resources that specifically target their flagged self-reported outcomes. Figure 1 (Appendix) provides a simplified overview of the PROMPT-Care eHealth system. Already published research has demonstrated the acceptability, feasibility and impact on patient outcomes when eHealth systems like PROMPT-Care are well implemented. Our own research has demonstrated PROMPT-Care to be acceptable and feasible; and the system addresses a significant gap in care. Over the past 21 months, PROMPT-Care has informed the care of 400+ cancer patients in four cancer centres in SWSLHD and ISLHD. Patients have reported that PROMPT-Care facilitated communication and increased recognition and acknowledgment of their concerns. Oncology staff have indicated that the PROMPT-Care system is a useful screening tool which allows them to identify specific issues to raise with the patient during consultations, with the specific clinical feedback reports allowing them to adequately prepare for the upcoming consultation.

To date, the team have published five papers which detail the impetus for developing this eHealth system (Girgis et al., 2015), the process to develop the system and test the acceptability and feasibility (Girgis et al., 2016, Girgis et al., 2017), the development of algorithms to standardise the cancer care pathways which underpin the clinical care of patients (Girgis et al., 2018b), and the protocol for evaluating the efficacy of PROMPT-Care (Girgis et al., 2018a). In 2017, PROMPT-Care received three prestigious awards in recognition of its innovation in health care delivery and potential impact on patient outcomes: the SWSLHD Translational Research Award, awarded for having the greatest translational impact in the health service; the SWSLHD Board Award, selected from all award applicants across all categories in 2017; and the South West Sydney Research Annual Prize.

Our LHD has committed to implement PROMPT-Care as business as usual and the team are currently working on achieving this goal. At a state level, the Cancer Institute NSW and Bupa Health Foundation funded the team to develop and test the acceptability and feasibility of PROMPT-Care as a proof of concept, and the Cancer Institute NSW has committed to a state-wide rollout. The team continue to work collaboratively with the Cancer Institute NSW, with Prof Girgis Chairing the Patient Reported Measures Clinical Reference Group (Cancer Institute NSW). Since 2015, Prof Girgis has also been working with the Agency for Clinical Innovation (ACI) through its Patient Reported Measures for Integrated Care Advisory Committee to embed PRO collection and utilisation at a broader level, and beyond cancer.
APPLICATION OF ACHS PRINCIPLES

1. Consumer Focus
The project has included consumer input throughout its development, inclusive of consumers on the Ingham Institute for Applied Medical Research consumer advisory panel, who have been regularly consulted about the project design and execution.

PROMPT-Care is all about empowering patients and ensuring their needs are met, using a shared decision-making approach. Patients are empowered to report their cancer-related challenges and to self-manage them via resources provided to them through the PROMPT-Care system. Studies have shown that routine clinical consultations often miss signs from patients that they require additional support. Collecting PROs routinely ensures that the patient voice is heard, and that clinicians are much more likely to identify and address patients’ unmet needs in a timely manner. Our pilot testing of the acceptability and feasibility of PROMPT-Care supports this, with some examples below from the evaluation interviews undertaken with patients.

Patients complete the PROMPT-Care assessments approximately monthly. In our evaluations, patients have reported that the assessment gave them a concrete way of communicating their concerns and also helped to normalise some of their concerns. One patient said:

It [completing the assessment] actually gave me a handle to express something that I hadn’t – couldn’t figure out how to express to the person [doctor] I was speaking to.

If I didn’t have that survey, I wouldn’t have even known that was normal to have a problem and I wouldn’t know how to bring it up. And I don’t know if I would’ve – I probably would’ve suffered in silence. I don’t know what I would’ve done.

When PROMPT-Care assessments identify "red flags", i.e., issues where a patient’s scores were above a pre-determined threshold, suggesting clinical action may be required, and an email alert is sent to a care coordinator who reviews that patient’s report and follows the recommended care pathway. The first action is often the care coordinator calling the patient to discuss their assessment:

- not just paperwork and then filed. There was an actual result from someone rang me up and quite quickly actually. I was very impressed with that.

Red flags also result in patients receiving an email with links to self-management resources (see Figure 2 for sample email to patients) tailored to their areas of concerns, thereby facilitating patient-centred care and empowerment.

Well there was a very good article on being intimate and the difference between intimacy and sexual, sex – like those two terms. That helped me a lot. I printed that off so Pete and I could look at it and I could read it and I could bring it up with him. I was having a bit of sleeping problems and just strategies for trying to sleep in there, and those two are particular because I’ve used them a lot.

As well as the self-management resources helping the patients directly, a number of patients also reported sharing these resources with others to help them too.

I clicked on some of the other subjects that were there – and included on that website was one about families who have to deal with a family member who has terminal cancer and I found that incredibly interesting. So, what I actually did was I referred my friend’s father to that particular website. So, although it didn’t affect me directly, I was able to … spread the word to – and I thought it may have helped somebody else …. cause people are not necessarily aware of them and I just sort of let them know that there’s this website, it helps.

2. Effective Leadership
This project involved significant cross-LHD collaboration between health professionals, senior LHD management, Cancer Institute NSW and researchers, with ongoing collaboration to ensure successful transition into real world clinical practice. At the start of the project, three expert groups were convened to inform the development and evaluation of the PROMPT-Care system: a Clinical Advisory Group (CAG, n=38) and a Technical Advisory Group (TAG, n=23) guided the content, development and functionality of the system, and an Evaluation Advisory Group guided the feasibility and acceptability testing of the developed system. Additionally, Special Working Groups were convened, as required, to advise on specific aspects of the eHealth system development and content. These included a multi-
disciplinary Clinical Algorithms Working Group (n=8, medical and radiation oncologists, social worker, clinical psychologist, care coordinators) that specifically focussed on development of algorithms and evidence-based recommendations for clinicians to respond to each PROMPT-Care item that breaches the clinical threshold (see Figure 3).

The project has also benefited significantly from a good collaborative clinical and administrative leadership. Initially, enrolment to the PROMPT-Care trials was dependent upon the leadership of a few clinicians, who have championed the need for improving patient psychosocial screening. The obvious and immediate results in the form of instantaneous, integrated reporting quickly became the incentive for others to become involved. Some clinicians were referring all of their patients to the program, understanding the immediate benefits for their patients, and seeing the gap in this important level of reporting being addressed. These are the new champions of the system, who are leading the groundswell of interest in the project.

Nursing staff have been instrumental in this concept and have embraced this tool for triaging patients and are encouraging others to review these patient results and to address issues quickly before they develop into unmanageable problems.

Most importantly, the leadership provided from local Information Technology experts has been instrumental in ensuring the success of the system, and the integration of the patient assessment results. Without this, the system would be another stand-alone application that would not have the potential impact that PROMPT-Care will deliver. Their commitment to make this a priority enabled a highly feasible and acceptable product that is leading to best practice clinical care.

3. Continuous Improvement
The entire design of the PROMPT-Care system was driven by the need for long-term accessibility and viability. To ensure relevance and future uptake beyond our LHD, we engaged key stakeholders and potential PROMPT-Care users via cross-LHD expert groups, including the clinical advisory group, the technical advisory group, and evaluation advisory group, as previously described. Consumer input has been integral to developing a highly acceptable and relevant PRO-collection interface, with early feedback on PROMPT-Care Version 1 informing the improvements which were applied to Version 2. We investigated implementation of evidence into real world clinical practice, developing an efficient and user-friendly eHealth system to facilitate PRO data capture, as well as retrieval to support clinical decisions and patient self-management, and data retrieval to support ongoing evaluation and innovative research.

Integration of PROMPT-Care into the hospitals’ OIS enhances the routinely collected PROs’ relevance and usefulness in informing routine care. Pilot testing demonstrated feasibility and acceptability of Version 1, and PROMPT-Care Version 2 is now implemented in four cancer centres in SWSLHD and ISLHD.

Our project advisory groups continue to provide input into the system to ensure continuous improvement. For example, our ongoing evaluations with oncology staff have identified further improvements including options for patients to include additional comments using free text, assessment of patients’ “background anxiety” to reduce the frequency of potentially false positive clinical alerts, and considering changing the frequency of assessments to 3-monthly rather than monthly. The team will review the data from our current PROMPT-Care work to inform decisions about these recommendations as well as any future modifications, to ensure the program continues to improve and meet the needs of cancer patients and their health care teams.

4. Evidence of Outcomes
A systematic review published in 2013 (Chen et al., 2013) concluded that routinely collecting PRO measures enables better patient-centred care in cancer settings where a patient management plan is integrated with routine collection of PROs. This review identified strong evidence that well-implemented electronic PRO (ePRO) systems with timely feedback improved patient-health care provider communication and patient satisfaction, and may also improve the monitoring of treatment response and detection of unrecognised problems. As detailed in the Summary section, the impact of ePROs on clinical and health service outcomes has also now been demonstrated, with a large randomised controlled trial with
cancer patients reporting significant outcomes including reduced emergency room visits, longer tolerability of chemotherapy, and improved survival (Basch et al., 2016). PROMPT-Care was developed with consideration of some of these past ePRO attempts and was also well-informed by features identified as important to supporting a successful ePRO system in a review of 33 ePRO systems (none of which were Australian) (Jensen et al., 2013).

Importantly, PROMPT-Care has been developed in an iterative manner. Initially, we pilot tested Version 1 with 35 patients (13 on-treatment and 22 in follow-up) who completed 67 assessments during the study period. The mean completeness of patient-reported data was 91.8%, with 100% accuracy of data transfer. Ten of these patients completed cognitive interviews, 28 completed evaluation surveys and 14 completed evaluation interviews at the end of the pilot study. The results demonstrated that PROMPT-Care was highly acceptable to patients and oncology staff and feasible to implement in the clinical setting. Patient acceptability was high, with 100% (28/28) reporting the time to complete the online assessments (average 15 minutes) as “about right”, most (79%) were willing to answer more questions, almost all (96%) found the online assessment “easier/same as” completing a paper copy, and they valued the self-management resources.

The results of our pilot testing of Version 1 informed the enhancements which we then included in Version 2. Version 2 has been implemented in four cancer centres in WSLHD and ISLHD over the past 21 months, informing the care of more than 400 cancer patients to date. Patients have reported that undertaking the assessments helped them to communicate their concerns to the care provider, for example: “It’s been marvellous because some things I’ve felt very embarrassed to talk to my doctor about at first, and I didn’t know how to bring it up and then I could say to him, “Look, I’m doing the survey and they’re asking a lot of questions about things.”

Clinical staff have also reported high levels of acceptability and feasibility. They perceived PROMPT-Care to be a good screening tool which allows them to identify specific issues to raise during consultations (see Figure 4 for clinical feedback report reviewed by oncology team), brought patients back into the system for unresolved issues (Figure 5 for email alert), and facilitated appropriate referrals. For example:

I would have an impression about a patient, that things weren’t going fantastically, but it [reports] gave greater granularity and specificity about where the needs were.

Well, I quite liked the physical problems [checklist] because patients sometimes forget to tell us things, and/or they don’t think things are important.

Ongoing evaluations will inform the broader impact of PROMPT-Care on healthcare utilisation, including on emergency department presentations, and utility as an alternative model for ongoing supportive care. This will include using PROMPT-Care to better support an integrated shared-care model between the primary care and specialist care, thus reducing unnecessary specialist follow-up and empowering the patient and primary care team. To date, 2,774 PROMPT-Care assessments have been completed, providing more than 185,000 data items. These data and ongoing PRO collections will continue to be used by the cancer service to identify gaps in care and patients’ unmet needs, as well for evaluating the effectiveness of newly introduced cancer programs which are aimed at addressing identified care gaps.

5. Striving for Best Practice

Published evidence (Basch et al., 2016, Basch et al., 2017) already highlights that the routine collection of PROs improves patient outcomes significantly. Despite this, there are no groups which currently routinely collect patient reported outcomes for their patients and utilise this information to inform their cancer care. Our feasibility testing has shown that our electronic PROMPT-Care system is highly acceptable to both clinicians and patients. Patients complete their PRO assessments electronically from home using an email link which is sent to them ahead of their appointments, thereby minimising any impact on the clinic flow. The electronic design and the integration of data within the OIS ensures highly efficient data collection and feasibility for implementation as part of routine care. The system was designed with the long-term plan of state-wide, or even national, roll-out once feasibility and acceptability were appropriate.
The treatment algorithms and treatment interventions were all designed with consideration of current best evidence. By routinely collecting PROs and recommending evidence-based care for those patients who require care (as indicated by the "red flags"), this ensures a greater likelihood that all patients are screened appropriately, and then evidence-based interventions are commenced, compared with the random nature of "usual" care without such a systematic approach.

When a patient assessment score raises a red flag, the information that is automatically sent to the patient (through a series of clinically developed algorithms) was selected by a panel of clinicians and education experts, under the Cancer Institute NSW’s rigorous EViQ team. This panel reviewed all available patient resources, and developed a suite of the most recent and validated information pertaining to the patient’s personalised issues. These included supported resources where available. For example, a patient interaction with the Quitline site will generate a first contact point with the patient from the Quitline staff.

**INNOVATION IN PRACTICE AND PROCESS**

Whilst physical and psychosocial issues experienced following a cancer diagnosis and treatment persist into long-term survivorship, much psychosocial morbidity experienced by cancer patients is not detected by healthcare providers and remains untreated (Fallowfield et al., 2001). Person-centred care reflects a movement away from predominantly tumour-focused treatment toward care for the whole patient, acknowledging that cancer presents physical, but also emotional, social, informational, spiritual and practical challenges for patients and families (Fitch, 2008).

Whilst oncology care pathways that routinely include comprehensive symptom and emotional wellbeing assessments improve patient outcomes, historically, PROs have not been systematically collected from cancer patients. PROMPT-Care is the first fully integrated eHealth system internationally that electronically captures information about a cancer patient’s symptoms, distress and unmet needs, provides ePRO summary (Figure 4) and longitudinal reports to the cancer care team in real time to improve patient care, and empowers patients by providing self-management tools and resources tailored to their needs (Figure 2).

Utility of PROs for informing real-time patient-centred care has been limited by lack of integration into hospitals’ point-of-care OIS. The key feature distinguishing PROMPT-Care from previous oncology-based eHealth systems is its total integration into the hospital’s OIS, which has not been achieved in other projects to date. This project has been seen to be so innovative, and also practical, that both the Agency for Clinical Innovation (ACI) and the Cancer Institute NSW have developed a partnership with the investigators to explore state-wide roll-out.

**APPLICABILITY TO OTHER SETTINGS**

Methods used include application of a strong evidence base to support decisions, with reference to published literature for PRO selection wherever available, interpretation and development of care pathways and a multi-disciplinary approach to the development of the pathways. Extensive consultation with oncology centre management and end-users of the system (oncology and allied health staff) throughout the state was critical for ensuring buy-in and relevance to their practice, in order to facilitate widespread roll-out. Developing care pathways in consultation with local end-users was also important for including local services and supports which may vary in different centres.

A key strength of our work is that the processes used to make decisions in the PROMPT-Care system can be applied to other systems using different PROs to those used in PROMPT-Care. Furthermore, PROs have been effectively used in non-oncology settings, including to inform surgical decisions in the orthopaedic setting (Cella et al., 2007, Papuga et al., 2014) and other general medicine settings (Deshpande et al., 2011, Nelson et al., 2015). Our publications (five to date) aim to facilitate uptake by clinical groups and collaborations with researchers and clinicians to further develop the eHealth system. Since the electronic tool can be adapted to other clinical groups very easily, it is likely that this method of electronic data collection will easily become the way of the future in health care. Interest has been shown by the Agency of Clinical Innovation as well as cancer and non-cancer departments internationally to adopt a similar system for their jurisdictions.
Our work with the Cancer Institute on their state-wide roll-out will embed the system into routine oncology care across NSW and ACI has also incorporated much of the knowledge developing in the PROMPT-Care program to its state-wide patient reported measures program.

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**APPENDIX**

![PROMPT-Care System Process Flow](image)

**Figure 1:** Simplified overview of the PROMPT-Care eHealth system.
Thank you for recently completing the PROMPT-Care survey.
The responses you provided suggested that you may still be experiencing some concerns with the emotional impact of your cancer and cancer treatments.
Please scroll down to find some more self-management resources that can help you improve and maintain your emotional wellbeing.

The MindSpot Clinic
The MindSpot Clinic is a free service for adults living in Australia with stress, worry, anxiety, low mood or depression. The MindSpot Clinic provides courses on psychological symptoms that contain easy to read information, practical skills, and stories about how other people have learned to overcome their symptoms. The MindSpot Clinic deliver their services remotely, which means people can conveniently access assessment and treatment online or via the telephone.

- The MindSpot Clinic (website)

Coping with fear of recurrence
- Fear of recurrence and late effects: Living with uncertainty (podcast/audio file)
- Fear of the cancer coming back (website)

THIS WAY UP Self Help
THIS WAY UP offer free Self Help courses, which you complete at your own pace, that will help you learn skills to better manage your symptoms of anxiety or depression. These courses are based on the principles of Cognitive Behavioural Therapy (CBT), the leading evidence-based psychological treatment for anxiety and depression. THIS WAY UP is a not for profit initiative of ST Vincent’s Hospital, Sydney Australia.

- THIS WAY UP Self Help (website)

Access to community psychology services
Medicare rebates are available for psychological treatment by registered psychologists under the Australian Government’s Better Access to Mental Health Care initiative. This scheme provides considerable assistance to people living with mental health problems, allowing them greater access to psychologists and providing more affordable mental healthcare. For more information on how you can access a psychology services click the information page link below.

- APS fact sheet – Medicare rebates for mental health service provided by psychologists (PDF)

myCompass
myCompass is an interactive self-help service that aims to promote resilience and wellbeing for all Australians. myCompass is a guide to good mental health – it points you in the right direction. You can track your moods, write about them and view information and tips. You can also choose to do one of the modules designed to help you manage mild to moderate stress, anxiety and depression. myCompass has been created by the Black Dog Institute with financial support provided by the Australian Government Department of Health.

- myCompass introductory video
- myCompass registration

Figure 2: Sample self-management email sent to patients experiencing above-threshold emotional concerns
Figure 3: One example of algorithms developed - unmet needs algorithms mapped from the Supportive Care Needs Survey-Screening Tool 9, with actionable recommendations.
Figure 4: Sample clinical feedback report, displaying clinical recommendations for “red flag” items, for use by the oncology care team
High levels of distress or symptom burden have been reported by the following PROMPT-Care patient:

Patient MRN: 0123456
Patient surname: SMITH

Please review the PROMPT-Care report in MOSAIQ and contact the patient and/or follow the care pathway in place for your centre/facility.

Thank you for your cooperation on this matter.

Figure 5: Sample email alert sent to cancer centre when a patient’s PROMPT-Care assessments identifies any issues above-pre-determined thresholds
Macquarie Hospital Clinical Formulation Tool - Using the UK-FIM/FAM to create a heat map of strengths and needs to inform rehabilitation and transition planning

Tertia van Antwerpen

**Aim**
To develop an electronic tool that enables the multidisciplinary team to use evidence-based methods:
- to integrate and analyse assessment information gathered by the multidisciplinary team
- to gain a clear understanding of the consumer’s functional ability, support needs and prognosis for functional gain.
- to focus the work of the multidisciplinary team to assist consumers in achieving their personal goals and discharge back to the community
- to justify the level of support and care as per the Australian Mental Health Care Classification (AMHCC)

**Summary Abstract**
Macquarie Hospital Clinical Formulation tool uses the UK-FIM/FAM, to create a heat map of strengths and needs to inform rehabilitation and transition planning.

Macquarie Hospital is a large mental health care facility with 180 consumers. The hospital’s multidisciplinary team (MDT) conducts up to 21 assessments per consumer. With this amount of assessment data the hospital was seeking better methods to utilise the information to ensure that it guides the clinical formulation and decision-making process.

Clinical Formulation Process is a process of integrating and analysing the assessment findings from all the health care disciplines which results in a clearer understanding of the person’s functional ability support needs and prognosis for functional gain.

Macquarie Hospital’s Clinical Formulation Tool is a smart electronic clinical reasoning tool, based on the decision trees of the UK Functional Independence Measure and Functional Assessment Measure (FIM+FAM) methodology and scale. The tool provides structure to facilitate the MDT’s clinical reasoning process and captures the team’s findings by producing a heat map of the consumer’s current functioning, then produces spider graphs to monitor progress.

The formulation process begins with gaining a clear understanding of the person’s wishes, needs and strengths, with regards to preferred accommodation, community activities they would like to participate in, and types of support they think they may need.

The MDT applies the UK FIM+FAM’s clinical decision trees and support scale to determine the consumer’s level of self-direction and independence in 4 domains:
1. Self-regulation
2. Ability to take care of oneself and one’s environment
3. Ability to handle situations and adversities
   4. Ability to relate to others and form relationships

A heat map is automatically generated and is used to:
- inform intervention planning and the type of care, including the allocation of responsibilities amongst the MDT
- determine current and future supports needed to maintain the consumer’s quality of life with meaningful connections
- identify an optimum living environment that best meets the consumer’s wishes and needs.
AIM
Patients admitted to hospital following illness or injury are at risk of becoming weak and frail. Early rehabilitation can help to improve patient’s health, and reduce the time they spend in hospital. We have developed a new way of identifying patients in hospital who need early rehabilitation, to make sure they can access it as soon as possible. This has now been implemented hospital-wide, with aims to improve patient recovery, reduce delays to treatment, and reduce hospital costs.

SUMMARY ABSTRACT
Patients admitted to hospital for an acute illness or injury experience impairment and are at risk of deconditioning. For some patients, the initiation of early rehabilitation can help to prevent decline during hospitalisation, and accelerate recovery [1-5]. However, there are currently no systematic screening processes available that can be used to identify these patients early during their admission, and proactively trigger rehabilitation interventions. Traditionally, rehabilitation physicians do not get involved in a patient’s care until after they receive a referral from acute medical or surgical teams. This may result in patients ‘waiting’ for rehabilitation, or some patients not being referred for rehabilitation at all. Such delays in accessing rehabilitation have been shown to negatively affect patient outcomes, to prolong the duration of overall hospital admission, and to impose significant costs on the health care system [6-9].

To capture all patients who would benefit from rehabilitation during a hospital admission, one approach may be to conduct formal rehabilitation assessments on all hospital admissions. However, such a process would be expensive, labour-intensive and impractical to implement widely as a screening process. A more streamlined and time efficient process is required, that would be practical to implement in busy clinical settings yet remain sensitive to proactively identify patients most likely to require rehabilitation input—thus directing rehabilitation services where they are needed.

In 2017, driven by a desire to improve the equity and efficiency of service delivery for their patients, the investigators developed and implemented a novel Proactive Rehabilitation Screening Service (PReSS). Based on a redesign of the Rehabilitation Consult Service at St Vincent’s Hospital Sydney, PReSS was established as a means of proactively screening hospital admissions to identify rehabilitation needs.

PReSS uses a simple 5-item questionnaire to perform rapid review of patient’s medical records in order to identify rehabilitation needs. This questionnaire was designed by the project team, and incorporates simplified elements of the Rehabilitation Complexity Scale, an established metric developed in the United Kingdom to measure care complexity in rehabilitation settings [10, 11]. The PReSS questionnaire rates 5-items on simple categorical scales, namely: patient care needs, therapy disciplines, therapy intensity, equipment needs, and pre-morbid disability. A sum total score is calculated out of 15 for each patient screened, with higher scores indicating greater rehabilitation needs (see Appendix 1).

Since May 2017, the PReSS tool has been used to proactively screen all acute hospital admissions to St Vincent’s Hospital Sydney, where the length-of-stay is 5 days or more. Screening is conducted daily by a rehabilitation-trained nurse, and screening scores are used to identify those patients with a high likelihood of requiring rehabilitation. Based on the PReSS score for each patient, the appropriate pathway of action is triggered:

i) For scores <7, no rehabilitation intervention is required
ii) For scores ≥7, a proactive rehabilitation consultation is triggered, and rehabilitation intervention/s are initiated as needed

All patients identified as having high rehabilitation needs (PReSS score ≥7) receive a specialist rehabilitation consult within 24 hours of screening, and as appropriate, rehabilitation interventions which may include in-reach rehabilitation from the Mobile Rehabilitation Team (MRT), inpatient
rehabilitation, and/or outpatient rehabilitation.

The Rehabilitation Consult Service at St Vincent’s Hospital Sydney has been successfully redesigned to incorporate daily PReSS screening of hospital-wide admissions. This redesign has been successfully implemented since May 2017, with now >3000 patient admissions having been screened. Pilot analyses demonstrate that PReSS is feasible has high sensitivity and specificity for identifying patients with rehabilitation needs: correctly identifying patients in need of rehabilitation, improving patient access to early rehabilitation, reducing delays to treatment and resulting in benefits to the patient and health care system.

REFERENCES

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HEALTHCARE MEASUREMENT

ABSTRACTS

Blacktown and Mount Druitt hospitals

REDI Set Go – Improving patient access to care and patient flow

Luke Elias, A/Prof Reza Ali, Camille Dooley, Dr David Melvin, Colleen Mullens, Danielle Levis, Rola Tawbe

AIM

Project RED, a Whole of Hospital redesign initiative, targeted the NSW Premier’s priority of Improving Service Levels in Hospitals to improve Emergency Treatment Performance (ETP) by 15% within 12 months.

SUMMARY ABSTRACT

Project RED was a whole of hospital patient-centered approach to improve patient’s access to quality care and patient flow - from arrival to discharge (“Go” to “Go home”).

Effective partnerships and governance structures; extensive resourcing in clinical redesign methodologies and support of change initiatives; branding with consistent communications to reinforce common goals and recognise accomplishments; and information technology enablers to ensure real time incorporation of data into daily practice contributed to the success of the project.

High engagement and collaboration of staff achieved significant sustained improvements in timely access to care in the ED (Emergency Department) and patient flow – notwithstanding increased demand (>10% growth in ED presentations) and constrained fiscal resources. Blacktown Hospital’s ETP (Emergency Treatment Performance) improved from 56% to 73% and Mount Druitt Hospital from 69% to 84%.

Metro South Health

Clinical Strategic Projects

Dashboards – Functional infographic high-level reporting

Paula Foley, Pamela Yap, Katie Lee

AIM

To formulate a Health Service Wide Executive Management Operating System (EMOS) for the Metro South Health (MSH) Executive Team and multi-level clinical staff (Facility Managers, Unit Directors, Chairs, Frontline staff) that can also be circulated as a visual, transparent, monitoring and reporting management tool for meeting divisional targets and Key Performance Indicators.

SUMMARY ABSTRACT

Metro South Health (MSH) is the major provider of public health services in the Brisbane South Side, Logan, Redlands and Scenic Rim regions serving an estimated population of one (1) million people, twenty-three (23) percent of Queensland’s population. MSH comprises of five (5) major hospitals in addition to a number of health care services throughout the region.

Historically, the MSH Executive Team collated various data from across the MSH district to report on Key Performance Indicators (KPIs) at weekly facility meetings. Often, the relevant data would be set amongst comprehensive unit specific reports or presented in a raw format. This complicated the task of delivering clear and accurate information.

The Clinical Strategic Projects Team were approached by the Executive Director, Princess Alexandra Hospital (PAH-QEI) Health Network, to develop a high-level report (EMOS) for the MSH Executives that could easily adapt to capture changing KPIs and divisional targets, and can also be disseminated to relevant clinical areas as a management tool.

The Clinical Strategic Projects Team was assigned to understand the limitations of current reporting systems and to formulate a document that was consumer focused and would contribute to improving patient centered care.

The MSH Executives required various information from three (3) key clinical performance target areas health service-wide: Elective Surgery, Outpatients and Princess Alexandra Hospital (PAH) Emergency Department. The Project team identified that current methods relied on full reports from all five (5) of the MSH major hospital Elective Surgery Coordinator’s Queensland Health Enterprise Reporting Service (QHERS) and the Elective Surgery Daily Report (Decision Support Team, page 1). Outpatients information was compiled from the Metro South Health Weekly Outpatient Report (Primary Care Partnership Unit, pages 1-11). Weekly OPD Wait List Report (Clinical Audit Project - MSH) and Metro South Long Wait Audit Summary (Clinical Audit Project – MSH). Emergency data focused on seven (7) KPI’s with data pulling from the MSH ED StatBoard (Metro South Data Hub, Emergency Data & Analytics). MSH Lost Hours Dashboards (Metro South Data Hub, Emergency Data & Analytics), Estimate Length of Stay (ELOS) Performance Summary Report (Digital Hospital FirstNet Report, Page 1), Interhospital Transfers Spreadsheet (Emergency Data Manager, Sheet 1) and Discharges Through Transit Care Hub (Decision Support Team).

It was noted that most of the data was provided in a raw format and did not visually quantify progress made by the individual departments, facilities or overall health service, to meet their targets. It was also evident that strategies and barriers were not formally documented to be considered when interpreting the reports.

In collaboration with MSH Executives and key stakeholders from each of the three (3) key clinical performance target areas across the health service, it was agreed that the relevant information would be extracted from the various reports and populated into visually comprehensive “Dashboards”: one for each MSH Elective Surgery (Refer to Appendix 1), MSH Outpatients (Refer to Appendix 2) and PAH Emergency (Refer to Appendix 3).
The delivered Solution spelt out the progress each facility was making towards meeting KPIs and divisional targets. Raw data was replaced for pertinent infographics and formulated target lines were overlaid as visual progress markers. Strategies and barriers were identified and detailed to assist with interpreting the presented data and provided context and insight around figures the MSH Executives were delivering at high-level meetings. The involvement of front-end staff during this process created better understanding of divisional targets and as a byproduct improved processes that positively impacted on the service provided to patients.

When the Dashboards began circulation through MSH Executives and key clinical stakeholders, it was clear the adaptability of the Solution was imperative. The Dashboards created a flexible platform for presenting any type of relevant information in a visually captivating snapshot that could be disseminated at all levels of the healthcare service - Executive, Management and Clinical. This tool changed how Executives could present their performance figures. It also changed how Management, Clinicians and Administration viewed target goals and encouraged improved strategies that were adopted as common processes. Ultimately, the target focused reporting tool improved the service delivered to patients.

**South Western Sydney Local Health District**
Liverpool Cancer Therapy Centre, Centre for Oncology Education and Research Translation (CONCERT), Psycho-oncology Research Group

**PROMPT-Care: eHealth facilitating timely person-centred care to every cancer patient**

Afaf Girgis, Geoff Delaney, Ivana Durcinoska, Anthony Arnold, Nasreen Kaadan, Andrew Miller, Kenneth Masters, Stephen Della-Fiorentina

**Aim**

Patient reported outcomes (PROs) are increasingly important in patient-centred care; however, integration into clinical practice remains challenging. Our innovation is an Australian-first eHealth system, PROMPT-Care (Patient Reported Outcome Measures for Personalised Treatment and Care) which supports the electronic capture of PROs in the oncology setting and utilises that information to a) support patient-centred care in real-time, and b) empower patients to self-manage their cancer related concerns. Our research has demonstrated the acceptability and feasibility of PROMPT-Care to patients and oncology staff, and the eHealth system is now implemented in four cancer centres in South Western Sydney and Illawarra Shoalhaven LHDs (SWSLHD & ISLHD), with long term planning for adaptation and state-wide roll out by the Cancer Institute NSW.

**Summary Abstract**

High-quality symptom management and supportive care are essential components of comprehensive cancer care. Despite improvements in survival rates and prognosis, a cancer diagnosis remains a major life stressor because treatment often leads to significant short- and long-term toxicity and places significant psychological, physical, social, and existential demands on the person diagnosed (Meyerowitz and Oh, 2009). The physical and psychosocial issues experienced following a cancer diagnosis and treatment persist into long-term survivorship. Ongoing health issues such as fatigue, pain, musculoskeletal, dysphagia, functional disability, impaired cognition, and psychological and emotional problems, have the potential to span and evolve over many years and, in many patients, these issues precipitate unnecessary hospitalisation, resulting in significant burden to the individual and the health system.

Unfortunately, much of the morbidity experienced by cancer patients is not detected by healthcare providers and, as a consequence, remains untreated (Fallowfield et al., 2001, Newell et al., 1998, Ryan et al., 2005). The collection of Patient-reported outcomes (PROs) is one approach to address this deficit in patient care. PROs are increasingly important in patient-centred healthcare, with accumulating evidence in oncology as well as other health areas that collecting PROs and transferring results to the treating health professional in real-time has the potential to improve patient well-being and the efficiency of the use of the medical system (Basch et al., 2015, Barbera et al., 2015, Basch et al., 2017, Yang et al., 2018). Research has demonstrated significant improvements in patient outcomes, including in a study of 766 patients at Memorial Sloan Kettering Cancer Center (n=766) who were randomly allocated to report 12 common symptoms via tablet computers (PRO-intervention) or to receive usual care consisting of symptom monitoring at the discretion of the clinicians. Significantly more PRO-intervention patients demonstrated improved health related quality of life compared to the usual care group (34% v 18%). In addition, the PRO-intervention group also demonstrated significantly improved survival outcomes, both at 1-year and at 7-years (Basch et al., 2015, Basch et al., 2017). Despite this, the practice of routinely collecting PROs is not widespread in clinical practice and remains challenging, partly because of a lack of easy to use tools, lack of a systematic approach for how the collected PROs will inform patients’ treatment plans and limited or no capabilities for integrating PRO results into electronic patient records.

Collecting PRO assessments can provide health professionals with the opportunity to tailor interventions based on the reported outcomes in order to better systematically manage patient care. However, for them to be effective, they need to be integrated into the workflow and available at the point of care, with pathways needing to be evidence-based. The use of computing devices and automated data collection in clinical settings enables rapid execution of automated algorithms. These algorithms can incorporate a variety of patient factors into patient-specific recommendations (Souza et al., 2011), thereby standardising care in an effort to optimise patient care.

Our team’s innovation is an eHealth system, PROMPT-Care (Patient Reported Outcome Measures for Personalised Treatment and Care), the first system internationally that has achieved full electronic integration into hospital oncology information systems (OIS). PROMPT-Care facilitates the routine collection of PROs to support and enable cancer patients to achieve and maintain improved health, well-being, and cancer outcomes. PROs are collected electronically from patients approximately monthly and presented as summary reports which are accessed in real-time and used by the medical staff to address "red flag" issues. To support and empower patients to self-manage their symptoms and concerns, patients also concurrently receive an email with links to information and resources that specifically target their flagged self-reported outcomes. Figure 1 (Appendix) provides a simplified overview of the PROMPT-Care eHealth system. Already published research demonstrates the acceptability, feasibility and impact on patient outcomes when eHealth systems like PROMPT-Care are well implemented. Our own research has demonstrated PROMPT-Care to be acceptable and feasible, and the system addresses a
significant gap in care. Over the past 21 months, PROMPT-Care has informed the care of 400+ cancer patients in four cancer centres in SWSLHD and ISLHD. Patients have reported that PROMPT-Care facilitated communication and increased recognition and acknowledgement of their concerns. Oncology staff have indicated that the PROMPT-Care system is a useful screening tool which allows them to identify specific issues to raise with the patient during consultations, with the specific clinical feedback reports allowing them to adequately prepare for the upcoming consultation.

To date, the team have published five papers which detail the impetus for developing this eHealth system (Girgis et al., 2015), the process to develop the system and test the acceptability and feasibility (Girgis et al., 2016, Girgis et al., 2017), the development of algorithms to standardise the cancer care pathways which underpin the clinical care of patients (Girgis et al., 2018b), and the protocol for evaluating the efficacy of PROMPT-Care (Girgis et al., 2018a). In 2017, PROMPT-Care received three prestigious awards in recognition of its innovation in health care delivery and potential impact on patient outcomes: the SWSLHD Translational Research Award, awarded for having the greatest translational impact in the health service; the SWSLHD Board Award, selected from all award applicants across all categories in 2017; and the South West Sydney Research Annual Prize.

Our LHD has committed to implement PROMPT-Care as business as usual and the team are currently working on achieving this goal. At a state level, the Cancer Institute NSW and Bupa Health Foundation funded the team to develop and test the acceptability and feasibility of PROMPT-Care as a proof of concept, and the Cancer Institute NSW has committed to a state-wide rollout. The team continue to work collaboratively with the Cancer Institute NSW, with Prof Girgis Chairing the Patient Reported Measures Clinical Reference Group (Cancer Institute NSW). Since 2015, Prof Girgis has also been working with the Agency for Clinical Innovation (ACI) through its Patient Reported Measures for Integrated Care Advisory Committee to embed PRO collection and utilisation at a broader level, and beyond cancer.

Prior to this project, the process for identifying and monitoring HACs consisted of a manual analysis of data from two systems; diagnosis codes with an associated HAC which are housed in the ACT Patient Administrative System (ACTPAS) and incidents reported through the hospital incident reporting system, RiskMan. To improve this process and assist with contemporaneous identification and management of HACs, a HACs Reporting (HACs-r) tool was developed. The tool is web-based, easily accessible, has a user friendly dashboard interface and provides various levels of contemporaneous HAC data to allow clinicians, managers and quality and safety committees to examine HAC prevalence, location, financial impact and benchmark performance with peer group hospitals.

The project was initiated in January 2018 and conducted in three phases over six months.

The first phase identified all areas responsible for documentation and reporting of HACs, reviewed existing data collection and validation processes and systems, and identified gaps and barriers restricting reporting and monitoring of HACs.

The second phase developed solutions using ACSQHC HAC specifications, IHPA’s Risk Adjustment model and peer group hospital benchmarking information. The solutions were tailored to meet the needs of CPHB clinical areas and business support units including Health Information Services, Patient Quality & Safety, Finance & Business Information and the Performance & Reporting Unit.

The HACs database was designed and developed in a SQL data warehouse using the Microsoft SQL Mobile Reporting tool. HACs were identified by Condition Onset Flags assigned to a set of International Classification of Diseases, 10th edition, Australian Modification (ICD-10-AM) codes. They were then extracted for verification to validate SQL logic. Methods to calculate HACs prevalence, reduction in funding, length of stay, and key performance indicators used for benchmarking were established and tested.

Users are able to drill down through three layers of data from one easily accessible dashboard style interface. The layers accessible from the Dashboard are clinical stream, ward and patient level coding reports. Users are able to choose from various reporting options, depending on needs.

To validate the data used in the HACs-r tool, and provide significant efficiency gains, interphase and validation reports were created to facilitate a semi-automated HACs validation process between ACTPAS and RiskMan.

Following the completion of the first version of the HAC-r tool, 42 communication sessions were conducted over a two month period. Information was provided to approximately 450 staff including nursing, allied health, medical and non-clinical support staff. The purpose of the sessions were two-fold: socialise and demonstrate the HAC-r tool to pertinent stakeholders and committees, and provide general HAC information to all staff. Sessions highlighted implications of HACs in an ABF environment with pricing signals for quality and safety, and staff responsibilities including the importance of timely and accurate clinical documentation of conditions, risk management and prevention activities in patient medical records.
The HAC-r tool was demonstrated to groups and committees responsible for monitoring and guiding safety and quality improvements and NCSOHHC Accreditation Standards. Following this, selected key stakeholders in manager and executive positions were provided access to test the usability, functionality and content of the tool with feedback being incorporated into a final version of the HACs-r tool.

Even at this early stage, there is evidence that the HACs-r tool is being integrated into core business. An evaluation of the use and integration of the HACs-r will be conducted in January 2019.

**Gold Coast Hospital and Health Service**
**Physiotherapy Department**
**Outcomes of a physiotherapy-led pelvic health clinic**
Zara Howard, Jennifer Nuctora, Kelly Weir, Camille Aked, Robyn Griffiths

**Aim**
The aim of this project was to evaluate the outcomes of a physiotherapy-led pelvic health clinic (PLPHC) to provide insight into the effectiveness of the allied health-led model of care and act as a benchmark for future clinics.

**Summary Abstract**
The Australian healthcare system is under stress due to a combination of medical specialist shortages, extensive waiting periods, and increasing financial strain. To address these issues, many healthcare services are introducing allied health-led primary health clinics, where appropriately triaged patients have access to treatments from an allied health professional in a timely manner thereby reducing the wait time to treatment. This new model of care improves patient access and flow through healthcare pathways 2-4.

Physiotherapy advanced practice clinicians diagnose conditions and triage care accordingly, providing timely treatment, maintaining high patient satisfaction rates, and reducing the number of medical consultant reviews required and associated costs 5-7. Physiotherapists are well placed to perform a lead clinic role as they are qualified to assess and treat across a range of generalist and specialised physiotherapy areas, including women’s and pelvic health.

Conditions such as pelvic organ prolapse (POP) and urinary incontinence (UI) are associated with poor quality of life 8. It is estimated that 30% of women over 50 years old have symptoms of POP 9. Prevalence of UI is equally high, with incidence increasing with age 10, 11. The pathophysiology of POP and UI is often multifactorial and includes pelvic floor muscle dysfunction, obstetric injury and lifestyle factors 9. The benefits of interventions provided by skilled physiotherapists for management of POP and UI have been well documented, and tailored treatment is recommended as the first line treatment option 9, 12, 13. These benefits suggest that physiotherapy-led advanced practice clinics may be an efficient and effective way of providing care for women with POP and UI.

In January 2017, a new physiotherapy-led pelvic health clinic (PLPHC) was established at Gold Coast Hospital and Health Service (GCHHS) to better manage long waiting lists for urogynaecological patients by improving access to physiotherapy as first line treatment for UI/POP as compared to traditional medical models 14, 15 (Appendix 1). Only women from the urogynaecology Category 3 waitlist (non-urgent, delayed assessment unlikely to lead to deterioration or a need for more complex care, assess <365 days) with conditions responsive to physiotherapy intervention were eligible for the PLPHC according to the following inclusion criteria: urinary frequency, urgency, and/or incontinence; and/or POP 17. Exclusion criteria were related to abnormal results to investigations including: abnormal pap smear, swab, pelvic ultrasound or mid-stream urinalysis; and symptoms related to undiagnosed vaginal bleeding; genital tract fistulae; prolapse complicated by renal impairment or obstructed ureters; or previous continence physiotherapy for the condition (defined as a full course of physiotherapy completed in the last 12 months).

The clinic was staffed by two physiotherapists appointed as a clinical lead and senior physiotherapist. Both of these physiotherapists had a high level of clinical skill, knowledge and experience in women’s health physiotherapy 18. New patients were assessed by the clinical lead physiotherapist, who was responsible for developing the treatment plan and initiating referrals for investigation and/or escalating the patient for earlier urogynaecology medical review as appropriate. All ongoing treatment and assessment were provided by the senior physiotherapist and options included pelvic floor muscle rehabilitation, lifestyle advice, and preservative fitting as appropriate.

Patient journey and clinical outcomes of women attending a pelvic health clinic led by physiotherapists were evaluated from the clinics inception in January 2017 until October 2017.

**Royal Brisbane & Women's Hospital, Metro North Hospital & Health Service**
**Specialist Outpatient Services**
**Why Wait for Outpatients**
Mark Mattiussi, Carmen Mauchline, Katherine Baxter, Kate Dickson, Sangita Costello, Joanne James

**Aim**
Improve access to exemplary specialist care for patients in Metro North and Queensland as a result of reduced numbers of patients waiting longer than the clinically recommended timeframes.

**Summary Abstract**
The program directed towards “Improving Outpatient Access” commenced in Queensland in 2014. In 2016 the Queensland Government invested $351.2 million over four years for the “Specialist Outpatient Strategy” 2016-2020. The Royal Brisbane and Women’s Hospital (RBWH) commenced the Outpatient Reduction program with 70% (21,000) patients waiting longer than clinically recommended time periods. In four short years this has reduced by 16,604 patients to 4,396 which is now 22% of the total in scope waiting list. This reduction was achieved despite a consistent rise in demand of more than 20% (from 4,600 to 7,000 referrals/month) for specialist care.

Strong transformational leadership provided a vision and the development of a supporting framework to reduce long waits and improve access to outpatient services at the RBWH. RBWH staff and patients worked together to develop programs of work that were implemented and embedded into practice. A number of these projects, have in themselves received RBWH Quality Improvement awards in previous years (i.e. Ear Nose & Throat and Allied Health Pathways). A robust supporting framework and reporting structure was embedded by the team which ensured initiatives were delivered and
results recognised and celebrated. Access for patients to the most appropriate and timely care pathway was at the forefront of all initiatives and was utilised as the foundation to drive the cultural change and support the implementation of sustainable innovative models of care.

**Westmead Hospital**  
Geriatrics department  
GREAT (Geriatric Rapid Evaluation and Treatment) service  
Roozani Muruganantham  
Leesa Giang  

**AIM**  
To reduce avoidable hospital admission of aged care facility (ACF) residents by 20% over 24 months by providing timely and effective assessment and management in the ACF.

**Summary Abstract**  
**Intervention**: The GREAT (Geriatric Rapid Evaluation and Treatment) service is an outreach program provided to local ACFs during working hours. It receives referral from ACFs and acute hospitals. Referred patients receive a face-to-face assessment at the ACF. A management plan is developed in collaboration with General Practitioner (GP). ACF staff and patient’s family.

**Results**: There has been a 26.3% decrease in hospital admissions and 30% reduction in in-hospital deaths by ACF residents. A significant cost saving of $7.7 million per year has been estimated.

**Conclusion**: Since the establishment of GREAT service, there has been a significant reduction in the number of ACF residents requiring hospital admission, occupied bed days and in-hospital death by ACF residents. The service was also well received by the patients, families, ACF staff and GPs.

**Bankstown-Lidcombe Hospital**  
South Western Sydney Local Health District  
Medication monitoring soars to a new level: ensuring all temperature sensitive medications are safe to use  
Lucy Nair, Sonia Marshall, Marion Taylor  

**AIM**  
To implement a refrigerator monitoring system which streamlines and standardises the processes of monitoring temperature-sensitive medications across 8 sites in SWSLHD, resulting in cost savings and improved patient care.

**Summary Abstract**  
The issue of appropriate monitoring of temperature sensitive medications has been widely documented, particularly in the media. Recent incidents have included vaccinations provided to mothers and babies in NSW Health facilities which had been compromised by having the cold chain breached in the respective hospitals. These incidents resulted in very upset patients, concerned staff and risked the health and wellbeing of newborn babies. As the system was not transparent or sensitive medications across 8 sites in SWSLHD, it was difficult to guarantee that the cold chain had not been compromised. The cost of the known issues alone in the 12 months prior to installation of this measurement system were in the range of $250,000 in stock that required replacement. This was clearly something that required a change and the change needed to happen urgently. The barriers to implementing a solution however were vast and many considered them insurmountable.

For SWSLHD, there are over 240 medication refrigerators containing close to one million dollars’ worth of medication. Almost every ward and clinic area (and the respective staff) were impacted by the practice of needing to monitor refrigerator temperatures. The use of data loggers (manual, time-consuming, expensive devices that require updating every 12 months) alerted Bankstown to the issue of inappropriate medication storage initially when it was discovered that a vaccine refrigerator had been reading below zero degrees for 6 weeks without staff noticing, thus impacting hundreds of patients as the stock contained within that refrigerator had been severely compromised. This issue also highlighted that medication fridges across SWSLHD were not routinely monitored and there was a risk this had occurred in other sites without staff being aware. This was considered an unacceptable high risk situation which required a solution to standardise and optimise temperature monitoring across the district.

The measurements involved for temperature-sensitive medications is an issue that concerns nursing, pharmacy and corporate services staff and ranges from device management to patient safety. It is highly complex, time-dependent and can easily cause confusion. This project used the combined resources of corporate and clinical services from every hospital across SWSLHD to implement a streamlined, electronic measurement system for every one of the 244 medication refrigerators across the district. As a result of consistent and reliable measurements now being available in real time, not only has patient safety improved, but we have saved almost $100,000 in 6 months in medication costs alone. This figure could be extrapolated further if it were to include the efficiency savings of no longer requiring corporate services to attend sites after hours to investigate refrigerator issues as well as the nursing and pharmacy time spent investigating cold chain breaches and contacting patients who have been adversely impacted as a result.

**Illawarra Shoalhaven Local Health District**  
Illawarra Shoalhaven Mental Health Services  
7 Day Follow Up – Leading the Way  
Wade Norrie, Shane Schutz  

**AIM**  
To reduce the risk of readmission and suicidality to mental health consumers being discharged from adult inpatient units of the Wollongong and Shellharbour mental health units. The service aimed to improve follow up contact with consumers by introducing a step up model that included home visiting consumers who were traditionally lost to care through ineffective telephone only follow up.

**Summary Abstract**  
Discharge from hospital is a critical transition point in the delivery of mental health care. People leaving hospital after an admission for an episode of mental illness have heightened levels of vulnerability and risk without adequate follow up, they may relapse or be readmitted.

Evidence gathered in recent years from a number of consultations around Australia suggests that the transition from hospital to home is often not well managed. The inclusion of this indicator as a measure of progress of the Fourth National Mental Health Plan targeted the performance of the overall health system in providing continuity of care, recognising the need for substantial improvement in this area. The standard underlying the measure is that continuity of care involves prompt community follow up in the vulnerable period following discharge from hospital. The current New
South Western Sydney Local Health District (SWSLHD) Medical Imaging Stream and SWSLHD Business Intelligence Unit developed an application for Medical Imaging which allows end users to easily visualise and interact with a dynamic service adjustments and inform quality improvement initiatives in Medical Imaging.

**Summary Abstract**

Using data sourced from multiple systems which provide visibility over many critical aspects of the patient journey, dynamic service adjustments are now possible within Medical Imaging (MI). SWSLHD now have access to (near) real time data in a format which is useful to Clinicians and other frontline staff. This project developed an application for Medical Imaging which uses the inter-connectivity of data from multiple sources, including the Radiology Information System (RIS), Health Information Exchange (HIE), and Incident Information Management System (IIMS) which are stored in the Business Intelligence (BI) data warehouse. The Medical Imaging application has been built by SWSLHD staff and utilises the data and analytics application Qlikview, to allow end users to easily visualise and interact with displays which track key performance indicators which enables informed workflow and service design decisions to occur in Medical Imaging.

For SWSLHD MI, pertinent clinical questions such as “what happened to our patient after their imaging and report was completed?” or “how close is our service capacity aligned with the emergency department triage activity?” were questions which were continually raised but never adequately answered. Data was always examined in a retrospective manner, often with a significant time lag between the events and their respective analyses. It was difficult to have informed discussions with other departments due to multiple systems recording different key time points in the patient journey with the inefficient process of having to manually link data sets together.

Building this Medical Imaging application has dramatically changed this approach by allowing our departments to assess all data in near real time, and obtain a clear visualisation of the relationship between ED and imaging activity, display all key time points from ED triage to the end of the imaging workflow and also allow for the analysis of the Mode of Separation after imaging reports (e.g. discharge, admission to critical care, etc) so that we can better assess the impact that our service has on our patients. These burning questions that have been present for years can now be answered with the support of 8 year’s worth of historical data cross matched with the data from other systems to provide an integrated platform which helps to facilitate informed discussions across the LHD. These discussions are used to formulate Policies, Procedures and Service re-designs which all contribute to improving patient care.

Whilst the MI application takes a macro view on the departmental performance data, it is very simple for a user to drill down into specific cases/requests and identify outliers where the KPIs were not met. From there the user can easily ascertain if there was a viable reason that a study was not performed within an acceptable time frame, such as notes made by the participating staff members or extenuating circumstances such as a recorded ‘Reason for Delay’. Data can easily be stratified using Modality, Business Hours vs Out of Hours, Weekdays vs Weekends, Triage Category, Presentation Types and a host of other items which is instantaneously presented to the end user.

The triangulation of data from multiple systems to assess many of the key time points across the patient journey, is allowing SWSLHD Medical Imaging to improve its service delivery, both dynamically and in regard to longer term planning and analysis.

**Townsville Hospital and Health Service**

**Hospital Acquired Complications Working Group**

**Hospital Acquired Complications – real time dashboard drives improvements**

Rachael Payne, Kristen White, Marina Daly, Melanie Taylor, Jacqueline Kent, Suzanne Walters, Alycia Lorne, Tracey Bessell

**AIM**

To improve the prevalence of Hospital Acquired Complications (HACs) through improved clinical care, documentation and coding.

**Summary Abstract**

The introduction of pricing safety and quality signifies a fundamental shift from case-mix and activity based to values based funding models as part of the future of the Australian health care system.

HACs are a list of 16 complications published by the Australian Commission on Safety and Quality in Health Care (ACSQHC) for which clinic designs and surveillance are required. This project has been a fundamental shift from case-mix and activity based to values based funding models as part of the future of the Australian health care system.

Between July 2015 and June 2016, it was estimated that more than 6 percent of episodes of care at the Townsville Hospital and Health Service (THHS) had major hospital acquired complications.

Townsville needed a ‘winning game plan’ to deliver better care and outcomes for our patients and the regional, rural and remote communities of North Queensland (Appendix 1). There was no set agenda or budget, simply a problem that needed to be addressed and the first step was ‘building the right team’. In June 2017, a collaborative voluntary working group brought together people with expertise in performance reporting, funding and clinical costing, patient safety, clinical governance, coding, health information and clinicians. Of
note some of us did not know what each other did at the beginning of this journey.

Secondly, we needed to better understand our own ‘past season’ statistics. We undertook an in-depth coder and clinical review of the medical records of 50 randomly selected episodes of care inclusive of HACs in 2016-17. Of these, 40% did not meet the coding standards to be classified as a HAC, 34% met the coding standard and ACQSHC HAC definition and 26% were assessed to be a preventable HAC.

Subsequently our ‘game day strategy’ evolved to develop real-time user-friendly data and information to inform and assist coders and clinicians to measure clinical outcomes over time, without increasing the burden of data collection. In late 2017, the HAC Dashboard Demo was born and beta-tested (trial game).

In February 2018, THHS began training for the ‘new season’ with the first rounds of clinician engagement – 150 staff in a 2-day period and subsequently further dashboard enhancements were developed. Word was spreading and there was increasing awareness of and education about HACs through existing governance structures, such as Heads of Medical Departments and Nursing Governance, across all levels of the organization. THHS proactively provided ongoing feedback about our experiences and data with the ACQSHC and we implemented sustainable coder and clinical audit processes. The dashboard is now used by Health Care Standard Leads to inform quality improvement activities and two examples are outlined below – Urinary Tract Infections and Malnutrition.

Our piloted approach is demonstrated by the attached UTIs and Malnutrition case studies.

THHS now has:
- processes in place to ensure that documentation and data are more accurate and transparent;
- data is widely available and accessible to support change and continuous improvement;
- leveraged new data available in the IEMR for improved coding and audit;
- increased coder and clinical engagement;
- revised our contractual arrangements with external providers of care; and
- changed the narrative to focus on ‘what does best quality health care look like?’

To minimise preventable HACs and ‘win the premiership’ for better care and outcomes, we will establish and implement formal, transparent and accountable processes (currently in development- Appendix 6) to ensure the monitoring, review and improvement of the incidence of HACs using the utility of the dashboard by coders, clinicians, managers and executives, including:
- routine coding sample and audit
- routine Clinical audit (adopting already well-established VLAD reviews.
- targeted QI initiatives led by Health Care Standard leads and clinical teams; and
- monthly reporting of trended HAC data in THHS and Service Group Monthly Performance Meeting reports, with subsequent reporting provided on local actions for improvement (example Appendix 3).

The aim of the project was to reduce the incidence of falls by implementing a planned exercise therapy program based on balance and strength training. Wallsend Aged Care Facility (WACF) have introduced and expanded the exercise program over the past three years. By improving balance and strength this can have an impact on reducing resident falls thus ensuring safer resident care.

According to the Clinical Excellence Commission (CEC) (2014) approximately 75% of residents in Residential Aged Care (RAC) settings have a mobility disability, and 50-60% will fall at least once per year. The CEC reports poor standing balance as a risk factor for falls.

Wallsend Aged Care Facility (WACF) Allied Health Team has developed an exercise program that incorporates different physical therapies with a focus on falls reduction.

The focus of the project was to review falls incidence over three years from implementation of a planned exercise therapy program for balance and strength training.

The interventions put in place by the exercise program for falls reduction have resulted in a 35% reduction in falls over three years for residents of WACF.

Overall, the introduction of physical exercise program that focuses on balance and strength training can benefit residents in aged care and assist in reduction of falls.

To analyse the impact of a “non-alcoholic” drinks trolley on the oral fluid volume intake of older adult inpatients with dysphagia requiring texture modified fluids.

This study also investigated nursing staff and patient experience of the trolley.

Background: Dehydration in hospitalised older adults is common and associated with many adverse health outcomes. Internal data revealed older adult inpatients with dysphagia warranting texture modified fluids consumed an average fluid intake of 315ml per day, or merely 20% of their daily estimated fluid requirements.

Objective: To analyse the impact of a “Non-Alcoholic” drinks trolley on the oral fluid volume intake of older adult inpatients with dysphagia requiring texture modified fluids. This study also investigated nursing staff and patient experience of the trolley.

Methods: A sequential, observational study of oral fluid intake after implementation of a “Non-Alcoholic” drink...
trolley in 30 older adult inpatients with dysphagia requiring texture modified fluids. The main measures analysed were volume of fluids consumed, daily estimated fluid requirements and percent reached, and barriers to oral fluid intake. Patient and nursing staff surveys were completed concurrently to capture their experience and satisfaction of the trolley.

**Results:** After the intervention of a “Non-Alcoholic” drink trolley patients requiring texture modified fluids met approximately 55% of their daily fluid requirements. Patients on texture modified fluids who accepted a drink from the trolley reached approximately 70% of their daily fluid requirements, a significant increase in fluid intake compared to the pre-trolley group ($p < 0.001$, $r = 0.68$).

No negative effects were reported by nursing staff or patients, with the main themes including an overall positive experience, increased hydration promotion and social opportunities.

**Conclusion:** A non-alcoholic drink trolley is a simple, innovative and cost-effective method to increase oral fluid intake of older adult inpatients requiring texture modified fluids.

**Dubbo Health Service**
**Clinical Governance Unit**
**Medication Safety Improvement Project**
Men Topalistu

**AIM**
The Medication Safety Improvement Project was undertaken to decrease actual medication incidents to less than 3.2/1000 bed days (Western NSW Local Health District target) by 31st August 2017 at Dubbo Hospital, in order to reduce preventable harm to patients.

**SUMMARY ABSTRACT**
The project team used the Institute for Healthcare Improvement’s Model for Improvement methodology to achieve an improvement in medication safety. The Local Health District’s Strategic Plan lists medication safety as an area of risk and the target has been identified as no more than the Western NSW Local Health District target for medication incidents. Prior to the commencement of this Project, medication errors were identified as a significant patient safety risk at Dubbo Hospital, accounting for a significant number of incidents recorded. Two years prior Dubbo Health Service had approximately eight medication errors per thousand bed days and in September that year there were approximately six per thousand bed days. Medication errors can result in various forms of harm/adverse effects for patients - from little to no harm, to death. At the completion of the Project in August this year, the Medication Safety Improvement Project had achieved its aim with approximately two medication errors per thousand bed days. Actual medication errors at Dubbo Hospital have remained below the key performance target since the completion of the Project. (Appendix 1)

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**Clinical Governance Unit**
**Medication Safety Improvement Project**
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**Summary Abstract**
Macquarie Hospital Clinical Formulation tool uses the UK-FIM+FAM, to create a heat map of strengths and needs to inform rehabilitation and transition planning.

Macquarie Hospital is a large mental health care facility with 180 consumers. The hospital’s multidisciplinary team (MDT) conducts up to 21 assessments per consumer. With this amount of assessment data the hospital was seeking better methods to utilise the information to ensure that it guides the clinical formulation and decision making process.

Clinical Formulation Process is a process of integrating and analysing the assessment findings from all the health care disciplines which results in a clearer understanding of the person’s functional ability support needs and prognosis for functional gain.

Macquarie Hospital’s Clinical Formulation Tool is a smart electronic clinical reasoning tool, based on the decision trees of the UK Functional Independence Measure and Functional Assessment Measure (FIM+FAM) methodology and scale. The tool provides structure to facilitate the MDT’s clinical reasoning process and captures the team’s findings by producing a heat map of the consumer’s current functioning, then produces spider graphs to monitor progress.

The formulation process begins with gaining a clear understanding of the person’s wishes, needs and strengths, with regards to preferred accommodation, community activities they would like to participate in, and types of support they think they may need.

The MDT applies the UK FIM+FAM’s clinical decision trees and support scale to determine the consumer’s level of self-direction and independence in 4 domains:
1. Self-regulation
2. Ability to take care of oneself and one’s environment
3. Ability to handle situations and adversities
4. Ability to relate to others and form relationships

A heat map is automatically generated and is used to:
- inform intervention planning and the type of care, including the allocation of responsibilities amongst the MDT
- determine current and future supports needed to maintain the consumer’s quality of life with meaningful connections
- identify an optimum living environment that best meets the consumer’s wishes and needs.
Wollongong Hospital Whole of Health Program
Ben Wakeling

**Aim**
The Wollongong Hospital Whole of Health Program’s aim was to reduce our average length of stay (ALoS) by 0.3 days. This figure was based on reviewing our ALoS for acute and non-acute patients compared to our A1 peer hospitals Gosford & Nepean. Our measure was the 28 Day Unplanned Readmission rate to maintain quality and safe patient care.

**Summary Abstract**
Wollongong Hospital measures patient care performance through Emergency Treatment Performance (ETP) and length of stay (LoS). Results in 2017 were declining in performance from the previous year. Using a unique collaborative approach, strategies were implemented focusing on improving admission to discharge processes and increasing the use of data to drive decision making. Significant cultural changes were experienced as a result of the consultative and inclusive change management process.

By June 2018 the average LoS reduced by 0.6 days, the ETP improved by 5%, 12,363 bed days were saved equating to $12 million dollars productivity and readmission rates are 0.3% below the 2017 average.

The WoHP excelled in linking the use of specialty and individual level data to patient care and outcomes, building and strengthening medical engagement by focusing on influencing behaviours of positive feedback and healthy competition. The effective use of data has also provided productivity efficiencies and a safer, higher quality service.

St Vincent’s Hospital Sydney
Rehabilitation Consult Service, Department of Rehabilitation
Why walk? A Proactive Rehabilitation Screening Service (PReSS)
Jane Wu, Olivia Misa, Christine Shiner, Steven Faux

**Aim**
Patients admitted to hospital following illness or injury are at risk of becoming weak and frail. Early rehabilitation can help to improve patient’s health, and reduce the time they spend in hospital. We have developed a new way of identifying patients in hospital who need early rehabilitation, to make sure they can access it as soon as possible. This has now been implemented hospital-wide, with aims to improve patient recovery, reduce delays to treatment, and reduce hospital costs.

**Summary Abstract**
Patients admitted to hospital for an acute illness or injury experience impairment and are at risk of deconditioning. For some patients, the initiation of early rehabilitation can help to prevent decline during hospitalisation, and accelerate recovery [1-6]. However, there are currently no systematic screening processes available that can be used to identify these patients early during their admission, and proactively trigger rehabilitation interventions. Traditionally, rehabilitation physicians do not get involved in a patient’s care until after they receive a referral from acute medical or surgical teams. This may result in patients ‘waiting’ for rehabilitation, or some patients not being referred for rehabilitation at all. Such delays in accessing rehabilitation have been shown to negatively affect patient outcomes, to prolong the duration of overall hospital admission, and to impose significant costs on the health care system [6-9].

To capture all patients who would benefit from rehabilitation during a hospital admission, one approach may be to conduct formal rehabilitation assessments on all hospital admissions. However, such a process would be expensive, labour-intensive and impractical to implement widely as a screening process. A more streamlined and time efficient process is required, that would be practical to implement in busy clinical settings yet remain sensitive to proactively identify patients most likely to require rehabilitation input –thus directing rehabilitation services where they are needed.

In 2017, driven by a desire to improve the equity and efficiency of service delivery for their patients, the investigators developed and implemented a novel Proactive Rehabilitation Screening Service (PReSS). Based on a redesign of the Rehabilitation Consult Service at St Vincent’s Hospital Sydney, PReSS was established as a means of proactively screening hospital admissions to identify rehabilitation needs.

PReSS uses a simple 5-item questionnaire to perform rapid review of patient’s medical records in order to identify rehabilitation needs. This questionnaire was designed by the project team, and incorporates simplified elements of the Rehabilitation Complexity Scale, an established metric developed in the United Kingdom to measure care complexity in rehabilitation settings [10, 11]. The PReSS questionnaire rates 5-items on simple categorical scales, namely: patient care needs, therapy disciplines, therapy intensity, equipment needs, and pre-morbid disability. A sum total score is calculated out of 15 for each patient screened, with higher scores indicating greater rehabilitation needs (see Appendix 1).

Since May 2017, the PReSS tool has been used to proactively screen all acute hospital admissions to St Vincent’s Hospital Sydney, where the length-of-stay is 5 days or more. Screening is conducted daily by a rehabilitation-trained nurse, and screening scores are used to identify those patients with a high likelihood of requiring rehabilitation. Based on the PReSS score for each patient, the appropriate pathway of action is triggered:

i) For scores <7, no rehabilitation intervention is required

ii) For scores ≥7, a proactive rehabilitation consultation is triggered, and rehabilitation intervention/s are initiated as needed

All patients identified as having high rehabilitation needs (PReSS score ≥7) receive a specialist rehabilitation consult within 24 hours of screening, and as appropriate, rehabilitation interventions which may include in-reach rehabilitation from the Mobile Rehabilitation Team (MRT), inpatient rehabilitation, and/or outpatient rehabilitation.

The Rehabilitation Consult Service at St Vincent’s Hospital Sydney has been successfully redesigned to incorporate daily PReSS screening of hospital-wide admissions. This redesign has been successfully implemented since May 2017, with now >3000 patient admissions having been screened. Pilot analyses demonstrate that PReSS is feasible has high sensitivity and specificity for identifying patients with rehabilitation needs: correctly identifying patients in need of rehabilitation, improving patient access to early rehabilitation, reducing delays to treatment and resulting in benefits to the patient and health care system.