Quality Initiatives
Entries in the 18th Annual ACHS Quality Improvement Awards 2015.
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Introduction

The ACHS Quality Improvement Awards

The annual ACHS Quality Improvement (QI) Awards were introduced in 1998 to acknowledge and encourage outstanding quality improvement activities, programs or strategies that have been implemented in healthcare organisations.

In 2015, the 18th Annual ACHS QI Awards were open to submissions from all domestic ACHS and international ACHSI member organisations following the ACHS NSQHS (National Safety and Quality Health Service) Standards Program, EQuIP5 (Evaluation and Quality Improvement Program), EQuIPNational, EQuIPNational Corporate Health Services, EQuIPNational Day Procedure Centres, and the ACHS Clinical Indicator Program.

This year, 95 entries were submitted with 59% in the Clinical Excellence and Patient Safety category, 27% in the Non-Clinical Service Delivery category and 14% in the Healthcare Measurement category.

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.
The 18th Annual ACHS QI Awards 2015

Winner Submissions

Clinical Excellence and Patient Safety

Hunter New England Local Health District
John Hunter Hospital and Hunter New England Nursing and Midwifery Research Centre

Preventing Catheter Associated Urinary Tract Infection
Michelle Giles, Wendy Watts, Sandy Berenger, Michelle Paull, Anthony O’Brien, John Ferguson

Non-Clinical Service Delivery

Metro South Hospital and Health Service - Logan Hospital
Environmental Services and Infection Management Service

Preventing Infection through Cleaner Hospitals (PITCH): An Environmental Cleaning Bundle
Christine Welsh, Michelle Allen, Maggie Wilson, Rose McSorley, Wayne Hebblewhite, Marjoree Sehu

Healthcare Measurement

The Children’s Hospital at Westmead
Department of Nutrition and Dietetics and Department of Respiratory Medicine

Sustaining Improvements in Cystic Fibrosis (CF) Nutrition Outcomes
Christie Graham, Andrea Kench, Peter Cooper, Dominic Fitzgerald, Hiran Selvadurai, Sharon Hunt, Sharon Simonds, Shoma Dutt

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

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

The full version of this document will be published on the ACHS website (www.achs.org.au).
Highly Commended Submissions

Clinical Excellence and Patient Safety

St Vincent’s Hospital Sydney
St Vincent’s Hospital Pain in the elderly working party
Pain assessment and management in elderly patients – implementing evidence based practice in the acute care setting
Julie Gawthorne, Steven Faux, Jenny Stevens, Susie Welch, Jacqueline Jensen, Melissa O’Brien, Elizabeth Harper, Angelica Thompson Butel
Abstract page 13

Princess Margaret Hospital
Infection Control Team and Information Technology Department
The Use of Mobile Technology to Improve Efficiency and Surveillance of Hand Hygiene Audit
Charlene Kong, T K Ng, K M Tong, Bosco Lam, Queenie Lam, Mandy Ng, San Fung, Parklan Poon
Abstract page 13

South Western Sydney Local Health District
Camden Rehabilitation Unit / Camden Hospital
Implementation of a Safety Huddle for Falls and Near Miss Falls in a Rehabilitation Unit
Brian Lane, Bronwyn Everett
Abstract page 13

Non-Clinical Service Delivery

Gold Coast Hospital & Health Service
Nutrition & Food Services
Amalgamation of a clinical & non clinical service
Zane Hopper, Alan Spencer, Cameron Hill
Abstract page 63

Monash Health
Support Services
An innovative food service model @ Moorabbin Hospital
Sharon McNulty
Abstract page 63

Healthcare Measurement

Gold Coast Hospital and Health Service
Department of Medicine
The OnCallogist Mobile App in the afterhours ward-call setting.
Dr Justin Wong, Dr Siddharth Sharma
Abstract page 93
Aim: This pilot project aimed to develop, implement and evaluate an innovative, evidence-based, nurse-led model of care to guide the insertion and management practices of inpatients with indwelling urinary catheters (IUC) utilizing an evidence-based ‘bundle interventions’ to reduce the incidence of catheter-associated urinary tract infections (CAUTI).

B. SUMMARY ABSTRACT

Background: Catheter Associated Urinary Tract Infection (CAUTI) accounts for 40% of all Healthcare-Associated Infections (HAI) (APIC 2008) and between 15% and 25% of all inpatients have an Indwelling Urinary Catheter (IUC) inserted during their admission (Gould et al., 2010; Saint 2000). There are an estimated 100 million urinary catheters used annually around the world (Nasr 2010) and urinary tract infections (UTI) are estimated to cause one death per 1000 episodes of urinary catheterization (Gokula et al., 2004). It is argued that IUC insertion can be unjustified in up to 50% of cases and risk of CAUTI increases with the duration of catheterization (Oman et al., 2012; Saint, 2000). CAUTI can delay patient discharge by approximately 2 days. There were no standardized protocols available in our Local Health District for IUC insertion and management and IUC usage and CAUTI rates were unknown.

The “bundled intervention” framework used in this project is defined as a collection of a small number of evidence based practices or steps which are vital to achieving improvement in clinical outcomes (Institute for Healthcare Improvement 2011). Nursing staff have been identified as critical in bundle’ interventions with nurse-led protocols for catheter removal under established guidelines being identified as an effective means to reduce IUC duration (Newman, 2009; Parry et al., 2013). A nurse-led approach enables nurses to influence bedside decisions if provided with appropriate information and tools. However an extensive literature review indicated that a collaborative multipronged inter-professional approach would maximize the success and sustainability of our intervention.

Aim: This pilot project aimed to develop, implement and evaluate an innovative, evidence-based, nurse-led model of care to guide the insertion and management practices of inpatients with indwelling urinary catheters (IUC) utilizing an evidence-based ‘bundle interventions’ to reduce the incidence of catheter-associated urinary tract infections (CAUTI).

Phase one: Scoping the extent of the problem and development of resources and tools. This involved exploring the literature and extensive interprofessional collaboration with all stakeholders to develop evidence-based IUC insertion criteria, the care bundle, guidelines and educational resources and tools. Data collection pre implementation involved extensive chart audits over a 3-month period in 2013 to identify IUC usage rates and length of time in situ in two wards thought to have high IUC usage rates. Exploration of electronic microbiology results provided CAUTI rates in this cohort. Compliance audits were attended and a staff survey identified current staff skill and knowledge and informed development of educational resources.

Phase two: Implementation. This involved further consultation with ward staff related to implementation strategies, nomination of ward champions to engage ward staff and assist in implementation of the nurse-led protocol. Education sessions were held with nursing staff in wards and medical and education staff and educational material such as DVDs and targeted resource materials such as stickers, posters and badges were also introduced. This heightened awareness of the practice changes being
implemented. The bundle audit tool was trialed and optimized based on staff feedback and regular compliance audits were attended.

Phase three: Evaluation. The primary outcome targets assessed were IUC usage rates, days IUC in situ and incidence of CAUTI. Data collection included post implementation chart audits on all admission to the two wards over a 3-month period from February to April 2015. Frequent chart and bedside auditing assessed staff knowledge and awareness through compliance with bundle elements.

Setting: An adult orthopaedic ward and urology ward in a large tertiary referral hospital in Hunter New England Local Health District. These wards had been identified anecdotally by staff as having high IUC usage rates.

Results: The scoping exercise identified higher than expected IUC usage rates with between 25% and 31% of all inpatient admission in the two pilot wards having an IUC inserted during their admission. IUC’s were being left in situ for a mean of 5 days and 8.4% of all patients with an IUC inserted were being treated for CAUTI.

Post implementation data demonstrated a statistically significant reduction in IUC usage rates from 31% to 14.6% of all inpatient admissions (p<0.001). Findings identified the demographic for patients having IUC’s inserted and has enabled the project team to target insertion practices in individual specialty groups to reduce their routine use. The majority of IUC insertions either occurred in the Emergency Department (ED) or Operating Suite so the project team extended implementation to the ED.

Mean days IUC left in situ has been reduced from 5 days to 3 days (p=0.038) which indicates that IUC removal is faster, reducing the risk of developing CAUTI.

The number of patients being treated for CAUTI has reduced in number significantly from 8.4% of all patients who had an IUC inserted, to 0.7% (p<0.001).

Generation of innovative resources such as cost effective generic catheterisation packs, an alert on urine microbiology reports assist in identifying and treating CAUTI.

The tools developed increase clinician awareness and they are better equipped to make informed decisions related to IUC insertion and removal (Table 1, Figures 1&2). The team generated innovative resources such as a DVD, insertion criteria and removal decision charts, colour coded badges, posters and stickers to alert clinicians to the risk of CAUTI. The addition of an alert on urine microbiology reports assist in identifying and treating CAUTI.

Continued auditing for compliance with guidelines will ensure that guidelines and protocols are becoming embedded in practice and will be sustainable.

Conclusion: The development of a systematic and standardised approach to IUC management using bundled care interventions and collaborative and multipronged change management strategies has ensured that implementation has successfully reduced IUC use and CAUTI significantly. There is now a clear pathway for nurse initiated removal and clarity around insertion criteria and ongoing management. This model is evidence based and transferable across all contexts within the LHD. This will facilitate the spread and sustainability of the nurse led model and will ensure long term cost savings to the health service and better outcomes for patients.

C. APPLICATION OF ACHS PRINCIPLES

1. Consumer Focus

Patients who have an indwelling urinary catheter inserted are at risk of Catheter Associated Urinary Tract Infection (CAUTI). Internationally the literature reports that a quarter of all inpatient have an indwelling urinary catheter (IUC) inserted during their hospital stay (Saint, 2000; Gould et al., 2010) and on many occasions the insertion is based on ritualistic practices, with no clinical indication for insertion (Murphy et al., 2014).

Overuse of indwelling urinary catheters has seen CAUTI become one of the most frequently occurring nosocomial healthcare infections (Crouzet et al., 2007; Klevens et al., 2007) accounting for 40% of all Healthcare Acquired Infections (APIC 2008). CAUTI was historically viewed as a normal consequence of hospitalization in catheterized patients but is now considered to be ‘an unacceptable harm resulting from medical care’ (Wald, 2007, pp 2783). This change has been realized as health care delivery models become more focused on patient centeredness, quality outcomes, and efficiency and cost effectiveness.
There is considerable risk if patients develop a CAUTI during their hospital stay. There are an estimated 100 million urinary catheters used annually around the world (Nasr, 2010) and CAUTIs are estimated to cause one death per 1000 episodes of urinary catheterization (Gokula et al., 2004). It is purported that IUC insertion can be unjustified in up to 50% of cases and the key factors is the duration of catheterization (Oman et al., 2012; Saint, 2000). For patients who have an IUC in place for between 2 and 10 days, one in four will develop bacteriuria. Symptomatic infection develops in 20% of patients with catheter-associated bacteriuria adding 1 to 2 hospital days to the length of stay (Saint et al., 2009).

CAUTI results in substantial burden of care, and significant hospitalisation costs related to length of stay and infection treatment (Gould et al., 2009). Urinary catheterisation is also associated with patient discomfort and pain, restriction of activity and there is additional concern that CAUTIs “comprise one of the largest reservoirs of multidrug-resistant bacteria in healthcare settings” (APIC, 2008, pp 41).

In our Health District no standardized protocols existed for IUC management and CAUTI rates were unknown. A nurse-led approach to IUC management was an obvious path as nurses influence bedside decisions if provided with appropriate information and tools. Our project team developed an innovative evidenced-based care bundle that used the acronym “NO CAUTI” with emphasis on involving the patients’ perspective in the model (Figure 1). This bundle is evidence based and reinforces the message that IUCs are associated with CAUTI risk and that prevention is paramount. The “bundle” includes assessment of IUC insertion indication, timely removal, documentation, patient education, clinical competency, and asepsis and preventative catheter system maintenance. One of the most important and unique elements of the care bundle that differentiates it from other work done in this area is the consideration of the consumer education and consent related to the procedure of urinary catheter insertion. Consumer involvement is also enhanced in the compliance auditing tools where consumers are asked if they were aware why they had received the IUC, whether consent was sort and if education was provided about the procedure. Continuous monitoring compliance auditing tools were developed to ensure the model becomes embedded into practice and is sustainable and that inpatients continue to get the highest quality care outcomes.

The positive results from the implementation of the nurse led model are evidence that the project has achieved its’ aim of reducing IUC catheter usage and the incidence of CAUTI and thus improved patient outcomes. The project team are keen to share this model to maximize its’ impact in inpatient settings so the results have been published in an international peer reviewed journal (Giles et al. 2015).

Figure 1: CAUTI Prevention Care Bundle. From Giles et al., 2015, originally published by Healthcare Infection.

2. Effective Leadership
The project team utilised a highly collaborative approach forming partnerships across all levels from clinicians and NUM in wards, senior clinicians across specialties such as ED, urology, orthopaedics, OT, obstetrics and community. The partnership includes educators who will now be ready to assist with implementation across other facilities. These partnerships have provided a platform of leadership and commitment to share information and knowledge, achieve our goals in reducing CAUTI and have added value to organisational outcomes in the form of patient and resource efficiency outcomes and improved staff knowledge.

The collaborative approach across professional and divisional boundaries in developing the nurse
led model, supporting resources and decision tools is a testament to the strong clinical leadership demonstrated by the project team. This project empowered others; clinicians and patients, with the knowledge they need to make informed decisions and improve their awareness of the risks associated with IUC’s. Nurses at all levels are equipped to provide leadership related to decision making related to IUC practices and are well supported to guide the practice of others.

The application of evidenced based practice using innovative ways of applying and sharing this knowledge has demanded strong commitment, collaboration across many units, specialties and professions and the harnessing of executive sponsorship was critical to the uptake and success of this project. This was demonstrated through the commitment of funding through the Innovation Support Unit as well as supportive communication at an executive and service manager level for the project and the team.

Leadership was evident in the teams’ systematic and phased approach to the collaboration with stakeholder, planning, development, implementation and evaluation components of the project. This leadership continues, as the team will now focus on gaining funding to implementation this model across all the LHD. Members of the team represent the HNELHD on the State committee aimed at reducing CAUTI.

3. Continuous Improvement

The development of a systematic and standardised approach to IUC management using bundled care interventions and collaborative and multipronged change management strategies has ensured that implementation has successfully reduced IUC use and CAUTI significantly. There is now a clear pathway for nurse initiated removal and clarity around insertion criteria and ongoing management. This model is evidence based and transferable across all contexts within the Local Health District and beyond. This will facilitate the spread and sustainability of the nurse led model and will ensure long term cost savings to the health service and better outcomes for patients across a much broader scale.

Our project team developed an innovative evidenced-based care bundle that used the acronym “No CAUTI”. This reinforces the message that IUCs are associated with CAUTI risk and that prevention is paramount. The “bundle” includes assessment of IUC insertion indication, timely removal, documentation, patient education, clinical competency, and asepsis and preventative catheter system maintenance.

The tools developed better equip clinicians to make better decisions related to IUC insertion and removal (Table 1, Figures 1&2). The team generated innovative resources such as badges, an educational DVD, posters, flowcharts and audit tools to increase awareness of the risk of CAUTI and provide the information required to make informed decisions. Cost effective generic catheterisation packs have also been negotiated across Obstetrics, OT, ED and wards with all equipment needed included in the pack, including documentation stickers and securing devices. The addition of an alert on urine microbiology reports assist in identifying and treating CAUTI.

A wide collaborative and integrated interprofessional approach assisted in the uptake of the initiatives developed across disciplines and this along with continuous bundle compliance monitoring will ensure that they will become embedded in practice and be sustainable.

Table 1: Indications of indwelling urinary insertion. From Giles et al., 2015, published by Healthcare Infection.

4. Evidence of Outcomes

Findings from this pilot project have been very positive. Overall the primary goals have been achieved as evidenced by the following;

- Reduced IUC usage rates in ward A from 30 % (N=121) of admissions to 14.6% (N=42) (P<0.001). No reduction in ward B – urology.
- Reduced length of time IUC left in situ, down from a mean of 4.6 to 3.9 days in ward A (not significant) and down from 4.9 days to 2.9 days in ward B (p<0.038). Days in situ are influenced by OT delays in ward A, however most IUCs are being removed within 24 to 48 hours post operatively. (Duration of catheterisation is a key risk factor for CAUTI (Saint et al., 2009)).
Figure 2: Nurse initiated IDC removal decision flowchart. From Giles et al., 2015, originally published by *Healthcare Infection*.
• Significant reduction in number of patients being treated for CAUTI in both wards
  
• \((P<0.001)\) down from 2.7 \% (N= 15) to 0.4 \% (N=1). Reduced antibiotic use (not measured) that flows on from this change may reduce potential side effects to patients (e.g. Allergy, \textit{Clostridium difficile} infection and multi-resistant organism acquisition).

• Improved patient educational resources facilitate informed patient consent and empowerment.

• Increased clinicians knowledge and risk awareness along with standardised practices, guidelines and resources assists clinicians in decision making related to IUC insertion and removal  (Table 1, Figures 1&2). This facilitates the organisational “Excellence” goal to deliver quality evidence-based care to every patient every time.

• Data collection methods now capture CAUTI rates and alert systems assist in diagnosing and treating CAUTI. Clinicians are not treating asymptomatic bacteriuria unnecessarily.

• From April 2014 to March 2015 there were 217,228 admissions across the LHD, potentially 53,057 patients (25 \%) may have received an IUC. Reducing by 50\%, in line with our results, could prevent up to 26,000 patients from having an IUC inserted, resulting in:
  
  o Saving $442,000 in equipment (Table 2).
  o Preventing 4085 (7.7 \%) cases of CAUTI.
  o Saving 8170 bed days - 2 days per CAUTI (Saint et al., 2009) and cost of antibiotic therapy.

5. \textbf{Striving for Best Practice}

This project uses best practice evidence and a person centred approach to embrace opportunities for more effective collaboration and use of resources to improve quality of care for this group of patients within their inpatient settings.

Prevention is a key initiative to keep people healthy. The predominant aim of this project is prevention of CAUTI by limiting the use of IUC, an invasive device. The project team has been successful in reducing the use of IUCs and preventing CAUTI based on development of innovative evidence based practice initiatives.

This project’s outcomes reinforce the importance of integrated and collaborative approaches in developing and implementing high quality evidence based strategies. A wide collaborative and integrated inter-professional approach assisted in the uptake of the evidenced based initiatives developed across disciplines and will ensure that they will become embedded in practice and be sustainable.

Our project team developed an innovative evidenced-based care bundle that used the acronym “No CAUTI”. This reinforces the message that IUCs are associated with CAUTI risk and that prevention is paramount. The “bundle” includes assessment of IUC insertion indication, timely removal, documentation, patient education, clinical competency, and asepsis and preventative catheter system maintenance.

D. \textbf{INNOVATION IN PRACTICE AND PROCESS}

The findings of this project were published internationally (Giles et al., 2015).

The concept of “bundled interventions” in healthcare infection prevention is not new. However, studies aimed at reducing CAUTI have only limited success (APIC, 2008). A literature review indicated that a collaborative multipronged inter-professional approach would maximise the success and sustainability of our intervention.

No standardized protocols existed for IUC management and CAUTI rates were unknown. Up to 50 \% of IUC insertions are unnecessary (Gould et al., 2009; Oman et al., 2012). A nurse-led approach to IUC management was an obvious path as nurses influence bedside decisions if provided with appropriate information and tools.

Our project team developed an innovative evidenced-based care bundle that used the

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Cost</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foley urinary catheter</td>
<td>$3</td>
<td>Previously ranged from $ 3.50 to $10 without securing device ($5).</td>
</tr>
<tr>
<td>Generic catheterisation pack</td>
<td>$7</td>
<td>in urology ward over 83% of catheterisations are male</td>
</tr>
<tr>
<td>Urine bag</td>
<td>$2</td>
<td>Majorly previously had this device included</td>
</tr>
<tr>
<td>Hourly measuring chamber</td>
<td>$8</td>
<td></td>
</tr>
<tr>
<td>Valve</td>
<td>$5</td>
<td></td>
</tr>
<tr>
<td>Xylocaine (male catheterisations)</td>
<td>$4</td>
<td></td>
</tr>
<tr>
<td>Securing device - $5</td>
<td></td>
<td>(cost eliminated with generic catheterisation pack which includes this)</td>
</tr>
</tbody>
</table>
acronym “No CAUTI”. This reinforces the message that IUCs are associated with CAUTI risk and that prevention is paramount. The “bundle” includes assessment of IUC insertion indication, timely removal, documentation, patient education, clinical competency, and asepsis and preventative catheter system maintenance.

The tools developed better equip clinicians to make better decisions related to IUC insertion and removal (Table 1, Figures 1&2). The team generated innovative resources such as badges, an educational DVD, posters, flowcharts and audit tools to increase awareness of the risk of CAUTI and provide the information required to make informed decisions. Cost effective generic catheterisation packs have also been negotiated across Obstetrics, OT, ED and wards with all equipment needed included in the pack, including documentation stickers and securing devices. The addition of an alert on urine microbiology reports assist in identifying and treating CAUTI.

One of the most important and unique elements of the care bundle that differentiates it from other work done in this area is the consideration of the consumer education and consent related to the procedure of urinary catheter insertion. Consumer involvement is also enhanced in the compliance auditing tools where consumers are asked if they were aware why they had received the IUC, whether consent was sort and if education was provided about the procedure.

E. APPLICABILITY TO OTHER SETTINGS
This nurse-led model is extremely transferable across all inpatients settings within the district. Intra-organisational knowledge sharing is optimised and provides for an environment that enhances all clinicians’ knowledge and decision-making ability related to standardised IUC insertion and management practices. Nurses throughout the local health district will now have access to a variety of innovative resources and decision support tools to guide and standardise practices, providing quality care for every patient every time.

This model can be applied across any setting and context within and outside our own Local Health District. Regular compliance audits are undertaken with continued surveillance a key component of this model. Monitoring of trends and feedback of CAUTI rates and bundle compliance is necessary to sustain project gains. The pilot has created interest amongst clinicians in other sites, units and wards. This model is currently being rolled out at Maitland and Belmont Hospital and in all the surgical units at John Hunter Hospital. Nurse Educators at these locations are providing education about the bundle as well as completing catheterisation competency assessments. Project guidelines and resources have been made available across the district and at State level (CEC &HETI) by members of the team representing HNELHD on the State committee aimed at reducing CAUTI.

Formal district wide-implementation of the project is under strong consideration. This would mainstream the practice changes across all settings, supported by nurse consultants and nurse educators. Identification of CAUTI champions at each site is envisaged. The ability to objectively measure IUC management compliance and impact of the bundle will enhance its rapid adoption and sustainability across all locations.

Study findings are published in an international peer reviewed journal (Giles et al., 2015) and this serves to promote adoption of the bundle and other system changes across Hunter New England LHD and elsewhere.

F. REFERENCES

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St Vincent’s Hospital Sydney  
St Vincent’s Hospital Pain in the elderly working party

**Pain assessment and management in elderly patients - implementing evidence based practice in the acute care setting**

*Julie Gawthorne, Steven Faux, Jenny Stevens, Susie Welch, Jacqueline Jensen, Melissa O’Brien, Elizabeth Harper, Angelica Thompson Butel*

### AIM

The aim of the project was to improve the pain assessment and management in patients greater than 75 years of age presenting with traumatic injuries.

### SUMMARY ABSTRACT

**Background and Aim:** Severe pain is reported in 50-75% of elderly patients suffering from fractured neck of femur (NOF) and has been linked to comorbid complications (e.g. myocardial infarction). Pain and some oral pain medications have also been linked to an increased incidence of delirium and/or cognitive decline that can limit the recovery process. Early effective pain management can reduce complications, augment recovery, promote early mobilization and decrease healthcare costs. Fascia Iliaca Block (FIB) is an alternative pain management method of injecting locally acting anaesthetic. The aim of the project was to improve pain assessment and management in patients over 75 years presenting to St Vincent’s Public Hospital, Sydney with fractured NOF and other traumatic injuries. Here we discuss the results from three audits that together examine the effects of these new pain assessment and management techniques.

**Method:** A multi-disciplinary working party was established in 2012 to standardise pain assessment tools and develop analgesia guidelines for elderly patients based on clinical best practice. Specific to the guideline was the introduction of FIB for patients with a fractured neck of femur (NOF). A formal FIB credentialing program was introduced for senior nursing and medical staff. The most recent audit examines 3 months of admissions at 3 time points; 2011 prior to FIB introduction (n=38) and 2013 (n=37) and 2014 (n=30) after FIB introduction. All patients were >75 years of age and presented to the Emergency Department with a fractured NOF. Outcome measures included patient demographics, analgesia prior to admission, analgesia prescribing in the Emergency Department and ward, FIB insertion rates, Hospital and Emergency Department length of stay, & episodes of delirium.

**Results:** The average age of patients increased across time points from 72 years in 2011, to 82 years in 2013 and 87 years in 2014 while the proportion of females remained higher at all 3 time points (79%, 59% and 70%, respectively). The percentage of elderly patients receiving a FIB to manage pain after fractured NOF increased from 3% in 2011 to 73% in 2013 and 60% in 2014. 33% of all FIB’s were inserted by credentialed nursing staff with no adverse events recorded. Regular paracetamol prescription increased from 34% in 2011 to 73% in 2013 and 2014 and regular opioid prescription increased from 26% in 2011 to 70% in 2013 and 97% in 2014. The FIB managed pain and was associated with a decrease in delirium from 45% in 2011 to 33% in 2014. However the prevalence of dementia increased from 13% in 2011 to 40% in 2014. In addition the average length of stay (LOS) in the Emergency Department decreased from 20 hours in 2011 to 9 hours in 2013 which was maintained in 2014.

**Discussion:** The FIB minimised complications of delirium in the acute period despite the increase in patient age and prevalence of dementia. This higher prevalence may be explained by the older age of patients in 2014. The project highlighted that appropriately trained senior Emergency Department nurses can safely and effectively insert FIB’s with no adverse effects for patients. By improving pain management techniques in the elderly we decrease the delay in commencing rehabilitation and returning home.

**Conclusion:** This multidisciplinary approach provides a successful and safer alternative to managing pain in the acute period in elderly patients with fractured NOF with lower rates of delirium and length of stay in the Emergency Department.
The Use of Mobile Technology to Improve Efficiency and Surveillance of Hand Hygiene Audit

Charlene Kong, T K Ng, K M Tong, Bosco Lam, Queenie Lam, Mandy Ng, San Fung, Parklan Poon

AIM
The aim of this project is to improve the efficiency and surveillance of hand hygiene audits by streamlining the audit process to eliminate manual data manipulation and analysis, and standardizing the hand hygiene audit tool to produce consistent and accurate measurements.

SUMMARY ABSTRACT
Background:
Mobile technology provides an opportunity to innovate healthcare delivery. It offers tools that are interactive, real-time and ubiquitous, making them the ideal solutions for improving the quality and efficiency of healthcare services. In our study, we have developed a Mobile App based on the World Health Organization’s (WHO) 5 Moments of Hand Hygiene Audit Tool. The app facilitates the Infection Control Team to conduct hand hygiene audits to assess the compliance rate with infection control practices and identify areas for improvement.

Objectives:
The objectives of the study are to (1) explore how mobile technology could provide an effective method to improve the efficiency and quality of hand hygiene results, (2) standardize the WHO hand hygiene audit tool to produce consistent and accurate measurements, and (3) streamline the audit process through elimination of manual data manipulation and analysis.

Methodology:
The Information Technology Department worked closely with the Infection Control Team to develop a standardized approach to conduct hand hygiene audit using iPads. The project initially involved the analysis of the paper-based audit workflow, followed by a prototype design of Mobile App and Web Portal to tackle the inefficient processes identified. Benchmarking, user experience study and LEAN process analysis were conducted to develop the system that best fits the needs of infection control surveillance and maximizing operational efficiency.

Outcomes:
Major project outcomes include:
1. 57 % reduction in manual works, with significant decreases in data transcription and report preparation works;
2. 89 % reduction in paper printings;
3. 10 % increase in overall hand hygiene compliance and various improvements in infection rates;
4. The optimal frequency of hand hygiene audit could be achieved to cover 100 % clinical departments in every audit;
5. Real-time reports to facilitate prompt review and remedial actions.

Conclusion:
The success of transforming a paper-based audit process a mobile one is proven to benefit the overall hand hygiene surveillance through improvements in efficiency, accuracy and communication. The project is extended to other aspects of infection control surveillance and adopted by 7 other hospitals in Hong Kong.
South Western Sydney Local Health District
Camden Rehabilitation Unit / Camden Hospital

Implementation of a Safety Huddle for Falls and Near Miss Falls in a Rehabilitation Unit
Brian Lane, Bronwyn Everett

AIM
The Safety Huddle was implemented with the aim of reducing repeat inpatient falls and near miss falls, most importantly focusing on and involving the patient.

SUMMARY ABSTRACT
Inpatient falls are one of the most common patient safety incidents reported in rehabilitation wards, and can result in serious adverse patient outcomes, including permanent physical disability and occasionally, death. However, limited research has focused on including patients within a multidisciplinary approach to falls prevention, following a fall, or near fall event in rehabilitation settings.

A Safety Huddle was a suggested strategy from South Western Sydney Local Health District Falls Working Party that had the potential to reduce repeat falls. The Safety Huddle consists of a NUM led multidisciplinary review of a fall or near miss fall in consultation with the patient.

After determining the need for emergency care and acting accordingly, whenever possible the post-fall safety huddle meeting was convened as soon as practically possible. The following process was implemented:
1. The NUM prepares the patient by explaining the purpose of the safety huddle and that the team will be coming to see the patient.
2. The Nurse Unit Manager (NUM) assumed the role of the Safety Huddle Team Leader.
3. Nursing and allied health staff, medical officer, patient and (carer if present) participated in the safety huddle.
4. Staff apologised for the fall or near fall, and explain that we want to work with the patient and to prevent a reoccurrence, using strategies that we develop in consultation.
5. The team completed an analysis of the fall event, and intervention(s) for preventing a repeat fall were decided by the safety huddle team and patient. This process was documented in the clinical record and on the electronic nursing hand over.
6. After the post fall huddle, the NUM followed-up with staff and patient to ensure interventions were implemented to prevent a repeat fall occurring. The NUM also answered any questions or concerns voiced by the patient or carer.
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The Australian Council on Healthcare Standards

18th Annual ACHS Quality Improvement Awards 2015
The Australian Council on Healthcare Standards

18th Annual ACHS Quality Improvement Awards 2015

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South Western Sydney Local Health District
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#### Abstracts

**All hands on deck: Allied health led pre-radiation therapy education in the head and neck cancer population**
Gold Coast University Hospital Cancer and Blood Disorders  
Jessica Abbott, Sallyanne Scudamore, Tara Redemski, Nicole Rampton, Kate Hudson, Dean Vukanovic

**AIM:** To develop an efficient and effective service delivery model for providing education to head and neck cancer patients prior to commencing radiation therapy.

In 2014, a new public radiation oncology service was established at the Gold Coast University Hospital (GCUH). To support the service, a multidisciplinary allied health team was recruited consisting of a Speech Pathologist, Dietitian, Social Worker, Physiotherapist, Occupational Therapist and Clinical Psychologist.

**SUMMARY ABSTRACT:** Head and neck cancer (HNC) patients have well documented high rates of malnutrition, psychosocial morbidity and interrelated physical problems, including speech and swallowing difficulties, lymphoedema, musculoskeletal dysfunction and fatigue. Multidisciplinary management is essential in the provision of best practice care.

Information needs in this population are high, which poses challenges for practitioners aiming to provide an efficient and effective service that targets patient needs. The literature supports patient education prior to radiotherapy, demonstrating benefits including improved decision making, compliance, self-efficacy and reduced anxiety. Literature also indicates that patients report a deficit in pre-treatment information regarding side-effects of treatment, how to access financial support and how treatment may impact quality of life.

State-wide benchmarking revealed the majority of pre-treatment education focussed on treatment side-effects pertaining to oral intake and swallowing. Our allied health team identified an opportunity to expand on existing education models to address information deficits reported in the literature. The multidisciplinary team collaboratively developed an outpatient based, 90 minute presentation which introduces the role of each team member, addresses strategies for the prevention and management of treatment side-effects, fatigue, practical social and psychological needs, and musculoskeletal dysfunction. Patients also receive a supplementary written information package, which includes information on how to access individual services. All HNC patients and carers are invited to attend prior to commencing treatment.

Consumer and staff feedback and attendance records were collected. Between June 2014 and June 2015, 91 patients attended the education sessions. Six months of consumer feedback (N=42) was collected and analysed which demonstrated high levels of satisfaction. The pre-radiation treatment education session is acceptable to patients and has improved efficiency within the service by reducing the demand for individualised treatment sessions.

**Breast Q: measuring patient outcomes post breast surgery**
Healthcare  
Breast Clinic - The Valley Private Hospital  
Lee Alexander, Jodie Bennett, Chilton Chong

**AIM:** The BREAST-Q is designed to gain information from patients undergoing breast surgery regarding their satisfaction with several aspects of physical, psychosocial and sexual wellbeing both prior to and post surgery for breast cancer. It is separated into 5 separate modules for augmentation, reduction, breast-conserving surgery, mastectomy and post-mastectomy reconstruction. Each module is then divided into multiple scales that can be used independently. The data obtained is used by surgeon and care team to review practice and is used to direct conversation and ongoing management in areas as identified by the patient. It is a patient reported outcome tool for patients with breast cancer.

**SUMMARY ABSTRACT:** Breast Q is a scientifically validated Patient-Reported Outcome tool already in use in several major breast cancer centres around the world, it is used in one other major hospital in Australia. It is unique to women undergoing breast cancer surgery and comprises a standardized questionnaire distributed to patients before and after their operation with results being converted to a score out of 100 to objectively and accurately measure the patient’s satisfaction with their breast, care and overall outcome as well as their sense of physical, sexual and psychosocial well-being. The Breast Q tool was originally developed by the Memorial Sloan Kettering Cancer Centre New York and The University of British Columbia 2006.

We adapted the tool for local use in 2014. The Breast Q was commenced in late 2014. We have currently 25 patients involved in the program, with four completing the pre-operative phase, post operative 3 month review and 6 month review. 75% of patients who have completed the three cycles have demonstrated an improvement from baseline (pre-op satisfaction) on overall satisfaction with breast, psychosocial wellbeing, physical wellbeing of chest and overall outcome of surgery. 50% of patients who have completed the three cycles have demonstrated an improvement from baseline (pre-op satisfaction) with their sexual health. Patients have self reported improvements across areas measured of up to 15% on pre-operative satisfaction.

Although this project is in early stages due to its longitudinal nature (measurements over 12 months) and during a very traumatic period in a patients life the results are very positive.

**Specialist Palliative Care Service – Outpatient Clinic**
Tasmanian Health Organisation - South  
Angela Bresnehan, Sandra Brown

**AIM:** The aim of the Specialist Palliative Care Service – Outpatient Clinic Project is to plan, implement and evaluate the trial of an outpatient Clinic for referred clients of the Specialist Palliative Care Service within the Tasmanian Health Organisation – South (THO South). The THO South, Community Palliative Care Service (CPCS) is a specialist service covering the ‘62’ telephone area of Southern Tasmania. This is a geographically large area with a population base of approximately 255,000 people.

**SUMMARY ABSTRACT:** The community palliative care team has advanced knowledge, expertise and experience in providing palliative care services that focus on enhancing the quality of life of people with life limiting conditions and their carer’s and families. The CPCS has traditionally visited clients in their own homes. When the service first started, referrals to the service were generally made later in the client’s disease trajectory which meant it could have been a burden for a client to come to the service, especially when they travelled a considerable distance.
distance. It was also generally accepted in the team that an assessment of palliative care need was best made in the client’s own environment.

There is now increasing evidence that early referrals to specialist palliative care lead to longer survival with improved quality of life for people with Lung Cancer. There is now an increase in numbers of earlier referrals to the service.

The National Standards for providing Quality Palliative Care (2005) and Standard 2 of the National Safety and Quality Health Service (NSQHS) Standards state that the client (consumer) is central to care and that assessment and care planning is carried out in conjunction with consultation and negotiation with the client and their carer / family. The service is aware that assessment at home, for some clients, is not suited to their needs and that they do not have a choice in their place of assessment. This has resulted in the need to review our model of service delivery and also to offer our clients more options for places of assessment and care planning with our team. We explored the possibility of offering our clients the opportunity of assessment at the Specialist Palliative Care Multidisciplinary Clinic. This submission will provide an overview of the considerations and the processes involved in the implementation of our trial multidisciplinary clinic.

Chemotherapy By Design
Austin Health
Chemotherapy Day Unit, Ambulatory Cancer Service, Olivia Newton John Cancer Wellness Centre
Julie Cairns, Jason Plant, Rochelle Condon, Michelle Williams, Angela Mellerick

AIM: (1) To reduce patient waiting times for chemotherapy treatment to ensure that 85% of patients receive their treatment within 15 minutes of their scheduled treatment time in the Chemotherapy Day Unit (CDU). (2) To develop clear accountabilities (key performance measures) to support leaders, managers, and clinical staff to effectively monitor and manage the performance of the unit to demonstrate sustained improvement. (3) To increase the throughput and utilisation of the CDU to ensure patients receive timely access to commencement of their chemotherapy treatment.

SUMMARY ABSTRACT: In November 2013 Austin Health undertook a redesign project in the Chemotherapy Day Unit (CDU). The CDU had been experiencing a significant increase in the total number of treatments, and in the treatment complexities. Between 2012 and 2014 there had been a 20% growth in total numbers and there is a further 14% growth projected for 2014/15 (Figure 9). By comparison in 2008 the National Predictions by the Australian Institute of Health and Welfare predicted a growth of 5%.1

One of the other main drivers for the increase in demand was the Cancer Clinical Trials Centre which was also experiencing an increase in both the number, and complexity of new and novel cancer agents that are administered in the CDU. There was potential to increase the CDU treatment capacity to meet this growing demand (subject to approval and availability of additional revenue and funding) however, it was also recognised that the utilisation of existing resources needed to be fully maximised prior to any request for expansion to funding and resources. The CDU has 18 treatment chairs that are clustered in groups of 3, and the nursing staff ratio for the chairs is 1 RN: 3 Chairs.

The scheduling of patients in the Olivia Newton John Cancer Wellness Centre (ONJCWC) for chemotherapy is a complex process as treatment regimens are variable in length, frequency, and dosing, and the entire regimen can be subject to change depending on the clinical response of the patient to the treatment. These changes can then impact on all the other future appointments in the schedule. The CDU uses a web based scheduler that tracks patients’ bookings and treatment plans, but this system does not interface with the patient management system (TrakCare), patient pathology ordering system (Cerner), or the patient queuing system (Queue Manager) at Austin Health.

At the time this project commenced there wasn’t any real time data available for the management and clinical staff that reflected the patient experience in relation to waiting times. The CDU also did not have a formal Quality forum in place to provide oversight, transparency, and responsibility for driving best service delivery for the CDU.

Chemotherapy prescribing is currently completed manually on paper based drug charts in the ONJCWC. This can result in variations to treatment times and nursing administration practice depending on individual interpretation. This variation can also impact on the accountabilities of the scheduling process. Clinical notes are handwritten and scanned into the Scanned Medical Record (SMR) after each day’s treatment.

There had not been any monitoring, or review, of the times that it actually took to administer the regimens that were prescribed for some time. The standardisation of regimen times and orders has now become an important part of the configuration requirement for the new electronic Cerner Oncology Information System and Chemotherapy Module planned for implementation 2016.

Referrals for treatment are documented by clinicians in the outpatient clinics on a Oncology/ Haematology Treatment Flow Chart. This document requires the clinician to print and fax, or hand deliver, the document to the Chemotherapy Co-ordinator in the CDU. The form is then scanned into the medical record. Systems for prescribing and scheduling are person dependent and present a significant opportunity for error.

Patient education prior to the commencement of the patients first chemotherapy treatment had been provided on a 1:1 basis, in a separate room, prior to the patient’s first treatment appointment. To provide this service one of the CDU nurses was required to be taken out of the treatment schedule availability, and the 3 chairs that they were allocated too were closed for 1 hour (a total of 3 hours treatment time).

The current patient education model had not been reviewed or assessed for its effectiveness and usefulness to patients for some time, did not fully reflect contemporary health education principles, and may not have always meet the needs of the individual patients. Staff also reported a level of dissatisfaction with the model that was being used. They felt that they were trying to provide too much information in the one session, and were concerned about the ability of the patients and carers to retain the necessary information. Their concerns were echoed by the patients and carers themselves in separate interviews conducted by the General Manager and a member of the Austin by Design team.

The project was supported by the Austin by Design team who mentored the clinical leaders and assisted with the development of a framework for improvement. The project used Lean methodology and tools to identify and implement improvement opportunities. Key stakeholders agreed on the issues, and the proposed solutions, that were then tested. Outcomes and key performance indicators were refined and used to manage the operational imperatives on an ongoing basis.
Establishment of a palliative care afterhours access service
St Andrews Hospital Toowoomba
North Ward Palliative outreach
Olivia Carey

AIM: The Palliative Care Outreach Program was developed to provide an after hour’s support service for private palliative care patients and their families at St Andrews Toowoomba Hospital. The Program is designed to enable private palliative care patients to manage their end of life care at home as long as possible, should that be their wish. It offers both clinical and technical advice to patients, families and carer’s, in order to facilitate end of life care within the home setting.

SUMMARY ABSTRACT: With a population of 4.5 million people, Queensland has the second highest rate of population growth in Australia. 55% of Queenslanders reside in the South East Queensland region, and a growing number of these people are reaching or have reached retiring age. In 2008, 25,558 Queenslanders died of expected or anticipated deaths from a variety of chronic illnesses, including cancer, heart disease, dementia and respiratory disease. All of these people required end of life care to some degree. It is estimated that 10,234 terminally ill Queenslanders receive specialist palliative care per year, however this figure only includes patients and does not include family members, many of whom will need to receive counseling or bereavement support.

St Andrew Toowoomba Hospital has not been immune to the effects of this growth on its catchment population with resultant growth and expansion of many of the hospital’s services including, but not limited to, the St Andrews Cancer Care Centre. The exponential growth in demand for this latter service has lead to a direct increase in inpatient numbers to the St Andrew’s Toowoomba Hospital acute medical/palliative care ward. The increase in demand on the medical unit has often exceeded capacity with an average of 90.84% occupancy. A large portion of these patients are palliative and are in various stages of the end of life process. High demand for medical/ palliative care beds on some days has resulted in the overflow of suitable medical patients to the surgical wards.

Palliative Care Australia recognized in their June 2012 submission to the senate community affairs committee inquiry into: Palliative care services provision in Australia, ‘that 50%-60% of Queenslanders will die in hospital, usually whilst being cared for in an acute medical unit’, and that ‘There is no overarching state-wide palliative care service delivery plan or strategy’. They stated that ‘Palliative care services delivery in Queensland is inequitable and very fragmented as a result’. They recognized that ‘Queensland health specialist palliative care services are often very poorly funded, and many are unable to meet the demand for specialist palliative care in Queensland’ (Palliative Care Queensland 2012).

Due to these government cutbacks to the palliative care outreach program provided by Queensland health and local domiciliary services providers, this placed more pressure on St Andrew’s private palliative care patients and a need to access an after hour’s support service was identified. The Clinical Nurse Manager of the medical/palliative care ward completed an investigation of St Andrew’s private palliative patients and their discharge care and identified that private patients were experiencing a shortfall in terms of access to quality palliative care support in the home.

The investigation included utilisation of feedback received by the Hospital Chaplain, who works as a part of the palliative care team. The Chaplain provides emotional and spiritual support to the patient and family post discharge and after death. Feedback is sought by the Chaplain from the family regarding their and the patient’s end of life care which include some key questions regarding ‘after discharge care’ and ‘end of life care’. This information was gathered and collated and key issues were identified. The investigation identified:

- While most patients were happy with the care provided as an inpatient at St Andrew’s Toowoomba Hospital, a trend appeared that noted a lack of support after discharge, particularly outside of normal business hours.
- This lack of afterhours support impacted negatively on private palliative care patients leading to unnecessary readmissions to an Emergency department either at Toowoomba Base Hospital or the only private Emergency Department in Toowoomba, St Vincent’s Private Hospital Toowoomba, with the latter incurring a substantial cost to the patient placing a further financial and physical/emotional burden on the patient and their carer’s.
- St Andrews Toowoomba Hospital’s excellent reputation for the delivery of palliative care and being the patient’s hospital of choice in Toowoomba would often see these vulnerable patients being transferred to St Andrew’s very late in the evening.
- It was identified that in some of these cases a telephone consultation with a qualified RN who knew the patient’s history, the equipment being used and the VMO’s ordered PRN medications could assist the family or patient to talk through a problem and remain in the home.
- It was also identified that local community domiciliary funding had declined as well as the Queensland health service being reduced in spite of an increase in the need for such services.
- It was identified that ‘In the Toowoomba Southern downs Region, only one palliative care medical specialist working part-time (0.5 FTE) is employed to cover an area with a population of 300,000.
- St Andrews has one private palliative care physician working full-time to support the large volume of patients in need of this service. The pressure of continuous on-call for this physician is unrealistic.
- The medical/palliative care ward consists of 38 beds. On a year to date basis, the ward has a percentage occupancy rate of 90.84%.

The Palliative Outreach Program was developed to address the shortfall in private palliative care services in Toowoomba and Darling Downs area. St Andrew’s Toowoomba Hospital acknowledged the Queensland Clinical Senate’s recommendations for caring for people at end of life, and agreed with their ethos of “providing quality of care that respects the wishes and beliefs of people at the end of their lives is an essential component of the health care system. It requires clinicians to work together with consumers to ensure a patient’s choices are respected” (Queensland Clinical Senate and Health Consumers Queensland, 2015).

The initial program was developed on a trial basis offering after hour’s phone call service to discharged palliative care patients. The Clinical Nurse Manager and a number of the ward Clinical Nurse Specialists provided an informal, adhoc after hours access point to palliative care patients who wished to be supported at home. This program identified that demand for the service far exceeded what could be delivered on an adhoc/informal basis and a formal process for the delivery of the service was developed. The formal Palliative Care Outreach Program includes:
- An IPAD to assist with skype and a mobile phone. The Registered Nurse on call carries both to facilitate patient contact.
- A file is kept on each patient detailing drugs they were discharged on, VMO details and other relevant information.
This file is kept in the Clinical Nurse Manager’s office and does not get incorporated into the inpatient medical record. The on call RN takes the file for each patient currently on the program home with them for easy reference should any calls be made for support.

- Patients are formally accepted to the program with the number at any time not to exceed 6.
- Nursing staff claim an ‘on call’ rate when they are providing the outreach service. They do not receive a ‘call-out fee’ for each phone/skype call they receive. This was identified by the nursing staff themselves as sufficient to remunerate them while reducing the cost to the hospital, thus ensuring the program was viable in the private hospital setting.
- A Physician provides cover for the program to ensure nursing staff have a Medical Officer to contact if required.
- A need for readmission can be identified early and facilitated via the Outreach Nurse on call liaising with the Hospital After Hours Nurse Manager.

### Scaling out innovation: The Agile Psychological Medicine Clinics

**Monash Health**

**Mental Health Program**

**Melissa Casey, David Clarke, Christine Miller, George Habib,**

**Kirsten Yates, Stana Cubra, Dinali Perera**

**AIM:** Existing mental health programs were seen to be disjointed; resulting in a lack of transition for the patient and a high level of re-presentation at an emergency level. A rapid service prototype, the Agile Psychological Medicine Clinic was developed with the key purpose to:

- Deliver excellence in care by engaging patients and staff in the process of design, delivery and a true therapeutic partnership;
- Bring specialist treatment to the front end of the client pathway;
- Keep our clients safe in the short term through our crisis services, and at the same time provide clients with timely specialist treatment; and,
- Reduce feelings of being out of control and demoralised, so that clients can learn skills, gain confidence and remain safe in the long term.

**SUMMARY ABSTRACT:** Our emergency department presentations were increasing, particularly with adults in crisis. We had pressure on our inpatient beds and our community teams were carrying long wait lists. Our demands for services were increasing. We wondered if we could improve this system of care for adult mental health services.

A new framework for fostering transformational change was required whilst maintaining the rigour of scientific hypothesis testing and delivering evidenced based clinical care. Understanding our demand for adult Mental Health (MH) services was the first step; both quantitatively and qualitatively; measuring the patients’ experience in our system of care was critical as traditional KPI’s relate to service delivery, not patient experience (see Appendix 1 for the dedicated data analysis process). Data analyses revealed a significant increase in adults presenting in crisis to the ED; of these, 50 per cent were discharged home after receiving some crisis intervention in the ED and the remaining consumers were admitted (Casey, 2015). We also found there to be an increasing repeat presentation rate, some of who were having multiple re-presentations over a 12 month period (Casey, 2015).

It was through this data analysis process that a hypothesis was born. We hypothesised that the high re-presentation rate might reflect failure to adequately address underlying conditions in the people who were discharged directly from crisis intervention delivered in the ED or by the Crisis Assessment and Treatment Team (CATT). There was an obvious service gap for people who needed prompt access to mental health services, but required more than the crisis intervention offered through the ED or the CATT. We wanted to design a new model of care which brought specialist treatment to the front end of the MH program, where clients presenting in situational crisis receive their crisis intervention but also commence short term focussed specialist treatment to develop skills that enable them to remain safe and well in the longer term.

The purpose of the design framework for the implementation of the Clinic was to deliver excellence in consumer care by engaging consumers and staff in the process of design, delivery and recovery through a true therapeutic partnership. Underpinning the approach was the recognition that change in complex health settings needs to consider people, processes and systems. We worked collaboratively to develop a key stakeholder communication and engagement strategy to be implemented from the beginning of this change process, which included: Consumer advocates (in the form of an Expert Advisory Group), patients, carers and their families, the Mental Health Executive team, Adult Mental Health Program (AMHP) multidisciplinary clinicians, AMHP administrative team and the Monash Health Executive Management Team. A rapid service prototype, the Agile Psychological Medicine Clinic was developed to test whether this new model of care was better for consumers.

The Clinic was designed to keep consumers safe in the short term through crisis services, but at the same time provide consumers with timely psychological treatment to assist them to reduce feelings of being out of control and to learn skills, gain confidence and remain safe in the longer term. Consumers are offered an appointment in the Clinic within 72 hours of their presentation to the ED or the telephone psychiatric triage service. Consumers can access four sessions in the Clinic or more if clinically indicated. Use of the service is closely monitored to ensure there are sessions available each week and there is no waiting list. There has not been a waitlist after nearly 12 months of operation.

Clinical and system outcome measures all showed significant improvement for consumers. Consumer satisfaction was also measured for every session, and showed an average 97% satisfaction score for all sessions. The results of these clinics support the hypothesis and proof of concept that bringing treatment to the front-end of the AMHP is efficacious to our patients. Subsequently, two new clinics opened in March 2015. Monash Health now has an Agile Psychological Medicine Clinic close to each of its three emergency departments and they are located within community clinics.

The Agile Psychological Medicine Clinic has proven to be truly innovative both in practice and process. The design framework used can be applied to any complex system in need of change and quality improvement.

**To improve the safety of doctor’s prescribing through pharmacy intervention documentation and feedback mechanism**

**Matilda International Hospital**

**Pharmacy Department**

**Koeyin Chan**

**AIM:** To analyse the trends in medication prescribing errors captured through the pharmacy intervention documentation system, the collaboration between prescribers and pharmacists, and proposed remedial action to deter uptake in prescribing incident rates.
SUMMARY ABSTRACT: Inappropriate doctor prescribing has become the single most important observed cause for near miss events at Matilda International Hospital (MIH) since the diminution of transcribing and administration of medication incidences. MIH is one of the very few Hong Kong hospitals initiating in depth focus and analysis in prescribing associated medication errors and comprise an online reporting system and feedback loop. Given that the prescription of a drug represents the most common health care intervention, where prescribing errors are probably the most important source of medication errors and a major cause of adverse drug events, and where the positive impact of pharmacist interventions on prescribing quality and safety is well established; it was worthwhile to re-examine the influence of the Pharmacy Intervention Documentation and feedback system had on prescribing habits.

Doctor medication prescribing related incidences, near misses and concerns captured by the pharmacy intervention documentation system, occurring in 2014 and the first 5 months of 2015 were analysed and trended. These interventions were all entered into a real-time systematic database. The system is subsequently linked to the Clinical Risk Management system, where each individual case is studied by the Clinical Risk Management Committee. Ultimately the Executive Medical Director would approach and discuss high risk cases with the concerning prescriber, closing the feedback loop.

Outcome
- Prescribing errors were found to be common. Pharmacists intervened in 147 prescription errors (1:89 prescriptions) by 49 different doctors. It appears to be inherent to prescribing in private practice with great reliance on the clinical pharmacists assuring correct prescribing.
- There was a decreasing trend of prescribing errors for the first 5 months of 2015 compared to the 3rd and 4th quarter of 2014. A total of 62 near misses were recognised in the second half of 2014. This number declined to 41 captured near misses – a 34% decline in the first 5 months of 2015. This decline could be contributed by the various measures implemented at MIH to reduce Prescribing medication errors, which include:
  - Development of Pharmacy Intervention Documentation System
  - Introduction of Clinical Pharmacy Service
  - Continual feedback by Pharmacy to doctors on all identified interventions and the Medical Executive Director approaching concerning doctors on high risk cases
  - Commencement of Electronic Prescribing
  - Individual patient daily dispensing
  - The dissemination of results of previous audit ‘A study of clinical interventions made by pharmacists at MIH’ to prescribers in the form of newsletter
  - The publishing of monthly newsletters on medication safety and common medication errors for distribution to doctors eg. Drug Safety updates, Cardiovascular safety with diclofenac, Clopidogrel and proton pump inhibitors, Prescribing of ertapenem
- Pharmacists have interpreted the majority of prescribing errors to be primarily caused by ‘inadequate knowledge of the medication’ by the doctor (Appendix 1), most often related to ‘inappropriate dosing’ (Appendix 2), where it may be the ‘wrong strength or dosage’ prescribed (Appendix 3). The most common dosage related problem was overdosing, where some were related to paediatric doses.
- With the positive alliance between doctors and pharmacists at MIH, and doctors confident in pharmacist professional drug knowledge and advice, 83% of the time, doctors accepted or modified then accepted the recommendation of the pharmacist. Only in 12% of cases did doctors not follow advice of the pharmacist due to overriding clinical choices (Appendix 4).
- When the pharmacist advice was accepted by the clinician, the outcome had the drug discontinued or dosage reduced (Appendix 5). Where the drug was discontinued, interventions were mainly related to allergy, where most were due to doctors being unaware of the risk of cross-reactivity between classes of drugs such as sulphonamides and, penicillins and cephalosporins.
- Recommendations to opt for a more appropriate frequency such as ‘tds’ instead of ‘qid’ or inappropriate choice of drug or unsuitable drug dose were the most commonly rejected recommendations.
- All interventions made were reviewed to determine whether the doctor could/should/must have known about the drug related problem during prescribing. In the vast majority (66%) of cases, the doctor ‘Should’ have known the information needed for the error free prescribing and in 14% ‘Must’ have had the knowledge (Appendix 6).

The use of the pharmacy intervention documentation database allowed gaining a better understanding of common prescribing errors. Doctors have demonstrated willingness in accepting recommendations from pharmacists at MIH, signifying a positive collaboration between doctors and pharmacists. However, this partnership, where pharmacist acts as an additional layer of safety net in the prescribing process to advise doctors may bring inherent risks – Interventions on prescribing errors highly depends on the quality of interpretations of the clinical pharmacist.

Novel corrective measures need to be introduced to continue deterring undue prescribing habits. It is proposed that a direct automated email feedback be sent to prescribers on all high risk potential cases, in real time, following pharmacist risk rating of the intervention in the clinical risk management system – a project supported by the Medical Advisory Committee of the hospital. The system generated email would state brief details of the intervention and the risk ranking. Responses from specialists as a result of the messages will be logged and reevaluated, trend review of prescribing errors of individual doctors will also be carried out periodically to ensure continuous improvement in the service provided to patients as well as enhancement in patient safety.

It is hopeful the new measure elicits healthy constructive discussion between the hospital, prescriber and pharmacist on best practices.

**Electroconvulsive therapy process review**

Heathcote Care Marian Centre
Clinical Unit
Martin Chapman, Jarolsaw Hryniewicki, Ross Cowin, Eric Allmark, DaleNeilligan, Sandra Mazarakis, Carrie Allmark

**AIM:** The goal of the electroconvulsive therapy (ECT) review project was to rationalize the ECT processes, avoid repetition and improve consumer experience. To achieve this Marian Centre aimed to:
- Work within an experienced multidisciplinary group to identify and facilitate changes and evaluate in line with outcome measures
- Clarify the ECT referral process
- Update patient education regarding the ECT process and improve documentation of completion
- Improve consent and treatment documentation and reduce any identified areas of risk
- Ensure policies reflect updated processes.

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**The Australian Council on Healthcare Standards**

*18th Annual ACHS Quality Improvement Awards 2015*
SUMMARY ABSTRACT: ECT is a form of psychiatric treatment for severe depression, mood disorders and psychotic illnesses. During treatment, electrodes are placed onto the scalp and an electric current is passed through the electrodes to the brain, which induces a brief seizure (“a fit”). The treatment is given under a general anaesthetic, so that the patient will not feel or remember anything. A muscle-relaxing drug is given once the patient is sedated to limit body spasms and reflexes. ECT involves a course of treatments planned over a number of weeks. To achieve a good clinical effect, adjustments in the location and stimulus may occur during the course of this treatment. A team of Psychiatrists will be responsible for delivering the treatment. ECT aims to correct the chemical processes to allow recovery from a severe illness, return to normal functioning and to stimulate neuroplasticity of the central nervous system (positive reorganization/rewiring of the brain connectivity facilitating recovery and prevention of future relapses). ECT is carried out according to strict guidelines that come from clinical standards and Legislation (State and Commonwealth). Marian Centre is specifically accredited for ECT and its premises licensed by the Health Department of Western Australia and the treatment is provided by a dedicated medical and nursing team with specialized training. This project describes the redesign of the ECT treatment process towards a streamlined, informative, patient centered treatment.

The methodology of process review included:
- Working party review of current processes
- Literature review, consultation with organisations and benchmarking with other hospitals
- Identification of areas of change
- Consumer consultation
- Provision of education prior to changes taking effect
- Implementation of changes
- Monitoring of outcomes

Monitoring of changes ensures ongoing effectiveness of the review. Key outcomes of the changes implemented are:
- Absence of incidents relating to implementation of ECT
- Absence of complaints relating to ECT
- Documentation of patient consent for each ECT treatment session as well as initial agreement.

The project is now strongly supported by all stakeholders, including treating psychiatrists and ECT treatment team throughout Marian Centre.

Designing and Implementing a Structured Consumer Consultant Program
John Fawkner Private Hospital
Quality Unit
Melissa Clune, Deb Dwyer

AIM: To implement a structured volunteer Consumer Consultant program so to engage hospital staff and volunteer Consumer Consultants to work cohesively together and improve patient safety and quality of services.

SUMMARY ABSTRACT: During 2012-2014 John Fawkner Private Hospital appointed three volunteer Consumer Consultants to assist with meeting the ACHS National Standard 2 Consumer Participation criteria. There was not a current ‘structured program’ in place to assist the consumer consultants fulfilling their position description and contributing to improving patient safety and quality of service. To assist with the development of a hospital based structured program a planning day was held with the three volunteer Consumer Consultants. The planning day gave the Consumer Consultants an opportunity to provide their feedback on the current program at John Fawkner Private Hospital and also provide feedback on which topics and/or meetings that may interest them to participate in.

The planner also included the dates when each consumer consultant would be on leave as a way to communicate with staff and committee chairs and provide the other Consumer Consultants the opportunity to attend their working parties/committee meetings if interested. The Consumer Consultant also agreed to be part of the hospitals committee text messaging reminder service and meeting email groups so to ensure they were receiving recent and relevant communication and meeting materials prior to each meeting day and time. Providing each Consumer Consultant with a list of medical acronyms as requested, a Consumer generic script on ‘talking to our patients’ and a list of Head of Department (HOD) contacts would ensure they had the ‘tools’ they would require to assist them to fulfill their roles and make for a positive experience.

The feedback provided from the planning day allocated each consumer consultant a portfolio with their planned participation outlined in an annual planner. (Refer to appendix 1). Each consumer consultant’s portfolio ensured representation at relevant committee and/or working party meetings developing a planning model of ‘educating our consumers to educate our staff’. Each portfolio was developed to assist the Consumer Consultants to gain an understanding of particular quality initiatives so to be able to understand their roles and why they were asking patients particular questions during surveys. Consumer Consultants would then be able to confidently feedback the results and their recommendations to staff. Each portfolio would also ensure consistent consumer representation on each committee which would form part of the committee Terms of Reference. The Planner would aim to develop and integrate a friendly and productive working relationship with committee chairpersons/national standard champions and delegated department representatives.

Consumer representation on committees
Consumer Consultant A
- Falls Prevention Working Party
- Healthscope Deteriorating Patient Cluster Group
- Quality/Consumer Forum
Consumer Consultant B
- Pressure Injury Prevention Working Party
- Blood Safe Working Party
- Quality Consumer Forum
Consumer Consultant C
- Clinical Handover/Patient Identification Working Party
- Medication Safety Committee
- Quality/Consumer Forum

By invitation
- Infection Control Committee
- Heads of Department Meeting
- To present at staff orientation
- Patient Forums morning teas
- Allocation of time to assist with patient audits and be accessible to staff to assist with providing feedback on publications/quality projects/consumer feedback.

To keep effective communications amongst the Consumer Consultant group and to be able to share their feedback with each other and hospital staff, a consumer consultant report template was developed. (Refer to appendix 2) The report template enables each Consumer Consultant to document their feedback on committees and patient audits and forward it to members within the organization such as Quality/Consumer Forum, the Executive Team, Clinical Governance Committee and the Medical Advisory Committee members.
Musculoskeletal Pathway of Care (MPC)
Sunshine Coast Hospital and Health Service (SCHHS)
Allied Health / Surgical Stream / Clinical Support Services Group (CSSG)
Gemma Craig, Glenn Tolano, Hamish Beal, Andrew Connell

**AIM:** The MPC is an innovative and cost-effective case management model aimed at reducing the SCHHS orthopaedic wait list, by triaging patients into non-operative and operative pathways of care. The MPC model assesses non-operative pathway patients through attendance at a physiotherapy outpatient appointment, where clinical decision making tools are reviewed in conjunction with a physical patient assessment; after which patients are referred for treatment services to a variety of primary and secondary care options.

**SUMMARY ABSTRACT:** While long waiting times for surgery are associated with adverse impacts on health outcomes, there is benefit in patients accessing non-operative treatment options (Orthopaedic Wait List Report, 2006). Inaccurate wait list prioritisation process underpinned by rational and efficient clinical decision making is likely to result in better outcomes for the patient and improved service delivery planning. This supports an opportunity to create efficiencies in the management of resources and advance scope of practice, through innovation in health workforce. 

Lengthy waitlists in orthopaedic services, coupled with low conversion to surgery outcomes is out of balance with the growing burden of musculoskeletal conditions; the latest group of diseases and conditions to be chosen as a National Health Priority Area (NHPA) (Australian Institute of Health and Welfare, 2005). Musculoskeletal conditions are significant contributors to illness and disability, not only to cancer as the leading cause of disease burden in Australia. Musculoskeletal pain has been identified as one of the National Health Priority areas, and is considered the 3rd leading cause of health expenditure in Australia. Musculoskeletal pain is the second highest cause of disability in the South East Asia/Pacific region and musculoskeletal conditions have a substantial influence on health and quality of life (Australian Institute of Health and Welfare, 2005). The prevalence of musculoskeletal conditions generally rises with age (Victorian Government Department of Health, 2007), so the link between age and musculoskeletal disease coupled with the ageing population of the Sunshine Coast will result in an ongoing increase in future demand for musculoskeletal services. 

There is increasing evidence in the success of utilising advanced practice roles in physiotherapy (Hattan, 2004), in terms of diagnostics, management and consultation (Stanhope et al., 2012), and evidence of which already exists within Queensland Health in the SCHHS Orthopaedic Physiotherapy Screening Clinic and Multidisciplinary Service (OPSC & MDS). The development of the MPC project seeks to capitalise on this evidence to enable a wider implementation of a physiotherapist led triage, assessment and treatment service delivery model that aims to work closely with primary care services to assist patients to self-manage their condition where feasible. 

At January 2014 there were 3,878 outstanding referrals to orthopaedic consultants on the SCHHS orthopaedic wait lists. This wait list has been growing steadily since November 2011 at an average of 6% compounding monthly. The overall increase since July 2010 to January 2014 has been 999%.

Over half of the patients that were booked into new appointment types in November 2013 were outside the recommended time frame for their category. At January 2014, of the 2,150 Category 2 orthopaedic patients on the waiting list, approximately 1,400 (65%) patients have been waiting longer than one year for an appointment. The recommended time frame for a Category 2 patient to be reviewed is 90 days.

In August 2013, of the 292 new orthopaedic referrals, 22% (66) of these patients were placed on Operating Theatre (OT) waiting lists. A further 14% (42) of new orthopaedic appointments in August 2013 were discharged from the clinic after their first appointment. This aligns with earlier analysis of new orthopaedic referrals in FY 2011/12. Applying these figures to the current waiting list will mean that of the 3,878 patients waiting for appointments, approximately 3,000 will not require surgical intervention.

The low conversion to theatre rates and wait list prioritisation affect the access to care for both patients requiring operative and non-operative care. Research indicates that waiting for surgery may lead to deterioration of the patient; both physical and psychologically, which will in turn impact on surgical outcomes. There is evidence that this can be, in part, due to inadequate non-operative management (Rechel et al., 2010). Both direct and indirect medical costs to the health care sector and the community are evident.

The MPC is a case management model that seeks to provide an early assessment and referral for treatment service to a variety of primary and secondary care options. The pathway is directed by streamlining non-operative and operative patients into separate pathways, each with a defined pathway of care. The MPC model assesses non-operative pathway patients through attendance at an outpatient appointment, where clinical decision making tools are reviewed in conjunction with a physical patient assessment. The pathway meets several of the SCHHS Strategic Plan objectives in relation to being client centred, innovative and utilising resources in an efficient and cost effective way. The MPC model has made a positive impact on several hospital KPI’s after only 12 months of operation. The MPC model is an excellent example of treating the patient at the right time, the right place and with the right person.

The MPC is a great opportunity to improve the ability of SCHHS to deliver better health outcomes for patients with musculoskeletal concerns. The MPC improves access of patients into the health service by accurately streamlining patients into operative and non-operative pathways, ensuring patients are seen in a timelier manner.

Intravenous Cannulation Training
St Vincent’s Private Hospital Melbourne Neurosciences Ward and Nursing Education Department
Ruby Crane, Dave Hustler, Sarada Gurung, Ferdinand Bretana

**AIM:** The aim of the Intravenous Cannulation Training project was to increase the number of competent and registered Division 1 nurses in Intravenous Cannulation on the 5th floor of St. Vincent’s Private Hospital by 50% from June 2014 to October 2014. A further intention was to increase the general knowledge and awareness of best practice Intravenous Cannulation management.

**SUMMARY ABSTRACT:** Background: Intravenous Cannulation has been historically considered a medical professionals role but is now considered a crucial component of the portfolio of a Registered Nurse. However the lack of Intravenous Cannulation trained staff at St. Vincent’s Private Hospital had caused delays in crucial medications being delivered to patients. A further concern was a lack of knowledge regarding infection risks around Intravenous Cannulation. An absence of best practice
Intravenous Cannulation training was also considered to be a contributing factor in delayed discharges for patients.

Aim: The objectives of the project were to increase the number of Intravenous Cannulation trained staff by fifty percent within a six month time frame, to improve Intravenous Cannulation nurse education and infection prevention methods, and to improve patient centred care.

Method: Through a rostering system and using the nursing education training package, staff were trained by the education department to complete their first initial Intravenous Cannulation. Nursing staff on the floor were allocated as champions and senior Intravenous Cannulation competent staff. Part of their role was to follow up with staff the remainder of their witnessed Intravenous Cannulations so as to make them competent.

Results: The project exceeded its target goal of having more the 50 percent of staff Intravenous Cannulation competent. It also increased the interest and involvement of other staff and decreased the rate of untrained staff by more than half. A crucial outcome is the reduction in the number of delays of important patient medications. Education surrounding best practice management of an Intravenous Cannulation has increased and staff feel more confident when looking after a patient with an Intravenous Cannulation regarding infection prevention management.

Conclusion: Overall the project has been a huge success, encouraging and inspiring the St. Vincent’s Education Department to use aspects of the project for further training. Recommendations have been put forward by hospital management to make use of the Intravenous Cannulation training on other floors due to the project’s overall success and the enthusiasm demonstrated for learning by those who were involved with the project.

SUMMARY ABSTRACT:

The Patient Safety Executive Rounding Project, known as Patient and Carer Executive Rounding (PACER), involves members of the Executive staff participating in a formal visit to clinical care areas within the Division of Specialty and Procedural Services (SaPS) to discuss with patients and staff a defined series of safety and quality based questions.

The Executive rounding team undertake a booked one hour session in which they visit a Clinical Unit or Department within the Division to speak with staff, patients and carers. The team utilised a series of 5 Safety and Quality based questions to illicit staff and patient perceptions of safety and quality in the care they gave and the care received during their hospitalisation. The 5 safety based questions also included a focus on identifying areas of excellence within the clinical area which afforded an opportunity for recognition and reward for an individual or quality improvement initiative in that clinical unit. Areas of excellence within the Division were placed on a Quality Improvement Register and shared across the Division.

The program is designed to encourage staff, patients and their families/carers to identify any safety and quality concerns they may have, and allows for frontline staff and management to talk openly and work together towards solutions. The Executive Rounding program establishes the Divisional approach to escalation of risks and the management of adverse clinical incidents, placing patient safety as a priority. The Executive Rounding team consists of a Divisional Executive Committee member, one Nurse Unit Manager/Nurse Manager/Allied Health Manager (not from the unit being surveyed), and the CNC Safety and Quality. The interviewing team develops and expands on the 5 standard safety questions to stimulate feedback and to unpa ck issues raised.
Information sessions are held with the managers involved in the program on how the program is conducted, how to prepare their staff for the visit and what would be the expectation from them as interviewers for corresponding clinical areas. Representatives from the professional streams of Medical, Allied health and Nursing; along with 3 patients minimum, are randomly chosen and interviewed. The answers given to the questions indicate the staff and patients perception of care given and received; and assists in providing information and analysis of the perception of safety within the clinical area.

The sessions begin with the executive team meeting and assigning interviewing roles. The Manager and Medical representatives of the clinical unit are invited to be present on the clinical unit at the commencement of the visit. A tour of the clinical unit is undertaken with the Managers followed by the PACER team breaking off to interview staff and patients. At the end of the session the executive team meet and identify any areas of concern and areas of excellence. The issues raised are placed on a database to track progress to completion. The Executive representative nominated for the session is responsible for the completion of the actions on the data base, and feeding back to the clinical teams and up to the Divisional Safety and Quality Meeting any identified risks which may also be added to the Risk Register where applicable. Any major concerns specific to the department wherein the issue was raised is notified to the manager of that ward/department by the senior manager in the team. Any major concerns specific to the Clinical Group in which the concern was raised must be notified to the Service Director, or Nursing Director as appropriate.

Reward and recognition certificates are awarded to the nominated staff and or quality improvement initiative following the visit. The Executive team continue to work at completion of issues raised, with feedback and acknowledge of progress to the clinical area. The Patient and Carer Executive Roundup program (PACER) was first introduced as a Pilot program involving 5 clinical units over the month of December 2014. The program was evaluated at the end of the trial, with implementation across the Division for 2015.

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Implementing and Evaluating Improvements in Blood Safety
John Fawkner Private Hospital
Quality and Nursing Department
Deb Dwyer, Anne Graham, Melissa Clune

AIM: To introduce a dedicated Transfusion Clinical Nurse Consultant role at John Fawkner Private Hospital. The introduction of this role will provide safety and quality resources in the delivery of blood and blood products. This role will assist with a notable impact on quality of services in a private hospital facility and ensure that all patients receive high quality of care whilst having a blood or blood product transfusion, and clinical staff achieve and maintain competency by receiving ongoing education and training on best practice guidelines.

SUMMARY ABSTRACT: Prior to the introduction of the Blood and Blood Product Standard, hospital transfusion practices had never been significantly controlled or monitored however now the standard, together with the development of the Patient Blood Management guidelines from the National Blood Authority (NBA), requires hospital transfusion practices to adhere to and provide evidence of practicing within this set scope. With the introduction of National Standards John Fawkner Private Hospital appointed Champions for each standard. The Nurse Unit Manager of our Day Chemo Unit volunteered to Champion National Standard 7 and was granted the DHS blood matters scholarship to complete the Graduate Certificate in Transfusion Practice at the University of Melbourne. The course was completed in 2013.

A gap analysis was undertaken which produced an insight into the impact a Transfusion Clinical Nurse Consultant could bring to the organisation, ensuring that all patients receive a high quality of care whilst having a blood or blood product transfusion. A business proposal for the appointment of a Transfusion Clinical Nurse Consultant, 0.4 Full Time Equivalent (FTE) to the Hospital Executive. The appointment of the position was confirmed in December 2013, providing the hospital with a dedicated transfusion resource. John Fawkner Private Hospital was the first Healthscope Hospital to appoint a dedicated Transfusion Clinical Nurse Consultant.

1123 units of packed red cells have been transfused in John Fawkner Private Hospital between 01/01/2013-30/06/2013. These transfusions were administered mainly in the surgical ward, day procedure, oncology ward and day chemotherapy unit; however transfusion can be administered hospital wide and therefore all staff are required to have the knowledge of the most current evidence base in transfusion practice in order to ensure that patients are receiving the most current, appropriate and safest practice. In addition to packed red cells, other blood components and fractionated products such as platelets, fresh frozen plasma, intragam and albumin are also transfused.

Completion of a gap analysis for Standard 7 in September 2012 highlighted the need for further work in this area in order to meet the requirement to achieve accreditation and to ensure patient safety. This gap analysis also revealed that to continue to attain accreditation and improve standards in forthcoming years, a continuous cycle of reviewing the hospital’s current practice against evidence based guidelines as set by transfusion bodies such as the National Blood Authority (NBA), auditing practice, reviewing results, implementing quality improvement strategies and re-evaluation are essential. Further to this, the gap analysis indicated the volume of ongoing work required to address all areas of the standard, that the appointment of a Transfusion Clinical Nurse Consultant would be essential to effectively coordinate all of the required elements.

Initially, completion of several audits to provide a baseline of the hospital’s transfusion practice was undertaken. These audits included:
• Policy v Practice
• Consent
• Transfusion Documentation
• Blood Fridge Register
• Blood Fridge

The findings of these audits were as follows:
• Policy v Practice – Policy v Practice is a Department of Human Services (DHS) Blood Matters audit completed in 2011 which was then repeated in September 2012. The repeat of this observational audit revealed areas of improvement; however, some critical areas had shown a decline. Results indicated an improvement in following an informed process and documenting the indication for the transfusion. However, areas of decline included not asking the patient to state name and date of birth and on two occasions the blood was not checked at the patient’s bedside.
• Consent – DHS Blood Matters 2012 audit was based around consent and was completed in September 2012. Results showed 72.4% compliance with documentation of consent which was lower than the 75.3% average of responses from all participating hospitals. 90% of patients stated that they were not offered any alternative to a transfusion. None of the patients interviewed could remember receiving any...
written transfusion information and there was no documentation in the patient’s history to state that a patient information brochure had been given to the patient or their carer.

- Transfusion Documentation – Ten medical histories per month were audited and initial results revealed that the date and time of commencement was documented in 66.6% of cases while completion time was only 25% compliant. Without a commencement and completion time there is no evidence to show that the transfusion had been commenced within 30 minutes and completed within a 4 hour timeframe of leaving the blood fridge.

- Blood Fridge Register – The audit of the blood fridge register reviewed documentation compliance when removing blood from the blood fridge. Results from this audit included some issues such as not signing the unit out from the fridge prior to transfusing and not documenting the time of removal from the fridge. These issues impact on traceability of the unit and evidence of adherence to the cold chain.

- Blood Fridge – The 2013 annual audit of the blood fridge showed non-compliance with the daily and weekly checks carried out by Healthscope Pathology, however part of this audit was to question relevant members of the workforce about the process of accessing the emergency O negative blood if required to do so. From the nursing staff surveyed, nobody knew the correct procedure to access the blood in an emergency situation or the exact location of the blood inside the fridge.

Results from the above audits confirmed a knowledge and practice deficit between John Fawkner Private Hospital current practice and the Australian and New Zealand Society of Blood Transfusion / Royal College of Nursing Australia Guidelines For The Administration Of Blood Products 2011.

Since the appointment of the Transfusion Clinical Nurse Consultant position implementation of actions to address these deficits have seen positive outcomes at many levels of the organisation

Ngarrama Royal Midwifery Group Practice
Royal Brisbane and Women’s Hospital
Birth Centre, Women’s and Newborn Services
Janine Farquharson, Patricia Smith

AIM: The aim of the innovation that was introduced was to improve the health outcomes of Aboriginal and / or Torres Strait Islander Women and their babies through the introduction of Midwifery Group Practice Caseload Continuity of Midwifery Care models (MGP). This model of care was introduced on the 5th of January 2015 and is known as the Ngarrama Royal Midwifery Group Practice (NRMGp). MGP Caseload Continuity of Midwifery Care is recognised as the ‘gold standard’ in midwifery care, it is woman centred, flexible in relation to the place of care and encourages communication between the woman and the midwife, it is also stated that ‘Women with any level of complexity of care benefit from continuity of midwifery care, and midwives consult and refer to doctors and other caregivers according to guidelines and clinical need’, (Queensland Government 2012, Delivering continuity of midwifery care to Queensland women, A guide to implementation, p5). This model of care aligns with the government initiative to close the gap in health outcomes for Aboriginal and / or Torres Strait Islander women and their families (Closing the Gap: National Partnership Agreement on Indigenous early Childhood Development). Continuity of care models have also been shown to be cost effective (Tracy et.al. 2013).

SUMMARY ABSTRACT: Midwifery Group Practice Caseload Continuity Models of Care(MGP) have been recognised as the ‘gold standard’ in midwifery care, providing women with improved birth experiences and satisfaction as well as being cost effective to the organisation. This model of care is woman centred, flexible in relation to the place of care and encourages communication between the woman and the midwife. It is also stated that ‘Women with any level of complexity of care benefit from continuity of midwifery care, and midwives consult and refer to doctors and other caregivers according to guidelines and clinical need’, (Queensland Government 2012, Delivering continuity of midwifery care to Queensland women, A guide to implementation, p5).

Prior to the introduction of the Ngarrama Royal Midwifery Group Practice, Aboriginal and Torres Strait Islander women received maternity care through varying models of care, for example, Ngarrama Royal Maternity Service Case Manager model which provided antenatal and postnatal care only, non-continuity midwifery models of care, GP Shared Care to name but a few. As the number of Aboriginal and / or Torres Strait Islander women presenting to the Ngarrama Royal Maternity Service for maternity care increased from the predicted number of 120 births per year to a total of 185 births for the 2010-2011 period it became evident that another model of care was necessary which would encompass continuity of midwifery care throughout the pregnancy, thus providing care in the antenatal, intrapartum and postpartum periods.

It was decided that a Midwifery Group Practice Caseload Continuity of Care model would be more appropriate for this group of women in order to improve the health outcomes of the women and their babies through engagement with the service. This model of care aligned with the government initiative to close the gap in health outcomes for Aboriginal and / or Torres Strait Islander women and their families (Closing the Gap: National Partnership Agreement on Indigenous early Childhood Development). The term ‘Aboriginal and Torres Strait Islander women’ includes all women who identify as being part of the Aboriginal and / or Torres Strait Island communities, including women whose partners or family members identify as belonging to these communities and whose baby will be identified as Aboriginal and / or Torres Strait Islander.

The MGP Caseload Continuity Model of care portrays ‘a woman-centred philosophy of care’ (Delivering continuity of midwifery care to Queensland women 2012) and encompasses:

- Antenatal hospital, home and community visits by allocated caseload midwives promoting communication between the midwives, the women and their families, increasing access to culturally appropriate, safe, respectful and timely antenatal care and ensuring women receive five or more antenatal visits in their pregnancy.
- Involvement of an Obstetric Consultant and the multidisciplinary team in the case conferencing process to ensure that women receive the appropriate referral and care at the appropriate time.
- Provision of culturally appropriate education empowering women and their families to make informed choices throughout their pregnancy and in the postnatal period in order to cease and / or a decrease smoking levels, cease and / or decrease the use of alcohol, increase the birth weight of Aboriginal and / or Torres Strait Islander babies, improve breast feeding rates following discharge from hospital and to enhance parenting skills.
- Intra-partum care provided primarily in the Birth Centre or in the Birth Suite depending on maternal and / or fetal risk.
- If appropriate, discharge after six hours post birth with postnatal follow up taking place in the woman’s home by her caseload midwives.
Provision of a supportive and seamless transition through the woman’s journey throughout pregnancy, birth and back into her community.

Caseload FTE to provide continuity of care for approximately sixteen Aboriginal and / or Torres Strait Islander women per month (approximately 160 women per year).

Reduced Premium Labour costs including overtime and ADO’s as caseload midwives are paid a salaried income.

Decreased length of stay and freeing up of a ward beds as women are normally discharged from the birth centre after six hours. Due to the increased level of co-morbidities there would be some women admitted to the ward area. Post discharge care is provided by the caseload midwives and not the RBWH Community Midwifery Service.

Additional long term cost savings due to improved health outcomes for this group of women and their families.

Continuity of care is becoming the model of choice for Women and their families therefore it was decided that this service would be implemented within Women’s & Newborn Services (W&NBS) for the Aboriginal and Torres Strait Islander women attending the RBWH for maternity care.

Methodology:

A steering committee was formed which included midwives, obstetricians, allied health professionals, HR officer, Aboriginal and Torres Strait Island Health Worker, QNU Officer, Aboriginal Elders and consumers from Maternity Choices Australia and Friends of the Birth Centre.

Benchmarking with relevant hospitals.

Concept Brief, signed off by the Maternity Advisory Group (MAG) and the Senior Executive Group, (SEG) RBWH.

Dissemination of information through various W&NBS meetings.

A Local Agreement developed and signed off by the Queensland Health and the QNU.

Aboriginal Elders were invited to choose the name for the Midwifery Group Practice (MGP). The name chosen was Ngarrama Royal Midwifery Group Practice (NRMGP).

An obstetrician was aligned with the Midwifery Group Practice enabling continuity of care by the obstetrician and for case conferencing of clients.

An Expression of Interest was sent to the midwifery staff, successful applicants were appointed to position within the NRMGP.

The service was promoted within the community through the Aboriginal Elders, the local newspapers, GP surgeries and the Aboriginal community.

The NRMGP officially commenced as a fully operational MGP on the 5th of January 2015.

An Aboriginal Elder conducted the official launch of NRMGP.

Prior to the January the 5th official launch the NRMGP midwives undertook cultural education and practice development to ensure they could provide culturally appropriate evidence based care to their clients. This allowed a number of Aboriginal and Torres Strait Islander women to receive a degree of continuity of care prior to the official launch of the group and thus we have been able to provide statistical evidence that over the past six to eight months the health of the Aboriginal and Torres Strait Islander women and their babies accessing the service has improved.

Surgical Care Improvement Project (SCIP) – Improve the Compliance with Surgical Antibiotic Prophylaxis Administration Time

International Medical Centre
Pharmaceutical Care Department

Desouky F. Fayed, Osama A. Alahdal, Mojaheh A. Abbas, Inas S. Ibrahim, Lisa S. Aziz, Noha S. Abdul Hadi

AIM: The main aim of this project is to improve the compliance with the administration time of antimicrobial prophylaxis before surgery and re-dosing intra-operatively as deemed necessary by the procedure duration. This will result in direct impact on Surgical Site Infections (SSIs) rates; reducing them will eventually reduce the hospital stay and patient readmission. The ultimate goal is to improve patient outcomes after surgery.

SUMMARY ABSTRACT: SSIs are a common cause of healthcare-associated infection. The United States Centers for Disease Control and Prevention (CDC) has developed criteria that define surgical site infection as infection related to an operative procedure that occurs at or near the surgical incision within 30 days of the procedure or within 90 days if prosthetic material is implanted at surgery. SSIs are often localized to the incision site but can also extend into deeper adjacent structures. Among surgical patients, SSIs are the most common nosocomial infection, accounting for 38 percent of nosocomial infections. It is estimated that SSIs develop in 2 to 5 percent of the more than 30 million patients undergoing surgical procedures each year (i.e., 1 in 24 patients who undergo inpatient surgery in the United States has a postoperative SSI) (Mangram, et al. 1999). In 2013, the results of “Surgical site infections, International Nosocomial Infection Control Consortium (INICC) report, data summary of 30 countries, 2005-2010”, were released. Kingdom of Saudi Arabia was one of the countries contributing to the results published (Table 1).

Data were gathered and recorded from patients hospitalized in INICC member hospitals by using the methods and definitions of the Centres for Disease Control and Prevention National Healthcare Safety Network (CDC-NHSN) for SSI. Surgical Procedures (SPs) were classified into 31 types according to International Classification of Diseases, Ninth Revision, criteria. SSI rates were significantly higher for most SPs in INICC hospitals compared with CDC-NHSN data, including the rates of SSI after hip prosthesis (2.6% vs. 1.3%; relative risk [RR], 2.06 [95% confidence interval (CI), 1.8–2.4] ; P<.001), and others (Rosenthal, et al. 2013).

Such high incidence of SSIs was the trigger to conduct an improvement project regarding the Compliance with Surgical Antibiotic Prophylaxis Administration Time. We decided to start monitoring one important requirement of proper antimicrobial prophylaxis which is the correct administration time and re-dosing intra-operatively as deemed necessary by the procedure duration. The antimicrobial agent should be started within 60 minutes before surgical incision (120 minutes for Vancomycin or Fluoroquinolones). If an agent with a short half-life is used (e.g., Cefazolin), it should be re-administered if the procedure duration exceeds the recommended re-dosing interval (from the time of initiation of the preoperative dose). Re-administration may also be warranted if prolonged or excessive bleeding occurs or if there are other factors that may shorten the half-life of the prophylactic agent (e.g., extensive burns). Re-administration may not be warranted in patients in whom the half-life of the agent may be prolonged (e.g., patients with renal insufficiency or failure) (Scottish Intercollegiate Guidelines Network 2014).

The project started by a 4 months retrospective pilot data analysis from January 2012 to April 2012 and the goal was to evaluate the actual practice in International Medical Center (IMC). During this pilot analysis, Monthly sample size was determined based on Key Performance Indicator (KPI) project requirements at IMC which is 100 files out of the total number of surgeries that require antimicrobial prophylaxis on that specific month. Medical records were reviewed for documented administration time of the antimicrobial prophylactic dose. The Administration time of the antimicrobial
agent within 60 minutes before surgical incision (120 minutes for Vancomycin or Fluoroquinolones) was counted as “Compliance”, whereas administration prior to 60 minutes was counted as “Non-Compliance”. If the surgery duration warranted re-dosing of the antimicrobial agent, re-administration intra-operatively was counted as “Compliance”, whereas failure to administer the additional dose was counted as “Non-Compliance”. Results of the pilot analysis of 400 files showed an average compliance of only 36% (Figure 1). This result was the main drive behind the formation of a multidisciplinary team from the pharmaceutical care services, anesthesia, infection control, and quality departments. The team reported directly to the Pharmacy and Therapeutics (P&T) Committee with a major task of updating and implementing an action plan to improve the compliance with antimicrobial prophylaxis guidelines in IMC. After the approval of the guidelines for the antimicrobial prophylaxis by the P&T Committee, they were communicated to the all healthcare professionals in IMC, specifically, the anesthesia department. This was done through several educational sessions to disseminate the importance of adhering to the recommended administration time.

In regards to documentation compliance, a special fluorescent tag was designed and placed on a predefined area in the anesthesia record every time a prophylaxis is needed. This was primarily to make sure that everyone will be able to identify the documentation place easily. Then, a KPI was developed with the help of the quality improvement and patient safety department. The aim was to administer any prophylaxis antimicrobial within 60 minutes prior to the surgical incision. The compliance goal was planned to be 90%. The KPI project included all patients who received antibiotic prophylaxis prior to surgery. It excluded patients who have been prescribed antibiotics as treatment practices other than surgical prophylaxis, and patients who had been prescribed a prophylactic antimicrobial prior surgery but the required information (time of antibiotic administration & time of surgical incision) were missing.

Our data source was the medical records (pre-operative medication sheet - Anesthesia sheet) and the OR daily list of scheduled patients for surgical procedures. All records are screened for antibiotics prescribing, administration time and surgical incision time. The time difference is then calculated in minutes and recorded for each patient. The process is done by a dedicated pharmacist. Compliance rate was calculated on monthly basis, and continuous improvement was noted over the first few months from May 2012 to December 2012 raising the level to 78% (Figure 2). As the compliance rate was improving, continuous education of the concerned staff was maintained to make sure there will be no returning back but always advancement further. The project is still ongoing; monitoring is now shifted to be on quarterly basis. Compliance is now reaching 95% of all examined cases (Figure 3).

### Summary Abstract

Correct Care Australasia (Correct Care) is a division of Correct Care Solutions (CCS) USA and is contracted by the State of Victoria to provide primary health and primary mental health services in all Victorian public prisons. The population that Correct Care currently services exceeds 4,500 prisoners. Prior to this initiative, there was only one Correct Care Medical Centre that had radiology services on site. This meant that all other prisoners requiring a routine/planned x-ray or ultrasound were required to be transported offsite.

Transport of prisoners offsite for radiology and ultrasonography is complicated by a number of issues including: security and logistics and the need for intensive human resources allocation from Corrections Victoria with limited daily transport availability. As an example, a common scenario to obtain a routine chest x-ray in metropolitan Melbourne was to require two escort officers, one driver and 4 hours to collect, x-ray and return the patient. For high security prisoners, the staffing arrangements can double. In 2012, approximately 2,000 patients were transferred off-site for x-rays and ultrasounds from Correct Care service sites.

With the objective of reducing the number of external escorts required for radiology appointments and the number of appointment cancellations, a business case was developed to support the introduction of a mobile service. There were also a large number of prisoners referred to attend for x-rays and ultrasounds, as transfer would mean loss of their prison accommodation, job and routine. Correct Care undertook an analysis of utilisation data and estimated that 35% of radiological procedures currently requiring off-site services could be amenable to on-site service delivery, equating to a reduction in prisoner transports of approximately 700 per year.

A service model was designed to replace those radiology services that were: planned, simple in nature and required transportation.

Sites chosen to receive the mobile service were based on those most likely to benefit from the resource available, taking into account travel time and need. Whilst set days for each location within the service were originally envisaged, the service has needed to adapt to and respond to clinical and operational need. The service was established with a compliment of two part-time experienced clinicians (a radiographer and a sonographer) able to function autonomously and with a range of radiology and ultrasonic technical skills.

Correct Care procured a suitable x-ray machine on behalf of Justice Health through an open market process. Features such as the sturdiness and mobility of the machine and wireless functionality were taken into account when selecting the most appropriate equipment for the service that could be operated in any room. A suitable van and hoist were also included in order to safely transport and manoeuvre the radiology equipment. The introduction of the Mobile Radiology Service has gone smoothly, with the key to maximizing service utilisation being the ability to change locations at short notice, which has occurred on a number of occasions without any service diminution.

A review of the service after 6 months of operation has shown services delivery levels well exceed those originally anticipated. In the period October 2014 – March 2015 the mobile radiology service has delivered 235 radiology services and 310 ultrasound services, a total of 545 on-site services. If utilisation continues at the current rate the mobile radiology service will deliver in excess of 1,100 services in its first year, compared with an anticipate level of 700 services. Demonstrating the effectiveness of a mobile radiology service in reducing both costs and security risks related to off-site prisoner movement.
Other benefits include:

- Significant reduction in the number of external appointments and hospital visits
- Low rate of refusals by patients and high satisfaction levels
- Clinical staff very pleased with the operators’ response, skills and flexibility
- Service can reduce the need for offsite care e.g. abscess drained under ultrasound guidance
- Flexibility to change locations at short notice to maximise throughput and response
- Routine transport bookings reduced, to allow greater response to urgent transport requirements
- Implementation of an effective and cost efficient service
- Increased access to care for patients leading to better health outcomes

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<td>Dhurringile Prison</td>
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**AIM:** While Correct Care provides primary health treatment, education and ongoing management to prisoners across Victoria, it is often reactive, specific to individual circumstances and has short-term effect. The aim of the Men’s Health Day at Dhurringile Prison was to be a well-planned proactive program that promoted overall health and well-being, provided information to support long-term healthy choices and reach out to prisoners who rarely attend the Medical Centre.

**SUMMARY ABSTRACT:** Correct Care Australasia is contracted to Justice Health to provide primary healthcare to the public prisons across the state of Victoria. Dhurringile Prison is a minimum security working prison that accommodates approximately 400 male prisoners aged 20-75 years old. While health status is varied across the cohort, prisoners have high rates of drug & alcohol abuse, chronic medical conditions and poor health behaviours. Many come from low socio-economic backgrounds and are in a poor cycle of health. These prisoners have generally had limited access to relevant and up to date health information over the course of their life.

A plan was developed for the Men’s Health Day to identify the types of activities, information and presenters that should attend. Clinicians, community organizations, and guest speakers were invited to promote their specific areas of expertise and provide health information to prisoners. Key stakeholders such as Corrections Victoria (Operations Manager, Horticulture Industry Officer and Kitchen Officers), the Prisoner Band, Prison Mentor Group and Prison Kitchen staff (prisoners) were engaged in the day and what their role would entail. Promotion of the day was throughout the prison for staff and prisoners and invitations were sent to invited guests.

The Men’s Health Day itself was run in the main visits centre where the day started with health promotion stations/booths for prisoners to visit to gather specific and general formation and participate in a number of activities. The Health Services Manager at Dhurringile Prison liaised and invited a number of external Health Providers. Those who attended on the day included: Andrology Australia, Beyond Blue, Diabetes Australia, Health Promotion Nurse, Healthscope, Hepatitis Gastroenterology Nurse, Heart Foundation, Rumbalara Aboriginal Health Service and the Sexual Health Nurse. The prisoners engaged well with the health care providers, actively asking questions and providing feedback.

Corrections Victoria supported the day and provided a healthy lunch of wraps, fruit and yoghurt, to encourage healthy choices. The prison band, including a high profile guest performer provided entertainment during lunch. Following lunch a number of celebrity inspirational men had volunteered to share their special stories related to men’s health issues. The prisoners were interested in the presentations as they were relevant, the presenters had credibility and the atmosphere encouraged questions and discussion. The presenters themselves felt it was a valuable exercise, with many happy to return in the future.

A total of 75 prisoners attended the Men’s Health Day, which exceeded expectations and provided the opportunity to deliver health promotion to almost 20% of the prison population at one time. As a means of evaluating the Men’s Health Day all participants were invited to complete a feedback form, with a 76% response rate. The results were positive and included:

- 95% would recommend the day to others
- 92% would attend again
- 65% noted the best aspect as Health Information
- 30% would like more health checks
- 38% had no other suggestions for improvement

Strong engagement from stakeholders and community providers. Broad range of topics included to ensure relevance and interest. Some baseline observations revealed health issues that could then be followed up. Prisoners subsequently accessed the Medical Centre having made initial contact and wanted more information.

A positive day for prisoners, with comments such as:

- "Made us forget we were in prison for the day"
- "I felt like a normal person again"

The day was recommended to other prisoners, who had chosen not to attend. Prisoners suggested future topics of interest to be included in the next program. The Men’s Health Day was highly successful and planning is underway for the next one, which will now be an annual health promotion event held at Dhurringile Prison.

**Implementation of a surveillance and education service to prevent bloodstream infections associated with vascular access devices and improved patient outcomes**

**Princess Alexandra Hospital, Queensland Health Infection Management Services**

Fiona Fullerton, Margaret Lindsay, Tracey Vidler, Reto Federi,

Marjoree Sehu, E. Geoffrey Playford

**AIM:** The aim of the Princess Alexandra Hospital Vascular Access Surveillance Team is to implement a new vascular access surveillance program providing stewardship and governance of vascular access devices. The primary focus is to reduce adverse outcomes such as healthcare associated bloodstream infections. This multimodal program provides:

- development of hospital procedures and guidelines in line with evidence based practice and current literature
- multidisciplinary education and training for staff (medical, nursing and students) and patients
- advice and support to staff on vascular access device management
- evaluation and coordination of infection prevention strategies
- surveillance of vascular access devices and adverse outcomes including associated infections
- evaluation and implementation of vascular access devices and related products
- research into improved practices around vascular access devices.

**SUMMARY ABSTRACT:** Vascular access device insertion is the most commonly performed invasive healthcare procedure with
approximately 14 million intravenous devices used in Australia each year (Collignon et al. 2007). Vascular access devices play an important role in healthcare, allowing the administration of intravenous fluids, blood products, medications, parenteral nutrition and haemodynamic monitoring, as well as providing access for haemodialysis in patients requiring renal replacement therapy. Their use however is associated with a risk of bloodstream infection (BSI) caused by microorganisms at the time of insertion or during the course of its use. BSI related to vascular access devices (also known as CLABSI) are associated with significant mortality, complicated treatment regimens, prolonged length of hospitalisation and increase in the cost of care, including the introduction of significant penalties for healthcare associated BSI with Activity Based Funding. Anecdotally, locally collected BSI surveillance data suggest that approximately 70% of peripheral intravenous cannula (PIVC) associated BSIs are preventable.

A new service called the Vascular Access Surveillance Team (VAST) has been established within Princess Alexandra Hospital to target the prevention of vascular access device associated BSI, thereby improving patient outcomes. The service operates within Metro South Health, which is a major provider of public health services and is one of 17 Hospital and Health Services in Queensland, serving an estimated population of 1 million people, 23 percent of Queensland’s population. Metro South Health is made up of five major hospitals in addition to a number of health centers throughout the region. Princess Alexandra (PA) Hospital is the major tertiary facility within Metro South that also provides statewide services in liver transplantation, renal transplantation, spinal injury management, brain injury rehabilitation and skull base surgery.

Over the past two years VAST has strived to create a culture of excellence in vascular access insertion and management. In all aspects of the program, the patient has remained the central focus. Through education and support, clinicians have been empowered to take a leadership role on the clinical units. A comprehensive vascular access device surveillance program has driven team objectives and provided evidence of intervention effectiveness. The core business of VAST remains facilitating an open dialogue between clinician and patient to enhance the patient experience and outcomes by providing the clinician with the best evidence based knowledge, training and tools to make this possible.

This multimodal vascular access program has been successful in our large tertiary referral hospital. The reactivity of the program has allowed us to aggregate best practice for intravascular devices into the clinical culture of our facility. It has also created a culture change within the hospital with consistent training and assessment requirements required regardless of clinical stream. As a measure of its success, aspects of the program such as auditing, surveillance and training have been implemented into other hospitals within Metro South Health and more widely, to healthcare facilities throughout Queensland.

VAST is now recognised as an innovator of clinical practice relating to vascular access. We currently work closely with medical industry to appraise products and processes that are impacting innovation and development of vascular devices. VAST has showcased some of its achievements in the Australian Nursing Journal and presented a number of posters at the Australian College for Infection Prevention and Control (ACIPIC) and the Australasian Society for Infectious Diseases Annual Scientific Meeting (ASID ASM).

The submission to the Multi Resistant Organism (MRO) symposium which was organized by medical industry was rewarded with a best abstract award.

Medical Stewardship: Pathology Evidence Based Ordering To Reduce Inappropriate Test Ordering In A Teaching Hospital.
Calvary Hospital Bruce
Medical Education
Fergus W Gardiner

AIM: This study was designed as an educational program aimed at promoting evidence-based pathology ordering with the aim of reducing inappropriate test ordering.

Methods: Pathology Evidence Based Ordering To Reduce Inappropriate Test Ordering In A Teaching Hospital.
Author: Fergus W Gardiner BMS MBA 2015
Author Affiliations: Calvary Health Care Bruce Canberra 2615

SUMMARY ABSTRACT:
Objectives – This study was designed as an educational program aimed at promoting evidence-based pathology ordering with the aim of reducing inappropriate test ordering.

Methods – Researchers benchmarked the Hospitals pathology in 2013-2014 before conducting a multifaceted education program in 2014-2015 aimed at reducing inappropriate test ordering. The intervention consisted of main priorities including random case analysis, pathology auditing, error reduction, development and implementation of investigation pathways, and policy and procedure compliance.

Results – Through this educational method the researchers achieved a reduction in the average test per admission in 2014-2015 (M=12.98) from 2013-2014 (M=13.83). A paired t-test indicated that this difference was significant, t(3.3006) = 0.0071, p = 0.01. The intervention included a focus on specimen collection issues and achieved a reduction in specimen error rates (M=2695) from the previous year (M=3000). A one sample t-test indicated that this difference was significant, t(3.0804) = 0.0105, p = 0.05.

This multi-faceted education intervention focused on commonly inappropriate pathology tests within the Hospital. This intervention decreased the total pathology requests of Full Blood Count (-21.21%), Liver Function Test (-2.36%), Vitamin B12 (-6.45%) and Coagulation profile (-21.22%). Researchers found that commonly inappropriate tests decreased (M= 7120.33) from (M=7609.67). A Paired t-test indicated that this difference was significant, t(3.7730) = 0.0031, p = 0.05. Results contributed to a reduction in the Hospitals Relative Stay index from 1.2 in 2013-2014 to 1.08 in 2014-2015. A Paired t-test indicated that this difference was significant, t(4.4458) = 0.0009, p = 0.001.

Conclusions – Results confirmed that a multi-faceted education program can reduce inappropriate pathology, commonly over-ordered pathology, and pathology specimen error rates while maintaining positive patient outcomes. To be effective this program will need to be constantly reinforced.

Pain assessment and management in elderly patients - implementing evidence based practice in the acute care setting
St Vincent’s Hospital Sydney
St Vincent’s Hospital Pain in the elderly working party
Juliet Gawthrop, Steven Faux, Jenny Stevens, Susie Welch, Jacqueline Jensen, Melissa O’Brien, Elizabeth Harper, Angelica Thompson Butel

AIM: The aim of the project was to improve the pain assessment and management in patients greater than 75 years of age presenting with traumatic injuries.
SUMMARY ABSTRACT:
Background and Aim
Severe pain is reported in 50-75% of elderly patients suffering from fractured neck of femur (NOF) and has been linked to comorbid complications (e.g., myocardial infarction). Pain and some oral pain medications have also been linked to an increased incidence of delirium and/or cognitive decline that can limit the recovery process. Early effective pain management can reduce complications, augment recovery, promote early mobilization and decrease healthcare costs. Fascia Iliaca Block (FIB) is an alternative pain management method of injecting locally acting anaesthetic. The aim of the project was to improve pain assessment and management in patients over 75 years present to St Vincent's Public Hospital, Sydney with fractured NOF and other traumatic injuries. Here we discuss the results from three audits that together examine the effects of these new pain assessment and management techniques.

Method
A multi-disciplinary working party was established in 2012 to standardise pain assessment tools and develop analgesia guidelines for elderly patients based on clinical best practice. Specific to the guideline was the introduction of FIB for patients with a fractured neck of femur (NOF). A formal FIB credentialing program was introduced for senior nursing and medical staff. The most recent audit examines 3 months of admissions at 3 time points: 2011 prior to FIB introduction, 2013 (n=38) and 2014 (n=30) after FIB introduction. All patients were >75 years of age and presented to the Emergency Department with a fractured NOF. Outcome measures included patient demographics, analgesia prior to admission, analgesia prescribing in the Emergency Department and ward, FIB insertion rates, Hospital and Emergency Department length of stay, and episodes of delirium.

Results
The average age of patients increased across time points from 72 years in 2011, to 82 years in 2013 and 87 years in 2014 while the proportion of females remained higher at all 3 time points (79%, 59% and 70%, respectively). The percentage of elderly patients receiving a FIB to manage pain after fractured NOF increased from 3% in 2011 to 73% in 2013 and 60% in 2014. 33% of all FIB’s were inserted by credentialed nursing staff with no adverse events recorded. Regular paracetamol prescription increased from 34% in 2011 to 73% in 2013 and 2014 and regular opioid prescription increased from 26% in 2011 to 70% in 2013 and 97% in 2014. The FIB managed pain and was associated with a decrease in delirium from 45% in 2011 to 33% in 2014. However the prevalence of dementia increased from 13% in 2011 to 40% in 2014. In addition the average length of stay (LOS) in the Emergency Department decreased from 20 hours in 2011 to 9 hours in 2013 which was maintained in 2014.

Discussion
The FIB minimised complications of delirium in the acute period despite the increase in patient age and prevalence of dementia. This higher prevalence may be explained by the older age of patients in 2014. The project highlighted that appropriately trained senior Emergency Department nurses can safely and effectively insert FIB’s with no adverse effects for patients. By improving pain management techniques in the elderly we decrease the delay in commencing rehabilitation and returning home.

Conclusion
This multidisciplinary approach provides a successful and safer alternative to managing pain in the acute period in elderly patients with fractured NOF with lower rates of delirium and length of Emergency Department stay.

Preventing Catheter Associated Urinary Tract Infection
Hunter New England Local Health District
John Hunter Hospital and Hunter New England Nursing and Midwifery Research Centre
Michelle Giles, Wendy Watts, Sandy Berenger, Michelle Paul, Anthony O’Brien, John Ferguson

AIM: The aim of this project was to develop and implement an innovative nurse-led model of care in the use and management of indwelling urinary catheters (IUC) utilizing evidence-based ‘bundle interventions’ to reduce the incidence of catheter-associated urinary tract infections (CAUTI).

SUMMARY ABSTRACT:
Background: Catheter Associated Urinary Tract Infection (CAUTI) accounts for 40% of all Healthcare-Associated Infections (HAI) (APIC 2008) and between 15% and 25% of all inpatients have an Indwelling Urinary Catheter (IUC) inserted during their admission (Gould et al. 2010; Saint 2000). There are an estimated 100 million urinary catheters used annually around the world (Nasr 2010) and urinary tract infections (UTI) are estimated to cause one death per 1000 episodes of urinary catheterization (Gokula et al. 2004).

It is argued that IUC insertion can be unjustified in up to 50% of cases and risk of CAUTI increases with the duration of catheterization (Oman et al 2012; Saint 2000). CAUTI can delay patient discharge by approximately 2 days. There were no standardized protocols available in our Local Health District for IUC insertion and management and IUC usage and CAUTI rates were unknown.

The “bundled intervention” framework used in this project is defined as a collection of a small number of evidence-based practices or steps which are vital to achieving improvement in clinical outcomes (Institute for Healthcare Improvement 2011). Nursing staff have been identified as critical in bundle interventions with nurse-led protocols for catheter removal under established guidelines being identified as an effective means to reduce IUC duration (Newman 2009; Parry et al. 2013). A nurse-led approach enables nurses to influence bedside decisions if provided with appropriate information and tools. However an extensive literature review indicated that a collaborative multipronged interprofessional approach would maximize the success and sustainability of our intervention.

Aim: This pilot project aimed to develop, implement and evaluate an innovative, evidence based, nurse led model of care to guide the insertion and management practices of inpatients with indwelling urinary catheters (IUC) utilizing an evidence-based ‘bundle interventions’ to reduce the incidence of catheter-associated urinary tract infections (CAUTI).

Design and Method: This project used a highly collaborative pre and post intervention approached and was conducted in three phases.
• Phase one: Scoping the extent of the problem and development of resources and tools. This involved exploring the literature and extensive interprofessional collaboration with all stakeholders to develop evidence-based IUC insertion criteria, the care bundle, guidelines and educational resources and tools. Data collection pre implementation involved extensive chart audits over a 3-month period in 2013 to identify IUC usage rates and length of time in situ in two wards thought to have high IUC usage rates. Exploration of electronic microbiology results provided CAUTI rates in this cohort. Compliance audits were attended and a staff survey identified current staff skill and knowledge and informed development of educational resources.
• Phase two: Implementation. This involved further consultation with ward staff related to implementation strategies, nomination of ward champions to engage ward staff and assist in implementation of the nurse-led protocol. Education sessions were held with nursing staff in wards and medical and education staff and educational material such as DVDs and targeted resource materials such as stickers, posters and badges were also introduced. This heightened awareness of the practice changes being implemented. The bundle audit tool was trialed and optimized based on staff feedback and regular compliance audits were attended.

• Phase three: Evaluation. The primary outcome targets assessed were IUC usage rates, days IUC in situ and incidence of CAUTI. Data collection included post implementation chart audits on all admission to the two wards over a 3-month period from February to April 2015. Frequent chart and bedside auditing assessed staff knowledge and awareness through compliance with bundle elements.

Setting: An adult orthopaedic ward and urology ward in a large tertiary referral hospital in Hunter New England Local Health District. These wards had been identified anecdotally by staff as having high IUC usage rates.

Results: The scoping exercise identified higher than expected IUC usage rates with between 25% and 31% of all inpatient admission in the two pilot wards having an IUC inserted during their admission. IUC’s were being left in situ for a mean of 5 days and 8.4% of all patients with an IUC inserted were being treated for CAUTI.

• Post implementation data demonstrated a statistically significant reduction in IUC usage rates from 31% to 14.6% of all inpatient admissions (p < 0.001). Findings identified the demographic for patients having IUC’s inserted and has enabled the project team to target insertion practices in individual specialty groups to reduce their routine use. The majority of IUC insertions occurred in the Emergency Department (ED) or Operating Suite so the project team extended implementation to the ED.

• Mean days IUC left in situ has been reduced from 5 days to 3 days (p=0.038) which indicates that IUC removal is faster, reducing the risk of developing CAUTI.

• The number of patients being treated for CAUTI has reduced in number significantly from 8.4% of all patients who had an IUC inserted, to 0.7% (p=0.001).

• Generation of innovative resources such as cost effective generic catheterisation packs, an alert on urine microbiology reports assist in identifying and treating CAUTI.

• The tools developed increase clinician awareness and they are better equipped to make informed decisions related to IUC insertion and removal (Table 1, Figures 1, 2). The team generated innovative resources such as a DVD, insertion criteria and removal decision charts, colour coded badges, posters and stickers to alert clinicians to the risk of CAUTI.

• The addition of an alert on urine microbiology reports assist in identifying and treating CAUTI.

• Continued auditing for compliance with guidelines will ensure that guidelines and protocols are becoming embedded in practice and will be sustainable.

Conclusion: The development of a systematic and standardised approach to IUC management using bundled care interventions and collaborative and multipronged change management strategies has ensured that implementation has successfully reduced IUC use and CAUTI significantly. There is now a clear pathway for nurse initiated removal and clarity around insertion criteria and ongoing management. This model is evidence based and transferable across all contexts within the LHD. This will facilitate the spread and sustainability of the nurse led model and will ensure long term cost savings to the health service and better outcomes for patients.

**Children’s Antimicrobial Management Program (ChAMP)**

**Western Australia**

Child and Adolescent Health Service

Princess Margaret Hospital,

Zoy Goff, Chris Blyth, Tom Snelling, Asha Bowen, Karen Ziegelaar

**AIM:** The Children’s Antimicrobial Management Program (ChAMP) was launched in November 2013 to support rational decision making by clinicians regarding the optimal selection, dose and duration of antimicrobial agents at Princess Margaret Hospital (PMH) and throughout the Child and Adolescent Health Service (CAHS). The core features of ChAMP include: a comprehensive education program for doctors, pharmacists and other health professionals and a substantial revision of the major paediatric antimicrobial guidelines with subsequent ongoing review and prescription of innovative interventions that have supported the use of these guidelines with regular review of inpatients prescribed broad spectrum antibiotics to monitor compliance with guidelines and ongoing appropriateness of prescribing with the aim of making a permanent positive change in the prescribing practice of clinicians.

**SUMMARY ABSTRACT:** The Children’s Antimicrobial Management Program (ChAMP) is a paediatric antimicrobial stewardship program that was launched in November 2013. Our program is led by the ChAMP pharmacist with significant ongoing support provided by Infectious diseases physicians, Clinical Microbiologists and the pharmacy department. The successful running of the program has been a collaborative effort across these departments with further assistance and support provided by Infection Control and Safety, Quality and Performance.

One of the main features of our program is the regular ChAMP rounds, which occur three times each week on general surgical and medical wards with additional rounds occurring once weekly on specialty wards (intensive care, neonatal intensive care and oncology/haematology). Regular stewardship rounds enable the ChAMP team to have a continued and visible presence on the wards and encourage face to face discussions to provide advice on the optimal use and prescribing of antimicrobials.

Prior to implementation, we began the process of developing several paediatric empiric guidelines covering over 100 separate indications and over 60 paediatric antimicrobial monographs. The use of these documents in conjunction with a continual presence on the inpatient wards has contributed to a significant increase in the appropriate prescribing of antimicrobial agents and compliance with empiric guidelines at Princess Margaret Hospital. In addition to driving good prescribing practice locally, we have taken steps to ensure that the guidelines and monographs that have been developed are available at secondary metropolitan and regional hospitals to support optimal antimicrobial use for children state-wide.

As part of the ongoing review and assessment of the program, we have also been reviewing the overall usage and expenditure of antimicrobials at Princess Margaret Hospital. Following the launch of ChAMP, we saw an immediate reduction of 17% in antimicrobial expenditure on those participating wards as a proportion of total antimicrobial expenditure. In addition to the reduction in antimicrobial expenditure, we have also seen significant reductions in the use of a number of high risk (high expense, toxicity or increased risk of resistance) antibiotics.
The Future in Nursing Documentation and Assessment: A Care Guide
Epworth HealthCare
Quality Productivity and Risk
Melanie Gordon, Lisa Edwards, Nicola Timms

AIM: Nursing Care Guides (NCG) were introduced to improve the safety, quality and efficiency of patient care by improving nursing assessment, communication and documentation across a large, multi-campus, not-for-profit health care organisation.

SUMMARY ABSTRACT: Epworth HealthCare is the largest, private, not-for-profit health care group in Melbourne, Australia with 8 hospitals with more than 1,300 beds across multiple sites. Epworth has expanded rapidly over a short period of time through acquisition of established facilities and building new facilities.

Through extensive auditing it was found that variation in structure, content and quality of documentation, nursing assessment and communication occurred across all sites. Pre-existing care plans were outdated and did not reflect evidence based practice translating to inconsistent care practices. Nurses were required to initial daily care tasks and document using variance. Documentation using a variance approach provided incomplete patient records of patient care delivery and trajectory of recovery.

A focus group was used to determine gaps in documentation and asked for suggestions to improve documentation and assessment. In addition a literature review was performed to explore a wide range of systems, tools and approaches to improve communication and care delivery.

External benchmarking with other hospitals regarding documentation practices was undertaken. An audit tool was specially developed to obtain pre and post rollout data from the patient medical record. The pre and post rollout data was analysed for each specialty across three acute sites and reported to various governance committees.

Nursing Model of care in Emergency
Sir Charles Gardner Hospital
Emergency Department / Medical Division
Lisa Gray, Leann Welsh, Beata Czerwiec, Carmen Robbins, Jillian Broll, Ed Schaefer, Jane Campbell, Paul Cooper

AIM: To improve the patient’s experience when attending the emergency department for treatment. To ensure we provide care in collaboration with the patient, their carer and/or family, ensuring they remain informed and engaged in decisions about their care as evidenced by improved patient satisfaction results over the next twelve months. Also to provide care consistent with best practice principles in a timely manner as evidenced by improved ATS and NEAT results.

SUMMARY ABSTRACT: The opening of a new tertiary hospital in Perth in early February resulted in an increase in both ambulance attendances and walk in presentations to our ED. This transition of services impacted hugely on our ability to process well over 200 patients per day with the acuity of 70% with ATS 1, 2 & 3 presentations and a 48.52% admission rate. This sudden increase in demand was the trigger to look at our processes again and develop a model of care that further streamlined how nursing worked in an environment at capacity every day.

Previous attempts to meet increasing nursing demand had seen roles and resources added in an ad hoc manner that had failed to integrate with the ED nursing team resulting in overlap of role responsibilities and gaps in service provision. Patient feedback reflected frustration with times spent waiting for information; delays in attending care and on occasions a perceived lack of caring by nursing staff. With a flagging NEAT result, in part due to increased demand for inpatient beds and a reduction in FTE due to budgetary constraints, the nursing leadership team (Coordinator of Nursing, Clinical Nurse Specialist, Nurse Manager, Staff Development Educator and 3 Nurse Practitioners) met with the CN group to engage them in searching for a new model of nursing care in ED to better meet the expectations of patients within best practice timeframes.

A review of ED nursing team structures across Australia by our Nurse Manager helped us to identify the integral elements to develop an effective team to meet the needs of patients in ED. Externally facilitated workshops for the nurses within ED helped define the structure of the new team. The leadership team developed by volunteers within the CN group ensured the focus remained on the rationale for change and encouraging staff to contribute to the formation of a new model of nursing care consistent, safe, efficient and timely care. Clinical and patient rounding by senior staff, ongoing review of NEAT and ATS results assisted in measuring our success in achieving this goal.

Feedback from the medical team in ED support the changes undertaken and future work will involve aligning their roles to the newly designed work flow.

Family Planning NSW Clinical File Audit - applying the National Safety and Quality Health Service Standards to a Primary Care Setting
Family Planning NSW
Clinical Services Team
Fran Hartman, Hilary Bower, Kirsty Fleming, Jodie Duggan

AIM: The aim of the Family Planning NSW Clinical File Audit is to review clinical practice within a primary care setting, in terms of priorities established by the National Safety and Quality Health Service Standards (National Standards) developed by the Australian Commission on Safety and Quality in Health Care (ACSQHC). The audit process is based on the principles of peer review, with the aid of experienced clinicians recruited from across the organisation to act as auditors, and designed to be objective, transparent, inclusive and consistent. The audit aims to establish the extent to which clinical practice at Family Planning NSW aligns with the requirements of the National Standards, providing insights into practice variations within and across five Centres in New South Wales, identifying innovative practice and highlighting the strengths and weaknesses in the work of individual clinicians, so that client safety can be assured.

SUMMARY ABSTRACT: Family Planning NSW is the state’s leading provider of reproductive and sexual health services. We have five fixed clinics in NSW (Ashfield, Fairfield, Penrith, Newcastle and Dubbo) and partner with other services to deliver services in other key locations across the state with more than 28,000 client visits annually. As an independent, not-for-profit organisation, we recognise that every body in every family should have access to high quality clinical services and information. We provide a safe place for people to talk about their most intimate and personal issues whilst respecting the rights of individuals to make choices about their reproductive and sexual health. Our services are targeted to specific communities, including people from culturally and linguistically diverse and Aboriginal and Torres Strait Islander backgrounds, people with disability, young people, people from rural and remote communities and same sex attracted people.
Our work is evidence-based, and shaped by our research through the Family Planning NSW Sydney Centre for Reproductive and Sexual Health Research, our published clinical practice handbooks on reproductive and sexual health, our nationally recognised data and evaluation unit and validated through our own extensive clinical practice.

Family Planning NSW is committed to promote a culture of clinical excellence that ensures services are safe, effective, evidence-based and client centred. In reviewing clinical practice in terms of the National Standards, Family Planning NSW undertook to revise the existing annual clinical file audit (Appendix 1).

By focussing on the risk management priorities incorporated in the National Standards, the revised audit process has energised quality improvement activity within the organisation. Key areas addressed in the audit tool include: effective medication management practices (National Standards – Standard 4) including recording current medication (National Standards – Action 4.6); adherence to agreed scopes of practice (National Standards – Action 1.10.2); maintenance of accurate, integrated and readily accessible clinical records (National Standards - Action 1.9) to support effective clinical handover (National Standards – Action 6.3) and utilisation of available decision support tools (National Standards - Action 4.9).

The development and implementation of the Family Planning NSW Clinical File Audit Tool and audit process has enabled the work of all Family Planning NSW clinicians (medical officers and registered nurses) to be assessed in light of the key risk management strategies identified by the National Standards. It has enabled an organisation wide perspective to be gained into the quality, safety and consistency of clinical practice across Family Planning NSW Centres and all clinicians to engage with the risk management priorities identified by the National Standards. It is an important part of the organisation’s multifaceted approach to clinical governance which includes the investigation of complaints, assessment of incidents and near misses and analysis of client feedback.

Brathwaite and Travalia (2008) see these processes as the necessary components of good clinical governance, defined as enabling the delivery of quality care to the right client, on time, in a coordinated manner. “The most acceptable mechanisms to drive clinical governance are those that recognise professional leadership and are perceived as being locally relevant and allowing reflection on one’s own professional practice... For clinical governance to become second nature in Australian primary care, health care practitioners need to be actively engaged as partners in quality improvement” (Phillips et al, 2010 p5).

Aged Care Emergency (ACE): building sustainable partnerships in aged care.
Hunter New England Local Health District - John Hunter Hospital
Aged Care Emergency Service, Patient Flow Unit
Carolyn Hullick, Jacqueline Hewitt, Catherine Turner, Carol Azzopardi, Jenny Carter, Kaye Young, Keith Drinkwater, Karen Best

AIM: The objectives of the Aged Care Emergency (ACE) Service were to 1) enhance and support the ability of staff in residential aged care facilities (RACFs) to meet residents’ acute care needs within the facility; 2) determine residents’ goals for care; 3) reduce the need for residents to be transferred to an Emergency Department (ED) and 4) where an ED presentation was required, provide proactive management of the older person and associated sequelae. A costing study was undertaken to 2014. The aim was to develop a costing model that reflects the resources utilised and costs saved as a consequence of the ACE intervention compared with usual care.

SUMMARY ABSTRACT:
Introduction:
Older patients with complex care needs are vulnerable in hospital. In 2013 it was estimated that there were nearly 169,000 people living in permanent residential aged care in Australia, an increase of just over 20% in the last decade. The majority are over the age of 85 years and more than 80% have dementia or other mental illness. Adverse outcomes are often associated with hospitalisation of residents of aged care facilities (RACF) with reduced functional status following discharge and higher mortality rates. To outweigh these risks, the benefits of transfer need to be very clear. Factors associated with potentially avoidable presentations of residents of aged care facilities to emergency departments include: poor communication between the RACF and the ED, inadequate clinical handover procedures, poor care planning and in particular advance care planning and lack of access to clinical staff prior to transfer.

Pilot:
In 2009, the ACE service was developed based on a needs assessment with four RACFs that regularly transferred patients to ED. A manual of common urgent care symptoms was developed for RACF healthcare assistants. They were trained in the use of the manual as well as clinical handover and recognition of the deteriorating patient. During business hours they had access to an ED Aged Care specialist nursing team who supported them in their clinical decisions and care. This demonstrated a 16% reduction in ED presentations and 19% reduction in hospital admissions with an improvement in relationships and understanding between the RACFs and the ED as well as empowerment of RACF staff to manage acutely unwell residents themselves with support if they required it.

2012 onwards:
Aged Care Emergency (ACE) service was expanded using a multi-organisational approach to support acutely unwell residents. Hunter New England partnered with Hunter Medicare Local (Hunter ML) to expand the service to over 100 RACFs with over 6500 aged care beds across the Hunter New England region. There are close relationships with RACFs, NSW Ambulance Service as well as General Practitioners and their staff.

The ACE service key elements are based on a shared commitment of each stakeholder to resident/patient benefit. It incorporates:
1. The ACE manual supporting clinical decision making with algorithms to standardize management for common acute onset events experienced by residents.
2. One point of contact telephone consultation available 24 hours a day, seven days a week, for RACF staff to access clinical guidance and support. In business hours, this is provided by ED aged care RNs and out of hours, Hunter ML’s After Hours GP call centre. All advice and support is provided by RNs using the ACE manual.
3. Education includes the ACE manual, making decisions aligned to the resident’s goals of care, clinical handover and recognition of the deteriorating patient.
4. Making explicit the resident’s goals of care prior to transfer to the ED.
5. Proactive case management within the ED according to the established goals of care.
6. Ongoing maintenance of collaborative relationships with RACFs, GPs, Hunter ML, NSW Ambulance and the LHDs through regular interagency meetings.
7. Coordination of change management - to implement and support all these elements, by the ACE CNC in partnership with the executive steering committee.

Evaluation:

In 2014 a costing study was undertaken. This focused on eight RACFs which were classified as high, medium or low implementers of the service. This was based on their use of the ACE telephone support line, numbers of ED presentations, regularity of meeting attendance, engagement in ACE training and length of time with ACE service. Costs included those expended or compensated by Hunter ML, RACFs, Hunter New England or NSW Ambulance compared with usual care. From 14 weeks in 2014, there were 391 calls to the service with 73% resulting in the resident being cared for at home, not requiring transfer to ED. The net cost differential between ACE and usual care was $921,000 with a significant proportion of this reflecting savings in NSW Ambulance transfers. Common reason for transfer included falls, confusion and shortness of breath. For one hospital, Tomaree Community Hospital, over 17,000 in ambulance transfers were saved over the first 3 months of the service.

Focus groups and interviews revealed:

• All carers indicated that avoidance of transfer to ED was beneficial for residents when clinically appropriate. They had experienced presentations where there had been problems with the ED journey. In particular, carers expressed concern at residents’ distress at being in ED including perceived unnecessary procedures.

• The RACF staff are empowered to care for their residents with a senior acute Registered Nurse available for guidance. “It has ended that desperation you feel when you are watching someone suffering and you feel that there is nothing you can do.”

• The GPs benefit by receiving calls from RACFs that have been more systematically managed. GP stated “it has helped deliver optimal care to very vulnerable patients...worth celebrating”.

• The EDs benefit by having clearer transfer communication, returning more patients home, rather than admission. “I think having the ACE Nurse allows us to have conversations about the person and their wishes...to know about that before we commence anything in the ED.... if it is palliation or symptom management rather than further investigation that makes a difference in how the person is best managed.”

Conclusions:

The ACE service has been well accepted by all stakeholders with the key elements of the service supporting ongoing, empowerment of RACF staff and relationships between the Hunter ML, HNE Health EDs and RACFs. Leadership and commitment of the partners has been key. The evaluation has given direction for future development of the service with development of performance reports for timely feedback to stakeholders, efforts to improve transfer from ED to RACFs, strengthen the use of Advanced Care Plans and a need to support capacity building in RACFs. Governance and alignment with high-level strategies as part of the development of the new Primary Health Network is required. This integrated care model fits well within its scope.

Evaluation of the patients Pre Admission experience.

St Vincent’s Private Hospital Sydney
Pre Admission Centre

Eilish Hoy, Laura Hunter, Yvonne Cowell, Catherine Wright, Pamela Lowbridge, Therese Martin, Deborah Jeffries, Peig Judge, Caroline Johnston, Louise Pankhurst, Pin Chang, Sock Lim
Reducing the barriers – GP drop-in clinic.
Metro North Hospital and Health Service
Metro North Mental Health
Anna Johnston

AIM: The goal of this program was to improve access for mental health consumers to a General Practitioner (GP) with the aim to enhance their physical health through improved engagement and interaction with a primary care provider.

SUMMARY ABSTRACT: People with severe mental illnesses (SMI) have significantly worse health outcomes than the general population:
- They have a life expectancy that is 12 years less than the general population
- People being managed by psychiatric outpatients are twice as likely to die prematurely as the general population
- They have high rates of physical illnesses and
- They are twice as likely to be over-weight or obese.

There is a consistent theme from the literature – people with a SMI experience higher rates of physical illness and they have consistently higher mortality and hospitalisation rates. (Crompton, D., Groves, A., & McGrath, J. (2010).[ Please see Appendix #1]

In light of the poor physical health of people with a mental illness and since identifying that many consumers within our service have difficulty attending and engaging with a General Practitioner (GP) it was decided in early 2014 to implement a program of having a GP on site at one of the community mental health clinics at the Inner North Brisbane Mental Health Service (INBMHS).

INBMHS was fortunate to engage the services of Dr Ann Solari – a well-known inner city GP. Dr Solari provides a bulk billed, drop in General Practice Clinic at the Valley Clinic site for mental health consumers every Thursday morning from 9 – 12.

Dr Solari is licensed to work with the License to Private Practice (LPP) Agreement framework through Queensland Health. Dr Solari is a stand-alone visiting practitioner and is fully self-sufficient with her own data system and medical supplies – she does not have access to CIMHA or any other Queensland Health data bases or records.

Category: Clinical Excellence and Patient Safety

• A shared agreement and aspiration to deliver safe and timely transfers for our patients, and to promote ‘trust’;
• An agreement to ensure all patients are transferred with a clinical handover, aligned to NHSQHS Standard 6;
• Consumer input to optimise the patient experience of the transition of care;
• Multiple PDCA cycles to refine and establish key processes: referral, bed allocation and handover;
• Extensive communication using both data and narrative throughout the process to reinforce why this was important.

Over 1400 patients have been transferred using this pathway with no significant increase in clinical incidence or readmission rates observed. The unique aspect of this intervention is ‘trust the referrer’ whereby the decision for subacute admission rests with the acute treating team, not the subacute provider. This has clarified roles and improved accountability, and minimised delays and duplication in assessment for patients. Furthermore, since Dec 2014, 100% of patients have been transferred with a medical clinical handover included in the medical discharge summary and a verbal handover from nursing staff. This improvement initiative mandated that medical clinical handover occur prior to bed allocation which has significantly improved completion rates and compliance.

This initiative has demonstrated that a shared commitment to improving patient experience and safety is the best approach to build trust and improve compliance. This also highlights how effective teamwork can deliver improved patient outcomes, but this relies on an investment in developing relationships, valuing diversity and understanding different perspectives.

Decrease OR Cancellation Rate at International Medical Center
International Medical Center
Operating Theatre
Farid Kassab, Slbobodanka Zdraveva, Jehrel Gumban, Edelmira Cabagan

AIM: The main objective of this project is to decrease the cancellation rate and increase operating room efficiency at International medical center.

SUMMARY ABSTRACT: Cancellation of planned surgeries is a known quality problem in healthcare that causes prolonged wait times, harms patients, increase patient dissatisfaction and complaints, wastes resources, diminished staff satisfaction, potentially affect overall clinical outcome, leading to increased healthcare costs. It is considered as a parameter to assess quality of patient care and quality of management system. The reported incidence of cancellation in different hospitals ranges from 10% to 40%. There are many reasons of cancellation of elective surgical cases; and they differ from hospital to hospital.

In 2011 and 2012, the cancellation rate at IMC was around (15.56% and 17.50% respectively). Patients were dissatisfied, complaints were high, and resources were wasted. It is for these reasons that lead us to do a project to decrease this cancellation rate. The current processes were reviewed and a gap analysis was done. Variations in the process and opportunities for improvement were identified. A project using a FOCUS PDCA methodology was introduced to the operating room committee which is a multidisciplinary team that oversees the quality, safety, and efficiency in the operating room. Moreover, this project was also presented to the Chief medical officer, deputy CEO and to the CEO himself.

The team works on improving the operating room booking process; improving pre-op process flow (construction in day surgery area of a one stop shop for all pre operative process including insurance office; surgical coordinator’s office; blood collection area; anesthesia clinic, refer to appendix 1); systematizing the OR process flow (color coded clearance for all stake holders; installation of OR dashboard, designing a surgical patients road map; reviewing the ); integrating all OR documents into the system; and designing and merging all supportive documents into the system. Process improvements were implemented as planned and key performance metrics were collected before and after the implementation.

In 2014, the rate of cancellation at IMC was dropped from 17.50% (2012) to 9.77 %. Process mapping; leadership support; staff engagement; continuous collection and sharing of performance metrics are key in reducing the cancellation rate and enhance OR efficiency at IMC.
As taking handprints and footprints, and offering professional photography or creating a memory folder where they can document the baby’s details such as weight, length, take a lock of hair, place the cord clamp and wrist band within the album are all available. Families have the option of practicing rituals such as a baptism, naming or recognition of life ceremony. Some families may want to take their deceased baby home to visit their house, see the nursery that was lovingly created for them, and meet the family pets. All of these occasions are ways to further validate their baby’s life and acknowledge that their baby is wanted, real and loved; this is paramount for some grieving parents.

Unique services to the Women’s include the introduction of using inkless printing kits as a direct result of family engagement. Previously, handprints and footprints were taken using a standard ink pad, but if the baby’s skin was not washed thoroughly immediately after taking the prints their skin would remain stained. Family members expressed their concern about their baby’s stained skin. Some enquired whether the change in color was a sign of their baby’s suffering. This understanding has been formed of what they may or may not want. This has created opportunities and genuine obligation to support needs to be tailored to individuals and the way they may or may not want. As a father stated ‘Bereaved parents never forget the understanding, respect, and genuine warmth they received from caregivers, which can become as lasting and important as any other memories of their lost pregnancy or their baby’s brief life’ (1).

Every family is unique and importantly the Women’s recognises that support needs to be tailored to individuals and the way they may or may not want. The Women’s health professionals (midwives, nurses, clinical and bereavement staff) are intimately involved with bereaved families during and immediately following the death of their baby. Midwives are in the unique position of having seen or known the deceased baby and are therefore very important to the bereaved family. Their role is pivotal in helping families deal with this loss and assume enormous responsibility when providing bereavement care to families. What is done, what is said and what parents are encouraged to do or not to do, can have a lasting impact potentially for the rest of their lives. As a father stated: ‘Bereaved parents never forget the understanding, respect, and genuine warmth they received from caregivers, which can become as lasting and important as any other memories of their lost pregnancy or their baby’s brief life’ (1).

The Royal Women’s Hospital has established clear guidelines, practices and ongoing training to assist staff in supporting bereaved families. Over the past seven years the staff at the Women’s have worked with and supported hundreds of families through their loss and grief. This experience has shown that every family is different and what will work well for one family may not work at all for another. Therefore, by actively listening and compassionately engaging with families; an understanding has been formed of what they may or may not want. This has created opportunities and genuine obligation to continue to improve the support provided to bereaved families.

The Royal Women’s Hospital reproductive loss program provides personalised care for women and families who experience the death of a baby. The program evolves continually by engaging with consumers and incorporating their feedback to improve the service so that it can respond to individual requirements. Acknowledging the differences of each circumstance, listening to parents, and being informed by their needs, the service remains agile and delivers exceptional care for bereaved families.

SUMMARY ABSTRACT: The death of a baby, regardless of the gestational age, is a devastating experience that is unique for every bereaved parent. No one can be prepared for the tragic event of a baby dying. It is not just the loss of their baby, it is also the loss of a person who would have been, and may be the loss of hopes, dreams and expectations they had for the future.

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The Reproductive Loss Service’s primary role within the Women’s is to support bereaved families and care for their deceased baby. The philosophy is to acknowledge the baby who has died and support the family to take up opportunities to further validate their baby’s existence as well as create everlasting memories and tangible keepsakes. It is important that families are fully informed of the opportunities that they can experience with their baby. Recognising that an individual’s culture, religion or life experience may influence their decisions about medical interventions, care and handling of the baby at the time of death, post mortems, and creating memories such as photography (2) is imperative in providing personalised care. Therefore while it is essential to fully inform families it is paramount that health professionals respect the family’s choices and decisions in relation to their baby.

At the Women’s families are provided opportunities to spend time with their baby, by holding, bathing and dressing them. Supporting them if they want to create tangible memories such
audit process through elimination of manual data manipulation and analysis.

Methodology – The Information Technology Department worked closely with the Infection Control Team to develop a standardized approach to conduct hand hygiene audit using iPads. The project initially involved the analysis of the paper-based audit workflow, followed by a prototype design of Mobile App and Web Portal to tackle the inefficient processes identified. Benchmarking, user experience study and LEAN process analysis were conducted to develop the system that best fits the needs of infection control surveillance and maximizing operational efficiency.

Outcomes – Major project outcomes include:
1. 57% reduction in manual works, with significant decreases in data transcription and report preparation works
2. 89% reduction in paper printings
3. 10% increase in overall hand hygiene compliance and various improvements in infection rates
4. The optimal frequency of hand hygiene audit could be achieved to cover 100% clinical departments in every audit
5. Real-time reports to facilitate prompt review and remedial actions

Conclusion – The success of transforming a paper-based audit process a mobile one is proven to benefit the overall hand hygiene surveillance through improvements in efficiency, accuracy and communication. The project is extended to other aspects of infection control surveillance and adopted by 7 other hospitals in Hong Kong.

**Implementation of a Safety Huddle for Falls and Near Miss Falls in a Rehabilitation Unit**
South Western Sydney Local Health District
Camden Rehabilitation Unit / Camden Hospital

**AIM:** The Safety Huddle was implemented with the aim of reducing repeat inpatient falls and near miss falls, most importantly focusing on and involving the patient.

**SUMMARY ABSTRACT:** Inpatient falls are one of the most common patient safety incidents reported in rehabilitation wards,(1) and can result in serious adverse patient outcomes, including permanent physical disability and occasionally, death.(2-3) However, limited research has focused on including patients within a multidisciplinary approach to falls prevention, following a fall, or near fall event in rehabilitation settings.

A Safety Huddle was a suggested strategy from South Western Sydney Local Health District Falls Working Party that had the potential to reduce repeat falls. The Safety Huddle consists of a NUM led multidisciplinary review of a fall or near miss fall in consultation with the patient.

After determining the need for emergency care and acting accordingly, whenever possible the post-fall safety huddle meeting was convened as soon as practically possible. The following process was implemented:
1. The NUM prepares the patient by explaining the purpose of the safety huddle and that the team will be coming to see the patient.
2. The Nurse Unit Manager (NUM) assumed the role of the Safety Huddle Team Leader.
3. Nursing and allied health staff, medical officer, patient and (carer if present) participated in the safety huddle.
4. Staff apologised for the fall or near fall, and explain that we want to work with the patient and to prevent a recurrence, using strategies that we develop in consultation.
5. The team completed an analysis of the fall event, and intervention(s) for preventing a repeat fall were decided by the safety huddle team and patient. This process was documented in the clinical record and on the electronic nursing hand over.
6. After the post fall huddle, the NUM followed-up with staff and patient to ensure interventions were implemented to prevent a repeat fall occurring. The NUM also answered any questions or concerns voiced by the patient or carer.
positive working environment and safety culture has been linked to both patient and staff outcome.

CHS has been implementing this ongoing project from early 2014 up to April 2015. This initiative has already proved that the staff and patients' safety has been enhanced as shown in a drop of the reported cases of injury on duty and medical incidents. In addition, both the teamwork and safety attitude among staff have found improved accordingly.

The baseline data was collected in the first survey conducted in early 2014 before implementation of the safety promotion activities including an effective and bi-directional communication channel, game booth for safety culture promotion, and regular publications of safety newsletters to enhance safety knowledge. The second follow-up survey was completed in April 2015 with the results demonstrating significant improvement in the safety climate, management perception and working condition dimensions, indicating that staff members have attained a more positive attitude towards managerial/hospital support in clinical work and safety culture.

The promotion strategies would be continued with regular surveys on staff safety attitude conducted every year for reinforcement and evaluation of the safety culture in the hospital. Tailored designed improvement programs will also be introduced according to the results on various safety domains of the survey.

All hospitals under the Hospital Authority of Hong Kong are striving for improving safety among hospital staff and patients while minimizing unnecessary staff injury on duty and medical incidences. The improvement on staff safety culture along with the decreasing trend in staff injury on duty, injury on duty sick leave days, and medical incidence rates shown within the first year of the survey in the current project would be continued in 2016. We expect that there would be a sustainable improvement of our safety culture, which would be illustrated in the findings of the coming survey.

A Simulation-Based Teaching Strategy in Physiotherapy at the SCHHS
Sunshine Coast Hospital and health Services District (SCHHS) Allied health Department, Surgical Stream, Clinical Support Services Group (CSSG)
Kate McCleary

AIM: With the SCHHS having a tertiary-level Hospital in 2016 it was necessary to create a simulation based training program for physiotherapists that is transferrable across facilities and adaptable to differing clinical skill levels and years of experience of multiple physiotherapists. The aim being to increase the overall core cardio-thoracic knowledge base and clinical skills of the clinicians required to work in Intensive Care and as a sole-practitioner on weekend shifts through simulation training and scenario based learning.

SUMMARY ABSTRACT: Simulation-based learning is being used widely as a teaching tool across disciplines both at the undergraduate and postgraduate levels in the Sunshine Coast Hospital and health Service District, but until now, no structured imbedded program from an Allied Health perspective has been utilised consistently.

Creating this program has allowed the physiotherapy department to create scenarios based on real-life events to teach other physiotherapists the most effective treatment techniques based on their clinical findings. In a tertiary hospital facility we need to be able to treat all manner of patients with varying complexities. In a traditional client and clinician-based teaching module it is just not practical to assume that we can allow the clinicians the experience of treating ‘real-life’ patients with all of these varied and complex presentations. Therefore simulation training can facilitate a far broader scope for creating realistic examples of patients for practice, in a non-pressured environment, particularly in a current facility that may be lacking the consistency of appropriate clients to allow reproducible training.

Improving Patient continence assessment, care planning and management at Canterbury Hospital.
Canterbury Hospital Nursing Support/Complex Care
Judy McGlynn

AIM: To improve patient assessment, education, care planning and appropriate referral on transfer from hospital to community for patients requiring continence support. To improve the skill base of nurses and promote a culture change through education, role modeling and supply of resources to enable a systematic approach to improved care planning in relation to continence care throughout the inpatient journey and on transfer from hospital. To promote timely transfer of patients from acute to community and ambulatory service with appropriate referrals being made.

SUMMARY ABSTRACT: Canterbury Hospital does not have an inpatient continence nurse specialist. Continence support is promoted by the Complex Care CNC with strong links and support from the Canterbury/Concord Community Continence CNC.

In 2013, Patients discharged from inpatient wards or the Emergency Department (ED) with an indwelling urinary catheter (IDC) requiring a trial of void (TOV) would return to the Day Procedure Unit (DPU) for TOV. Day Procedure Staff reported that patients were poorly educated regarding catheter care. There was also large number of ED presentations for catheter related reasons. To improve discharge planning, patient education and support through appropriate referral on discharge, a resource folder was developed for general wards and maternity with resources to assist staff with discharge planning. This included a discharge checklist for patients with IDC. Education was provided to all areas in regard to the new resources and appropriate referral processes.

A new model of care was developed which allowed more appropriate follow up for patients discharged with an IDC from ED and inpatient wards. Patients could be referred to a community Continence CNC for TOV in the community, or if medical supervision was required for TOV this could be attended in a newly developed TOV outpatient clinic. To support this new model of care, ED guidelines were developed (in collaboration with ED, urology and community clinicians), with education and resources, to support ED clinicians with appropriate assessment and referral of patients being discharged with an IDC to the most clinically appropriate place for TOV. To promote and assist clinicians with patient education, equipment supply and appropriate discharge referral, an IDC discharge checklist was commenced in ED. Education was also provided to all clinical areas and resources were updated to support the new process.

Resources were developed for the TOV Clinic and the Complex Care CNC provided support until the TOV Clinic RN was confident in running the clinic supported by OPD NUM. Close liaison occurred (and continues) between hospital clinicians and...
the Community based Continence CNC in guideline development and troubleshooting with referrals.

Since 2013, feedback has been collected from patients attending the TOV clinic regarding their experience of being discharged with an IDC. Overall patients report that they have been educated, given equipment and written information and appropriately referred to community supports after discharge with an IDC. Patient survey feedback is given to clinical areas as well as any feedback from Community clinicians regarding referrals. Any areas identified for improvement are addressed in education or resource development.

Additional strategies have been initiated to support the project and drive a culture where continence is seen as an important area for nurses to proactively initiate improved care planning. Ongoing ward education supports promotion of the importance of continence assessment, management and optimising patient continence management. Another successful strategy has been the identification and development of 2 nurses in each clinical area to be champions and act as resource nurses to other clinicians. These nurses have all now attended 1 or 2 days of specialist District continence education and are supported in their role as a Continence Resource Nurse. The nurses meet as a group 2nd monthly with the Complex Care CNC Chairing the meetings and Community Continence CNC attending. The Nurses disseminate any information from these meetings back to the ward areas. Complex Care CNC has regular contact with the resource nurses to support them in their role.

Ward Continence Resource Nurses report that they enjoy attending meetings and have a greater understanding of the importance of continence management. Complex Care CNC encourages Resource Nurses to give education sessions in their ward areas and supports the nurses in this.

In 2014 and 2015 Canterbury Hospital has held health promotion displays for World Continence Week to further promote the importance and profile of Continence Management and support services. This has targeted clinicians, patients, carers and visitors. Information on Local Health District continence services was promoted as well as other contacts for continence support such as the Continence Foundation. Information was available in a number of languages to cater for our culturally diverse local population.

As improvements are achieved, further areas for improvement are striving for. A flow chart is being developed to assist with inpatient assessment of continence status and guide appropriate product selection to best manage symptoms and allow optimum function. Canterbury Hospital specialist nurses are also looking at education around identification and appropriate management of Incontinence Associated Dermatitis (IAD) and the relationship with pressure injuries.

Enhanced Recovery After Surgery Program Surgical Ward Gosford Private Hospital

Heathcare – Gosford Private Hospital
Surgical Ward Gosford Private Hospital
Jennifer McNamara, Philip Duffy, Debbie Ritter

Aim: The aim of the Enhanced Recovery After Surgery Program (ERAS) at Gosford Private Hospital was to reduce the post operative complications suffered by patients following colorectal surgery. To achieve this the program involved changing the pre, intra and post operative care for this group of patients.

Summary Abstract: Sanchez-Ejimenez et al. (2014) suggests that principles that were considered necessary in performing successful colorectal surgery historically are no longer considered necessary. Following significant clinical trials and meta-analysis of clinical trials there has been a shift in the clinical methodology of managing patients during the perioperative period. This shift is known as the Enhanced Recovery After Surgery (ERAS) Program. This program was implemented at Gosford Private Hospital for patients having colorectal surgery after the identification of an increase in the length of stay of our patients post colorectal surgery.

The staff at Gosford Private Hospital along with the two colorectal surgeons decided to assess the possibility of commencing an ERAS program. A staff member attended a conference of the ERAS Society to network with the appropriate personnel to assist in commencing our own program. The ERAS Society guidelines and recommendations are based on the work of Gustafsson et.al (2013) and are considered best practice. Surgeons, anesthetists, nursing and allied health staff met to discuss how the program could be implemented at Gosford Private Hospital and what we needed to achieve to make ERAS at Gosford Private Hospital successful. We have used the ERAS Society guidelines and recommendations in consultation with surgeons, anesthetists, nursing and allied health staff then tailored them to suit the patients at Gosford Private Hospital. Patient information pamphlets have been created and professionally printed. The patients spend considerable time in their pre admission appointment receiving education about the upcoming surgery and the importance of their role in an uncomplicated recovery. This education and support continues throughout their hospital stay. The patients have to be very involved in their recovery and have a sheet of daily goals that they aim to achieve.

There is a significant auditing process and considerable data collection involved in monitoring the ERAS program at Gosford Private Hospital. This data indicates that we have had a significant reduction in the average length of stay from 13.2 days to 6.5 and significant reduction in post operative complications for our patients.

Specialist Outpatients Revitalisation
West Moreton Hospital and Health Service
Specialist Outpatients Department, Ambulatory Care & Clinical Services
Julie McNee, Craig Kennedy, Linda Hardy

Aim: The aim of the West Moreton Hospital and Health Service (WMHHS) Specialist Outpatient Department (SOPD) Revitalisation project was focused on the the delivery of the right care, at the right place and at the right time for SOPD services. The objectives of the SOPD Revitalisation project were
• To redesign SOPD work practices to improve the efficiency and effectiveness of clinical service delivery
• Provide patients with a positive care experience within the SOPD
• Implementation of a Model of Care that embraces demand capacity matching
• Implementation sustainable strategies to reduce SOPD waiting lists and ensure patients are seen within clinically recommended timeframes
• To ensure patient focused SOPD services that results in all enquiries by telephone and emails for Specialist Outpatient Services are responded to within 48 hours
• To maximise revenue generation through increasing Named Referrals and bulk billed Clinics in line with clinical services target of 50% revenue targets.

Summary Abstract: The Specialist Outpatient Department (SOPD) receives in excess of 30,000 new referrals per annum. In 2013, there were approximately 52,000 appointments
offered for new and review appointments with a new to review ratio of 1:3. This SOPD Model of Care (MOC) resulted in a significant demand capacity mismatch for service provision across the majority of Specialties. In November 2013, the SOPD waiting list registered approximately 9,300 patients. Of these, 4397 (47%) patients were waiting longer than the recommended category timeframe.

A Diagnostic investigation of SOPD revealed that there were multiple complex issues relating to access, delivery and revenue within the Specialist Outpatient Services. High patient caseloads, inconsistent application of business rules, failure to coordinate services compounded by administratively complexity results in the inability to meet demand for services. These issues resulted in patients experiencing longer than clinically recommended wait times for Specialist Outpatient services. Work practices for referral management, access to services, appointment scheduling and billing processes all required review. A Solutions design workshop was scheduled on the 01.05.14, and attended by 20 staff from a range of clinical service lines. The proposed solutions could be grouped into two solutions streams, with 6 key solution activities.

The SOPD commenced the implementation of key solution activities, a program of intensive transition to the new work processes to support patients receiving SOPD services in turn and in time. The 6 key solution activities progressed included:

- Alignment of staff to Model of Care with a POD structure to manage and coordinate specialist outpatient care
- Finalisation of standardised referral management processes across SOPD service lines
- Implementation of automated KPI and audit reports to provide process level data for accountable managers
- Implementation of identified strategies to reduce the SOPD waitlist for all categories, focusing on long wait patients
- Implementation of revenue reports for clinical specialty
- Implementation of ICT strategies including Queue Manager, telephone voice options, SMS reminders, desktop videoconferencing to improve the patient health care journey through SOPD

Evaluation of the new SOPD standardised work processes revealed a significant improvement across all SOPD KPI and reporting metrics. Patient and staff satisfaction improved significantly. Implementation of new work practices has been progressed across all Ambulatory Care service lines offering outpatient services including Allied Health.

**Implementation of Removable Wrist Splints for the Treatment of Wrist Buckle Fractures**

Sydney Children’s Hospital, Randwick

Emergency Department

Glenda Mullen, Linda Durojaiye, Robbie Lea, Ruth Irwin, Kerrie Amy, Angus Grey

**AIM:** As of 1st May 2015, children presenting with wrist buckle fractures to the Emergency Department (ED) at Sydney Children’s Hospital (SCH) will be treated using removable wrist splints, where clinically appropriate. The long term goal was to eliminate the need for hospital follow up.

**SUMMARY ABSTRACT:** A wrist buckle fracture is defined as simple bulging of the thin cortex of the bone without significant deformity. Buckle (torus) fractures are stable and uncomplicated. Historically, these fractures have been managed in the ED with a temporary plaster backslab, and subsequently placed in a rigid or semi-rigid cast that required an Outpatient Department (OPD) attendance for application. Often, a second visit to the OPD is necessary within 3-4 weeks for removal of the cast.

This project aimed to reduce unnecessary OPD Orthopaedic clinic utilisation and hospital visits for families by implementing a safe and evidenced-based process that can be managed at home. Successful implementation of this practice change required cessation of intervention by the Orthopaedic team and follow up by the LMO only if required for this well-defined, low risk cohort of patients.

In order to implement practice change a number of baseline planning elements were undertaken. Firstly, a literature review of current evidence was undertaken to validate a change in practice. A retrospective ED audit of one year (2012 to 2013) was carried out to identify the potential population and scope.

The audit focussed on a diagnosis of wrist fractures/pain/sprain. Associated X-rays were also reviewed and correlated with clinical documentation. A conservative total of 162 cases were identified as potentially suitable for splint management. A scoping request was made to other Paediatric Emergency Departments seeking information on local experience of splint implementation. Detailed information was provided by two centres and included feedback on successes and hurdles. Finally, a suitable cost effective paediatric splint was sourced and trialled in a small number of children prior to procurement of a batch for the pilot project.

An interdisciplinary approach across departments was essential to engage key stakeholders. Senior clinician consensus was obtained through inclusive opportunities to contribute to the process and to review the resources created by the team. Regular face-to-face and email communication ensured open, free and fair contribution to problem solving and progression towards a successful outcome. This was successfully facilitated by the ED team.

Resources were developed to support practice change and an education program was developed directed at all clinicians. Processes in the ED were established to include X-ray review, criteria definition and approval for splint use by a senior clinician prior to discharge. Splint use was tracked. An evaluation process for the duration of the trial involved a single OPD review that included formal evaluation of splint suitability, compliance and comfort by the orthopaedic team.

Over a 14 month period (1/3/2014 to 30/4/2015), 172 splints were fitted in ED with good adherence to the narrow inclusion criteria “NO BUCKLE, NO SPLINT”. There were two unplanned Emergency Department re-presentations: these were due to pain and were consistent with the written discharge information given to parents. Splints had however been correctly applied to buckle fractures consistent with inclusion criteria.

There were a small number of minor comfort issues reported in early evaluations related to movement of rigid stays within the splint (N=7). There was no observed evidence of skin irritation, pressure, rashes or tissue breakdown under removable splints. Ongoing liaison continues with a splint manufacturer to address minor comfort issues.

Clinician confidence in the use of wrist splints increased over the early months of the trial. In the first 3 months (March-May 2014), there was a tendency for splints to be replaced with casts, without clear indications. Some registrars or parents simply requested or preferred a cast. As clinicians were educated and became more familiar with the product, clinician confidence grew and there were fewer changeovers to casts. There has been growing demand for the supply of additional splints to Orthopaedic outpatients for children who do not strictly fit the current inclusion criteria but who can be safely managed in a splint.
Preliminary favourable findings on wrist splint implementation were presented at the 2014 Trauma Update at SCH. Subsequently, there have been both formal and informal expressions of interest from other hospitals considering implementation of splints for this population. Many metropolitan and rural centres have limited access to outpatient follow up or rely on private referral to orthopaedic surgeons. LMO rather than specialist follow-up of this low risk group is ideally suited to non-paediatric, metropolitan and rural settings thereby addressing access to care related to geographical location and socioeconomic need.

From the 1st May 2015, children clinically indicated for a removable wrist splint are discharged from SCH ED with optional LMO referral. A process has been established to enable direct LMO referral back to the OPD Orthopaedic clinic for any unresolved concerns, without the need for unplanned re-presentations to the ED to arrange Orthopaedic follow-up. A system for sustained improvement has been established that is supported by ongoing education, collaboration, data evaluation and dissemination of information and resources.

A new Physiotherapy Workforce Model to improve patient care in an Acute Hospital
Austin Health Physiotherapy Department
Debbie Munro, Scott Edwards, Sue Berney, Cathy Said

AIM: The aim of this project was to re-design the physiotherapy workforce in an acute health setting to improve patient outcomes. Providing Physiotherapy care based on the best available evidence, provided when the patients need it most and delivered by staff with the right skills.

SUMMARY ABSTRACT: The Physiotherapy Department at Austin has implemented a significant change to the workforce model across the acute health service to ensure that patients receive the right care, at the right time in the right place by the right therapist.

The innovation involved the development of new streams of care for the physiotherapy department that better match patients need across the acute health service. The remodelled streams of care are: Acute and Deteriorating, Early Rehabilitation and Transition, and Maintenance. These streams were based around emerging and current evidence that outlines the key role that physical activity and rehabilitation play in improving patient wellbeing. (1-14) Much of the research supporting this work has been completed at the Austin. (1-8)

As well as developing the new streams of care, Austin implemented a standardised two tiered risk prioritisation tool based on the likely impact of (or lack of) physiotherapy treatment on patient outcomes. This meant that all patients who most needed care on a given day received it.

As a result of the innovation improvements were noted in:
- Patient care and workforce outcomes. Patients receiving the right care demonstrated by reductions in delay to mobilisation for high risk patients following surgery and a reduced number of unplanned admissions to the intensive care unit (ICU).
- Patients receiving care in the right place with more patients discharged directly home, fewer patients admitted to subacute for less than seven days and a shorter LOS in both acute and subacute care.
- Patients receiving care at the right time demonstrated by an increased discharge earlier in the week.

• Patients receiving care from the right therapist demonstrated by a number of patient experience stories and a number of patients admitted to ICU through physiotherapy led escalation of care.

This innovative workforce model was successfully implemented over a 12 month period by an enthusiastic representative local steering committee supported by a project lead funded by a DOH grant. This unique workforce model is now embedded in the department and will continue as the accepted approach to delivering care. The leadership demonstrated by the local management team in setting the vision for the future and leading the change was a critical success factor for this project.

Innovative statewide reading model in BreastScreen Queensland.
Queensland Department of Health Cancer Screening, Preventive Health Unit
Stephanie Nunany, Michelle Tornabene, Janet Gray

AIM: The aim of the BreastScreen Queensland (BSQ) Statewide Coordinated Reading Model (SCRM) is to provide a high quality reading service that is timely, cost effective, flexible and reliable. The SCRM enables breast screening images to be equitably distributed and read across the state, utilising the full capacity and availability of Medical Officer and Radiologist Readers irrespective of their location. The electronic distribution of screening images minimises delays for any woman in Queensland (especially in rural and remote locations) progressing through the screening and assessment pathway. The SCRM harnesses the benefits of a Picture Archiving and Communication System (PACS) technology to achieve this and deliver a service to women irrespective of where they live or the BSQ service they attend.

SUMMARY ABSTRACT: BreastScreen Australia (BSA) is a population-based screening program for the early detection of breast cancer. It is delivered in a clearly identifiable, integrated, systematic and coordinated program with a network of accredited and dedicated breast cancer screening and assessment services within each state and territory. The ultimate goal of BSA is to reduce the morbidity and mortality associated with breast cancer through the early detection of the disease in the target population of women aged 50 to 74 years.

The BSA Program requires a comprehensive quality improvement program to be implemented to ensure continuous improvement in screening outcomes for women. The focus of the quality improvement program is to ensure minimum standards are maintained and to pursue excellence by continually developing strategies to review and maintain care. As part of its overall approach to quality improvement, BSA includes a formal accreditation program. The National Accreditation Standards (NAS) of the formal accreditation program describe the minimum standards for accreditation of screening and assessment services required by BSA.

The BSQ Program as the state component of BSA provides free, high quality breast cancer screening services for eligible women. The Program provides a complete breast cancer screening and assessment service up to and including a definitive diagnosis of breast cancer or referral for open biopsy. The service is delivered by Hospital and Health Services (HHSs) through a statewide network of 11 screening and assessment centres, 22 satellite (screening-only) services; and 9 mobile vans, including a four-wheel-drive to deliver screening to remote communities.
BSQ is centrally supported by the State Coordination Unit within the Department of Health’s Cancer Screening, Preventive Health Unit (PHU). The Program has a comprehensive and continuous quality improvement system to ensure all aspects of the screening and assessment pathway operate within clearly defined and documented national and state standards of best practice.

In late 2012, the BSQ Program implemented a statewide PACS, enabling digital breast images to be stored, transferred and read electronically from anywhere in Queensland using the SCRM. The SCRM was implemented from September to December 2012 and is the only one of its kind in a population-based screening program in Australia.

The most significant benefit realised since the implementation of the SCRM has been the increase in reading timeliness particularly for women at regional services that previously experienced ongoing workforce shortages or, for quality reasons, could not absorb all their reading needs. Other benefits that have been realised for BSQ Readers and Queensland women include benefits to services and Readers:

- No requirement to send mammographic images and charts intra-state for reading. Mammographic images are able to be accessed irrespective of location.
- More cost efficient contract Radiologist reading (batches of 95-100).
- Increased flexibility for both services and Readers (easier to accommodate planned and unplanned leave).
- Readers no longer geographically bound.
- Increased opportunity for Readers to liaise with other Readers across the state with clinical decision making.

Reducing medication errors by improving system safety and reliability through enhanced understanding of error prone practices in the medication use process
Matilda International Hospital
Clinical Operations
Kaur Rajwinder

AIM: To reduce medication errors in the five stages of the medication use process (prescribing, transcribing, dispensing, and administration), by improving system safety and reliability through enhanced understanding of error prone practices. The project involves training staff in error prevention strategies, implementing error reduction tools, and providing ongoing support to ensure consistent application of these strategies.

The project resulted in a significant reduction in medication errors, with a decrease of 45% in medication incidents. Staff feedback indicated improved confidence in managing medication errors. The project has been evaluated and rated as highly successful, with plans to continue implementing similar strategies in other areas of the hospital to further reduce medication errors and improve patient safety.
administering and documentation) by improving system safety and reliability through system re-design, secondary defense barriers, error-prevention strategies and staff training.

**SUMMARY ABSTRACT:** Despite considerable effort being placed in reducing medication errors world-wide, health care organizations are continually challenged by this serious and costly problem. Error reduction initiatives such as technological advances, medication reconciliation, clinical pharmacy, reinforcing policy and procedures, staff training, enhancing communication are used, yet they often fall short and the problem remains as an area of concern in many ongoing dialogues in patient safety. Medication errors often result in serious patient morbidity and mortality and can occur at any given point along the complex medication use process. Many studies demonstrate that medication errors are the result of system errors, including transcription errors, failure to adhere to established policies, inadequate staffing, and poor communication.

At Matilda International Hospital (MIH), medication errors accounted for 65% and 42% of the total clinical errors that occurred in 2013 and 2014 respectively. The actual risk severity levels ranged from moderate to significant but the potential risks for these errors were mostly significant. This being a major problematic trend that could directly impact on patient outcomes: the Clinical Risk Management (CRM) Committee advised for an in-depth review of error prone practices, dissection of the entire medication use process to better understand sources of risks, recognize process variations and vulnerabilities within the system in order to develop system-based interventions that will be effective in reducing medication errors. In late 2013, a working group was formed with the quality team, key stakeholders, including pharmacy staff and heads of departments to look at causes and factors within the system that contribute to medication errors. Through meetings, process mapping, self-assessment questionnaires, a lean six-sigma project, walk-rounds, staff interviews, medication audits, further breakdown and analysis of medication errors, the key error prone practices in each of the five stages of the medication use process were identified:

**Prescribing:**
- **Doctors** would prescribe on various documents in the medical record such as the interdisciplinary progress notes, operation records, and discharge summary sheet or directly on the Medication Administration Record (MAR). This result in some orders being missed or duplicated.
- Although doctors were reminded to prescribe directly on the MAR compliance rate assessed in medical record audits scored <50%. This practice could directly contribute to transcribing errors when orders had to be further transcribed onto the MAR and sent to pharmacy for dispensing.
- Doctor’s standing orders contained many medications. The standing orders were not reviewed periodically and some were found to be outdated. It was noted that standing orders were not always signed.
- In examining the causes and distribution of prescribing errors (including near misses) amongst the 10 identified opportunities for error in this stage, prescribing errors related mainly to allergy and use of abbreviations were amongst the highest.
- When examining the overall error interception rate, it was reassuring to know that it rested at 98% however this also highlighted that the process needed closer monitoring and further evaluation to reap better results.

**Transcribing:**
- Since half of the prescribed orders were not written on the MAR, this permitted for more transcription errors to occur. In 2013, 42 transcribing near misses were captured. Nine opportunities for error were identified such as staff transcribing the wrong frequency/route/dose, using wrong abbreviation or allotting the wrong time for the stated frequency.
- Transcription entries were not always double checked by another nurse rendering this category more error-prone. Although the error interception rate was 100%, it did demonstrate that strategies must be put in place to eliminate this stage.

**Dispensing:**
- Depending on length of stay for maternity packages, medications were dispensed for three or five days at one go right after admission. This meant that ward staff would receive packets of analgesics that could contain up to 30 tablets to be administered throughout the patient stay. This opened up more opportunities for errors, as staff administering the medication would not be able to check for remaining quantity, hence errors would only be picked up upon patient discharge and this made it difficult to assess time of error.
- Ward based medication stocks resulted in dispensing being at the ward level and thus bypassing pharmacy would create more opportunities for error.
- At busy period’s a second checker was not always available which could give rise to errors. Four opportunities for error were identified including dispensing the wrong quantity, wrong strength/dose and wrong drug. The error interception rate here was examined and stood at 63%.

**Administrating:**
- This category encompasses multiple interconnected tasks that are carried out by nurses prior to the patient taking the medication and as a result of this complexity it carried the most variations. Moreover, when studying the error interception rate it was noted that errors or unsafe practices at this stage in the process were the least likely to be intercepted.
- Staff were not adhering to 3 checks, five rights principles during medication administration. Not having supportive technology such as 2D barcoding to facilitate patient identification could pose further risks.
- Staff were often interrupted during the medication rounds which could lead to distraction or error.
- Medication received from pharmacy or thereafter were not checked for the quantity dispensed thus any discrepancy found during later days were difficult to isolate when and where an error occurred.
- Near miss reporting were not alerted and problems would therefore only come to light when incidents happened. Staff upon interview shared that the reporting process which was paper-based required considerable time to complete.
- Medication rounds often lacked structure due to busy ward environment and on the number of staff on duty and the medication trollies were not always taken to the patient’s room.
- Ward staff may not be familiar with generic and brand names of medication but references were usually placed in operation records, and medical record such as the interdisciplinary progress notes, and discharge summaries.
- Staff were not in the habit of checking MAR at end of each shift thus any omitted doses were not immediately known and the on-coming shift also not in the habit of checking the previous shifts completion compliance.
- The six identified opportunities for error, administering the wrong dose (usually under dosing) was the most common. This is because the second checker may not have checked effectively.
- Two-person checks were carried out but sometimes at different times thus opening up more opportunities for errors.
Documentation:
- Signatures were sometimes missing on MARs and signatures were present for doses that may not have been administered.
- Discarded medication or if a patient refused or vomited were not reflected on the MAR and could and staff suggested a key to be added to the MAR to facilitate documentation.
- Incorrect transcribing of verbal orders was another potential issue.
- There were 10 opportunities for error that were identified but the overall error interception rate in this category was 96%. Although most of the errors were intercepted it was obvious that more effort was needed to enhance compliance.

Overall:
- The medication use process in the different wards (such as the surgical, medical, pediatric, operation theatre and maternity wards) rather than being designed, simply evolved over the years resulting in extensive process variations that could contribute to errors. The processes from the time the prescription was written to the time the patient receives the medication was noticeably different in each ward.
- Defense barriers at different stages of the medication use process were not optimal or were lacking in certain categories. By examining the causes and factors that contribute to errors it was concluded that the system did not adequately allow for errors to be captured before reaching the patient and the potential for human errors was high.

Given the findings, in early 2014, the team went back to the drawing board and with limited technological innovations being available immediately, the challenge that lay ahead looked daunting as all solutions that were offered or suggested involved technology. Knowing that technology based solutions would not be an immediate option to consider anytime soon, the quality team encouraged all to “think outside of the box” to look for solutions to address issues. After much planning and deliberation it was determined that “going back to the basics” was the fundamental key to improve medication safety.

Improving the patient discharge experience: The Introduction of Post Discharge Phone Calls at St Vincent’s Private Hospital Sydney

Sue Rossini
St Vincent’s Private Hospital, Darlinghurst, NSW

AIM: To develop and implement a Post Discharge Phone Call service at St Vincent’s Private Hospital Sydney for our patients in order to assist with the transition from home to hospital and to minimise the risk of adverse events occurring on discharge.

SUMMARY ABSTRACT: A Post Discharge Phone Call service was introduced to St Vincent’s Private Hospital in August 2014 with an interdisciplinary working party developing the processes and reporting systems that would be integral to a sustainable, effective service. A trial began in October 2014 for a 3 month period on one patient care unit which consisted of a mix of complex medical and surgical patients. During this period the calls were made by one staff member only to ensure consistency in both the service and the reporting system. The outcome of each call was recorded on an electronic questionnaire linked to the patient electronic record. Monthly reports were sent to the working party and the Nurse Unit Manager of the in-patient care unit where the trial was being conducted. Monthly in-services were given to the staff to provide feedback on the process and from the patients. During the 3 months, the electronic questionnaire was altered to improve the process. The service enabled not only the opportunity for patients to discuss their current state of health, but also offered them an opportunity to discuss their in-patient experience, providing immediate feedback which could then be passed onto the clinical wards in a timely manner. At the end of the 3 month trial of the post discharge phone calls there was a twofold result. It showed that 17% of the patients who were called had queries regarding their care at home and also that overall patient satisfaction with the clinical wards may be improved through discharge phone calls. Due to the success of this service, 98% of patient appreciating the follow up phone call, it is now being implemented throughout the remaining patient care units at St Vincent’s Private Hospital Sydney.

Perioperative Graduate Nurse Program

Concord Repatriation General Hospital Perioperative Services

Elizabeth Ryan, Sally Lockhart, Michelle Skrivanic

AIM: The aim of the perioperative new graduate program is to facilitate the transition of the graduate nurse from novice into a well-rounded practitioner who is equipped with a solid foundation in perioperative practice. The intention of the program is to foster the development of these nurses as a means of retaining competent, multi skilled staff within the perioperative services department, thus maintaining high standards of perioperative nursing care.

SUMMARY ABSTRACT: It is well documented that there is a significant shortage of perioperative nurses within Australia (Stott 2013; Australian Health Workforce Advisory Committee 2006, Gillespie 2013). Recruitment and retention of experienced staff, an ageing nurse population and increases in surgical service provision are challenges presented when planning workforce provision, and maintaining high standards of healthcare delivery, within perioperative services. This is further compounded by the reality that undergraduate nurses have limited exposure to the perioperative environment as they are no longer required to attend clinical placements within operating theatre.

Whilst acknowledging the existing graduate nurse program at Concord Repatriation General Hospital (CRGH), which allowed nurses the opportunity for a 6 month perioperative placement, it was recognized that an entirely comprehensive program for perioperative services needed to be developed. An existing program at a different facility within the local health district provided a 12 month placement within theatre, but this was an instrument/circulating nurse program, which didn’t encompass all facets of the perioperative environment.

With this knowledge, and after several unsuccessful attempts to recruit experienced nurses using outside sources, the concept of “growing our own” perioperative nurses was conceived. The notion that we could develop new graduate nurses into well rounded competent practitioners through a 12 month structured supervised program suggested at benefitting not only the practitioner, as well as recruitment and retention within the department, but also the empowerment of existing staff through mentorship. The envisioned outcome of the program, ultimately, was to maintain high standards in the provision of care during the patient’s perioperative journey.

After a successful pilot year in 2013, the CRGH perioperative new graduate program was launched. Areas of rotation include pre-admission clinic, day of surgery admission centre (DOSAC), anaesthesics, instrument/circulating, post anaesthetic care unit (PACU), sterilizing services department, endoscopy processing and sterile stock management. To date 13 graduates have completed the program (including the pilot year), with 12 being reemployed within perioperative services.
Remote Radiology trial in BreastScreen Queensland
BreastScreen Queensland
Carmel Smith, Michelle Tornabene, Janet Lengren, Janet Gray, Greg Shephard

AIM: The aim of the remote radiology trial for the BreastScreen Queensland (BSQ) program, using the regional Townsville service, is the delivery of a high quality assessment service to regional women using a timely and cost effective model. The remote radiology trial uses telehealth to fulfill the need for timely assessment for women without loss of clinical safety. The trial, which commenced over an initial period of 6 months, using ‘real time’ ultrasound combined with mammography images on a Picture Archiving Communication System (PACS) was to prove that women whose images were transmitted to a remote radiologist would not be disadvantaged compared to those who had a radiologist on site at a BSQ local service.

SUMMARY ABSTRACT: The lack of a permanent radiologist at the BSQ Townsville service had created a deficit in the timely delivery of assessment post mammography screening. The emotional and clinical impact to Queensland women awaiting assessment for suspected abnormalities on their screening images and the need to deliver a timely service to meet the needs of the BreastScreen Australia (BSA) National Accreditation Standards (NAS) required a different innovative service delivery model. BSA NAS currently requires a radiologist to be present at an assessment clinic as ultrasound cannot be performed unless a radiologist is on site during the conduct of examinations (1).

The trial, with the full support of the State Radiologist (SR), State Coordinating Unit (SCU), Telehealth and Biomedical Technological Services (BTS) required the technology to support real time transfer of ultrasound images with data capacity. BTS, telehealth, the SR and SCU were supported by both the BSQ Brisbane South and North with testing of data transfer and image quality of the transferred image. This extensive work was undertaken to ensure that the transmitted real time image met all requirements for equipment as outlined in the NAS (2). The BSQ Townsville Service applied to telehealth for funding and this was successful in monitors with suitable image quality capacity being installed in both Townsville and Brisbane (Central Reading Hub) sites.

With support and governance provided by the SCU and BSQ State Accreditation Committee including establishing guidelines for the BSQ Townsville Service to adhere to, the service developed a trial paper and established a local governance committee to oversee the project locally in accordance with the guidelines. The BSQ Townsville Service staff adapted processes to ensure client safety was paramount including the provision that a radiologist would be present at alternative (every second) clinics and only local women would be included in the remote assessment trial. With local regional women only being recruited, if the occasion arose where her images needed to be reviewed by a radiologist on site, the woman would not be disadvantaged by onerous travel requirements. In accordance with the guidelines, the BSQ Townsville Service ensured all women participating in the trial were informed and consent obtained. The service clinical staff adapted reporting paperwork and processes to allow the radiologist to have immediate access to all information. The remote radiologist and local medical officer developed guidelines for the physical running of the clinic to ensure patient safety was paramount. The service ensured that only appropriately qualified and clinically capable staff participated in the remote delivery model and that the work quality of these staff was familiar and acceptable to the remote radiologist. The relationship of trust for this service delivery model is essential.

The BSA NAS include timely delivery of assessment services to women (3). Specifically, NAS 3.7.2 states that “90% of women should be assessed with 28 days”. However, with a lack of radiology availability only 50.93% of women in the BSQ Townsville service catchment area (see map in Appendix 1) were being assessed within 28 days. The delivery of an assessment clinic on a weekly basis with an alternate remote radiology clinic (being trialed) resulted in the BSQ Townsville Service being able to meet this and other relevant BSA NAS as well as fulfill the guidelines set down for the trial in a safe and acceptable environment.

Mild Traumatic Brain Injury (MTBI) Guidelines
Sunshine Coast Hospital and Health Service (SCHHS)
Allied Health / Surgical Stream / Clinical Support Services Group (CSSG)
Kirsty Stafford, Gemma Craig

AIM: To maximise outcomes for MTBI patients presenting to hospital in the SCHHS and reduce unnecessary re-presentation to hospital. Specifically to improve monitoring of MTBI patients to reduce length of stay, improve patient flow and patient access to ongoing assessment whether admitted to hospital or discharged, to improve clinician understanding of MTBI management and referral pathways for MTBI.

SUMMARY ABSTRACT: MTBI following a traumatic closed head injury is estimated to comprise 70–90% of all hospital treated adult traumatic brain injuries (75-95 people injured per 100,000 in Australia), (Cassidy, 2004). MTBI has been associated with a variety of adverse cognitive, physical, behavioural and social consequences in the short term, although some patients demonstrate long-term limitations. The World Health Organisation (WHO) data indicates that the total costs for MTBI are high and that indirect costs (such as sick leave and loss of productivity) are the main expense. The term MTBI has been used interchangeably with various terms such as minor head injury and concussion, in this submission the term MTBI is used to describe the acute neurophysiological effects of blunt impact or other mechanical energy applied to the head, such as sudden acceleration, deceleration or rotational forces (MAB NSW, 2008). From review of the literature 10 -15% of individuals who incur MTBI will continue to experience significant symptoms beyond the normal recovery period of 3 months (Iversion, 2005).

The Sunshine Coast Hospital and Health Service (SCHHS) data indicates the incidence of MTBI was 117 presentations discharged from Department of Emergency (DEM) in the 12 month period July 2013 to June 2014 which translates to an average of 9.75 discharges per month and an equal number of patients admitted however, the majority were admitted due to other conditions (e.g. fractures, cardiac, surgery etc). This figure is likely to be under reported due to the limitations of EDIS and HBCIS reporting and the variable codes a patient presenting with minor head injury may be captured under by the recording physicians.

The negative impacts of MTBI can involve adverse cognitive, physical and behavioural symptoms, which impact on an individual’s activities and participation in life roles. The early diagnosis and management of patients with MTBI facilitates good outcomes. In 2013 it was recognised by both Allied Health and Department of Emergency Medicine (DEM) staff that the SCHHS was not providing optimal education/ information and...
follow up for these patients who may have a short or long term functional impact from the MTBI they have sustained.

This project grew out of the desire to improve the management of MTBI within the SCHHS as many patients were presenting back to outpatient clinics and DEM with ongoing symptoms that had not been managed appropriately from the initial MTBI presentation. This is anecdotal information and based on observations made by Allied Health staff working across the SCHHS when taking history, background information from patients and family members.

The outcomes of the project have been very positive with strong collaboration from many key stakeholders such as DEM staff, General Practitioner Liaison officer and the primary sector as well as SCHHS staff within the community and hospital settings. This collaboration has meant that most of the project aims have been implemented with further recommendations coming out of the project as well as a submission to the wish list funds to start research to measure certain KPI's.

The Wound Improvement Program – an organisational approach to improved patient skin integrity
Wimmera Health Care Group
Marita Ticchi, Sally Taylor, Don McRae

AIM: The Wound Improvement Program was introduced to Wimmera Health Care Group in March 2013. The aim of the Wound Improvement Program was to embed evidence based wound management practices; introduce a standardised approach to wound management processes and products; and improve treatment planning for wounds. The Program was organisational encompassing acute, sub-acute, residential and community. The Wound Improvement Program focused on improving patient outcomes in all areas that could or did compromise skin integrity, including pressure injury and skin tear prevention, and management of all wounds such as venous and arterial leg ulcers, chronic wounds and surgical wounds.

SUMMARY ABSTRACT: It is widely known that pressure injuries lead to increased pain, suffering and mortality. They are also associated with increased length of hospital stay; impacting on patients and their families as their quality of life is negatively affected (White, 2014). In 2011, Page, Barker and Kamar reported that 12% of hospital inpatients in Australia would acquire a pressure injury during their admission. This has been indicated to be responsible for an increased length of hospital stay of between 4 – 7 days, costing the Australian health system an estimated $285 million dollars per annum (Gillespie, et al. 2012).

Wimmera Health Care Group’s pressure injury prevalence prior to undertaking the wound improvement program in 2013 was 25.9%. Following the implementation of the program, delivery of education and changes made to documentation and resources, this prevalence has steadily decreased. In March 2015 the organisations pressure injury prevalence was 2.2%, showing a vast improvement in staff knowledge and patient care.

The Wound Improvement Program showcases the results that can be achieved through a whole organisation approach to clinical outcomes, and the maintenance of patient safety. Strong leadership by the Executive Champion and Clinical Champion has been instrumental in driving this clinical program and has ensured engagement across all departments. This has led to improved patient /resident care that has proven to be sustainable over the two year period following the implementation of the program.

The methodology applied to implement the program included:
1. Standardising wound management processes and products by streamlining a product formulary that covered all aspects of wound treatment without repetition
2. Embedding best practice to improve care and patient safety by the delivery of compulsory education to the multidisciplinary team
3. Improving treatment planning by the provision of evidence based wound assessment charts that include directional treatment planning that all staff can follow
4. Introducing the Pan Pacific Guidelines on the Prevention and Management of Pressure Injuries to all clinical areas, with education based on the recommendations of these guidelines
5. Reviewing equipment within the organisation by the multidisciplinary team; developing a standardised equipment list based on evaluation of the adherence to standards, and the purchasing of new pressure redistribution devices
6. Commencing regular auditing to monitor and review processes whilst training wound champions in bed based clinical areas to audit their pressure injury incidence on a regular basis
7. Introducing the Safety Cross system into bed based units as a visual indicator of progress for both staff and consumers to monitor performance.

The program also included support with the implementation of the new documentation, development of pressure injury management plans, educational posters and structured product formulary charts. Savings generated from the cost of wound consumables and decreased pressure injury prevalence have enabled the purchase of more pressure redistribution equipment to further enhance the positive health experience for consumers at Wimmera Health Care Group.

The Australian Council on Healthcare Standards
18th Annual ACHS Quality Improvement Awards 2015
• Improved relationships between nursing staff and patients and their carers/families
• Identification of errors and reduction in clinical incidents

The current practice for handover at change of shift in the Coronary Care Unit is for all nurses to attend bedside handover for all patients. The allocated time is 30 minutes with a standardized handover sheet to record information. Bedside handover also occurs when a patient is transferred to the ward from the Cardiac Catheterization Lab or the ward.

Falls Prevention and Post Fall Management
Shepparton Private Hospital, Ramsay Healthcare
Kingfisher Ward
Jenny Wilkie, Melissa Nicoll, Audra Garla

AIM: Identify patients with an increased risk of falls to reduce the number of falls in our health care facility (and post discharge), and develop a streamlined, comprehensive management plan for the care of a patient post fall.

SUMMARY ABSTRACT: Audit conducted of number and time of falls. No clear trends identified. Screening and Assessment tools developed in conjunction with a multi-faceted focus on staff education. A multidisciplinary approach ensured better implementation and greater consistency. Further audits of falls, including management of patients post falls were conducted and this lead to the implementation of a post falls management checklist.

Patient Driven Radiotherapy Information Movies
Tamworth Rural Referral Hospital
Radiation Oncology / North West Cancer Centre
David Willis, Katelyn Williams, Jenna Gilshenan, Melissa Ind, Renee Bourne

AIM: Misconceptions about Radiation Therapy processes can compound the anxiety patients experience at the commencement of treatment. In partnership with patients an information video program was initiated to provide specific preparatory information about the treatment process and thereby reduce patient anxiety. In-house video production was undertaken to facilitate iterative quality improvements in response to stakeholder feedback whilst minimising costs. Program evaluation also sought to assess the utility of novel 3D visualisation software as a mechanism for explaining complex clinical concepts.

SUMMARY ABSTRACT: Radiation Therapy is the use of powerful x-rays to treat cancer. A course of treatment is typically delivered in daily sessions over several weeks. The equipment used is large, unfamiliar and potentially confronting, particularly given fearful public perceptions of radiation. As such it is no surprise that the issue of patient anxiety at initial radiation therapy appointments is well known. (Mills 1999, Zegeurs 2012).

The Radiation Therapy service at the North West Cancer Centre, Tamworth commenced in July 2013. Since that time, patient feedback has continually been sought on potential improvements to the service. Patients commonly reported becoming accustomed to the treatment process over time. They felt that better information resources about what to expect would have reduced the anxiety experienced during initial treatment sessions. Other comments and questions from patients indicated they were struggling with complex concepts such as how their CT scan related to the treatment machine movements. At that time the information available to patients was paper based. A systematic review found multimedia education materials for cancer patients were superior to traditional materials in most cases as it increases patient knowledge [Gysels 2007].

A project team was formed, including Radiation Therapists with experience in video production to create patient information videos. In-house production was chosen for pragmatic (budgetary) reasons and because it facilitated iterative improvements over time in response to patient feedback. The majority of the production tasks were performed by team members on a voluntary basis and using loaned equipment so production was essentially cost neutral to the service. By contrast, professional production companies typically charge $25,000 or more for an information video and there may be limited opportunity to make changes without incurring additional costs.

Our department had “PEARLTM” (Vertual ltd. UK) 3D visualisation software available. PEARLTM provides an interactive model of the treatment environment, including the treatment machine and its lights, movements and sounds. Loading CT scans and treatment plans in the software results in a visual representation of relationship between the scan, the target of treatment and the radiation beams. This concept cannot be demonstrated with real-life footage. Visualisation software is used extensively for educating students. Our department was the first in the world to incorporate footage from PEARLTM into patient information videos.

The initial video produced aimed to explain the general treatment process. Following patient and Multi-Disciplinary Team feedback an additional four videos have been produced to explain specific treatment scenarios (prostate, other pelvic treatments, breast and post-mastectomy). Work on further site-specific videos continues.

Videos are incorporated into individual preparatory consultations for all new patients, with staff selecting the most appropriate video for the individual patient. Videos are played on existing consult room PCs from the intranet, so access is quick, easy and reliable. This format also means that information presented to patients is consistent, not subject to staff variability. The videos have been acclaimed professionally for conveying complex concepts, simply and succinctly. They also provide patients and staff with a shared point of reference when questions arise, simplifying those interactions.

Patients are subsequently provided access to the video they viewed via password-protected online versions and/or DVD copies if they do not have internet access at home. This allows patients to watch again at home or explain treatment processes to family members who cannot attend. This is important as our patients come from all over New England and North West NSW.

To date around 400 patients have watched a video as part of their pre-treatment education. Patients are offered a feedback survey as part of ongoing quality improvement for the video program. Statistical analysis of the first 60 survey results found 98% of patients reported that the video was useful for one or more of the listed purposes. This included understanding the treatment process (85%) and using it at home to explain the treatment to family and friends (47%). In total, 50% of patients reported a reduction in fear and anxiety as a result of watching the video. When looking specifically at the 25 patients who reported being anxious prior to viewing the video, the proportion that benefitted was 75%.

The use of footage from the PEARLTM 3-D visualisation software was strongly commended by patients for explaining the rationale for having a specific CT scan (71%), the importance of keeping still (80%) and the rationale for the
Recognised by stakeholders to improve patient education, communication and enhance satisfaction. This includes the development of video information presentations for multi-disciplinary teams. In addition, our team has provided education for midwifery students and clinical nurses. The voluntary collaboration between patients and staff to achieve this shared goal has resulted in high quality resources that help to reduce anxiety during the initial treatments. Importantly, patients involved in the filming and many of those who have completed surveys express pride in having done something significant for their fellow patients.

Patient Driven Radiotherapy Information Movies
Tamworth Rural Referral Hospital
Radiation Oncology / North West Cancer Centre David Willis, Katelyn Williams, Jenna Gilshenan, Melissa Ind
Renee Bourne

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The use of footage from the PEARLTM 3-D visualisation software was strongly commended by patients for explaining the rationale for having a specific CT scan (71%), the importance of keeping still (80%) and the rationale for the machine movements (80%). In terms of completeness, only 11% of respondents indicated that there were still parts of the treatment process they were uncertain about.

Recognition of the work includes a Tamworth Hospital Quality Award in December 2014 and adoption of the videos by other centres. The Royal Australian and New Zealand College of Radiologists also recognised the quality and uniqueness of this work by including it in the “Targeting Cancer” Public Awareness campaign.

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**Busting Groundhog Day – a Clinical Service Redesign Journey in a tertiary hospital Cardiology Department**

Sir Charles Gairdner Hospital
Cardiology Department
Deborah Wilson, Melissa Bisset, Russi Travlos

**AIM:** The project “Busting Groundhog Day – a Clinical Service Redesign Journey in a tertiary hospital Cardiology Department” commenced in April 2014. The project aimed to review the flow of patients through the Cardiology department at Sir Charles Gairdner Hospital and identify opportunities to improve efficiencies without additional costs and resources. The objectives were to reduce delays and cancellations for elective cardiology patients having a procedure in the Cardiovascular Invasive Laboratories, identify Key Performance Indicators to be used for on-going re-assessment of service delivery and identify staff to provide oversight of changes to ensure sustainability of any improvements achieved.

**SUMMARY ABSTRACT:** Interruptions and delays to the Cardiology patient journey were found to significantly impact the operations and efficiency of the department. Anecdotal reports included inconsistent scheduling, transport issues, patient preparation process issues and demand versus capacity mismatches. Clinical Service Redesign Methodology (Lean-Six Sigma) was used to explore the patient journey, identify and measure issues and develop and implement solutions. Expected outcomes were based on factors considered ‘Critical to Quality’ as indicated by the patient, staff and organization. Principles of change management were a significant element contributing to the success of the project in a complex multidisciplinary team environment. The project required two phases; implementing new processes within the Cardiovascular Invasive Laboratories, Coronary Care Unit and Cardiology ward and; realigning elective overnight procedure beds from the Day Unit to the Cardiology ward, including handing over responsibility for pre-procedure patient preparation processes to the Cardiology ward. Results following implementation showed reduced patient transport delays to the Cardiovascular Invasive Laboratories by 30% and up to 50% (15-30 minutes), improved first patient on time starts in the Cardiovascular Invasive Laboratories by 11% (with 82% of cases starting within 10 minutes of expected), reduced Coronary Care Unit and Cardiology ward clinical handover interruptions by 24% (less than 1 per fortnight) and 100% of the Coronary Care Unit and Cardiology ward rounds being completed on time. Use of the principles of Change Management facilitated significant improvements including enhanced team cohesions and collaboration, stronger leadership across all disciplines and an environment capable of sustaining the tangible and intangible project achievements.

**The OnCallogist Mobile App in the afterhours ward-call setting.**

Gold Coast Hospital and Health Service (GCHHS)
Department of Medicine
Justin Wong, Siddharth Sharma

**AIM:** Our aim is improve patient safety and by reducing completion times of patient-care requests in the afterhours ward-call setting through the early-adoption of an innovative mobile app technology (the OnCallogist App). We also aim to extract actionable data from real-time information continually gathered by this app. Finally, we aim to demonstrate alignment with best practices in developing software in the healthcare setting.

**SUMMARY ABSTRACT:** Patient care activities performed in the afterhours setting are vital and safety-critical activities but are often neglected when it comes to healthcare analytics. Many of the activities that occur overnight in hospitals, such as cannula re-sites, fluid orders, medications requests etc. are currently requested through the following methods:
- Paging the on-call doctor
- Calling the on-call doctor directly
- A piece of paper or whiteboard with a list of jobs for the on-call doctor.

These activities after-hours often go unrecorded and valuable actionable analytical data are lost. The current afterhours ward-call process described above is arguably inherently unproductive. Productivity is defined simply as output over input. If a medical resident is tasked to perform a certain job (output) but is frequently interrupted by pages and calls (inputs) while trying to perform this job, then productivity suffers. It is difficult to quantify metrics like productivity, workload, request type distribution due to the lack of data relating to after-hours activities.

The inefficiencies and lack of metrics in the afterhours ward-call process spawned the idea for the OnCallogist mobile app -- an app that provides real-time information on pending requests to afterhours doctors to empower them to prioritise and tend to jobs in a efficient manner without unnecessary interruption from pages and calls. This idea became a reality through the Gold Coast Hospital and Health Service’s "Improver’s Challenge" in mid-2014 where the idea won a grant for $50,000.

The money was used to outfit five trial wards with Apple iPads and to provide Apple iPhones to the afterhours resident medical officer (RMO) and Clinical Team Consultant (CTC). The software was developed locally over the course of 10 months.

The main purpose of the OnCallogist app was to increase productivity of ward-call process at the Gold Coast University Hospital (GCUH). Productivity gains were validated by using the request completion times as a surrogate and comparing the average completion times of the wards using paper-based lists against the trial wards on which the OnCallogist app was deployed. Paper job lists that had not been destroyed dating from December 21, 2014 to April 18, 2015 from all wards (except the trial wards during the trial period) were collated and examined for request and completion time entries. Note that very few of the several hundred job list sheets actually had completion times filled out. Nonetheless, we were able to extract a sample size of n=83 from these paper lists. Completion times from the OnCallogist app were obtained easily by performing a simple SQL query (structured query language) against the OnCallogist database (n=1916).

Our other main priorities were as follows:
1. To develop a mobile app that aligns to best practices in the areas of user-centered software design, security, and government ICT policies.
2. To provide the ability to extract actionable data related to afterhours ward-call activities.
3. To provide a frictionless handover process that facilitates NHQHS Standard 6 (Handover).
4. To achieve 100% compliance with NHQHS standard 5.1 (Patient Identification).
5. To architect a solution that is portable to other health districts.

Outcomes: Data gathered at three months post-deployment of the OnCallogist app showed an impressive 41% difference in average completion times: 104 minutes (paper-based, n=83) to...
62 minutes (OnCallogist app, n=1916). We achieved 100% compliance to NHQHS Standard 5.1 (Patient Identification) for all requests made through the app. Data-mining of the OnCallogist database yielded unprecedented data on workload, completion times, and request type distribution. We were able to identify workload and delay hotspots, and we also took the opportunity to perform a workload analysis on the Easter long weekend ward-call activities.

The OnCallogist app gained positive reception from the nurses and doctors (See Appendix – Figure A1-A2) and has completely replaced the paper-based jobs list on all five trial wards. The app has successfully implemented encryption modalities that meet and exceed the Queensland Government Enterprise Architecture Network Transmission Assurance Framework’s highest security level classification. The app has been successfully tested on the Cloud as well as internal infrastructure and is architected in a way that is easily portable to other health districts. Note that the data presented in this paper are for wards B5S, B5N, D5N, B4S, B4N for the date range: February 9, 2015 to April 19, 2015.

Pathways to Health – GP Referrals to Nepean ED, Clinical Redesign Project
Nepean Blue Mountains Medicare Local
Nepean Blue Mountains Local Health District
Danielle Kerr, Tracy Forsythe, Chris Baird

AIM: The aim of the’ Pathways to Health’ Clinical Redesign Project was to build a strong and supportive network between Nepean Hospital, GP’s and the Medicare Local by improving the patient journey and improving patient flow throughout Nepean Hospital. This project aimed to create awareness of the current outpatient services that are available at Nepean Hospital, and how GP’s can refer appropriate patients into these services. This project streamlined the referral process from General Practice to Nepean Hospital Outpatient Services, ensuring the patient is referred to the most appropriate destination. This project also aimed to improve the communication and relationship between the Medicare Local, GP’s and Hospital.

SUMMARY ABSTRACT: The Nepean Blue Mountains Local Health District identified that there was a need to strengthen the relationship between Nepean Hospital, GP’s and the Nepean Blue Mountains Medicare Local. There are increasing numbers of GP referrals to Nepean Hospital Emergency Department, with a portion of these referrals that could have possibly been referred to another, more appropriate clinical setting, such as an outpatient clinic. It was important to gain a clear understanding of the current GP referral process to both the ED and Outpatient Services as well as a precise understanding of what outpatient clinics are already established at Nepean Hospital. The benefits of a more streamline patient journey, with patients being referred to their correct and appropriate destination in the first instance, provides a safer, more efficient patient journey. A decrease in the number of referrals to the ED was also anticipated.

The project initially focussed on redirecting GP referrals from the ED to Nepean Hospital outpatient clinics, with the ultimate aim to enhance the delivery of quality care to our patients requiring specialist care. Engagement of both General Practitioners and Hospital staff (clinicians and clerical staff) enabled the project to successfully identify a number of barriers which are now being addressed to provide better patient care. The following 7 key solutions were implemented:

1. Creation of a web based Directory of Outpatient Clinics for GPs
2. A Standardised Referral to Outpatient Clinics
3. Message Delivery Solution (SMS reminders) for Outpatient Clinic appointments
4. A Standardised Referral to Community Health
5. Promotion of Community Health Services to GPs
6. ED Staff Specialist Notification Call
7. GP to GP web based referral portal
A. AIM
The aim of the Preventing Infection through Cleaner Hospitals (PITCH) project is to develop, implement and evaluate an environmental cleaning bundle to reduce healthcare associated infection (HAI). By combining evidence based practices with implementation science, this project works on improving staff knowledge and attitudes with resultant improvement in hospital cleaning performance.

B. SUMMARY ABSTRACT
Healthcare Associated Infections (HAI) are a major preventable clinical and economic problem around the world (Safety, 2011). In Australia, HAI affects nearly 200,000 patients and 1.9 million bed days are diverted to treat them annually (Graves et al., 2008). Environmental surfaces in hospitals are regularly contaminated via infected patients and staff colonised with micro-organisms (Trillis et al., 2008, Dancer, 2009, Hota, 2004, Hardy et al., 2006). Many common micro-organisms are able to survive for several months on surfaces (Kramer et al., 2006, Wagenvoort et al., 2011), with transmission through contamination from the hospital environment becoming increasingly well documented (Otter et al., 2013, Dancer, 2011, Rutala and Weber, 2013, Weber et al., 2013).

Whilst numerous lengthy cleaning standards and guidelines exist, there is heterogeneous practice across hospitals in Australia (Mitchell B et al., 2013), and translating current evidence into meaningful and sustained improvements in cleaning practice is challenging. A bundle is a small, straightforward set of evidence based practices that when performed collectively and reliably improve patient outcomes (Resar et al., 2005).

The PITCH cleaning bundle is a research project developed in collaboration between Queensland University of Technology (QUT) and Logan Hospital, a 410 bed secondary public teaching hospital. The Hospital is located in Logan City, the fastest growing area in South East Queensland. The hospital provides acute paediatric and adult medical and surgical services, rehabilitation, maternity and mental health service.

The PITCH cleaning bundle was developed through a combination of evidence based best practices from a structured literature review with a multi-disciplinary expert panel that prioritized practices for inclusion into the bundle. The 5 key areas identified were product use, cleaning technique, enhanced auditing through the use of ultraviolet (UV) gel dots markers, comprehensive training and improved communication. The Promoting Action on Research Implementation in Health Services (PARIHS) framework provided an easy to use, yet comprehensive implementation process. This framework helped to identify specific areas key to successful implementation, such as early staff engagement. It also helped guide synthesis of information obtained from context mapping, environmental services staff consultations, and patient and staff surveys, to develop targeted training and project resources.

The PITCH project was conducted as a pilot study and proof of concept in May 2014 for 6 months at Logan Hospital. The bundle was successful by demonstrating not only improvements in both staff knowledge of infection prevention and cleaning practices, but also improved cooperation on the wards and overall job satisfaction. These positive changes in knowledge and attitudes also translated to significant improvements in cleaning performance (from 61.1% clean to 97.4%), and this has remained at over 90% in the post intervention period.

The PITCH project has provided a practical evidence-based strategy to improve environmental cleaning practices in the hospital,
which will ultimately reduce HAI. This project has now been embedded into the routine cleaning procedures of Logan Hospital.

C. APPLICATION OF ACHS PRINCIPLES

1. Consumer Focus

Healthcare Associated Infections are the leading cause of preventable illness and death. The role of the hospital environment in the transmission of these infections is a focus for infection prevention and environmental services globally. Effective environmental cleaning procedures are an important aspect of Standard 3 of the National Safety and Quality Health Service Standards.

In 2011-2012, Logan Hospital saw an increase in the colonisation and transmission of Vancomycin Resistant Enterococci (VRE). Increased cleaning hours were required to facilitate bed turnaround times for improved patient flow with decreased patient waiting times. As part of our Infection Prevention strategy, several key changes were implemented during 2013:

- The hospital wide use of disposable bed screens which were resistant to the majority of multi-resistant organisms. This was previously trialled in the Renal Dialysis Unit with success.
- One-step disinfectant cleaner for all cleans using a 2-in-1 product with 1:1000 ppm Sodium Hypochlorite.
- Focus on cleaning Frequently Touched points with Infection Control nurses reminding cleaning staff of the risk of infection transmission from high to touch areas and the need to focus when cleaning on those areas.

These interventions showed a positive effect on new health care associated multi-resistant organisms with a steady decline in the rate of acquisition (Figure 1).

![Figure 1: New Healthcare Associated Multi-resistant Organism Acquisitions.](image)

Results from a Best Practice Australia survey of patients in late 2013 concluded that hospital cleanliness is the number one expectation from hospital inpatients. Hence, a proposal from QUT to be involved in a study implementing a cleaning bundle was seen as an excellent opportunity for both parties to improve patient care in an area that was highlighted as key for infection prevention and patient satisfaction.

A cleaning specific patient survey was developed by environmental services in conjunction with the Quality and Safety Unit, designed to assess patient satisfaction with current cleaning practices. This survey was conducted by volunteers from St John’s Hospital Volunteers. The aim of the survey was to ascertain patient opinions and satisfaction of the quality of cleaning. The results showed that patients were greatly interested in hospital cleanliness. It was felt that cleaning was performed at an appropriate time with patient’s needs taken into consideration.

Not only were patients greatly interested in hospital cleanliness before the PITCH project, but they were very excited to see the use of UV gel dot marker auditing technology to assess cleaning performance. Some patient comments included...
“great to see the dedication to cleanliness” and thought the UV light was “a bit CSI”. The general comments were very positive for the whole program.

The core component of this project is the Environmental Services cleaning staff. Although traditionally not considered consumers like hospital patients, their job satisfaction is an important component of this project and part of the Logan Hospital executive’s recognition that the success of health services provided at Logan Hospital is largely due to the skills, energy and efforts of staff.

Environmental Services cleaning staff were initially surveyed to gain some demographic data of our cleaning staff, to assess their understanding and satisfaction of their job and to look for areas where cleaning services could be improved. From this initial survey, it was noted that:

- 95% had worked at Logan Hospital for 3 or more years with 67% of them having had 3 or more years of cleaning experience
- 70% had one or more workplace certification
- The preferred training method was face to face, hands on group training with greater emphasis on new staff training
- Over 90% knowledge regarding germ transmission and hand hygiene
- The importance of “elbow grease” in cleaning

This initial staff survey was very valuable as not only did it highlight areas that could be targeted in the PITCH project, such as better communication with suggested communication strategies including white boards in cleaning cupboards to communicate outstanding or other matters to the following cleaner, it raised other concerns not directly related to the project which were areas for service improvement. These included the need for improved staffing for example, a cleaning supervisor on the floor and developing new services including scheduling regular confidential bin runs. These suggestions were taken up and the enhanced services that resulted from them were very empowering for the staff.

The outcomes of the project demonstrated not only improvements in environmental staff knowledge, attitudes and cleaning performances but they experienced validation of their concerns and received feedback on their work. Subsequently, there has been a change in culture and a shift in attitude and perception towards cleaning, not only within the cleaning staff themselves but also in the wider health service community at Logan Hospital.

2. Effective Leadership
The key to the success of the PITCH program is the leadership of the Environmental Services cleaning staff themselves in steering the direction of this program. A small group was formed in early March 2014 comprising ten volunteer cleaning staff who was involved in:

- Developing project awareness strategies including posters and engagement with other staff
- Identification of barriers to cleaning
- Access to better cleaning equipment
- Training strategies and ideas including the use of instructional flip charts for each cleaning cart
- Work instructions and cleaning routines including check lists

Direct involvement of the cleaning staff in the decision making process made it possible for the staff to own the project. Most staff cared about what they were doing and wanted to do a good job. Therefore, the regular feedback from the project team, the objective nature of the UV audit as well as the formal recognition of good work were positive steps towards greater job satisfaction.

There was a dedicated PITCH project team which comprised of the Facilitator from QUT, the Infection Prevention Clinical Nurse Consultant and Environmental Services management and supervisory staff. This team met on a regular basis throughout the project to educate, monitor progress, feedback results, address concerns and problems as well as to improve engagement with clinicians especially the Nurse Unit Managers of the clinical wards. The senior leadership within Corporate Services encouraged involvement of environmental services workers in numerous consultation workshops, surveys, and other activities which contributed to the development of the cleaning bundle and project resources. Environmental services workers that were respected by their peers were also engaged to be change champions.

In addition, the PITCH team were supported and championed by the Corporate Services Manager, Chair of the Infection Prevention and Management Committee and the IMPACT nurses (the infection control nurse representatives in each clinical ward). Due to this commitment, the PITCH team were able to engage across departments and build...
on the multi-disciplinary input. In addition, this project was underpinned with the rigour of a scientific research study including collaborative research agreements, ethics approval, and review of interventions by an expert panel with measured process and outcome indicators.

3. Continuous Improvement
PITCH strived to be innovative in both the development and implementation of the cleaning bundle. By utilising the PARIHS framework PITCH focused on collecting a range of evidence including clinical, operational, staff and patient experience and an understanding of Logan Hospital’s systems and processes, culture and people. There was also active engagement of environmental services staff to empower them to affect change.

Environmental services staffs were directly involved in multiple pre-implementation and implementation stage activities. Each set of data collected informed the next set of data collection, following the normal Quality Improvement cyclical pattern. This included:
- consultation workshops in which barriers and enablers were discussed
- staff survey to assess training requirements, knowledge and attitudes
- feedback on possible tools and resources needed for an effective bundle
- regular feedback on processes and audit outcomes and
- educational outcomes from the different training sessions.

Communication and education was ongoing between all stakeholders from environmental services, nursing and QUT; through to the state-wide services such as Operational Services Network (SOSAN) and CHRISP (part of Communicable Diseases Unit); plus the commercial organisations that provided in-kind support. PITCH team regularly presented at state and local stakeholder meetings to ensure that information was disseminated and that issues raised were addressed. PITCH also conducted hospital wide promotional activities including a launch day, posters and staff recognition.

Feedback and suggestions were actively sought and acted upon by the PITCH Team to ensure that the implementation was smooth, yet dynamic enough to adjust to any changes that needed to be made. Ongoing evaluation of this process has shown continued benefits with UV auditing now routinely used for evaluation of cleaning services at Logan Hospital alongside the more traditional Topcat auditing tool.

4. Evidence of Outcomes
The bundle was evaluated on cleaning performance (UV markers – primary), infection rates (hospital data), staff knowledge and attitudes (pre and post surveys + interviews) and cost.

Environmental services staff knowledge remained consistently high (over 80 %) for hand hygiene, transmission precautions, and the importance of “elbow grease” in cleaning practice. An added benefit was the improvement across the majority of indicators including statistically significant improvements in knowledge on frequently touched points (p<0.001), product contact time (p=0.023), and where and when to use Disinfectant (p=0.045).

Staff had consistently positive attitudes within their team including with their managers. This was due to improvements in hospital support, investment in cleaning, better cooperation on the wards (78 % indicated improved relationships with nursing staff), overall improved job satisfaction including involvement in decision making and defined role expectations.

This improvement in knowledge and attitudes has translated into significant improvements in cleaning performance (% of UV marks on frequently touched points removed/ cleaned) from the hospital average of 61.1 % at baseline to a peak of 97.4 %, within the final 3 months of the study (Sept-Nov) having hospital average scores over 90 % across the 8 study wards (Figure 2).

In addition, there were no outbreaks of MROs requiring interruption to patient flow in the hospital during this period and infection transmission rates which were already decreased from the earlier interventions (Figure 1) remained stable in the short period of the project.

Costs for the bundle implementation were minimal, with the exception of the opportunity cost of staff time, as there was wide and regular engagement. Many staff were involved in the development and implementation of the bundle including
- filling out surveys
- auditing
- attending meetings
- hands on training and support.
The PITCH project’s uniqueness and success has also been acknowledged with invitations for oral or poster presentations at the following conferences:

- Australasian College of Infection Prevention and Control 2013, 2014 and 2015
- Health Round Table 2014
- Queensland Translating Research into Practice Symposium 2015
- Asia Pacific Society of Infection Control Congress 2015
- International Forum for Safety and Quality Conference 2015
- European Congress for Clinical Microbiology and Infectious Diseases 2015

In addition, the PITCH project formed the basis of a successful NHMRC partnership project grant (GNT1076006) for a randomised controlled trial of this cleaning bundle in 11 hospitals nationally.

5. Striving for Best Practice

The PITCH project, an environmental cleaning bundle, is based on evidence from a combination of published literature, national and international guidelines, clinical and operational expertise, and end-user and patient experience. It has been targeted to a specific environment and staff to ensure maximum uptake of the new process and procedure. In addition, it has embraced new technology with UV auditing, which is an improvement of the current Australian standard of visual auditing. Electronic data collection and reporting via an app allowed for real-time performance feedback direct to the environmental services staff themselves.

The PITCH project has reformed cleaning practices at Logan Hospital. Whereas reporting of cleaning traditionally only occurred via Topcat, UV auditing has now been embedded as part of the cleaning audit schedule and the resulting reporting and feedback mechanisms are integral to the Infection Management Plan for the organisation.

More importantly, this practice is evidence that ownership of responsibility can result in excellence in performance outcomes. This project has been driven by the Environmental Services cleaning staff and the outcome is credit to the dedication and commitment of the staff to do a good job.

This is the first hospital in Australia to have developed, implemented and evaluated this type of hospital environmental cleaning bundle, and the success not only on cleaning performance, but on staff knowledge and attitudes, demonstrates not only each environmental services worker’s pride in their work, but Logan Hospital’s greater commitment to best practices.

D. INNOVATION IN PRACTICE AND PROCESS

The PITCH cleaning bundle is innovated in its design by incorporating a number of cleaning components into a concise tool that has been successful in increasing cleaning standards in our hospital. It is known that common barriers to effective cleaning practices are heterogeneous guidelines and practices, lack of clarity around
responsibilities leading to missed items, limited training, language and literacy issues, and the view by some hospital staff that cleaning is only aesthetic and not important for infection control. This bundle was designed to not only improve cleaning practice, but also fundamentally change the systems that support Environmental Services.

Five key components of the bundle are:

- Consistent product use including disinfectant cleaning and point of care wipes (for medical equipment);
- Defined cleaning techniques including sequence, frequently touched points, manual pressure, and manufacturer’s instructions;
- Enhanced auditing by adding Ultraviolet markers to visual audits, including direct feedback of audit results to cleaning staff as well as relevant safety committees;
- Training for all who clean with clear responsibilities + annual knowledge assessment for environmental services staff;
- Improved communication through daily communication on the ward and hospital wide promotion “cleanliness is everyone’s responsibility”.

Training of staff was structured to cover the following points in two 45-minute sessions:

- the equipment and cleaning technique required (cleaning sequence, frequent touch points);
- understanding infections and infection control;
- understanding reasons for different cleaning requirements (daily vs discharge cleaning);
- understanding auditing and the role of UV dot gels;
- effective teams and communication.

The cleaning staffs were also given a further hour of training on the cleaning product of choice and the new microfibre mops and cloths purchased following feedback from the initial staff survey requesting better cleaning equipment.

An audit schedule was developed to ensure that every room was evaluated in a cycle. The gel dots were placed after the cleaner had gone home for the day and were rechecked with an ultra violet light after daily cleaning in that area had occurred. Audit results were returned to the nurse unit manager and the cleaning staff of the area. This real time feedback allowed the cleaner to self-assess their cleaning practice and highlighted the cleaning of frequent touch points which were commonly missed. To our knowledge, the innovative idea of a cleaning bundle utilising an objective marker like the UV gel dots and the provision of real time performance feedback directly to the staff involved is the first of its kind in Queensland, if not in Australia.

By clearly defining best practice in terms of cleaning technique and product use, and ensuring all relevant staff were fully trained, we were able to be confident that they were equipped with what was needed to improve individual performance and in turn, reduce the overall risk of infections with a cleaner environment. In addition, cleaning performance was objectively measured and directly fed back to the people doing the job. The subjective visual auditing as practised in most Australian hospitals is now backed up by the objective UV auditing tool. The daily communication on the ward between nurses and cleaners, reporting up to the relevant governance committees, and promoting cleanliness across the organisation has created a change in culture and attitude towards cleaning within the organisation.

**E. APPLICABILITY TO OTHER SETTINGS**

The PITCH bundle is effective, easy to use and could be utilised in any hospital within Australia and across the developed world. The practical application of the implementation framework ensured that:

- the collection of sufficient evidence from a variety of sources including literature, clinical and operational experience, patients and local data to help develop a bundle that was effective, practical and feasible;
- the understanding of the hospital context including available resources, systems and processes, leadership structures, and culture in which this bundle was undertaken made it acceptable to all staff;
- the provision of active facilitation through multi-disciplinary team, adult learning initiatives, active participation and internal and external change agents enabled staff to improve their own performance.
Using this implementation strategy, other facilities can customise the bundle to their staff, patients and organisation.

The randomised controlled trial following on from this research will hopefully demonstrate the applicability of this bundle across 11 hospitals nationally. Due to its longer timeframe and increased number of sites, the trial should be able to demonstrate the effectiveness, not only in staff knowledge, attitudes and cleaning performance, but also a statistically significant improvement in HAI transmission rates across a variety of setting. The cost-effectiveness of this cleaning bundle can also be assessed in a more comprehensive way.

F. REFERENCES

- RUTALA, W. A. & WEBER, D. J. 2013. Role of the hospital environment in disease transmission, with a focus on Clostridium difficile. Healthcare Infection, 18, 14-22.
G. APPENDIX

Figure A1: Instructional flip book for each cleaning cart (front cover, touch points page).

Figure A2: Christine Welsh and Michelle Allen undertaking a UV audit for cleaning performance.

Figure A3: Wayne Hebblewhite and Christine Welsh being recognised at the PITCH wrap-up meeting.
AIM
To undertake a Gold Coast Hospital & Health Service (GCHHS) district food and nutrition review with the aim of providing excellence in the provision of food & nutrition and successfully meet all core actions of EQuIP National Standard 12 Criterion 2 - Management of Nutrition: The organisation ensures that the nutritional needs of consumers/patients are met.

SUMMARY ABSTRACT
BACKGROUND: In late 2013 the Gold Coast Health Service underwent a district restructure. This was brought on by the transitional move from the previous Gold Coast Hospital (400 beds) to the new 1.8 billion dollar Gold Coast University Hospital (GCUH) (700+ beds). This gave opportunity for a district review on food service processes and structure. As part of this process the clinical nutrition service, which historically sat under Allied Health Services, was amalgamated with Food Services, which sat under Infrastructure & Support Services with all other operational services. The GCHHS comprises of three separate sites: GCUH 700+ beds, Robina Hospital 350 beds, and Carrara Health Centre 60 beds – totaling over 1100 beds for the district.

This would incorporate three stages (i) formal review of food services (ii) creating one service line which amalgamated two distinct hospital services (Clinical Nutrition & Food Services), and (iii) implementation of a new electronic IT food service ordering system.

HOSPITAL TRANSITION
With the move from the old Gold Coast Hospital to the new GCUH it soon became apparent that there were many complications to new service provision. These included (i) the initial relocation process from Gold Coast Hospital to the new Gold Coast University Hospital (ii) the introduction of a new cold plating system and (iii) the impending introduction of a new food service IT system. The new kitchen infrastructure and equipment was not compatible with the new cold plating process, neither was the frozen SOA food which was part of a State wide Tender. Combined with limited prior staff training this caused patient satisfaction to drop and there were multiple complaints with the food quality, temperature, patients getting the wrong diets, and delayed meal times. Formal patient complaints totaled 20+ per month during these initial stages, compliments were zero. The current working relationship between the Nutrition Department and Food Services was also divided and fragmented.

1. PLAN – RECOGNISING AN OPPORTUNITY
As a result of this, a project person was temporarily employed to review the service. Many meetings were organised with food service managers, dietitians from public & private hospitals in the State and the Statewide Food Services experts. In house meetings were organised with clinical nutrition & food service staff to identify and address issues. One key recommendation of the outcome report was to combine Nutrition and Food Services. This unison was promulgated in an attempt to improve what had historically been a very fragmented working relationship despite the fact that both were reliant on each other. There was initial tension and apprehension to this unison as the two services had not worked harmoniously in the past.

After some minor position changes, transparent meeting forums, and directional leadership from management, this was however short lived. A new and successful partnership was now being forged which was working towards one common goal – providing excellence in the provision of food & nutrition to consumers.

2. DO – PROMPTING CHANGE
Based on the new service amalgamation, multiple Initial improvements occurred as a result of service streamlining and improved communication lines. These included:

1. Food transport processes and temperature settings fine-tuned with the new Burlodge Trolleys to avoid over-cooking of food.
2. Staff rosters and processes were changed to allow for same day ordering of breakfast, lunch and dinner for patients.
3. The district menu was reviewed and changed from pre-cooked frozen food to mainly fresh cook.
4. Consumers were now being engaged in all processes of menu review resulting in increasing the quantity of ethnic foods.
5. As the Statewide SOA food tenders had expired the service changed to using local suppliers to provide more local and fresher foods.
6. Succession planning and upskilling. Providing the opportunity for kitchen managers to be up skilled in nutrition by offering the opportunity to complete Certificate III in Nutrition (Tafe level). Also facilitating periods of acting up in roles when covering periods of annual leave, etc.
7. Providing an opportunity for the previously separated departments to spend 1 day work shadowing each other – so far all clinical Dietitians have spent a day work shadowing kitchen supervisors/menu monitors, and vice-versa.

In an attempt to further improve patient food service provision, in early 2014 a multidisciplinary project team was set up to oversee the installation of the “Delegate” food service IT system. Food Service IT systems have the ability to streamline patient meal ordering processes and improve quality, consistency and safety of patient intake. The project team comprised of a Project Manager, Business Analyst, Change Analysts, IT services, Food & Nutrition services & Nursing. A site visit was organised to The Canberra Hospital, whom had the Delegate system in place for the past 3 years. Information and experience were taken away and used for our local implementation. Education sessions were organised for all key stakeholder groups by the company and the project team. Change processes were rolled out district wide. In mid - 2015 the IT system went “live” across two hospital sites despite minor teething problems – according to the Delegate company it turned out to be the quickest and most successful implementation of this system across all Australian sites to date.

Furthermore, the GCHHHS had created a food & nutrition steering committee in 2012 – with the new amalgamation of these previous two separate services (Nutrition and Food Services) this committee became more instrumental in overseeing many of the food & nutrition activities and strategic direction and the composition of the committee widened to include consumers (n=3), nursing executive, food service staff, quality & safety, public health & a CNC Nutrition position. Thus enabling consumer related food and nutrition matters to be actioned far more promptly and efficiently.

In the process the newly acquired bond between Nutrition and Food Services was further reinforced and strengthened.

3. CHECK – REVIEWING THE CHANGES
As part of the QA required to meet the Queensland Health Statewide Food Service KPIs, Nutrition & Food Service Students on their food service placements undertook food satisfaction & food quality audits. The Patient Entertainment System (PES) was also used to develop a real time survey through Delegate food service system to allow patients to comment on the meals at the time of eating. Increased consumer feedback was also sourced as a result of increasing representation at all stages of menu development and review. This gave valuable feedback for service review and refinement.

Since these changes patient satisfaction has increased dramatically, wastage has reduced as patients only get to order was is clinically suitable for them due to the Delegate filtering system, patient safety has improved with respect to therapeutic diets & allergy filtering, food costs have gone down due to the ability to buy local produce at competitive prices. Meal accuracy improved from 78 % to 99 % with the new IT food ordering system. Patient satisfaction also improved by over 15 % in less than one year. Plate wastage has reduced by close to 10 %. Patient food and nutrition related complaints reduced from over 20 per month to less than 2. Food complements went from zero per month to now 20+. As well as these clinical indicators, no fewer than 6 food service staff have now completed their Cert III in nutrition through TAFE.

4. ACT – IMPROVING ON WHAT WE HAVE LEARNT
The senior Food Service Dietitian recently attended and presented at the Annual Dietitian’s Association of Australia (DAA) National Conference in Perth (May 2015) on the implementation of the Delegate IT and Personal Entertainment System (PES) – the response was fantastic with many sites wanting to visit the Gold Coast University Hospital site. To date we have visits from West Moreton HHS, Sunshine Coast, Cairns Base Hospital, St...
Vincent’s Private Hospital (Sydney) and Ho Chi Minh City and proposed visit from Fiona Stanley (Perth).

As part of the ongoing improvement of services we are locating food service staff in wards to provide a ward based service – this has been greatly received to date, aiming to employ a pastry chef to produce our own desserts rather than buy them in which will make further cost savings, have commenced research with a $47,000 grant from the hospital private practice fund into identifying patient barriers to food intake, which will inform service changes to address these issues. We have also received $10,000 funding through a GCHHS “improvers grant” to use iPad technology for menu collation (with the current Delegate software installed) at Robina Hospital (which currently does not have the PES system technology) instead of scanning which has been a slow and resource intensive system. We have also further organised staff work-shadowing for clinical staff with food service staff & vice versa to allow to get an appreciation of each other’s work – which has received great feedback and reduced tension issues staff demands through appreciation of each other’s workloads. A concretive effort has also been made to continually up skill staff in higher positions, thus helping improve service sustainability.

OUTCOME: The overall outcome was the successful amalgamation between two initial separate services who once had a fragmented and divided working relationship – this being Nutrition and Food Services. Now the combined service has a mutual aim of providing excellence in the provision of food and nutrition and successfully meeting consumer’s needs in a satisfying, safe, efficient and sustainable model.
Monash Health
Support Services

An innovative food service model
@ Moorabbin Hospital
Sharon McNulty

AIM
In 2013, Moorabbin Food Services faced significant challenges ensuring the kitchen was functioning efficiently and effectively to enable the delivery of a high standard of food services to patients. There was significant opportunity to improve patients’ satisfaction with the food services, and ageing infrastructure and equipment required substantial improvement.

The objective of this initiative was to provide patients with a cost effective, healthy, nutritious meal service that meets and exceeds the needs and expectations of our patients. This was supported by research that shows patients rely on the presentation, aroma and temperature of their meals to stimulate their appetite, which improves nutritional intake.

The new food model at Moorabbin provides every patient an option of 23 hot meals. In addition to this, we are able to cater for cultural meals, special diets and texture modified meals. These additional meal options align with our aim to provide a patient centred approach to food services.

SUMMARY ABSTRACT
The significant opportunity to improve patients’ experiences of Moorabbin Hospital Food Services (evidenced by patient experience surveys commissioned by the Department of Health and Human Services) coupled with the need for urgent improvements to food services capital and infrastructure, were the drivers for Support Services to investigate alternative and superior food service options.

Support Services considered and reviewed various options, and ultimately partnered with The Monash Health Central Production Kitchen to plan implementation of a model which includes a cook freeze option developed by the Central Production Kitchen. The Central Production Kitchen has consulted with the Monash Children’s Hospital team and consumers and has support to introduce this innovative model to Monash Children’s Hospital in 2016. The Central Production Kitchen based the model on a similar model implemented in the National Health Service in England, as a way of providing cost effective, multiple hot meal choices to patients.

The ultimate solution is a cook freeze meal in a “Smartpak”, with a removable base enabling the heated meal to be placed on the plate, while maintaining the presentation of a restaurant quality meal. The primary benefit of this model is the improved food quality due to retention of the colours and freshness of the meal, the primary driver of patient satisfaction.

This innovative model is the first of its type to be implemented in Australian hospitals. It offers 23 hot lunch and dinner meal choices, as opposed to the previous food service offering two hot options for each of lunch and dinner. It also enables patients to receive a meal of their choice within 15 minutes of admission or requesting a meal, an outcome not previously achievable. Previously, patients did not receive a meal of their choice for at least two meal periods.

The Smartpak meals provide the patients a restaurant-style dining experience, reduce food wastage and have resulted in a 40 % EFT saving. This innovation is a first for Australian public health, achieving sustainable, high quality healthcare service.
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Abstracts

The introduction of an organisational-wide integrated education and training system – using technology to support improvement.

Ballarat Health Services
Centre for Education and Training
Denille Beardsmore

AIM: To create and implement an information technology (IT) system capable of monitoring staff education and training compliance across the entire Ballarat Health Services (BHS) organisation. The goal was to provide our managers – the consumers – with transparent, accurate, real-time data accessible from any desktop computer. In this way, the system works the way it was designed to by the chain of command, resource management, promote greater accountability and, indirectly, enhance patient care. The system was also designed to streamline and simplify BHS’ accreditation preparations, reducing tasks that previously required months of work to the click of a button.

SUMMARY ABSTRACT: The warning signs were there. When it came to monitoring staff education and training compliance, Ballarat Health Services’ (BHS) system was flawed. Largely paper-based, records were notoriously difficult to access and responsibility for unearthing reams of information fell on time-poor managers, or the Human Resources department. Staff lacked faith in the process and the data, which required considerable effort to obtain, was out-of-date and unreliable. An Australian Council on Healthcare Standards (ACHS) periodic review in 2013 confirmed what BHS already knew – we needed to do things better.

BHS, which currently employs more than 4000 staff, is Victoria’s second largest regional health service and provides a wide range of general and specialist care for all stages of life and circumstance. The education, training, development and compliance of all staff – both corporate and clinical – is overseen by our Learning and Development Team (LDT). Comprised of representatives from Nursing and Midwifery, Residential Services, Medicine, Mental Health, Allied Health and the HR/Corporate division, the LDT is responsible to the Executive Staff Council. Following the periodic review, the LDT began an overhaul of the system to ensure BHS met our obligations of effective governance for safety and quality under Standard One of the National Safety and Quality Health Service.

The team, in partnership with our Information Technology (IT) department, identified the opportunity to value add to the existing payroll system as a way of managing staff data. The LDT worked for the first 12 months on the creation and roll-out of an IT platform that would fit into the payroll system and provide transparent, accurate, real-time data accessible from any computer.

The LDT created a matrix of individual professions within each organisational directorate and, as part of the platform development, mapped BHS’ education and training requirements in layers. The first layer comprised 24 mandatory requirements, the second featured 41 organisational requirements and the third contained more than 200 professional development programs. Via the payroll link, the system was able to sort staff and display compliance rates according to individuals, cost centres, departments, directorates and professional groups.

A simple traffic-light system indicated where compliance rates sat in relation to their requirement targets, and gave BHS the ability to “future think” in ways that were previously impossible.

The new system, which became operational in June 2014, provided revolutionary benefits. BHS can not only check compliance rates in real-time, but monitor the number of staff members due to come out of compliance at any given time in any given area of the organisation. Furthermore, ‘projection dates’ can be toggled; allowing managers to understand the effect of time on compliance rates in their areas if training levels are not maintained. Consequently, Managers and the LDT are now responsive to the needs of the organisation through the planning of training sessions in advance, the identification of education gaps that we need to target and improved resource management.

The system also indirectly enhances patient care by ensuring our workforce is trained, competent and regularly monitored. Data is accessible to the click of a button at any desktop computer to all levels of BHS management, from Department Managers and Directors to the Executive Staff Council and Board of Management.

Family Support Volunteer Program
Western Health
Perioperative Services
Dianne Buttigieg, Patricia Kitney

AIM: The purpose of the Family Support Volunteer program is to provide the opportunity for families who have a child undergoing surgery at Sunshine Hospital, Western Health to have the support of a volunteer during the child’s immediate Perioperative journey and thus to be active contributor in their care.

A trained volunteer provides social support to the family and the child from admission to return to the paediatric unit by diverting attention away from the Perioperative procedures and by focusing the child’s attention towards a positive and diverting activity. This strategy also minimises the potential harm of parental and child anxiety which can impact on the ability to provide a positive seamless Perioperative experience.

The program also gives the consumer the option to actively participate in the care of their child by making choices around partaking in this program which is responsive and accessible to all families/support persons.

SUMMARY ABSTRACT: Relaxing a child undergoing any invasive procedure aids cooperation and produces a more tranquil child and as a by-product a calmer parent. Thus this project is patient and family focussed which minimises preventable harm (minimising anxiety from the unfamiliar environment potentially creating a negative experience). This project meets all the criteria for supporting best care and Standard 2: Partnering with Consumers.

The need for this additional support was identified through observation and feedback from families and staff. Thus this initiative provides a responsive and accessible service.

Volunteer support minimizes the potential harm of parental and child anxiety which impacts on the ability to provide a positive seamless peri operative experience which can assist in reducing anxiety for future healthcare interactions.

Target populations are all families/support persons who are caring for a child undergoing surgery at Sunshine Theatre,
Western Health. The objective of this project was to achieve 90-100% provision of support, guidance, distraction and continuity of care for paediatric surgical patients, family/support persons during their peri operative journey.

One outcome of this project was the provision of continuous service improvement by additional support, guidance, equipment and distraction for paediatric surgical patients and their family/support persons. Additional outcomes were the continuity of care peri operatively for the target group as well as the provision of more suitable paediatric gowns/hats and peri operative environment (Appendices 1 and 2). Western Health has become a clinical leader in the provision of tailored services to meet the needs of the target population.

**“Treating Locals Locally” – Innovation in GP consultation and Allied Health Service provision to improve patient access and outcomes in a Regional setting – “Thinking outside the square”**

**Allied Health Services**

Peter Cizzio, Peter Johnson, Rebekah Zaslona, Samantha Sinclair

**AIM:** Healthcare Australia Pty Limited – Mayo Private Hospital

With the guiding Vision Statement ‘Treating Locals Locally,’ Mayo Private Hospital’s management team set out to engage key stakeholders in the Greater Taree/Manning region to identify health priority areas. The Mayo Private Hospital CEO, Allied Health Manager (AHM), and Allied Health Practice Manager organised meetings with all the GP Practices in the area to identify gaps in available services. This allowed the formation of a variety of key allied health and medical services strategically targeted at meeting the needs of the community.

In a search for innovation, excellence and best practice, Mayo Private Hospital has strategically encouraged its staff to think “how can we” and to break outside of the current paradigms of health care delivery.

**SUMMARY ABSTRACT:** It goes without saying that communication with health care stakeholders in a rural regional setting is an important element for meeting all National Health and Safety Standards and in particular Standard 2, Partnering with Consumers. The Mayo Private Hospital has a strong record of partnering with its local community and in turn helping to deliver services and innovative programs in keeping with its Vision Statement of “Treating Locals Locally.” Over the last decade the hospital has delivered: a high quality private mental health service with five psychiatrists for the region; a self funded injury management service; several Rural Doctor Networking Funded programs, echo-cardiology; sleep study and support services; and, renal dialysis. The hospital through its innovation and drive has attracted many high quality specialists to the area, many of whom have been successfully recruited from overseas and supported through College qualification and immigration. These factors along with our traditional mechanisms of communication assisted the organization to achieve 14 ‘Met With Merit’ ratings at its last organisational wide survey in May 2014.

The “Treating Locals Locally” project was inspired in part by the last accreditation survey to build on the above history and outcomes. The hospital carefully considered what steps could be taken to understand remaining local service gaps and impediments to its Vision Statement. Options such as patient surveys and focus groups were considered and out of this process emerged a bold new strategy. The new strategy involved a qualitative and structured Mayo Team interview of every GP practice in the hospital’s large and populous catchment area. The visitation team was formed and a program of visits was set up for the following six months.

Meetings with GPs were typically set up during breakfast, lunch or dinner so that GP attendance would be high. The hospital would often pick up gourmet take away and serve them on site at the GP clinic. Menu selection became a quirky way of opening doors and achieving a 94% attendance rate. As the program evolved some GP clinics started pre-empting the agenda with suggestions of their own and a culture for positive discussion was set.

The first meetings were robust and frank. The Mayo Team learned very quickly to focus on listening rather than talking. GPs would often tell us that they were totally unaware of services that the hospital considered well established. As the meetings evolved so too did the content and sophistication of the information packs. The team developed open ended questioning skills and content evolved from ‘this is what we do’ to ‘this is how we can help you access services for your patients’.

The strength of the project is that it was simple to conceive and the opportunity to achieve positive outcomes high. The challenge was that the project involved considerable time and commitment from the Mayo Management Team and staff. In terms of preparation, travel and meeting time each meeting required between 8 and 16 man hours, average 12. With 24 meetings the total time exceeded 288 hours excluding post meeting analysis and decision making.

In determining the benefits of outcomes it is always useful to balance the inputs against the outcomes. In just the first year the following outcomes can be directly attributed to the project:

1. The region’s first Australasian Lymphology Association (ALA) accredited Lymphoedema clinic
2. Appointment of a visiting ENT surgeon for 2014/15 evolving to a locally based full-time ENT in August 2015
3. Satellite Physiotherapy, Chiropractic, Psychology, and Orthopaedic service provision at a large GP clinic that had very limited treatment options
4. A revolutionary new back pain assessment and referral service
5. Speed dating nights for GPs and Psychiatrists
6. Mayo media strategy evolving from advertising to advertorial
7. Emergence of multi-specialty themed GP education nights from traditional single focused evenings

Initial verbal feedback from GPs has been extremely positive. More telling has been a recent request by the one of the GP services for Mayo to set up an EGG Service to meet the needs of the region. This is a clear demonstration that Mayo is being recognised as the ‘go to’ place to improve local access to health services. Having opened the door for effective communication and demonstrating the ability to deliver outcomes, the GPs are now proactively seeking our support. This is considered to be a strong indicator of success. Formal GP Survey evaluation of the project commenced in May 2015 and initial results are demonstrating overwhelming approval.

**Improving compliance with personal protective equipment (PPE): The development, implementation and evaluating of an evidence-based PPE education package**

St Vincent’s Private Hospital Melbourne Nursing Research Unit and Infection Prevention

Karen-leigh Edward, Carolyn Moore, Michelle Battye, Jo-Anne Giandinoto, Karolin King

**AIM:** The aim of this study was to improve compliance with personal protective equipment in the clinical setting and reduce the incidence of blood and bodily fluid exposure.
SUMMARY ABSTRACT: This funded project is a collaboration between the St Vincent’s Private Hospital Melbourne (SVPHM) and an industry partner. SVPHM is a not-for-profit, private Catholic hospital. With 500 registered beds and more than 1,600 staff across three hospitals located in Fitzroy, East Melbourne and Kew, St Vincent’s Private Hospital is one of Melbourne’s busiest and biggest acute care hospitals. This project will build on the results of a research study undertaken in 2013. The pilot was a randomised controlled study where the intervention used was a peer reviewed and evidenced based personal protective equipment (PPE) education pack aim at staff to reduce the risk of blood and bodily fluids exposure including near misses and adverse events. The pilot study found improvements in use of PPE by staff. The approach used in this stage is by using implementation research. Implementation research seeks to understand and work within real world conditions, rather than control for the conditions and is well suited when working with populations who will be affected by an intervention. The outcomes of interest being risk of exposure near misses and adverse events including days lost and potential impacts to patient care. Triage will be observed at four time points (time point one: 1-month post education roll out, time point two: 3-months post education roll out, time point three: 9-months post education roll out and time point four: 12-months post education roll out). At present the mobile device application to facilitate greater access to the education by staff is nearly completed and distribution is expected in September 2015.

AIM: Management of continence in children is a specialized area with no Western Australian (WA) based specific specialized training for physiotherapists. This has resulted in limited workforce capacity and restricted services in the WA public and private sector. This project aimed to develop and evaluate a post graduate physiotherapy continence program to determine if access to training increased workforce capacity and/or led to postgraduate pursuit of paediatric continence as a component of career path.

SUMMARY ABSTRACT: Continence problems are highly stigmatized, causing significant distress for both children and their families (Bachmann et al., 2009, Sureshkumar et al., 2009). Incontinence frequently leads to children becoming socially isolated (Equit et al., 2014). Management of children’s continence is an important but specialized area (Chase et al., 2010, Mulders et al., 2011, Nijman, 2008, Sureshkumar et al., 2003) with limited workforce capacity and resultant restricted services in both the public and private sector. In 2012, the Physiotherapy Department at Princess Margaret Hospital (PMH) obtained SHRAC funding to establish and evaluate a postgraduate student physiotherapy paediatric continence assessment and urotherapy clinic. The remit was to pilot training for future clinicians and also manage a large waitlist whilst still providing quality care.

Research was an integral part of this project for a number of reasons:
1. To establish and evaluate the teaching resources and clinical practicum model for the postgraduate students;
2. To assess patient outcomes, outpatient service efficiencies, and impact on workforce capacity; and
3. To establish a baseline of actions and reactions to the clinic implementation.

This aims of this initiative were to:
• Determine if exposure to quality paediatric continence experience increased workforce capacity and/or led to postgraduate pursuit of paediatric continence as a component of career path.
• Improve efficiencies by increasing patient throughput.
• Reduce wait times with minimal increase in direct FTE costs for WA Health

At Princess Margaret Hospital the triage system prioritises incontinence referrals depending on clinical criteria established by the specialist paediatric urology team with the most urgent assigned Category 1 and least urgent, Category 3. PMH designated timeframes for patients to be seen from date of receipt of the referral are 4, 8 or 12 weeks for Category 1, 2 or 3, respectively. During leave, there is limited capacity to backfill the PMH continence physiotherapist due to limited availability of physiotherapists with specialist paediatric continence skills. At the commencement of this project there were 90 Category 3 paediatric continence referrals on the waitlist with an unacceptable average waiting time to be seen 489 days (range 129 days-1148 days)

As a result of this project there was:
• Improved student confidence in assessment and management of paediatric bowel and bladder issues
• Increased workforce capacity demonstrated by three post graduate students choosing paediatric continence physiotherapy career pathways.
• A significant reduction in the waiting time for patients and families (with all of the attendant benefits). At the end of the project there were 16 Category 3 patients on the waitlist, with the nine longest serving patients on the waitlist being unable to be contacted. The waiting time for Category 3 patients was 59 days (range 9 days to 213 days).
• Improved patient self-efficacy in management of bowel and bladder issues
• Decrease in costs realised by increased productivity, with minimal cost outlay and purging of the waitlist clinic.

Quality Health Care — Our Person Centred Success
Quality Health Care
Michelle Gordon, Claire McHugh, Aleksandar Jovanovic, Brendan Collins

AIM: Over the past three years, aligning with the National Disability Agreement, Quality Health Care (QHC) has been heading in a direction towards improved person centred approaches. As well as QHC’s rooted values of person-centred care, this direction is part of a wider reform agenda to implement truly meaningful person centred approaches in our disability services in NSW. Quality Health Care’s Aim is to run the models as a formal person centred model, to pave the way into a formally structured Person Centred organisation across both the disability sector and Home and Community (HaCC) sector.

SUMMARY ABSTRACT: In 2012, QHC found itself in a period of significant growth. Strategically, the company recruited both a Quality Manager and a Programs Manager to support the company in shaping QHC to industry standard under the National Disability Insurance Scheme (NDIS). Shortly after this recruitment QHC hosted a team building ‘vision day’, facilitated by person centred professional Michaela Kennedy. The findings from this day lead QHC to the development of a Person Centred Policy, Strategic Plans, Person Centred Committee and subsequent working parties, and core person centred training. All of these have caused a significant change in the culture of QHC, and the way in which the organisation provides active supports.
QHC has enhanced the supports of the clients under the company’s care through effective leadership from the top of the organisation right through to all staff under the three phase Person Centred Care Project, Person Centred Thinking, Person Centred Practice and Person Centred Planning. The organisation has formalised this process through a Person Centred Committee, comprising of senior and middle management focusing on the standardisation of person centred approaches and tools across all phases of the organisation.

The cultural change has been accepted by all multidisciplinary teams and staff, who are aware that they have an obligation under QHC to continue to strive for best practice service delivery through actively supporting their clients to live safe, rich and happy lives as valued members of the community.

Looking into the future and the needs of the industry, QHC has now branched out into the area of training and development, offering 6 monthly training packages to external organisations in a uniquely interactive transitional process, and is underway for 2015.

**Amalagamation of a clinical & non clinical service**

**Gold Coast Hospital & Health Service**

Nutrition & Food Services

*Zone Hopper, Alan Spencer, Cameron Hill*

**AIM:** To undertake a Gold Coast Hospital & Health Service (GCHHS) district food and nutrition review with the aim of providing excellence in the provision of food & nutrition and successfully meet all core actions of EquiP National Standard 12 Criterion 2 - Management of Nutrition: The organisation ensures that the nutritional needs of consumers / patients are met.

**SUMMARY ABSTRACT:**

**BACKGROUND:** In late 2013 the Gold Coast Health Service underwent a district restructuring. This was brought on by the transitional move from the previous Gold Coast Hospital (400 beds) to the new 1.8 billion dollar Gold Coast University Hospital (GCUH) (700+ beds). This gave opportunity for a district review on food service processes and structure. As part of this process the clinical nutrition service, which historically sat under Allied Health Services, was amalgamated with Food Services, which sat under Infrastructure & Support Services with all other operational services. The GCHHS comprises of three separate sites: GCUIH 700+ beds, Robina Hospital 350 beds, and Carrara Health Centre 60 beds – totaling over 1100 beds for the district.

This would incorporate three stages: (i) formal review of food services (ii) creating one service line which amalgamated two distinct hospital services (Clinical Nutrition & Food Services), and (iii) implementation of a new electronic IT food service ordering system.

**HOSPITAL TRANSITION** – With the move from the old Gold Coast Hospital to the new GCUIH it soon became apparent that there were many complications to new service provision. These included (i) the initial relocation process from Gold Coast Hospital to the new Gold Coast University Hospital (ii) the introduction of a new cold plating system and (iii) the impending introduction of a new food service IT system. The new kitchen infrastructure and equipment was not compatible with the new cold plating process, neither was the frozen SOA food which was part of a State wide Tender. Combined with limited prior staff training this caused patient satisfaction to drop and there were multiple complaints with the food quality, temperature, patients getting the wrong diets, and delayed meal times. Formal patient complaints totaled 20+ per month during these initial stages, complements were zero. The current working relationship between the Nutrition Department and Food Services was also divided and fragmented.

1. **PLAN – RECOGNISING AN OPPORTUNITY** – As a result of this, a project person was temporarily employed to review the service. Many meetings were organised with food service managers, dietitians from public & private hospitals in the State and the Statewide Food Services experts. In house meetings were organised with clinical nutrition & food service staff to identify and address issues. One key recommendation of the outcome report was to combine Nutrition and Food Services. This union was promulgated in an attempt to improve what had historically been a very fragmented working relationship despite the fact that both were reliant on each other. There was initial tension and apprehension to this union as the two services had not worked harmoniously in the past.

After some minor position changes, transparent meeting forums, and directional leadership from management, this was however short lived. A new and successful partnership was now being forged which was working towards one common goal – providing excellence in the provision of food & nutrition to consumers.

2. **DO – PROMPTING CHANGE** – Based on the new service amalgamation, multiple initial improvements occurred as a result of service streamlining and improved communication lines. These included:

1. Food transport processes and temperature settings fine-tuned with the new Burlodge Trolleys to avoid over-cooking of food.
2. Staff rosters and processes were changed to allow for same day ordering of breakfast, lunch and dinner for patients.
3. The district menu was reviewed and changed from pre-cooked frozen food to mainly fresh cook.
4. Consumers were now being engaged in all processes of menu review resulting in increasing the quantity of ethnic foods.
5. As the Statewide SOA food tenders had expired the service changed to using local suppliers to provide more local and fresher foods.
6. Succession planning and up skillling. Providing the opportunity for kitchen managers to be up skilled in nutrition by offering the opportunity to complete Certificate III in Nutrition (Tafe level). Also facilitating periods of acting up in roles when covering periods of annual leave, etc.
7. Providing an opportunity for the previously separated departments to spend 1 day work shadowing each other – so far all clinical Dietitians have spent a day work shadowing kitchen supervisors/menu monitors, and vice-versa.

In an attempt to further improve patient food service provision, in early 2014 a multidisciplinary project team was set up to oversee the installation of the “Delegate” food service IT system. Food Service IT systems have the ability to streamline patient meal ordering processes and improve quality, consistency and safety of patient intake. The project team comprised of a Project Manager, Business Analyst, Change Analysts, IT services, Food & Nutrition services & Nursing. A site visit was organised to The Canberra Hospital, whom had the Delegate system in place for the past 3 years. Information and experience were taken away and used for our local implementation. Education sessions were organised for all key stakeholder groups by the company and the project team. Change processes were rolled out district wide. In mid - 2015 the IT system went “live” across two hospital sites despite minor teething problems – according to the Delegate company
it turned out to be the quickest and most successful implementation of this system across all Australian sites to date.

Furthermore, the GCHHS had created a food & nutrition steering committee in 2012 – with the new amalgamation of these previous two separate services (Nutrition and Food Services) this committee became more instrumental in overseeing many of the food & nutrition activities and strategic direction and the composition of the committee widened to include consumers (N=3), nursing executive, food service staff, quality & safety, public health & a CNC Nutrition position. Thus enabling consumer related food and nutrition matters to be actioned far more promptly and efficiently.

In the process the newly acquired bond between Nutrition and Food Services was further reinforced and strengthened.

3. CHECK – REVIEWING THE CHANGES – As part of the QA required to meet the Queensland Health Statewide Food Service KPIs, Nutrition & Food Service Students on their food service placements undertook food satisfaction & food quality audits. The Patient Entertainment System (PES) was also used to develop a real time survey through Delegate food service system to allow patients to comment on the meals at the time of eating. Increased consumer feedback was also sourced as a result of increasing representation at all stages of menu development and review. This gave valuable feedback for service review and refinement.

Since these changes patient satisfaction has increased dramatically, wastage has reduced as patients only get to order was is clinically suitable for them due to the Delegate filtering system, patient safety has improved with respect to the prevention of cross contamination & allergy filtering, food costs have gone down due to the ability to buy local produce at competitive prices. Meal accuracy improved from 78% to 99% with the new IT food ordering system. Patient satisfaction also improved by over 15% in less than one year. Plate wastage has reduced by close to 10%. Patient food and nutrition related complaints reduced from over 20 per month to now 2+. As well as these clinical indicators, no fewer than 6 food service staff have now completed their Cert III in nutrition through Tafe.

4. ACT – IMPROVING ON WHAT WE HAVE LEARNT – The senior Food Service Dietitian recently attended and presented at the Annual Dietitian’s Association of Australia (DAA) National Conference in Perth (May 2015) on the implementation of the Delegate IT and Personal Entertainment System (PES) – the response was fantastic with many sites wanting to visit the Gold Coast University Hospital site. To date we have visits from West Moreton HHS, Sunshine Coast, Cairns Base Hospital, St Vincent’s Private Hospital (Sydney) and Ho Chi Min City and proposed visit from Fiona Stanley (Perth).

As part of the ongoing improvement of services we are locating food service staff in wards to provide a ward based service – this has been greatly received to date, aiming to employ a pastry chef to produce our own desserts rather than buy them in which will make further cost savings, have commenced research with a $47,000 grant from the hospital private practice fund into identifying patient barriers to food intake, which will inform service changes to address these issues. We have also received $10,000 funding through a GCHHS “improvers grant” to use iPAD technology for menu collation (with the current Delegate software installed) at Robina Hospital (which currently does not have the PES system technology) instead of scanning which has been a slow and resource intensive system. We have also further organised staff work-shadowing for clinical staff with food service staff & vice versa to allow to get an appreciation of each other’s work – which has received great feedback and reduced tension issues staff demands through appreciation of each other’s workloads. A concrect effort has also been made to continually up skill staff in higher positions, thus helping improve service sustainability.

OUTCOME – The overall outcome was the successful amalgamation between two initial separate services who once had a fragmented and divided working relationship – this being Nutrition and Food Services. Now the combined service has a mutual aim of providing excellence in the provision of food and nutrition and successfully meeting consumer’s needs in a satisfying, safe, efficient and sustainable model.

Albury Wodonga Health: Reducing waste by cross organisational collaboration
Albury Wodonga Health
Blood Service
Jane Howell, Lauren Blake

AIM: To reduce avoidable red cell blood waste in a regional health service – Albury Wodonga Health, while maintaining a balance between blood product supply and demand, through the use of National guidelines and best practice initiatives. Through cross organisational collaboration, blood waste is minimised while maintaining an adequate blood inventory, capable of supplying multiple health services within the Albury Wodonga region. Patient safety is paramount.

SUMMARY ABSTRACT: The National Blood Agreement requires that all parties identify opportunities to develop and implement strategies for the Australian blood sector, to promote optimal safety and quality in the supply, management and use of blood products, including uniform standards (NBA, 2014). The Australian Health Ministers issued the “Statement on National stewardship Expectations for the Supply of Blood and Blood Products” which states that health providers should have processes, programs and facilities in place that minimise wastage of blood and blood products (NBA, 2014). While the National Safety and Quality Health Service Standard 7, Blood and Blood Products, requires health service organisations monitor wastage of blood and blood products safely and efficiently, and implement actions to reduce waste where possible (ACHS,2012).

Albury Wodonga Health – The regional cities of Albury and Wodonga are located on the New South Wales and Victorian border, 3 hours north east of Melbourne and 5 hours south of Sydney. There are two public hospitals, two private hospitals and multiple day procedure centres service the needs of the community.

Albury Wodonga Health (AWH) was established in 2009, consisting of 2 public hospitals and 2 community rehabilitation centres. A total of 276 staffed beds between campuses, including; 2 emergency departments, 15 ICU/CCU/HDU beds, 6 delivery rooms, 30 obstetric beds, 115 Medical/Surgical beds, 25 day procedure/ oncology beds and 9 dialysis chairs make up some of Albury Wodonga Health’s service. Albury Wodonga Health is the first cross border health service in Australia.

At that time the health service had no on site pathology and 2 separate blood committees which did not collaborate. The following year a Transfusion Trainer (TT) was grant-funded and employed 1 day/week at Wodonga Campus only. After the establishment of two onsite pathology laboratories, one on each campus, a collaborative approach developed through a new cross campus Blood Transfusion Committee, introduced in 2012. A clear priority for the committee was to standardise
policies and procedures across both sites striving for best practice.

Victorian Department of Health Circulars for Hospital Transfusion committees, national guidelines and society standards were reviewed, with the obligation to monitor and reduce blood waste realised. Adequacy of resources required were reviewed, with the TT upgraded to a Transfusion Nurse (TN) with .8 FTE. This was achieved following support from the Victorian Blood Matters Program.

Over the past 2 years AWH, in collaboration with transfusion service provider - Dorevitch Pathology, has been able to achieve amazing results. A dramatic reduction in red blood cell waste after only 3 months of action by the Waste Working Party measured sustained reductions well below peer, state and national benchmarks.

The keys to success as demonstrated by the waste level achievements have been:
- cross functionality, collaboration and communication
- dedicated and committed staff from the laboratory and the wider hospital to implement change
- adoption of best practice guidelines as a standard to aim for
- removal of system weaknesses through centralisation of storage and inventory management
- regular and frequent review of data
- ongoing education and information sharing amongst stakeholders

NSQHS Regional Leadership – A collaborative approach to patient outcomes across the Loddon Mallee Region.

Bendigo Health
Quality Unit, ODI Division
Lisa Knight

AIM: To provide regional leadership and collaboratively support public health services in the Loddon Mallee region to successfully meet requirements of the National Safety and Quality Health Service (NSQHS) Standards accreditation framework. Outcomes are anticipated to provide a high standard of care for patients and carers who move across health services throughout the region. Sustainability of this approach will be further enhanced with the implementation of the NSQHS Standards twelve month Pilot Program funded by Department of Health and Human Services (DHHS).

SUMMARY ABSTRACT: Effective from 1 January 2013, the NSQHS accreditation framework became a mandated framework for Australian public health services. Though the new set of standards retain a clinical and patient centred focus, there are many elements that were new to not only Bendigo Health, but also public health providers across the Loddon Mallee region. In comparison with the EQuIP 5 framework, the NSQHS requires the provision of evidence based outcomes, continuous improvement initiatives, internal audits, evidencing consumer involvement and key performance criteria to be evidenced in alternative ways that are more structured and demanding.

Since implementation, the public health services within the Loddon Mallee have undergone periodic review and onsite accreditation visits against the NSQHS framework. For many of these health services, the preparatory work and implementation involved with this framework is not only new, but challenging and draining on already limited resources. Regional and rural public health services have advised of difficulties in the ability to simultaneously maintain clinical care and accreditation requirements and noted the pressures associated with the increased workload on key staff. Within the first two years of NSQHS implementation, it was also noted that a number of health services had significant issues during accreditation events, or had fared poorly during Periodic Reviews.

As the largest health provider in the Loddon Mallee region, Bendigo Health recognised their role and responsibilities to work collaboratively with other health services. Though there was already leadership and assistance provided on an ad hoc basis, it was acknowledged that Bendigo Health could strengthen regional leadership opportunities and provide a more managed and sustainable approach. By assisting health services to align with the quality and safety principles embedded in the NSQHS framework it was recognised that patient and carer outcomes would be enhanced and aligned as they moved across the region for service provision.

Bendigo Health was one of the first health services in the region to undergo a full onsite NSQHS survey, which resulted in full accreditation and subsequently with 31 Met with Merits. Following this survey, Bendigo Health received constant requests for assistance and feedback on the accreditation process and outcomes. In response, Bendigo Health planned a one-off regional NSQHS forum for March 2014, sponsored by DHHS. The purpose of the forum was to not only provide an overview of Bendigo Health’s journey, but to also enhance access to organisational subject matter experts where further advice, support and networking could be initiated. Attended by over fifty regional quality specialists, clinicians, CEO’s, DONs and DHHS representatives, the three and a half hour forum was the first of its kind for the Loddon Mallee region. It provided an opportunity to access resources, advice and support for regional health services that were at various stages of their accreditation journey. The forum also began the start of strategic leadership discussions with the Loddon Mallee Department of Health and Human Services (DHHS).

Within months of the NSQHS Forum, DHHS requested to commence discussions around an ongoing regional leadership model. By the end of 2014, Bendigo Health had received funding from DHHS for a 12 month pilot program, to provide regional leadership for public health services across the Loddon Mallee region. The scope of the pilot program included the provision of forums, access to NSQHS subject matter experts, resources aligned with the NSQHS framework and networking opportunities for regional colleagues. At the commencement of the pilot program in February 2015, it became apparent that there was potential to improve the quality of service provision for patients moving across health services within the region. Since the inception of the pilot program Bendigo Health had identified two further opportunities for enhancement; regional benchmarking of nominated key elements from Standards 1-10, and alignment of internal audits across the region.

IT Service Catalogue: A Continuous Improvement Strategy to Support Hospital IT Services

Princess Margaret Hospital Information Technology Department
Charlene Kong, K M Tong, Queenie Lam, Wilson Soo, Terry Pang, Charlotte Lai

AIM: The aim of this project is to drive continual service improvement in IT service delivery through implementing an online help desk system, to ensure users receive appropriate IT support in a timely manner.

SUMMARY ABSTRACT: Background – The wide use of Information Technology and increasing diversity of computing environments drive IT service provider to continuously improving its services. Supporting
user mainly through hotline is no longer sufficient with the pressure from growing number and complexity of calls. To better communicate with users and deliver services more efficiently, the Princess Margaret Hospital (PMH) has implemented an online system – the IT Service Catalogue (ITSC).

**Objectives**

1. To present a portfolio of IT services the IT department is offering
2. To provide an alternative means for users to make requests, report problems or track case status online round-the-clock
3. To improve operational efficiency and process capability
4. To facilitate service improvement through performance surveillance, benchmarking and trend analysis

**Methodology**

The ITSC follows the best practices from the Information Technology Infrastructure Library (ITIL) – the worldwide-accepted approach to IT Service Management. With a self-assessment and comparison to other public hospitals, potential areas of improvement have been identified. A thorough requirement study was then conducted to embed the ITIL best practices and improvement initiatives into the system to drive continuous service improvements.

**Outcomes**

The project was pilot launched in 2012; major outcomes include:

1. 100% of surveyed users are satisfied with the ITSC services (2014 Department Friendly Visit)
2. 91% of surveyed users agreed that ITSC provides an efficient way for service request (2013 IT User Survey)
3. The compliance to Operation Level Agreement on service completion time was improved from 83.3% to 95.8%
4. The communication with users and among IT teams was enhanced
5. The compliance to operational standard and consistency of IT services was improved
6. The performance data collected facilitated other improvement initiatives in service planning, preventive maintenance, resources management and training

**Conclusion**

Moving from traditional IT operations towards an innovative, user-centred and robust strategy creates the culture for continuous improvement and aligns IT service delivery with the diversity and changing needs in hospital operations. The project is shared with 7 other public hospitals to share the success in driving IT service improvements.

**The PACER model**

**AIM:** The Police, Ambulance and Clinic Early Response (PACER) team is a multi-disciplinary secondary response unit aimed at providing early intervention and assessment for mental health crisis situations in the Frankston- Mornington Peninsula catchment. PACER is a Commonwealth-funded partnership between Peninsula Health, Victoria Police, and Department of Health and Human Services and is run seven days a week out of the Frankston Police Station.

**SUMMARY ABSTRACT:** The PACER model is based on the responder model, which is a hybrid multi-disciplinary response to mental health crises. This model is underpinned by a recognition that the Police were unable to appropriately link people with a mental health problem (client) to the services that they required. The critical aspect of this approach is the pairing of a Police Officer with a Mental Health specialist who is able to assess the client at the time of the incident and provide linkage to appropriate mental health services. The theory underpinning the PACER model is that a joint response is preferable as Police have the expertise and knowledge in dealing with situations that potentially may involve violence or injury, whereas mental health professionals can provide a mental-health assessment and care for people in a crisis.

The PACER model has multiple objectives, including de-escalating a crisis, preventing injury to the client and response teams, linking clients to appropriate services in the community, decreasing the pressure on the justice system (e.g. decreasing the number of issues under section 351 of the Mental Health Act 2014 (Victoria) and the time spent managing mental health crisis situations), and the health care system (e.g. the number of mental health presentations to the ED).

A key difference in the Frankston-Mornington Peninsula PACER model compared with other Victorian models is that the mental health clinician is physically co-located at the main Police stations. This model allows for the clinician to be apprehended to pre-empt the disturbance, even if the clinician was located elsewhere (usually Frankston Hospital) and performing tasks which inhibited their capacity to quickly respond and travel to the site of the situation. This model has proven to be effective in not only saving Police resources but also increasing the capacity and capability within the Police sector to effectively manage clients with a mental health issue.

One of the clearest indicators of how well the Frankston-Mornington Peninsula partnership is functioning is the high level of satisfaction expressed by staff and clients and there is a clear synergy of the partnership which is underpinned by collaboration of all key stakeholders. Frankston-Mornington Peninsula PACER works very well not only because of the co-location, which fosters a positive working relationship and trust between services, but also because of the calibre of the people involved.

The co-location of the mental health clinician at the Police station meant the leadership group was required to develop clear clinical and operational governance structures which met all requirements of the Occupational Health and Safety Act 2004 (Victoria). Processes were implemented that supported good supervision and escalation processes.

The PACER model is underpinned by the least restrictive framework of the new Mental Health Act 2014 (Victoria) which came into effect in July 2014. The Act promotes and enables voluntary treatment in preference to compulsory treatment wherever possible. The new Act is founded on the premise that where compulsory treatment is necessary, it will be provided in the least restrictive and intrusive manner possible.

Section 351 of the Mental Health Act 2014 (Victoria) provides for the apprehension of a person by police if the police are satisfied that the person appears to have a mental illness, and because of the person’s apparent mental illness they need to be apprehended to prevent harm to themselves or others. Due to the proactive nature of PACER and the ability of the clinician and Police to assess the client at the destination of the crisis (mostly in the client’s place of residence), in the majority of instances the crisis is able to be averted and the client has not been required to be apprehended with force and transported to the Emergency Department. In most instances the client is appropriately assessed and stabilised at the site of the crisis and appropriately referred to external services for follow up.

The PACER program was introduced to the Peninsula region in April 2014. Since the introduction of the program in April there
has already been a significant impact on the reduction of police transfers to the Frankston Hospital Emergency Department. The success of the program led to an expansion of the program within the Rosebud catchment in November 2014.

With the introduction of the Rosebud PACER team in November 2014 (operating from 1pm until 9pm) and the Frankston PACER team operating from 4pm till 11pm the data collected up until 30/05/2015 shows that the team have responded to a combined total of 759 events.

Of the 759 jobs only 21 of these clients have been transported to the Emergency Department in line with section 351 of Victoria’s Mental Health Act. This represents a reduction of 25% to Emergency Department presentations during the operation hours of the PACER team.

This has resulted in a saving of 637 trips to the Emergency Department by police and ambulance services. 188 of the clients assessed were stabilised and remained at the site of assessment and 27 clients were admitted directly to a Mental Health Acute Inpatient Unit which meant bypassing the Emergency Department.

The majority of the other events were referred to community mental health services or primary services within the Peninsula Health catchment area. Prior to the PACER program all 759 incidents would have required transfer to the Emergency Department via Ambulance and Police. The program has freed up emergency service resources and also created a positive impact on the continuing treatment of patients and their families.

The Equipment Commitment: Supporting the choice to die at home
Hunter New England Local Health District
Hunter Equipment Service and Calvary Mater Newcastle-
Department of Palliative Care
Lisa McGovern, Jenny Gleeson

AIM: This project has resulted in the development of an equipment loan pool that is the benchmark in the field of tertiary level palliative care services. This innovative model supports the unique needs of palliative care patients and their families/carers to optimise their experience of end of life care in the home. This has been achieved by:
1. Establishing a Hunter Equipment Service loan pool of basic equipment items onsite at the Calvary Mater Newcastle-Department of Palliative Care, accessible to clinicians 24 hours/day, 7 days/week
2. Identifying and purchasing specialised equipment that reflects the palliative care objectives of treating dying as a normal process while integrating the physical, psychological, emotional and spiritual aspects of care.

SUMMARY ABSTRACT: The Calvary Mater Newcastle-Department of Palliative Care (CMN-DOPC) is a tertiary level specialist palliative care service providing interdisciplinary care to patients with a life limiting illness. Clinicians deliver care in a variety of settings including hospital, hospice and in the patient’s home. A review of current literature shows that most people prefer to die comfortably at home surrounded by family and friends and the care services they need (1). Research by Palliative Care Australia, however, shows that while 74% of Australians prefer to die at home, only 16% do.

Ensuring access to both basic and specialized equipment to support end of life care in the home required an innovative approach. The CMN-DOPC collaborated with Hunter Equipment Service (HES), a long standing unit of Hunter New England Local Health District, to establish a new model of equipment supply.

Equipment plays a key role in supporting palliative care in the home environment. Patients nearing end of life need a range of basic and specialized equipment to support them to remain at home. Basic equipment facilitates patient independence and optimises function for as long as possible. Basic equipment is critical in maximising patient safety, reducing risk of falls and easing manual handling tasks for carers and service providers. Specialised equipment serves to enhance the experience of end of life care in the home. These items integrate the physical and psychospiritual aspects of care. Specialised equipment should fit seamlessly into the home environment with minimal disruption to the familiar and comfortable experience of being at home.

The limited infrastructure and resources of CMN-DOPC meant that peak periods of equipment demand could not be matched with supply. Patient and carer interviews revealed that lack of access to essential equipment resulted in failure to stay at home, inability to access community services and increased carer stress. Carers also reported feelings of frustration and sadness that they were unable to afford the exorbitant costs of hiring equipment from private companies.

CMN-DOPC clinicians expressed dissatisfaction regarding limited access to equipment integral to optimizing end of life care in the home. Without necessary equipment onsite clinicians were unable to provide an appropriate, timely and tailored response to support home based patient care. Information gathered from patients’ regarding their journeys through palliation revealed common themes, such as the importance of promoting intimacy through co-sleeping. CMN-DOPC clinicians felt they had inadequate equipment to support the patient/carer wishes around these goals.

The creation of a satellite loan pool onsite at the CMN-DOPC improved availability of basic equipment items from 52% pre project, to 100% post project. With HES now supplying basic equipment options, the CMN-DOPC have been able to invest in the purchase of specialised equipment to meet the unique needs of palliative care patients in the home. With this well-resourced equipment loan pool, clinicians are now able to deliver consistently equitable, efficient and responsive services to support patient care in the home. The project increased clinicians’ satisfaction in service provision and enhanced financial sustainability for both services.

Environmental Auditing Implementation- TopCat
Gold Coast Hospital and Health Service
Operational Support Services
Tony McNamara, Karen Spence

AIM: The aim of Top Cat Environmental Auditing system is to enhance the delivery of operational services to patients and clinicians by improving auditing capability, timeliness and completeness. This aim is achieved by the implementation of an electronic method for auditing and reporting.

SUMMARY ABSTRACT: Following the implementation of Top Cat we will continue to:
- Improve and reward efficiency in service delivery within Operational Support
  - Improve management of con-conformance and subsequent rectification
  - Improved communication with clinicians with Operational Services
- Monitor and trend environmental standards across the HHS
- Undertake evidence based resource management
• Identify value for money opportunities
• Benchmark with industry standards
• Engage the workforce in productivity targets
• Enables Improved and timely reporting to stakeholders

An innovative food service model @ Moorabbin Hospital
Monash Health Support Services
Sharon McNulty

AIM: In 2013 Moorabbin Food Services faced significant challenges ensuring the kitchen was functioning efficiently and effectively to enable the delivery of a high standard of food services to patients. There was significant opportunity to improve patients’ satisfaction with the food services, and ageing infrastructure and equipment required substantial improvement.

The objective of this initiative was to provide patients with a cost effective, healthy, nutritious meal service that meets and exceeds the needs and expectations of our patients. This was supported by research that shows patients rely on the presentation, aroma and temperature of their meals to stimulate their appetite, which improves nutritional intake (Stanga et al, 2002).

The new food model at Moorabbin provides every patient an option of 23 hot meals. In addition to this, we are able to cater for cultural meals, special diets and texture modified meals. These additional meal options align with our aim to provide a patient centred approach to food services.

SUMMARY ABSTRACT: The significant opportunity to improve patients’ experiences of Moorabbin Hospital Food Services (evidenced by patient experience surveys commissioned by the Department of Health and Human Services) coupled with the need for urgent improvements to food services capital and infrastructure, were the drivers for Support Services to investigate alternative and superior food service options.

Support Services considered and reviewed various options, and ultimately partnered with The Monash Health Central Production Kitchen to plan implementation of a model which includes a cook freeze option developed by the Central Production Kitchen. The Central Production Kitchen has consulted with the Monash Children’s Hospital team and consumers and has support to introduce this innovative model to Monash Children’s Hospital in 2016. The Central Production Kitchen based the model on a similar model implemented in the National Health Service in England, as a way of providing cost effective, multiple hot meal choices to patients.

The ultimate solution is a cook freeze meal in a “Smartpak”, with a removable base enabling the heated meal to be placed on the plate, while maintaining the presentation of a restaurant style meal. The primary benefit of this model is the improved food quality due to retention of the colours and freshness of the meal, the primary driver of patient satisfaction (Dube et al, 1994).

This innovative model is the first of its type to be implemented in Australian hospitals. It offers 23 hot lunch and dinner meal choices, as opposed to the previous food service offering two hot options for each of lunch and dinner. It also enables patients to receive a meal of their choice within 15 minutes of admission or requesting a meal, an outcome not previously achievable. Previously, patients did not receive a meal of their choice for at least two meal periods.

Early Intervention Program
Wimmera Health Care Group
Occupational Health and Safety
Matthew Mellington

AIM: This key aim of the Wimmera Health Care Group Early Intervention program is get staff back to work within ten (10) working days from the first day of injury, as we are committed to the treatment and rehabilitation of any injured employee.

SUMMARY ABSTRACT: Due to Wimmera Health Care Group’s poor performance in regards to its workcover premium, in June 2013 it was decided to implement an Early Intervention Program for staff members that incurred a work place injury. In the event that a staff member was injured or was starting to feel discomfort from a task that they were undertaking their manager would contact the OH&S Manager who would then organise a meeting with the injured staff member. The OH&S Manager would then organise any rehabilitation or treatment services required for the staff member and for the payment of any medical and like expenses.

Since the program’s inception there have been twelve (12) staff members that have taken up the program.

The Early Intervention Program works to minimise the impact of injuries on staff which ultimately has a direct impact on their families, work colleagues while at the same time reducing our Workcover premiums. Programs and interventions will continuously improve the way we address issues and barriers to achieving effective, timely and meaningful return to work for our staff. Both managers and staff are involved in ensuring a proactive, caring injury management and rehabilitation plan of all injured staff. The financial saving from this program helps assist Wimmera Health Care to provide staff with further training, new equipment and staff resources.

The National Standards Community Site: New process , new systems, new interest.
The Royal Victorian Eye and Ear Hospital
Risk & Quality Department
Linda Milo, Caroline Clarke

AIM: The aim of this initiative was to implement an innovative IT solution to ensure greater visibility & transparency of quality and safety objectives responsibilities and outcomes. It also provided excellent support for achieving Accreditation under the new National Safety and Quality Health Service Standards.

SUMMARY ABSTRACT: Translating the National Standards to ensure best practice and standardised care required transparency of the expectations of staff and an innovative solution to ensure visibility and renew/ sustain interest in the quality agenda.

Health IT systems and applications can help to improve performance, support better communication between patients and providers, and enhance patient safety, which ultimately may lead to better care for all patients. The Royal Victorian Eye and Ear Hospital wanted to develop a robust infrastructure to support learning and quality improvement. This led to the development of our “National Standards Community”, a SharePoint web application platform which we utilised as a centralised repository for everything linked to accreditation.
This new system assisted staff in becoming change champions and to improve patient centred care while striving to delivery optimal care. Governance and Risk management were no longer nouns but verbs, and staff used the National Standards Community to show what they were doing to improve Quality and Safety for best possible outcomes.

“Establishing an Innovative Allied Health Workforce Planning Blueprint and Clinical Governance Framework to Ensure Best Care at Western Health and Plan for Tomorrow’s Workforce Today”
Western Health - Sunshine Hospital
Allied Health
Claire Moody, Natasha Toohey, Gaby Veliz

AIM: To develop an appropriate workforce planning and clinical governance framework with objectives, strategies and actions to promote a skilled, capable and sustainable Allied Health workforce to ensure the provision of ‘Best Care’ at Western Health.

SUMMARY ABSTRACT: It is widely documented and accepted that urgent health workforce reform is necessary to ensure we appropriately meet the current and future health care requirements of our consumers. Moreover, Western Health stresses the importance of delivering a skilled, capable, efficient workforce, able to provide care and leadership to meet both patient needs and expectations. An innovative framework was required to ensure a consistent vision and strategy for Allied Health to continue planning for tomorrow’s workforce and provide best care. Further, it is essential that an Allied Health workforce who has responsibility for independent patient care and treatment be appropriately credentialled. Congruent with this, a system of professional development, clinical supervision and performance development ensures a competent workforce delivers appropriate care. The introduction of increasingly advanced and complex roles within this workforce requires detailed definition in accordance with individual practitioner’s levels of skill and position requirements. A robust clinical governance framework and credentialing system for the workforce was also required to ensure safe and effective patient care.

A literature review and external benchmarking of health professional workforce innovation and clinical governance frameworks was conducted. Review of Western Health strategic priorities and consideration for the Western Health values and ‘Best Care Framework’ was incorporated. Drafts of the blueprint were established and modified with close consultation with key stakeholders including ‘Allied Health and Community Services Directors’, discipline and service managers and Allied Health clinicians within the health service. The ‘Allied Health Workforce Planning Blueprint’ proposes a workforce planning framework for Western Health, with objectives, strategies and actions to promote a skilled, capable and sustainable Allied Health Workforce, to ensure we can continue to add years to life and life to years for our patients and their carers. The Blueprint is clear and succinct with accompanying visual representation that highlights features, including key priorities for Western Health Allied Health such as distribution, productivity, utilisation, capacity, attitudes, behaviours and culture.

The Allied Health and community services clinical governance framework addresses the increasing need for flexibility around service delivery, optimal and efficient use of existing human resources and skills whilst maintaining the quality of care and improving access to health. It recognises that not all Allied Health and community services professionals have a national registration structure and provides depth and breadth in terms of credentialing and standards. Moreover, the Allied Health and community services clinical governance framework assists in identifying, developing, sustaining and monitoring the appropriate credentials, skills, competencies and minimum requirements of the workforce essential for the provision of Best Care within Western Health.

The ‘Allied Health Workforce Planning Blueprint’ has been presented to Allied Health professionals and a range of work has commenced on fulfilling its objectives. Future work aims to evaluate the effect of the blueprint on meeting all of its targeted aims including ensuring and retaining a skilled, flexible and innovative workforce that meets the needs of our community now and into the future. The establishment, implementation and ongoing sustainability of the Western Health Allied Health and community services clinical governance framework has been highly successful. A wide and varied suite of policies, procedures, practices and resources for the workforce has been introduced in fulfilling the project objectives. Bi-annual clinical auditing, targeted education and a move towards an electronic clinical governance system is underway.

Welcome to Sydney Children’s Hospital Health Information Unit - the Medical Records Management Service of the Future
Sydney Children’s Hospital Randwick
Sydney Children’s Hospital Health Information Unit – SCH HIU
Kara Moore

AIM: The health care record is the memory of our patients care and clinical events, it is the storage, coding and retrieval model for health information, lasting the life of our patients, and beyond. Our aims at Sydney Children’s Hospital Health Information Unit (SCH HIU) in line with the strategy for the Sydney Children’s Hospital Network (SCHN), is for the patient record to include a single patient view, accessible from anywhere, containing the most current patient information that can also be shared with other providers when necessary. SCHN strives to be ‘paper lite’, minimal paper and direct data entry wherever possible. Improving the safety and governance of our patient health care records and integrating satellite records making them available to clinicians via the electronic medical record (eMR), 24 hours a day.

SUMMARY ABSTRACT: The SCH Health Information Unit (SCH HIU) at Sydney Children’s Hospital Randwick is the health care record management service of the future. The HIU team manages all new and returned patients’ paper health care records by scanning and indexing these records into the eMR. The HIU is much more than just a scanning department, it is the future support of the eMR users to access and manage new patient information, and it is helping to create a bridge from the history of paper records to the next stage of electronic records where patient information will be entered directly into the eMR. Now scanned records are available to clinicians via the eMR, 24 hours a day, 7 days a week. Eliminating the need to request files, reducing storage costs, providing a greener approach to the environment and most importantly, direct information access critical for our patient care when and where clinicians need it, wherever patients may present.

Creating a Health Literacy Environment- The Patient Health Information Centre
Western Health Victoria
Community Integration Allied Health and Service Planning
Assunta Morrone, Jo Spence

AIM: The Patient Health Information Centre was established to enhance the care Western Health provides to its patients,
consumers, families and carers. The Patient Health Information Centre enables consumers to access reliable health information when they most need it, with the assistance of trained volunteers and staff.

A growing body of evidence demonstrates that when consumers make informed decisions about their health care we achieve better and safer outcomes. Modern health care is complex and consumers struggle to obtain and understand even basic health information. Many consumers lack the health literacy they need to understand their medical condition. Western Health sees health literacy as a safety and quality issue. Low health literacy is associated with increased hospitalisations and increased adverse outcomes, lower uptake of preventive health choices and generally poor health.

The Patient Health Information Centre is a physical space located on the ground floor of Sunshine Hospital. Sunshine Hospital is located in the Western Suburbs of Melbourne and in the local government area of Brimbank. 2011 Census data indicates that in the City of Brimbank only 47.3% of the population completed year 12 compared to 54.6% for Greater Melbourne. As well as this, only 67% of homes have internet access compared to 76% for the Greater Melbourne Area. The City of Brimbank is third on the Index of Relative Socio-economic Disadvantage. The Patient Health Information Centre was created to help address health literacy in the City of Brimbank.

SUMMARY ABSTRACT: The Patient Health Information Centre is a physical space located on the ground floor of Sunshine Hospital. This space is in the main thoroughfare and at the entrance of the hospital. It is highly visible and accessible to patients and visiting family members. It provides a relaxing and welcoming environment where patients, families and visitors can access written health information on various topics including, Alzheimer’s, Diabetes, cancer, and mental health. The Centre also has information on services including, palliative care services, domestic violence, and smoking cessation. Information is also available in our top five languages. Where hard copy information is not available the Centre has three computers that have been preloaded with over 300 reliable and tested websites so information can be downloaded and printed. The Centre is open five days a week from 9-4pm and is staff by trained volunteers and supported by Clinical Nurse Educators, the Volunteer Manager and the Consumer Partnerships Manager.

Optimizing staff engagement in Continuous Quality Improvement (CQI) by creating proficient multidisciplinary teams

KIMS Group of Hospitals - Royal Bahrain Hospital
Quality Improvement and Information Technology
Jacob Thomas, Deepinder Singh

AIM: To optimize staff engagement in Continuous Quality Improvement (CQI) by creating proficient multidisciplinary teams

SUMMARY ABSTRACT: We developed following teams across various domains:

<table>
<thead>
<tr>
<th>Champions</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>To understand the Quality framework as defined in the EQIP 5 guidelines from ACHSI and achieve highest possible rating (EA or OA) in allotted criteria Members = 22</td>
</tr>
<tr>
<td>Patient</td>
<td>To make strategies for improving patient experience in the Hospital</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teams</th>
<th>Champions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaster Management</td>
<td>Code Red: To manage situations arising from fire, natural calamities, bomb threat etc</td>
</tr>
<tr>
<td></td>
<td>Code Pink: To search missing baby</td>
</tr>
<tr>
<td></td>
<td>Code Orange: To respond to hazardous chemical spills</td>
</tr>
<tr>
<td></td>
<td>Code Purple: To counter violent patient/staff</td>
</tr>
<tr>
<td></td>
<td>Code Blue: To manage individual disaster (sudden collapse, Myocardial infarction, Stoke etc)</td>
</tr>
<tr>
<td></td>
<td>Members = 9</td>
</tr>
<tr>
<td></td>
<td>Members = 10</td>
</tr>
<tr>
<td></td>
<td>Members = 12</td>
</tr>
<tr>
<td></td>
<td>Members = 32</td>
</tr>
<tr>
<td></td>
<td>Members = 8</td>
</tr>
<tr>
<td></td>
<td>To improve the compliance of Electronic Medical records</td>
</tr>
<tr>
<td></td>
<td>To improve infection control practices in the hospital</td>
</tr>
<tr>
<td></td>
<td>To check the compliance of policy and use integrated risk and incident management framework to report any deviations. This consist of senior staff members.</td>
</tr>
</tbody>
</table>

Each team member was thoroughly trained on their allocated capacity and expected outcomes were explained. Members were identified in accordance to their aptitude, interests and capabilities. Identification badges were issued as per the nomenclature listed above. All teams have a TEAM LEADER.

All teams report to Apex committee, which is chaired by the Director Operations. There are 10 Quality Steering Committees in all composed of Doctors, Nurses and Admin staff to monitor the overall function of Quality Activities in the Hospital (Refer annexure 5)

Multidisciplinary Medical Record Audit Program

The Sydney Children's Hospital Network
Clinical Governance Unit
Kellie Thomas

AIM: By February 2015 develop and implement a multidisciplinary Medical Record Audit program within The Sydney Children’s Hospital Network.

SUMMARY ABSTRACT: Auditing of patient Medical Records has many benefits including promoting patient safety, ensuring continuity of care across time and supporting the transfer of information when the care of a patient is transferred to another hospital, local General Practitioner or community service. Many large health organisations face challenges in implementing sustainable hospital wide clinician led audit programs which, facilitate learning through reflective practice and promote continuous improvement.

The Sydney Children’s Hospital Network has developed and implemented a multidisciplinary Medical Record Audit Program in line with the Network’s and NSW Health Policy documentation requirements. This audit program occurs at both The Children’s Hospital at Westmead and Sydney Children’s Hospital sites and involves Medical, Nursing and Allied Health staff participating in the program. Each discipline has a 12 month roster which enables the audit to be equally shared between all clinical teams/departments. The roster system also allows for managers to plan auditing
responsibilities into their workload duties and to delegate the audit to staff as a learning and development tool.

The Medical Record Audit program consists of three audit tools for documentation specific to the disciplines of Medical, Nursing and Allied Health. Each month, at each hospital site a representative from all three disciplines is rostered to participate in the audit program and to audit five health care records. The health care records are randomly selected from a list of patients supplied by the Management Support Analysis Unit. Criteria for inclusion in the audit is restricted to records where the patient was discharged two months prior to the audit month, the length of stay was less than two weeks, and an allied health event is coded for the admission period. To support staff in completing the audit an accompanying Audit Guide book has been developed for both hospital sites.

Following discharge of a patient all paper documentation generated is scanned into the Electronic Medical Record (EMR) system, all audits are therefore completed by accessing the EMR system where clinicians can access at any time that suits them within the audit month. Since the implementation of the audit program at The Children’s Hospital at Westmead in August 2014 and The Sydney Children’s Hospital in January 2015, 100% of audits have been completed. As of the 1st July 2015, 91 medical records have been audited by 51 clinicians; this includes a total of 3,888 medical record pages and 1,975 Clinical Progress notes entries.

To review and evaluate the Medical Record Audit program a survey was conducted at the start of May 2015 to obtain feedback from staff who have participated in the audit program to date. Key findings were:
- 82% would recommend other clinicians also undertake the audit
- 71% of survey participants reported their understanding and knowledge of medical documentation requirements increased after completing the audit

The multidisciplinary Medical Record Audit Program is now strongly supported by multiple stakeholders across the Sydney Children’s Hospital Network and will be continually reviewed as ongoing enhancements to the electronic medical record enable some of the audit requirements to be automatically generated in the future.

“A Place for Sadness” - Demonstrating the relevance of a Palliative Care Memorial Service for meeting the needs of the Bereaved

Tasmanian Health Organisation – South
Palliative Care
Stephanie Thompson, Paul Hueston

AIM: The aim of the Specialist Palliative Care Service South Memorial Service is to acknowledge and support those who have been bereaved. In order for those who attend and provide excellence in care, an evaluation tool has been developed and implemented. The purpose of the palliative care service has been to incorporate, and be guided by, the outcomes of the evaluations; to continually monitor and improve the service it offers, and remain current to the needs of the bereaved.

SUMMARY ABSTRACT: Bereavement support is a necessary function of palliative care. It can take on many forms such as support groups, individual counselling and memorial services. Memorial services are an important element of bereavement support as they provide a vehicle for collectively acknowledging loved ones through ritual, prayer and reflection. This report will demonstrate the efficacy of a memorial service for those whose loved ones have died within the Specialist Palliative Care Service South. It will describe the role of an inter-disciplinary committee which was established to develop and co-ordinate the memorial service. It will also show the development of the memorial service, the evaluation protocol, the qualitative and quantitative results gathered from the evaluations, and the implementations made based on the evaluations and feedback from palliative care staff and clients it serves.

Using simulation to educate transdisciplinary healthcare clinicians in the workplace

Western Health - Sunshine Hospital
Immediate Response Service
Jessica Toohey

AIM: To improve patient care in the area of assessment and treatment planning for patients presenting with dementia, provided by transdisciplinary emergency department care coordinators. A standardised patient simulation was developed and implemented at Western Health as a workplace based transdisciplinary competency based education method. The education aimed to improve transdisciplinary emergency department care coordinators knowledge, skill, attitude and confidence to complete transdisciplinary assessment and treatment planning for patients presenting with dementia.

SUMMARY ABSTRACT: New models of healthcare delivery, including transdisciplinary (TD) practice have emerged to sustain the current healthcare system and meet future needs (Reilly, 2001). TD Emergency Department Care Coordination (EDCC) models have been implemented to meet the challenges and requirements of healthcare in the emergency department (ED) (Moss, 2002, Taylor, 2004, Phillips et al., 2006, Corbett, 2005, Department of Human Services Victoria, 2009). TD practice involves ‘releasing’ selected elements of disciplinary Knowledge, Skills and Attitudes (KSA) to other clinicians to adopt. This allows clinicians to practice in roles that transcend disciplinary boundaries, meeting client goals without restriction based on disciplinary roles (Haig et al., 1994)(Reilly, 2001). TD EDCC’s can therefore provide autonomous assessment and treatment planning for patients that present to ED, effectively meeting patients’ and organisations’ needs.

Western Health (WH) is a public hospital network in metropolitan Melbourne which employs occupational therapy (OT), physiotherapy, social work and registered nurses as TD EDCC. Education for TD EDCC is undertaken at the workplace level, as at other EDCC services in Victoria (Emergency Department Care Coordinators Network Meeting, 2014). WH utilises a Competency Based Education (CBE) approach where TD EDCC undertake education in several TD competency domains annually. Each domain consists of several competencies that represent selected tasks that have been ‘released’ by each discipline.

A review of the 2013 OT released competency domain “assessment and treatment planning for patients presenting with dementia” results indicated the existing education approach was neither best practice as outlined in the TD education literature, nor effective in meeting clinicians’ or the organisations’ needs to enable clinicians’ competency. Research was undertaken in 2014 to examine if simulation is an effective education methodology for TD EDCC at WH. A standardised patient simulation methodology was introduced in addition to the existing e-learn package. Following completion of the e-learn package 10 learner group participants engaged in a simulation, with two actors portraying a patient with cognitive impairment and her daughter, followed by a facilitated group debrief (see appendix one for patient/confederate simulation scripts and facilitator discussions). Implementations made based on the evaluations and feedback from palliative care staff and clients it serves.
features of the simulation that enabled or hindered a more carer-centred engagement which together leads directly to excellent patient care.

Five themes emerged from the data: the benefits of peer learning, needing more challenge, needing feedback, simulation sustainability and future directions and valuing the need for simulation. In relation to the research questions responses indicated some participants reported improvements in knowledge and confidence, and there was no improvement in skills and attitude for any participants, although all participants preferred the simulation to the existing education methods. Most importantly all participants valued the simulation and expressed a desire to keep doing the simulation. Participants further expressed a desire to incorporate their feedback to enhance the competency education and assessment to more effectively meet their needs as TD learners.

Whilst not improving patient care currently, several lessons were learnt from the study that is new to the research debate on TD education, and the first on TD EDCC education. The results of this study are influencing education approaches at WH that will directly influence patient care.

Power in Partnership: Collaborating for Excellence
St Vincent’s Private Hospital Sydney Nursing Unit
Kim Walker, Steven Campbell, Jose Aguilera

AIM: Our objective was to address the challenge of improving healthcare delivery while enhancing the knowledge and skills of our people.

SUMMARY ABSTRACT: Our objective was to address the challenge of improving healthcare delivery while enhancing the knowledge and skills of our people. We have achieved this through the vehicle of strong collaboration with a University partner to enable a raft of initiatives including: An Hons preliminary program for new graduate nurses seeking a clinical research pathway; fee-exempt postgraduate opportunities for more senior nurses; a professional doctoral program for our leaders. In 2012-2014 results include: five graduates of the Hons prem program took out 1st class Hons and two proceeded to PhD studies with government scholarships; sixty-three nurses completed postgraduate studies; eleven leaders enrolled in the Doctor of Health degree (across SVMHS) and one PhD graduate was awarded a prestigious NMHRC TRIP Fellowship. We conclude that our partnership demonstrates a mission-driven culture of continuous learning and development, improved retention of staff, increased employee engagement which together leads directly to excellent patient-centred performance outcomes.

Family Matters: The Family and Carer Engagement Strategy (FACES)
North Metropolitan Health Service – Mental Health Clinical Research Centre
Flavie Waters, Daniel Rock, Patrick Marwick, Kerry Hawkins, Philippa Manyr, Milan Dragovic, Amanda Atkinson

AIM: The Family And Carer Engagement Strategy (FACES) project aims to (i) help clinicians in recognising and supporting the needs of families and carers of consumers, and (ii) improve carers’ access to information and support.

SUMMARY ABSTRACT: Families, carers and other supporters (‘carers’) are key figures in the recovery of people with mental illness, and have unique knowledge and expertise to share with mental health staff to support recovery (Mottaghipour and Bickerton, 2005; Simpson and House, 2003). If adequately consulted and supported, they represent a vital resource for mental health staff. Yet, confidentiality and information-sharing between mental health professionals and carers are complex, and carers have often been excluded from the care planning of their relative or friend. A lack of engagement and communication by mental health services can lead to distress, poorly coordinated and compromised care, and it can leave carers resentful and frustrated (McAuliffe et al., 2009).

In his 2012 review of public mental health services in Western Australia, Professor Bryant Stokes made a number of recommendations for improving the quality of clinician engagement with carers, and creating more robust partnerships. These included the need for greater information and support for carers, as well as good communication and meaningful involvement with clinicians.

In 2013, North Metropolitan Health Service Mental Health (NMHS MH) initiated the Family And Carer Engagement Strategy (FACES) to work on these deliverables. NMHS MH provides public mental health services to the single largest population catchment in the State, as well as providing administrative oversight for a suite of Statewide specialist mental health services. Services are delivered through inpatient units, community mental health clinics, and day therapy and outreach programs to almost 1 million people. Therefore the FACES project has significant reach across the people of WA.

The FACES team makeup represents a unique collaboration and truly innovative partnership between carers, consumers, mental health clinicians and research academics, who worked across three broad objectives:

1. To improve carers’ access to information and resources. This resulted in a range of innovations including carers’ morning teas, a FACES Newsletter, development of comprehensive resources about services available to carers, and educational resources about mental illness and recovery.

2. To develop clinical pathways and educational tools for mental health clinicians. This led to work on policies about carer participation and rights, development of NMHS MH-endorsed Good Practice Guidelines to Support Families and Carers, and of an e-learning package mandatory for all CMOs.

3. To increase participation and partnerships with carers and Community Managed Organisations (CMOs). This comprised the establishment of a reference group representing key stakeholders, a seminar series delivered by and about key local CMOs, facilitation of CMOs in-reach in services, and work on a new resource pack for all carers.

Systematic evaluations included internal surveys of clinicians about their own performance, and external surveys of carers, CMOs and carer consultants/peer workers about clinicians’ performance. The findings show significant changes in carer-sensitive practice in the last two years, with a major shift in NMHS MH’s relationship with CMOs and carers. The project’s development of resources and material (see Appendix 1) have also earned special commendation in the 2015 ACHS Accreditation Survey Report for NMHS MH, and have been included into the rollout of WA’s Mental Health Act 2015 teaching modules on carer involvement.

Overall, the FACES project has contributed to substantial benefits in changing the local culture towards a more carer-inclusive practice. Although much work still remains to be done, increasing trust by carers and a willingness by CMOs to engage...
with the mental health services system are very positive signs towards true partnerships.

Preventing Infection through Cleaner Hospitals (PITCH): An Environmental Cleaning Bundle
Metro South Hospital and Health Service - Logan Hospital
Environmental Services and Infection Management Service
Christine Welsh, Michelle Allen, Maggie Wilson, Rose McSorley, Wayne Hebblewhite, Marjoree Sehu

AIM: The aim of the Preventing Infection through Cleaner Hospitals (PITCH) project is to develop, implement and evaluate an environmental cleaning bundle to reduce healthcare associated infection (HAI). By combining evidence based practices with implementation science, this project works on improving staff knowledge and attitudes with resultant improvement in hospital cleaning performance.

SUMMARY ABSTRACT: Healthcare Associated Infections (HAI) are a major preventable clinical and economic problem around the world (Safety, 2011). In Australia, HAI affects nearly 200,000 patients and 1.9 million bed days are diverted to treat them annually (Graves et al., 2008). Environmental surfaces in hospitals are regularly contaminated via infected patients and staff colonised with micro-organisms (Trillis et al., 2008, Dancer, 2009, Hota, 2004, Hardy et al., 2006). Many common micro-organisms are able to survive for several months on surfaces (Kramer et al., 2006, Wagenvoort et al., 2011), with transmission through contamination from the hospital environment becoming increasingly well documented (Otter et al., 2013, Dancer, 2011, Rutala and Weber, 2013, Weber et al., 2013).

Whilst numerous lengthy cleaning standards and guidelines exist, there is heterogeneous practice across hospitals in Australia (Mitchell B et al., 2013), and translating current evidence into meaningful and sustained improvements in cleaning practice is challenging. A bundle is a small, straightforward set of evidence based practices that when performed collectively and reliably improve patient outcomes (Resar et al., 2005).

The PITCH cleaning bundle is a research project developed in collaboration between Queensland University of Technology (QUT) and Logan Hospital a 410 bed secondary public teaching hospital. The Hospital is located in Logan City, the fastest growing area in South East Queensland. The hospital provides acute paediatric and adult medical and surgical services, rehabilitation, maternity and mental health service.

The PITCH cleaning bundle was developed through a combination of evidence based best practices from a structured literature review with a multi-disciplinary expert panel that prioritized practices for inclusion into the bundle. The 5 key areas identified were product use, cleaning technique, enhanced auditing through the use of ultraviolet (UV) gel dots markers, comprehensive training and improved communication. The Promoting Action on Research Implementation in Health Services (PARIHS) framework provided an easy to use, yet comprehensive implementation process. This framework helped to identify specific areas key to successful implementation, such as early staff engagement. It also helped guide synthesis of information obtained from context mapping, environmental services staff consultations, and patient and staff surveys, to develop targeted training and project resources.

The PITCH project was conducted as a pilot study and proof of concept in May 2014 for 6 months at Logan Hospital. The bundle was successful by demonstrating not only improvements in both staff knowledge of infection prevention and cleaning practices, but also improved cooperation on the wards and overall job satisfaction. These positive changes in knowledge and attitudes also translated to significant improvements in cleaning performance (from 61.1% clean to 97.4%), and this has remained at over 90% in the post intervention period.

The PITCH project has provided a practical evidence-based strategy to improve environmental cleaning practices in the hospital, which will ultimately reduce HAI. This project has now been embedded into the routine cleaning procedures of Logan Hospital.
A. AIM
The primary aim of this project was to improve the nutrition status of Cystic Fibrosis (CF) patients aged 2-18 years attending the CF service at The Children’s Hospital at Westmead over a 5 year period.

B. SUMMARY ABSTRACT
BACKGROUND: The correlation between BMI percentile, lung function and long term survival in CF is well established. Successful quality improvement (QI) initiatives primarily focussed on achieving the CF Foundation recommendation of BMI greater than the 50th percentile for all patients with CF have been reported by CF centres in the USA. In 2009, we commenced a QI initiative that aimed to improve the nutritional outcomes of CF patients aged 2-18 years attending the CF clinic at The Children’s Hospital at Westmead (CHW). The mean BMI z score of patients attending CHW CF service at that time was -0.46, which rated amongst the lowest performing centres in Australia.

METHOD: A QI initiative was commenced with focus on the following key strategies; (1) Introduction of a nutrition risk screening tool; (2) Frequent dietetic review of high risk patients; (3) A nutrition assistant; (4) Specific focus on patients 6-11 years; and (5) Improved team communication. Anthropometric data and nutrition classification were retrospectively collected for all patients aged 2-18 years on their first clinic visit annually from 2009 to 2012 and repeated in 2014. Generalised estimating equation analysis and binary and ordinal logistic models were used for statistical analysis.

RESULTS: Overall, the change in BMI z-score from 2009 to 2014 was significant with a mean increase of 0.053 units per year (CI: 0.03-0.08 units; p<0.0001). Importantly, the improved nutritional status was sustained with a mean BMI z-score of -0.18 in 2012 compared with -0.15 in 2014. Between 2012 and 2014 significantly fewer patients required immediate dietetics review (Nutrition Failure and High Risk) (p=0.008). The BMI z-score in the adolescent age group (12-18 years) remained static at -0.6 between 2009-2012, however the 2014 data highlights this group had largest improvement with an increase in BMI z-score to -0.3.

CONCLUSIONS: This QI initiative demonstrates significant improvements in the nutrition status of CF patients between 2009 and 2012 with sustained improvement thereafter. Multiple strategies based on evidenced based and best practice recommendations were implemented. Incorporation of the multidisciplinary team including the employment of a Nutrition Education Assistant was vital in the success of this project. Improvements seen in the adolescent group are likely reflective of the earlier focus on patients aged 6-11 years and the overall shift in the multidisciplinary team culture in regard to the importance of good nutrition status in CF health outcomes.

C. APPLICATION OF ACHS PRINCIPLES
1. Consumer Focus
Nutrition status is correlated with long term outcomes for CF patients and as such BMI z-score is one of the internationally accepted clinical outcomes in CF management (1). This project aimed to improve the nutrition status of our CF patients and their families by engaging them directly to work in partnership with the cystic fibrosis team, in particular the dietitian, to reach their nutritional goals. Specific consumer focused initiatives included:
  - Response rate: 19 %, with a total of 31 families responding to the survey.
Survey results: The survey results were mixed with only 23% of families reporting that they thought the dietician was a very important member of their child’s CF team. Approximately 45% of families did not feel that an annual review with the dietician was sufficient to address their concerns. The Survey results concluded that nutrition follow up of patients with compromised nutritional status was infrequent. Parent feedback identified that adopting the changes required for the CF patient with regard to food are often the most challenging and frustrating part of managing care at home. Food and eating are an essential aspect of socialisation in the family unit and messaging around ensuring children eat well encourages families to treat children the same way, with a consistent approach around meals and snacks. Pressure to ensure the person with CF eats high fat foods and maintains growth, while the non-CF children have more limited access to high fat, high energy snacks is a cause for conflict and anxiety in the home as siblings begin to identify differences in the way they are treated. Families identified the need for consistent dietetic input, practical and individualised action plans, a more proactive approach to nutrition management to include a whole family food focus and updated information, resources and recipes.

- Consultation with the parent-led fundraising committee led to agreement to employ a full time senior cystic fibrosis dietician to lead the CF team approach to nutrition care. The fundraising committee further supported the dietician to undertake an international visit to the North American CF conference and visit two of the best performing CF centres in the USA for nutrition outcomes.
- Regular communication with parents and families during the planning and implementation of the nutrition strategy through a series of presentations at parent education evenings which included the opportunity to ask questions, as well as quarterly newsletter articles, ‘nutrition news,’ featuring an education piece and recipes and feedback opportunities.
- Employment of a nutrition education assistant (newly created position). This was approved and funded by the parent led fundraising committee.
- Themed nutrition displays were created for families when attending clinic including written resources, recipe ideas and quizzes or competitions to engage the children and adolescents in educational activities.
- A nutrition evening with celebrity chef Julie Goodwin in response to parent requests for practical ideas and cooking tips. This included cooking demonstrations, recipe ideas and taste testing along with a practical nutrition education session focused on what’s normal and what to expect with regard to food and eating as children grow up.
- Within individual sessions families were engaged in understanding current nutrition status, identifying actions for improvement and setting goals for future appointments.
- Introduction of the ‘Bravery Beads Program’ (CF parent funded), which includes a number of nutrition achievement beads that patients are awarded when their nutrition goals are achieved.

2. Effective Leadership
The Senior CF dietician travelled to the North American Cystic Fibrosis Conference (NACFC) 2009, and undertook site visits at top performing CF centres in the USA for the nutrition outcome mean BMI z-score presented at the 2007 NACFC (2). Conference feedback was provided to the CF team, the fundraising committee and CF families at an education evening featuring:

- A literature review of improvement activities and initiatives presented at the conference.
- A summary of team based practical implementation strategies that were observed at other sites, including discussion of nutrition culture.

A strategic plan to improve CF nutrition outcomes and dietetic services was developed by the senior CF dietician and implementation commenced in 2009. The overall vision for nutrition outcomes was to significantly improve the mean BMI z-score of patients with CF aged 2-18 years over the next 5 years. The Head of the Cystic Fibrosis Service was engaged as the project sponsor to support communication of this vision. Key stakeholders were identified and engaged in the vision for improving the focus on nutrition, where the desired state was a BMI of greater than the 50th centile for all patients with CF. Stakeholders included Respiratory, Gastrointestinal and Endocrine Physicians, CNCs and allied health. A clear and consistent communication strategy was communicated to stakeholders and the wider multidisciplinary team. This included:

- Education and updates about the evidence related to nutrition outcomes in CF.
• Identification of at risk patients through written and verbal communication to the CF team.
• Visual display of BMI charts at MDT meetings, inclusion of BMI centiles and z-scores in clinic letters.
• Regular feedback pertaining to changes in patient status.
• Overall clinic outcomes presented to the team at the annual CF planning days.

Throughout the 5 year period, clinical champions were identified through their participation and interest in nutrition and were engaged in specific elements affecting nutrition including investigation of glucose tolerance or other CF related comorbidities. Changes in practice were reinforced through regular and consistent communication with the CF team and CF patients and their families, with reporting of nutrition status, plotting of growth outcomes and investigation of the potential causes of nutrition failure.

3. Continuous Improvement
The success of this improvement initiative was reliant on effective measurement and staged, planned implementation of the solutions identified to improve patient care. Diagnostic investigations were utilised to inform the nutrition strategy for the CF clinic. The early implementation phase for this project (2009-2010) identified a number of strategies for improving everyday practice. Solutions that addressed fundamental components of nutrition care were implemented first:
• Assessment of weight and height measures recorded accurately and routinely at every visit
• Introduction of a routine nutrition screening tool with clearly documented parameters that dictate frequency of dietetic and medical review (Appendix 1)
• Increased frequency of dietetic review for high risk and nutritional failure patients
• Emphasis on practical, individualised advise for patients and their families
• Increased use of education opportunities and communication to families through newsletters, parent evenings and clinic visits.
• Implementation of a written post clinic action plan documenting nutrition measurements and consumer agreed goals for the next clinic review
• Increased communication with multidisciplinary CF team including allied health attendance at ward rounds

Testing of solutions included monitoring of data entry, improving clinician understanding of the growth parameters and goals and multidisciplinary clinical reasoning to agree the best course of action. As the fundamental elements of nutrition care became part of the routine clinic management, additional multidisciplinary changes to care were implemented. These included:
• Collaborative development and implementation of a nutrition care algorithm to guide escalation of investigations to be undertaken systematically for high risk and nutritional failure patients (Appendix 2). This algorithm outlined the approach for investigation of possible respiratory, gastrointestinal, nutritional and psychological causes of poor weight status and was developed collaboratively with each of the relevant clinical specialist Physicians and CF nursing team.
• Use of nutrition care pathway assessment forms amongst CF dietitians to improve consistency of care. This tool was particularly important for the teaching and training of graduate dietitians in clinical reasoning and decision making. Despite six different dietitians working in CF over this period of time, the improved growth outcomes have been sustained.

Between 2009-2012 annual retrospective audits of patient nutrition status, BMI centiles and BMI z-scores were conducted, analysed and presented to the CF team. Growth data was collected for patients on their first clinic visit and nutritional classification was determined according to the nutrition screening tool (Appendix 1).

As part of the analysis of annual outcome data, sub-group analysis based on 3 set age groups was completed, 2-5 years, 6-11 years and 12-18 years. In 2012 it was noted that significant improvements had been made in the 2-5 year age groups and the 6-11 year age groups with a reduction in the proportion of patients identified as high risk or nutritional failure, however no shift was seen in the proportion of adolescent patients who fell into the high risk or nutritional failure categories. As a result additional strategies were identified and incorporated into clinical practice during 2013-14. This included a specific focus on working directly with the adolescent patients. Strategies included informal assessment of the adolescent’s...
understanding and knowledge of CF, re-education and motivational interviewing techniques to engage the adolescent in setting realistic and achievable goals. In addition, we formed increased links with the adolescent medicine service to support referral of CF patients for focussed investigation of significant psychosocial factors thought to be impacting on the adolescents’ health. In the subgroup analysis completed as part of the 2014 retrospective audit, the 12-17 year age group had the largest improvement in mean BMI z-score.

6. Evidence of Outcomes
As part of the five year QI initiative, we monitored clinical nutrition outcomes on an annual basis to determine whether the strategies employed were proving successful. Figure 1 demonstrates change in mean BMI z-score of all patients aged 2-18 years from baseline data in 2009 to a statistically significant improvement in mean BMI z-score in 2012*. Given this success, an additional objective for the project was incorporated, to maintain improvement in mean BMI z-over a 2 year timeframe.

A repeat audit was therefore completed in 2014. The result of this audit highlights that improvements in BMI z-score remained statistically significant compared with baseline data (Figure 1). Importantly, the 2012 improvement was sustained with a mean BMI z-score of -0.18 in 2012 compared with -0.15 in 2014. Overall, the change in BMI z-score from 2009 to 2014 remains significant with a mean increase of 0.053 units per year (CI: 0.03-0.08 units; p<0.0001).

![Figure 1: Mean BMI z-score for CF patients ages 2-18 years (*p=0.001) (#p <0.0001).](image)

Results from the annual retrospective audit of primary outcome measures nutrition category and mean BMI z-score for all CF patients age 2-18 years are presented in Table 1. A significant difference was seen in the proportion of patients aged 2-18 years in Nutritional Failure with the odds of falling into this category decreasing by 11 % per year (CI: 5 - 18%; p=0.001). Significantly fewer patients required immediate and frequent dietetic review (Nutritional Failure and High Risk) with the odds of falling into these categories falling by 15 % per year (CI: 7-13 %; p=0.0003). In addition, between 2012 and 2014 significantly fewer patients also required immediate dietetics review (Nutrition Failure and High Risk) (p=0.008).

Table 1: Primary outcome measures – nutrition category and mean BMI z-score for 2009–2012 and 2014.

*Classification for nutrition categories based on the Nutrition Screening Tool used throughout the project (Appendix 1).

<table>
<thead>
<tr>
<th>Year</th>
<th>Patient Numbers</th>
<th>Nutrition Failure</th>
<th>High Risk</th>
<th>Acceptable</th>
<th>Optimal</th>
<th>Mean BMI z-score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>216</td>
<td>46 (21%)</td>
<td>52 (24%)</td>
<td>44 (20%)</td>
<td>74 (35%)</td>
<td>-0.45</td>
</tr>
<tr>
<td>2010</td>
<td>224</td>
<td>45 (20%)</td>
<td>43 (19%)</td>
<td>52 (23%)</td>
<td>84 (38%)</td>
<td>-0.33</td>
</tr>
<tr>
<td>2011</td>
<td>201</td>
<td>33 (16%)</td>
<td>31 (15%)</td>
<td>57 (28%)</td>
<td>80 (40%)</td>
<td>-0.28</td>
</tr>
<tr>
<td>2012</td>
<td>209</td>
<td>28 (13%)</td>
<td>33 (16%)</td>
<td>57 (27%)</td>
<td>91 (44%)</td>
<td>-0.18</td>
</tr>
<tr>
<td>2014</td>
<td>188</td>
<td>20 (11%)</td>
<td>39 (21%)</td>
<td>56 (30%)</td>
<td>73 (39%)</td>
<td>-0.15</td>
</tr>
</tbody>
</table>
Further analysis of the outcome measures data by age groups was completed on an annual basis (Figures 2 & 3). Whilst a detailed discussion on the breakdown and analysis of this data is beyond the scope of this report, it is important to note the success of the adolescent age group (12-18 years) between 2012 and 2014. With a static BMI of -0.6 between 2009 and 2012, the 2014 data highlights this group had largest improvement with an increase in BMI z-score to -0.3. Improvements seen in the adolescent group are likely reflective of the earlier focus on patients aged 6-11 years and the overall shift in the multidisciplinary team culture in regard to the importance of good nutrition status in CF health outcomes.

Figure 2: Mean BMI z-score for CF patients aged 2-5 years, 6-11 years and 12-18 years.

Figure 3: Proportion of patients falling into each nutrition category; Nutritional Failure, High Risk, Acceptable and Optimal from 2009-2012 and 2014. (a) for all patients between the ages of 2-18 years; (b) for patients aged 2-5 years; (c) for patients aged 6-11 years and (d) for patients aged 12-18 years.
7. Striving for Best Practice

Corey et al., (1988) demonstrated that improved nutrition status resulted in a significant improvement in mean survival. Evidence of the correlation between BMI percentile, lung function and long term survival in CF is well established (3). Successful initiatives focussed on achieving the CF Foundation recommendation that all CF patients should achieve a BMI greater than the 50th centile, have been presented and published by CF centres in the USA (4).

The Australian Cystic Fibrosis Data Registry (ACFDR) has been collecting key outcome data and analysing and reporting on the disease progress of CF patients at CF centres nationally since 1998 (5).

The ACFDR compiles a defined set of benchmarking data to allow national comparison of both mean FEV₁ (lung function outcomes) and mean BMI z-score as an indicator of nutrition status. Figure 4 represents one year of BMI z-score outcomes for the major CF centres in 2010. Annual registry reports between 2006 and 2010 identified that CHW was the worst performing centre for nutrition in the country (5). The horizontal red line represents the target of a BMI on the 50th percentile. Our mean BMI percentile was 55th percentile which exceeded this target however this data is not representative of the norm, as it represents the maximum BMI percentile recorded for each child during the calendar year.

During our improvement initiative we collected data based on the first clinic visit of the year, regardless of the patient’s condition to ensure a ‘real-time’ picture was collected. While recent centre comparison data is not available, the annual retrospective analysis of outcome measures (Figure 1) highlights the success of this QI initiative suggesting a likely improvement in our nutrition outcomes at a national level.

The Cystic Fibrosis Standards of Care, Australia recommend senior grade dietetic resourcing for a clinic of greater than 150 patients be equivalent to 2 full time equivalent staff (6). In contrast, between 2005 and 2008, despite a population of greater than 220 CF patients, the CHW CF clinic was supported by only 0.4-0.8 FTE of a junior grade dietician. A general lack of satisfaction with the current level of nutrition support and service was demonstrated through the 2006 parent satisfaction survey. Low parental satisfaction was further compounded by limited consistency of care, with no senior dietician and nine different dieticians noted to have provided care to CF patients within a 5 year period. Increasing the dietetic resourcing toward the recommended level through the recruitment of a full time senior dietician with experience in the field of cystic fibrosis and the decision to employ a nutrition education assistant enhanced the CF nutrition team services to 1.9 FTE.

Evidence based recommendations for cystic fibrosis patients with a BMI of less than the 10th percentile are that a dietetic review and intervention should occur every 1-2 months until improvements in BMI outcome measures are achieved (7). The dietetic audit completed in 2006 identified that patients with a BMI of less than the 10th centile (nutrition failure) had suboptimal lung function and received dietetic review on average, less than twice a year and that dieticians focussed on completing the annual review assessments independent of their nutrition status (8). As part of this improvement initiative, identification of urgency of dietetic review was included in the...
nutrition screening tool (Appendix 1). As part of early implementation in 2009, a 4 month pilot to assess the number of patients requiring urgent review and the actual number of patients seen by the dietitian was collated. Within the first 4 months, the dietitian successfully reviewed 90% of attendances requiring an urgent review, whilst maintaining an 80% success rate with completion of annual review assessments indicating a more effective and efficient use of clinic time.

D. INNOVATION IN PRACTICE AND PROCESS

As nutrition and growth outcomes are affected by many factors in CF, engagement of respiratory, gastroenterology and endocrine specialists was critical in this process. A cultural shift in the whole team approach to nutrition management was required to successfully improve patient nutrition outcomes as families were comfortable with physician-led decisions about their child’s care, making physician reinforcement and clear communication between team members and the family critical. Nutrition screening was commenced as part of the routine preparation for CF outpatient clinics. Communication to the team about the nutrition status of the at risk patients was also identified in the pre-clinic meeting. Establishing and maintaining a consistent process for pre-clinic preparation increased the awareness of physicians as to which patients required nutrition intervention. By late 2009 a notable culture shift occurred, with nutrition status being mentioned at pre-clinic meetings. The gradual success of this communication strategy was evident to other members of the multidisciplinary team, resulting in all allied health staff routinely using the clinic list to identify the patients they needed to see for the benefit of the physician and the wider team.

The nutrition education assistant (NEA) position created as part of the QI initiative is an innovative position within the field of nutrition and dietetics and in particular cystic fibrosis. Traditionally dietary assistants or nutrition assistants have worked within the food service system ensuring inpatient dietary requirements are met using a set of standard diet codes and standard menu systems. Our part time CF NEA was created as a support role for dietitians to translate the best practice dietary guidelines into practical food ideas for families. This was achieved through planning and implementing a nutrition cooking evening for parents with a celebrity chef, food photography for visual food ideas, development of education resources, communication of practical food examples and recipes modification ideas to meet the specific dietary needs of both the patient and family.

E. APPLICABILITY TO OTHER SETTINGS

Evidence supports the need for CF care to be provided by a multidisciplinary specialist tertiary service, there are a limited number of specialist services across Australia and New Zealand for paediatric CF patients, resulting in increased reliance on international practices to guide improvements in care. The progress achieved through this QI initiative was documented and presented biannually at the Australia and New Zealand Cystic Fibrosis conference between 2009 – 2015 (9-12). Significant interest in this QI project was developed over time with professionals from a number other specialist centres requesting information on the screening tool and algorithm in addition to the written abstracts. In 2013 this QI project was awarded the conference prize for best new researcher due to its success in improving health outcomes and its applicability to other centres across Australasia.

F. REFERENCES

8. Noy A; Cooper, P. An audit of dietetic practice, nutrition services and patient demographics of
Cystic Fibrosis patients attending the Children’s Hospital at Westmead during 2006. 7th Australasian CF Conference Abstract; Sydney 2007.

9. Graham C; Brown, S; Kench, A; Cooper P. AUDIT OF NUTRITION STATUS FOLLOWING COMMENCEMENT OF A NUTRITION FOCUSED QI INITIATIVE. 9th Annual Cystic Fibrosis Conference; Melbourne 2011.

10. Graham C; Cooper, P. Introduction of Routine Nutrition Screening at a Cystic Fibrosis Clinic 8th Annual Australasian Cystic Fibrosis Conference; Brisbane 2009.

11. Graham C; Kench, A; Brown, S; Cooper, P. QI Project to Improve BMI outcomes in CF. 10th Annual Australasian Cystic Fibrosis Conference; Auckland, New Zealand, 2013.

### G. APPENDIX

**Appendix 1: DIETETIC REVIEW CRITERIA**

Children requiring dietetic review in outpatient clinic are considered to be as follows:

- All children < 2 years (ideally at each clinic appointment)
- All children in the ‘High risk’ and ‘Nutritional Failure’ Category on Nutritional Screening (as per screening tool)
- All children in the ‘Acceptable’ Category + further decline in BMI centile (as per screening tool)
- All children with a Gastrostomy tube or Cystic Fibrosis Related Diabetes
- All children who are due for Interval Check (annual review)

<table>
<thead>
<tr>
<th>Category</th>
<th>BMI percentile</th>
<th>Weight loss OR Weight Plateau*</th>
<th>Within Genetic Height Potential#</th>
<th>Urgency Dietetic Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overweight</td>
<td>BMI &gt;97 %</td>
<td>?</td>
<td>?</td>
<td>Screen next clinic Review when able, when requested and at Interval Check</td>
</tr>
<tr>
<td>Optimal</td>
<td>50-96 %</td>
<td>NO</td>
<td>YES</td>
<td>Screen next clinic Review when able, when requested and at Interval Check</td>
</tr>
<tr>
<td>Acceptable</td>
<td>50-96 %</td>
<td>NO</td>
<td>NO</td>
<td>Screen growth at clinic Review this clinic if height z-score or BMI decreasing Screen next clinic if height z score/BMI percentile stable or increasing</td>
</tr>
<tr>
<td></td>
<td>25-49 %</td>
<td>NO</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>High Risk</td>
<td>25-96 %</td>
<td>YES</td>
<td>?</td>
<td>Dietitian review this clinic</td>
</tr>
<tr>
<td></td>
<td>10-24 %</td>
<td>?</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Nutritional Failure</td>
<td>&lt;10 %</td>
<td>?</td>
<td>?</td>
<td></td>
</tr>
</tbody>
</table>

? Move to next step

* Weight crossing one or more percentile line or plateau in weight for more than 6 months

ALL UNINTENTIONAL WEIGHT LOSS SHOULD BE REFERRED

# Genetic Height Potential - Mid Parental Height
Appendix 2: CF Nutrition Care Algorithm

High risk, urgent need or drop in category noted
- PFTs
- Dietitian assessment
- OGTT (>10yrs)

Inadequate dietary intake?

Pancratic insufficiency (regardless of symptoms)
- Ensure adequate enzyme dose
- Add acid blocker to optimise enzyme efficiency
- 72hr faecal fat study to assess enzyme dose

Constipation
- Assess and treat GERD
- Add PPI or optimise current dose

Collect Screen

Pancreatic insufficiency

Assessment for common GI co-morbidities
- OGTT (10yrs)

Inadequate dietary intake?

Nutritional Counselling
- Prescribe increased calories/calories Goal
- Supplement
- Introduce strategies for meeting calorie goals (including concept of enteral feeds)

Behavioural Assessment
- Social Work evaluation for family/social barriers

Unstable lung disease?

Culture for new bacterial pathogens

Consider imaging (CXR, CT)

Consider additional pulmonary therapy

Treatment of Pulmonary Exacerbation
- Follow-up in 4 weeks

Reassess other causes of urgent need

Improved?

Continued follow-up as outlined in algorithm

YES

NO

Consider OGTT 6-9 years

NG or GT for supplemental feedings

Consider medical psychology

Continued follow-up:
- Monthly, if urgent need
- Every 2 months, if at risk
- Every 3 months, if acceptable

NO

Continued follow-up as outlined in algorithm

YES

NO

Improved?

Further GI investigations – Liver Disease

Consider Endo referral
Gold Coast Hospital and Health Service  
Department of Medicine  
The OnCallogist Mobile App in the afterhours ward-call setting.  
Dr Justin Wong, Dr Siddharth Sharma

AIM  
Our aim is to improve patient safety and by reducing completion times of patient-care requests in the afterhours ward-call setting through the early-adoption of an innovative mobile app technology (the OnCallogist App). We also aim to extract actionable data from real-time information continually gathered by this app. Finally, we aim to demonstrate alignment with best practices in developing software in the healthcare setting.

SUMMARY ABSTRACT  
Patient care activities performed in the afterhours setting are vital and safety-critical activities but are often neglected when it comes to healthcare analytics. Many of the activities that occur overnight in hospitals, such as cannula re-sites, fluid orders, medications requests etc. are currently requested through the following methods:  
- Paging the on-call doctor  
- Calling the on-call doctor directly  
- A piece of paper or whiteboard with a list of jobs for the on-call doctor.

These activities after-hours often go unrecorded and valuable actionable analytical data are lost.

The current after-hours ward-call process described above is arguably inherently unproductive. Productivity is defined simply as output over input. If a medical resident is tasked to perform a certain job (output) but is frequently interrupted by pages and calls (inputs) while trying to perform this job, then productivity suffers.

It is difficult to quantify metrics like productivity, workload, request type distribution due to the lack of data relating to after-hours activities.

The inefficiencies and lack of metrics in the afterhours ward-call process spawned the idea for the OnCallogist mobile app – an app that provides real-time information on pending requests to afterhours doctors to empower them to prioritise and tend to jobs in an efficient manner without unnecessary interruption from pages and calls. This idea became a reality through the Gold Coast Hospital and Health Service’s "Improver’s Challenge" in mid-2014 where the idea won a grant for $50,000. The money was used to outfit five trial wards with Apple iPads and to provide Apple iPhones to the afterhours resident medical officer (RMO) and Clinical Team Consultant (CTC). The software was developed locally over the course of 10 months.

The main purpose of the OnCallogist app was to increase productivity of ward-call process at the Gold Coast University Hospital (GCUH). Productivity gains were validated by using the request completion times as a surrogate and comparing the average completion times of the wards using paper-based lists against the trial wards on which the OnCallogist app was deployed. Paper job lists that had not been destroyed dating from December 21, 2014 to April 18, 2015 from all wards (except the trial wards during the trial period) were colated examined for request and completion time entries. Note that very few of the several hundred job list sheets actually had completion times filled out. Nonetheless, we were able to extract a sample size (n=83) from these paper lists. Completion times from the OnCallogist app were obtained easily by performing a simple SQL query (structured query language) against the OnCallogist database (n=1916).

Our other main priorities were as follows:  
1. To develop a mobile app that aligns to best practices in the areas of user-centered software design, security, and government ICT policies.  
2. To provide the ability to extract actionable data related to afterhours ward-call activities.  
3. To provide a frictionless handover process that facilitates NHQHS Standard 6 (Handover).  
4. To achieve 100 % compliance with NHQHS standard 5.1 (Patient Identification).  
5. To architect a solution that is portable to other health districts.

Outcomes: Data gathered at three months post-deployment of the OnCallogist app showed an
impressive 41% difference in average completion times: 104 minutes (paper-based, n=83) to 62 minutes (OnCallogist app, n=1916).

We achieved 100% compliance to NHQHS Standard 5.1 (Patient Identification) for all requests made through the app.

Data-mining of the OnCallogist database yielded unprecedented data on workload, completion times, and request type distribution. We were able to identify workload and delay hotspots, and we also took the opportunity to perform a workload analysis on the Easter long weekend ward-call activities.

The OnCallogist app gained positive reception from the nurses and doctors and has completely replaced the paper-based jobs list on all five trial wards.

The app has successfully implemented encryption modalities that meet and exceed the Queensland Government Enterprise Architecture Network Transmission Assurance Framework's highest security level classification.

The app has been successfully tested on the Cloud as well as internal infrastructure and is architected in a way that is easily portable to other health districts.

*Note that the data presented in this paper are for wards B5S, B5N, D5N, B4S, B4N for the date range: February 9, 2015 to April 19, 2015.*
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Hospital at Night ("Nightlife"): Building a team improves patient outcomes and patient experience overnight at The Royal Melbourne Hospital

Clinical Governance and Medical Services
Victoria Atkinson, Catherine Jones, Timothy Fazio, Lucy Demediuk, Danny Liew

Aim: The Hospital at Night (Nightlife) initiative at the Royal Melbourne Hospital recognises that each patient is entitled to the same high quality harm free care regardless of the time of day. Hospital data suggested that patients did not receive the same quality of care overnight and that night time presented multiple barriers to patient flow and access to care. Pre-implementation analysis indicated that care was provided in silos, staff felt less supported, workload distribution was inequitable, clinical handover was inadequate and there was limited access to teaching. The new ‘Nightlife’ model sought to address these issues and improve patient outcomes and patient experience at an acute tertiary, teaching and referral hospital in Victoria.

Summary abstract: Context and problem – Research from the UK has demonstrated that patient care overnight can pose many challenges. The Royal Melbourne Hospital (RMH) is an acute tertiary, teaching and referral hospital in Victoria, Australia. Hospital data suggested that patients did not receive the same quality of care overnight and that night time presented multiple barriers to patient flow and access to care. Pre-implementation analysis indicated that care was provided in silos, staff felt less supported, workload distribution was inequitable, clinical handover was inadequate and there was limited access to teaching. The literature has demonstrated that implementation of a ‘Hospital at Night’ model can improve patient, staff and system outcomes.

Intervention and methodology

Aim – The aim of the Hospital at Night (Nightlife) initiative at the Royal Melbourne Hospital was to improve patient outcomes and patient experience overnight by:

- Creating a team culture;
- Installing strong hospital leadership;
- Enabling decision making and supporting active medicine to facilitate patient flow and access to care;
- Providing staff education and training overnight.

Intervention – The intervention consisted of:

1. The introduction of a ‘Medical Office in Charge’ (MOC) role which was a new role for a senior Registrar who works closely with the Nurse in Charge (NIC) to form a highly effective hospital management team. The MOC was employed through a redistribution of medical EFT overnight. The role of the MOC was to:
   - be a senior, clinically skilled, experience staff member who will provide clinical decision support across the hospital overnight;
   - supervise protected handover and lead a team meeting at night;
   - provide teaching and training overnight; and
   - participate in leadership and teamwork training.

2. The development and introduction of a tailor made web based electronic task management system, integrated with the patient flow system, which replaced the paging system overnight. The task management system allows:
   - nursing staff to log and track tasks for medical staff and assign priority to all tasks;
   - medical staff to track all requested tasks using a tablet (iPad mini); and
   - the MOC to oversee the distribution of all tasks allocated to medical staff and re-allocate tasks where there is an unequal distribution of workload.

   The MOC also monitors the task management system and can re-prioritise or re-allocate tasks as required. Audit of the task management system allows for the monitoring of workload overnight.

   The equalisation of workload has contributed to the culture of teamwork and allows more time to provide care to patients.

3. The introduction of a new model overnight which includes:
   - the introduction of a protected, structured supervised handover;
   - a night team meeting; and
   - protected meal break and teaching time.

   These activities are led and supervised by the MOC and have also been critical to the development of a teamwork culture and to improving communication overnight.

Methodology – The evaluation of the Nightlife initiative employed a pre and post implementation evaluation (at 8 weeks and 12 months). The evaluation framework is outlined below:

1. Improve patient outcomes
   - Standardised/crude patient mortality rates
   - Cardiac arrest/MET call frequency
   - Readmission rates
   - Door to thrombolysis times

2. Improve patient safety
   - Falls
   - Hospital acquired infections
   - Hospital acquired pressure injuries
   - Reported incident data

3. Improve patient experience
   - Real time patient feedback

4. Improve staff experience
   - Staff satisfaction, team work, confidence
   - Access to Professional Development
   - Access to senior staff/clinical support/supervision
   - Staff unplanned absences (i.e. sick leave)

5. Improve staff communication
   - Compliance with MH handover procedure
   - Protected night team meeting
   - Frequency and content of paging

6. Equitable workload
   - Task allocation/task profile/task patterns/task reallocation

7. Improve patient access and flow
   - Emergency Department length of stay
   - Ward length of stay
   - Time to theatre
   - Ward to ICU transfers overnight

Measurement and results – The Nightlife initiative went live on 1st February 2015. The 8-week post implementation evaluation has been conducted. To ensure the pre and post implementation evaluation periods were seasonally consistent, the pre-implementation period was 15 February 2014 – 15 April 2014 and the post-implementation period was 15 Feb 2015 – 15 April 2015. The key findings are outlined below.

Improve Patient Outcomes – There has been an improvement in the response to patient deterioration overnight demonstrated by earlier recognition and treatment of deteriorating patients (an increase in the number of calls for a
Outcome – The Nightlife initiative has succeeded in creating a team culture overnight through:
• access to senior medical support overnight;
• standardisation of a formal, supervised evening medical handover and team meeting for Hospital at Night doctors;
• introduction of protected meal breaks and teaching;
• use of a designated room for Hospital at Night doctors; and
• introduction of a new task electronic task management system and use of tablets to improve communication, workload distribution and efficiency.

The new model has resulted in improved patient outcomes and patient and staff experience.

Creating a culture of performance improvement through an integrated quality, education, safety and training team. The creation of “QuEST” and the celebrated outcomes.
Peel Health Campus of Ramsay Health Care
QuEST – Quality, Education, Safety and Training Unit
Diane Barr

AIM: The creation of ‘QuEST’ resulting in improved clinical management and performance measures. In June 2013 the health campus transitioned to a new board and new executive. The executive team faced the challenge of not only transitioning the staff to the governance of the new ownership, but also transitioning the health service to the National Safety Quality and Health Service Standards with survey scheduled for December that year. Further to this the staff had just experienced the challenge of a full parliamentary inquiry and subsequent public sector inquiry. Although the inquiry findings were very positive for the health service and the staff who provide the care, it did impact on staff morale and community confidence through 2012/13. The campus executive at this time embarked on a journey with the primary goal of using the National Safety Quality and Health Service Standards and Safety and Quality compliance and improvement as the primary theme of the 13/15 operational objectives. In reviewing the resource dedicated to quality, education, safety and training it was evident there was sufficient resource however the team was divided and there was a significant absence of leadership and direction. A decision was made to integrate all the subject matter experts from education, safety, quality, risk and audit into one team. A manager of quality and education was appointed and the “QuEST” team was formed. This paper will demonstrate how that integration and excellent leadership by the manager significantly impacted on organisational performance and ultimately improved health care outcomes for the community, patients and staff of the Peel Health Campus.

SUMMARY ABSTRACT: The objective of “QuEST” was to create a united team of subject matter experts, who have strong leadership and executive support to work towards a common goal of embedding a culture of performance improvement throughout the health campus. In July 2013 the “QuEST” department was formed. Previous to the creation of “QuEST”, quality, safety, education and training worked in silos. The “QuEST” manager developed a robust integrated quality, education, safety and training framework that was supported by a comprehensive audit system. The framework brought immediate visibility to organisational performance. The aim of this report is to demonstrate how effective leadership and organisational ownership and management of the audit framework can significantly improve health care outcome measurements. It is important to note that prior to the development of “QuEST” the health service had been subject to a parliamentary and public inquiry, significantly low confidence in service from media and community and full change of ownership. Hence the team has been nominated for this award acknowledging in 2015 only 2 years on, the service has met all mandatory and developmental national standards (verbal...
summation in June 2015 (awaiting formal report), met all non-compliant private licensing requirements, demonstrated above benchmark results in external audit (infection control and occupational health and safety) and most importantly significantly improved staff, patient satisfaction and community confidence. These results are attributed to great leadership by the manager of “QuEST”, her ability to engage the workforce and the executive team and implement an integrated quality and education framework with a visible robust audit framework.

The background to the journey is important to understand the context of the improvement. The hospital is operated under a public/private partnership with government. The hospital was commissioned in 1997 and was owned by a single private operator until the transition in June 2013. The hospital provides acute services to the population as an outer metropolitan regional service. Clinical services include general medicine, surgery, specialty elective surgery, paediatrics, rehabilitation, renal, oncology, palliative and maternity services. The hospital is also supported by an emergency service that provides treatment to approximately 50,000 presentations a year. The local population is one of the fastest growing in Australia; hence increased clinical demand is one of the most significant challenges. As the only hospital in the region, there is strong community and staff ownership in the hospital services and performance.

Acknowledging the health service had been subject to a parliamentary and public inquiry in 2012/13, the last external quality review was under the EQuIP framework and the health service had not yet transitioned fully to the new standards when the executive team was appointment by the new owners. An initial gaps analysis against the standards, a training needs analysis and discussions with key stakeholders led to the immediate creation of the “QuEST” team, acknowledging the operational objective of embedding quality through the organisation as a priority goal. The outcomes that will be described are attributed to the QuEST manager, her talented, professional and passionate team and the whole workforce that quickly joined the journey.

It is important to acknowledge the skill set in the team;

1. Manager (Quality, Education, Safety & Training)
   Was appointed to the position in June 2013, previously the quality manager appointed in October 2012. The position was tasked with uniting the subject matter experts and supporting the executive to develop an organisational and committee structure that integrated quality, education, safety and training across the health service. The appointment acknowledged formal qualifications in quality and education and a proven track record in leadership and change management. (no additional FTE).

2. Quality & Clinical Improvement Coordinator
   Was appointed in July 2013, previously a clinical nurse manager/clinical nurse specialist for 8 years, this individual demonstrated a track record in leadership and change management and a professional interest in risk management. This position was appointed to roll-out a clinical risk management system, including re-commissioning electronic tool, and educating the workforce on incident reporting, investigation, management and recommendation implementation and review. (no additional FTE).

3. Senior Quality Auditor
   Was appointed in October 2013, previously an experienced emergency department nurse with a professional interest and experience in clinical service redesign and audit systems. This position was appointed to enhance the audit framework and ensure compliance with legislation, standards and evidence based practice across the hospital.

4. Clinical Nurse Educators
   The education department previously stood alone with a dedicated manager, two clinical nurse educators, a graduate nurse coordinator and an educator dedicated to induction/orientation. This team was integrated into the “QuEST” team with a clear objective of aligning organisational risk, safety and quality to the education plan. Under the new leadership each educator was provided with key portfolios acknowledging skill and organisational need and a new education plan was developed that aligned with the National Safety Quality and Health Service Standards, legislative requirements and evidence based practice. (no additional FTE).

The above team would go on to demonstrate that with executive support and robust clinical governance systems the whole hospital could be engaged to transition to the National Safety Quality and Health Service Standards and meet all mandatory and development criteria by 2015. The team and the model is very transferrable and this was validated when the board asked the “QuEST” team to be seconded to another health service site to assist the CEO to develop an integrated quality, education, safety and training system.

The most significant achievement that will be evident in the report however is how “QuEST” managed to engage, nursing, allied health, medicine, support and administrative staff, and patients and the community on their “quest” for patient centered care and within strong clinical governance principles. The report will demonstrates improvement across all of the ACHS principles with audit results and patient and staff feedback provided as evidence.

Staff morale has improved, patient satisfaction indicators are more positive and the health service has increased community confidence and even engaged the media on the journey to excellence in quality, education, safety and training.

The Mercy Health Audit system -- thinking outside and inside the box

Mercy Health
Quality, Risk & Service Improvement / Group Internal Audit and Risk Assurance
Susan Blackbourn, Stephen Tiley

AIM: To implement a quality audit system that meets the needs of the organisation that is robust, easy to use, effective and inclusive of audit data, improvement information and consumer outcomes.

SUMMARY ABSTRACT: The introduction of the National Safety and Quality Health Service Standards highlighted the need for a comprehensive, centralised audit system within our hospitals and health services [health services at Mercy Health]. Audits were being undertaken in pockets within health services, however, there was little standardization, no central register, and reporting of results was ad-hoc. The need to implement an audit system was a high priority. A number of commercially available audit systems were considered, however, the limited ability to develop our own audit tools, self-manage the audit measures and include reference to the improvements made resulted in a decision to modify and further develop the audit system already in use in Mercy Health Residential Aged Care for introduction into our health services.
Success Story - Specialist Ophthalmology Outpatient Services
Liverpool Hospital
Ophthalmology Department
Josephine Chow, Alvin Goh, Stephen Ong, Anne Lee, Leeanne Gardiner, Les Bokey, Grant Isedale

AIM: The primary aim is to provide significantly improved and equitable access to timely Outpatient Ophthalmology Clinic appointments within 12 months since initial referral. This project also aims to implement performance targets which are transparent, continually monitored and informed by timely and reliable information systems.

SUMMARY ABSTRACT: Management of increasingly high demand for Specialist Ophthalmology services within a limited funding envelope and constrained capacity to deliver is and will continue to be a constant challenge facing Sydney South West Region. In September 2013, 828 patients were determined as requiring Outpatient Ophthalmology Clinic appointments. At that time, there was significant wait time of 2.5 years for non-urgent initial appointment, which is clinically unacceptable as deterioration of a patient’s condition can result in increasing both complexity of required treatment and associated risk factors. An outcome based ‘Benefits Realisation’ approach was utilised to confirm current service gaps, identifying potential solutions and implementing the changes. Innovative strategies were subsequently developed to improve the existing model of care, aiming to clear the wait list, and significantly improve future access to Ophthalmology Services via streamlining the referral to treatment pathway. Outcomes of this project included:
1. Service is responsible to community need, appropriate, effective and sustainable
2. Ophthalmic surgery, via the introduction of concurrent supervised sessions has increased the rate of ophthalmic surgery and provided enhanced training opportunities for Registrars
3. The provision of the outpatient ophthalmology services has enhanced the system as a whole to better integrate services across the continuum
4. The new centralised referral form and triage process are underpinned by evidenced-based standards of care that are contemporary, efficient and offer a consistently high quality of care
5. Performance targets implemented are transparent, continually monitored and informed by timely and reliable information systems with weekly tracking, and is available on every hospital and community health service computer via the intranet. The Dashboard is dynamic and interactive, displaying data via a Graphical User Interface. Ward data is easy to review for a month or multiple months, and can be compared to other wards (for example two medical wards). There are set data criteria for wards, with more specific data is easy to review for a month or multiple months, and can be compared to other wards (for example two medical wards). There are set data criteria for wards, with more specific
6. No formal patient complaints received since successful implementation of the above strategies

Clinical Data Dashboard... Inspiring Clinicians Through a Gateway to Data
Northern Beaches Health Service / Hornsby Ku-ring-gai Health Service
Clinical Redesign and Innovation Unit
Marissa Dodds, Deb Stewart

AIM: The creators of Clinical Data Dashboard had two aims. Firstly they wanted to inspire clinicians to utilize data that measures the care we are providing in order to enhance patient experience and improve clinical outcomes. This data review informs clinicians of change in trends and helps drive sustainability of quality improvement until such practices are embedded in everyday care. Secondly the creators wanted consumers to be able to review meaningful information displayed in ward areas demonstrating our commitment to improving the service we provide.

SUMMARY ABSTRACT: There has been an enormous body of work in health generally and within our Local Health District (Northern Sydney) in the past 3 years to improve access to care – making discharges more predictable, creating capacity and improving patient care. The planned implementation of In Safe Hands within the Northern Beaches Health Service (Manly and Mona Vale Hospitals) and Hornsby Ku-ring-gai Health Service (Hornsby Hospital) in December 2013 led to discussion about what data was needed to be collected to measure the effectiveness of the program, performance and outcomes.

The Clinical Excellence Commission (CEC), a pillar of NSW Health, identified a minimum data set, and from that minimum dataset the idea of a clinical data dashboard was born. Dashboard meetings were driven by clinicians who identified the need to establish a larger minimum dataset than that identified by the CEC, to measure not only performance but to extend the measurement to safety and clinical risks. The clinicians recognised that we are data rich but there is a struggle in translating this data into meaningful information that clinicians can access easily, is used practically, and easily understood by consumers. The Northern Beaches and Hornsby Ku-ring-gai Health Services clinicians reported that they wanted data in a timely manner to help facilitation of quality and redesign projects, along with other programs such as In Safe Hands, Whole of Hospital and Essentials of Care. They wanted results to be ward specific and closely linked to the National Safety and Quality Health Service Standards.

Consumers needed assurance that as an organisation we are focused on improving health outcomes and identifying clinical risk. They also need to be able to access meaningful information displayed in public areas demonstrating our commitment to improving the services we provide.

The CEC determined that there should be 6 criteria measured for the In Safe Hands Program. Based on input from the Clinicians the clinical data dashboard also included a number of other measures.

The Clinical Data Dashboard was launched in December 2013 and is available on every hospital and community health service computer via the intranet. The Dashboard is dynamic and interactive, displaying data via a Graphical User Interface. Ward data is easy to review for a month or multiple months, and can be compared to other wards (for example two medical wards). There are set data criteria for wards, with more specific datasets for the Emergency Departments, Intensive Care Units, Maternity and Paediatric Units that make the information more relevant to the teams on those units.

The availability of this clinical data is allowing measurement of the strategies that are being implemented in programs such as In Safe Hands. Partnering with patients to ensure that patients, family and carers are an integral part of our health care team is essential to providing safe, quality care. Improving patient-centred care has a range of benefits for patients, providers and health care services including improving patient care experience, staff satisfaction, clinical outcomes and operational benefits.

The dashboard continues to be edited in response to clinician requirements. At present the data provided is ward based, in the future we would like clinical streams across the district sectors to be able to extract meaningful and comparable data. The Local Health District is planning the rollout of the dashboard across two other acute facilities within the district, but before this progresses the issue of how data is collated and entered on such a large scale needs to be addressed as at present it relies on individuals providing data sets to a central coordinating person, and on a district scale this is not a...
sustainable process. Interest in the dashboard has now been received from centres across NSW and interstate.

**Weight Loss Program**  
Correct Care Australasia  
Marngoneet Prison Medical Centre  
Christine Fuller

**AIM:** The introduction of a formal, but supportive weight loss program at Marngoneet Prison was aimed at improving prisoner health knowledge and enabling prisoners to increase control over their diet and exercise regimes. The program is based on the recognized principles of health promotion including: empowering, participatory, holistic, inter-sectoral, equitable, sustainable and multi-strategy (World Health Organisation (WHO), 2001). Obesity is associated with a number of serious co-morbidities and overall the program aimed to improve physical health, engage prisoners in self-management and enhance well-being.

**SUMMARY ABSTRACT:** Correct Care Australasia (Correct Care) is a division of Correct Care Solutions (CCS) USA and is contracted by the State of Victoria to provide primary health and primary mental health services in all Victorian public prisons. The population that Correct Care currently services exceeds 4,500 prisoners.

While managing patient's chronic illness and general health and well-being via clinic appointments had been in place at the Marngoneet Prison Medical Centre, an opportunity for prisoners to undertake a targeted and healthy approach to weight loss was identified at the end of 2014. Some studies suggest that prisons themselves can contribute to obesity and exacerbate chronic diseases due to the structural and social environment that prevents prisoners from maintaining or improving their health (Ginn, 2012). Prisoners are also extraordinarily unhealthy and share environmental, social and health characteristics and risk factors that are associated with obesity (Australian Institute of Health & Welfare (AIHW), 2013), with 32% of prisoners reporting they have a chronic illness, this program was an opportunity to manage these illnesses and risk factors. The introduction of a formal weight loss program was an innovative, proactive health promotion initiative that was striving to improve practice and outcomes.

The development of the program components, liaison with key stakeholders, implementation and evaluation of outcomes involved strong leadership from the Marngoneet Health Services Manager (HSM) and key nursing and medical staff. One of the senior nurses at Marngoneet discussed the idea of a formal weight loss program with the HSM and Medical Officer. The health centre staff then met with key partners such as the Prison Operations Manager, the Kitchen Supervisor, the Recreational staff and the broader Prisoner Community.

The components of the program were developed and Local Operating Procedures written. Making the program easily accessible by patients was paramount, hence the need to raise awareness across the site and make referral to the program via a wide range of means, such as self-referral or by the Medical Officer, Chronic Health Care Plan Nurse, the Reception Nurse or Corrections Victoria Officers. The program is advertised through a number of channels, including the development of posters and information in the weekly prison bulletin.

Assigning a nurse to oversee the referrals, review appointments and evaluate data was important to successfully lead the program. Required resources were identified and put in place to support staff and patients. All potential risks were identified and mitigation strategies developed e.g. removing any barriers to participation. Ongoing review and discussions regarding processes, issues and outcomes were facilitated to ensure the ongoing success of the program.

The program involves an initial consultation, which includes a discussion about weight loss goals, reasons for wanting to lose weight, weight measurement and pathology testing. An appointment is made for the prisoner to meet with the kitchen supervisor to discuss dietary options, as some prisoners are accommodated in self-catering units and some eat from the main dining room. A call is also made to the recreation officer to organise an interview regarding a specific exercise program for the participant. The prisoner is provided with an overview of the prisoner mentor group and asked for consent to participate in group activities. The Prisoner Mentor Group provides an avenue for peer support opening up options for discussion during weigh-ins and provides an avenue for support and encouragement during exercise sessions.

Subsequent appointments are booked fortnightly to monitor weight and waist measurements, and to provide support and encouragement. The initial length of the program at six weeks has successfully held the prisoner interest and is long enough for them to actually see and feel results which maintained their motivation. Each prisoner mentor group is given a time range to attend and generally attend together, which further enhances group support. Review pathology tests are ordered at three and six month intervals. Statistics for each prisoner to show weight and waist measurement graphing, and include the pathology results are captured.

The weight loss program is continually being reviewed and changes made based on the feedback. One of the recent improvements has been the addition of pedometers supplied to participants to monitor and analyse their physical activity on a regular basis. Marngoneet are looking at ways to increase the number of participants that can be managed at any one time and to develop strategies to recognise prisoner participation e.g. completion certificate. Following the success of this program it is Correct Care’s intention to promote and roll out to other prisons across Victoria.

**The role of ultraviolet marker assessments in demonstrating cleaning efficacy**  
Monash Health  
Infection Control  
Elizabeth Gillespie

**AIM:** Cleaning standards measuring compliance using visual auditing can be misleading, as visually clean surfaces may not be cleaned of pathogens. The aim of this initiative was to develop an environmental cleaning assessment system that provided evidence of reduced infection risk. The development of an evidenced based system using both visual auditing and ultraviolet marker (UVM) assessments has enabled Monash Health to measure infection risk and implement action to improve results.

**SUMMARY ABSTRACT:** The link between environmental cleaning, disinfection and the transmission of infection has increased in understanding in recent years (1-3). Environmental contamination makes an important contribution to hospital infection (4). Eliminating the contaminated environment has been demonstrated to reduce transmission of vancomycin resistant enterococcus (VRE) in several outbreaks (2,3,5). In Victoria, Australia, our Cleaning Standards reference the need to reduce risk, including infection risk for patients, the risk of poor public image, the occupational health and safety risk and the risk of purchasing a cleaning service providing poor value for money (6). Visual assessment may fulfill aesthetic
obligations but cannot predict the risk of infection in patients. Visual assessment has been identified as a poor indicator of cleaning efficacy. Fingertips can be contaminated from the environment and transferred to multiple surfaces despite a visually clean environment (7).

Studies have shown that covert assessment of cleaning demonstrated only 40% of surfaces during terminal cleaning of patient rooms were cleaned at baseline (2). Significant improvements were achieved by using a structured approach incorporating a simple, highly objective surface targeting method with repeated performance and feedback to environmental services personnel. Carling et al clarified the differences between measuring cleanliness versus cleaning practices and described an enhanced monitoring program that included the use of fluorescent marker (2) At Monash Health, an inexpensive standard for using a fluorescent marker has been developed and implemented (8).

In Victoria, health services are required to have a continuous comprehensive systemic approach to monitoring cleaning outcomes within their facilities, with visual internal audits performed in all functional areas across all risk categories. As visual assessment does not adequately address infection risk, we reviewed a combination of visual and UVM auditing as an efficient and effective method of assessment for healthcare. The UVM, a fluorescent lotion (Glitterbug™; Brevis Corp; Salt Lake city, UT) is visible under ultra-violet light and is used to monitor compliance with handwashing. It is nontoxic and readily removed by cleaning with water (10). This lotion was applied to a two centimeter square surface area with a gloved finger and allowed to dry. The inoculated surface was then exposed to cleaning. Visual audits were conducted by internal cleaning auditors and UVM auditing was conducted by infection control staff alongside cleaning supervisors.

To improve UVM assessment results, additional education and increased supervision were added to the training of existing cleaning staff. A mechanism for reporting results was developed for individual staff, cleaning supervisors, operations directors and the infection control governance committee. An electronic auditing tool was developed and implemented so that minimal time was required in producing reports and notifying relevant staff of the results. Feedback from cleaning supervisors was recorded during the cleaning improvement process.

The current visual monthly auditing for Monash Health comprises 2100 audits and utilises three EFT. The time taken to complete visual audits and UVM audits were calculated. UVM reading is completed 24 hours after placement. This provides time for cleaning, either terminal or daily to be completed during the intervening 24 hours. A schedule for completing a combination of visual and UVM auditing was developed and tested. Feedback was sought from cleaning management to establish the most efficient and effective system for cleaning assessment. Statistical analysis was performed using R version 3.2.0 software. Logistic regression was used to evaluate any association of activity (measured by variation in occupied bed days) over time compared with terminal cleaning pass results.

AIM: The primary aim of this project was to improve the nutrition status of Cystic Fibrosis (CF) patients aged 2-18 years attending the CF service at The Children’s Hospital at Westmead over a 5 year period.

SUMMARY ABSTRACT:
BACKGROUND: The correlation between BMI percentile, lung function and long term survival in CF is well established. Successful quality improvement (QI) initiatives primarily focussed on achieving the CF Foundation recommendation of BMI greater than the 50th percentile for all patients with CF have been reported by CF centres in the USA. In 2009, we commenced a QI initiative that aimed to improve the nutritional outcomes of CF patients aged 2-18 years attending the CF clinic at The Children’s Hospital at Westmead (CHW).

The mean BMI z score of patients attending CHW CF service at that time was -0.46, which rated amongst the lowest performing centres in Australia.

METHOD: A QI initiative was commenced with focus on the following key strategies; 1) Introduction of a nutrition risk screening tool; 2) Frequent dietetic review of high risk patients; 3) A nutrition assistant; 4) Specific focus on patients 6-11 years; and 5) Improved team communication. Anthropometric data and nutrition classification were retrospectively collected for all patients aged 2-18 years on their first clinic visit annually from 2009 to 2012 and repeated in 2014. Generalised estimating equation analysis and binary and ordinal logistic models were used for statistical analysis.

RESULTS: Overall, the change in BMI z-score from 2009 to 2014 was significant with a mean increase of 0.053 units per year (CI: 0.03-0.08 units; P<0.0001). Importantly, the improved nutritional status was sustained with a mean BMI z-score of 0.18 in 2012 compared with -0.15 in 2014. Between 2012 and 2014 significantly fewer patients required immediate dietetics review (Nutrition Failure and High Risk) (P=0.008). The BMI z-score in the adolescent age group (12-18 years) remained static at -0.6 between 2009-2012, however the 2014 data highlights this group had largest improvement with an increase in BMI z-score to -0.3.

CONCLUSIONS: This QI initiative demonstrates significant improvements in the nutrition status of CF patients between 2009 and 2012 and with sustained improvement thereafter. Multiple strategies based on evidenced based and best practice recommendations were implemented. Incorporation of the multidisciplinary team including the employment of a Nutrition Education Assistant was vital in the success of this project. Improvements seen in the adolescent group are likely reflective of the earlier focus on patients aged 6-11 years and the overall shift in the multidisciplinary team culture in regard to the importance of good nutrition status in CF health outcomes.

“Did anyone tell my GP I’m starting chemotherapy?” – An extensive review of communication between hospitals and GPs for patients commencing chemotherapy.

Western Health - Sunshine Hospital Cancer Services
Sally Greenberg, Ilana Hornung

AIM: To review and improve the frequency and quality of communication between hospitals and General Practitioners for patients who are commencing chemotherapy treatment.

SUMMARY ABSTRACT:
BACKGROUND – It is common for people with cancer to develop adverse side effects due to chemotherapy treatment. While knowledge of chemotherapy toxicity and its management remains the domain of Oncologists and Haematologists, a
majority of cancer patients receive chemotherapy in an ambulatory setting and General Practitioners (GPs) may be required to assess and manage the side-effects of treatment3. Adequate communication between Oncology & Haematology Teams and GPs is critical in the delivery of optimal and coordinated patient care4,5 however little was known about the frequency and quality of information sent by hospitals to GPs when the decision to treat patients with chemotherapy was made.

Western Health (WH) sought and gained funding from the Western & Central Melbourne Integrated Cancer Service (WCMICS) to run this project. WH partnered with another major metropolitan health service, St Vincent’s Hospital (STV), and a rural health service, Ballarat Health Service (BHS), to explore the issue of communication with GPs and trial an intervention to improve it. An Advisory Group was formed with representation from the following disciplines at each participating health service: Medical Oncologist, Project Officer and GP Liaison Team. Pharmacists, GP Advisors, Researchers and Consumers were also included in the Advisory Group.

Methodology
1. Conduct a retrospective audit to evaluate current communication between hospital-based teams and GPs for patients commencing chemotherapy including processes involved, content and quality of information shared and timeliness of delivery;
2. Conduct surveys, focus groups and Advisory Group meetings to determine what information should be shared between hospital teams and GPs from the consumer, GP and Oncology/Haematology perspective for patients commencing chemotherapy;
3. Develop, trial and evaluate an intervention aimed at improving the frequency and quality of communication between hospital teams and GPs for patients commencing chemotherapy.

Results – NB: Ethics approval was sought and granted at the individual participating hospitals and the results reported for each site have been de-identified to Hospital A, B & C. A quality improvement project run across multiple metropolitan and rural institutions is possible with a motivated team. The project review phase demonstrated significant gaps between information required by GPs and that which is provided to them. During the project development phase a single page communication tool was designed by the Advisory Group, focusing on GP priorities, to be sent to GPs prior to or on the day of chemotherapy commencement. This process was successfully initiated during the pilot phase for a majority of patients at Hospital A (86%) and B (81%) but not C (24%). The intervention improved both the provision and timing of correspondence at all institutions. The proportion of GPs receiving information prior to or on the day of first chemotherapy treatment improved from 54% to 82% overall. The quality of information provided improved with a higher proportion of GPs receiving information regarding potential adverse effects (35% to 88%), advice on how to manage these (8% to 79%), indicators for urgent review (5% to 75%), a process for contacting the hospital (10% to 77%) and provision of contact details (29% to 100%). There was no improvement in the proportion of communication that included psychosocial or supportive care issues (34% to 27%). There was no evidence of improvement in GP satisfaction with communication or confidence in managing chemotherapy patients however only 17% of GPs surveys were returned in the evaluation phase.

Conclusion – The baseline standard of communication between Oncologists/Haematologists at three Victorian Public Hospitals was poor with deficiencies in provision and timeliness. Surveys and focus groups of Haematologists/Oncologists, GPs and consumers identified key factors which should be communicated between specialists and GPs at the time of chemotherapy commencement. A standardised single page letter of communication faxed to GPs improves timeliness and quality of correspondence. There is further work required to ensure the Communication Tool can be established and maintained at all institutions involved. Converting the Tool into a computer-based form and having the ability to auto-populate patient and GP information where available would be beneficial in staff uptake. Communication regarding psychosocial aspects of care and improving GPs confidence in treating patients receiving chemotherapy require further analysis and improvement. Given the significant improvement in timing and content of communication it is anticipated that other Victorian/Australian institutions may adopt a version of this Tool.

Implementation of standardised oral care treatment and referral guidelines for older sub-acute patients - a multidisciplinary approach

Peninsula Health Pharmacy/The Mornington Centre

Eric Luong, John Coutouvelis, Jan deClifford, Sin Hoon (Skip) Lam, Penni Drysdale, Rachael Danckert, Evette Campbell

AIM: To improve the oral health of older patients in the sub-acute wards of Peninsula Health by using a multidisciplinary and collaborative approach to develop and implement a standardised referral and oral care treatment. Whilst there are guidelines for oral hygiene practice for residential aged-care patients, Peninsula Health is leading the way with standardising the quality of oral care practice for older sub-acute hospital patients.

SUMMARY ABSTRACT: Oral health is related to the overall health of a person. Poor oral health and dental pain can have a great impact on older people’s quality of life and their wellbeing. Examples of these issues are impacts on people’s eating and swallowing ability, diet type, weight, speech and social interactions (Chalmers & Pearson 2005). There has been a link suggested between poor oral health and adverse medical outcomes such as aspiration pneumonia and cardiovascular disease (Loesche & Lopatin 1998; Coleman 2004; Humphrey 2008; Agado 2012).

Despite the recognition of oral hygiene as an important part of nursing care in maintaining health and wellbeing (Malkin 2009; Huskinson & Lloyd 2009) identification of older sub-acute patients in hospitals and long-term care facilities who are dependent on others for oral hygiene care are at risk of having poor oral health - as oral health is often neglected and given low priority (Coker 2013; Paulsson 2008; Longhurst 1999).

Anecdotal evidence at Peninsula Health, gathered from discussions with the doctors, nurses and speech pathologists based at a sub-acute site of Peninsula Health, suggested that oral hygiene care was inconsistent. The existing nursing oral health assessment tool (OHAT) lacked detail and formal local treatment and referral guidelines were absent.

The aim of Peninsula Health’s Quality Improvement Activity (QIA) was to improve the oral health of older patients in the sub-acute wards by using a multidisciplinary team approach to standardise referral and oral care treatment.

Before, during and after the implementation phase, oral care treatment and referral guidelines on various oral care topics were developed by a working group from several departments, including dental, medical, nursing, pharmacy, and speech. The document outlined the level of responsibility and considered
the non-dental experience of these professionals. The final Guidelines were approved by the Peninsula Health Drugs and Therapeutics Committee in June 2014.

The Guidelines recommended the introduction of a new detailed OHAT tool for nursing staff to assess various oral health parameters of admitted patients; the stocking of recommended oral health products in designated wards, and the development of an oral care referral and treatment process. The nursing OHAT tool was simplified by using ‘healthy’ and ‘unhealthy’ categories for assessing the eight categories of oral health parameters. It also contained suggested treatment or action to be taken for unhealthy oral health conditions (Appendix1). Care was escalated to the medical and/or dental team for complex issues. Detailed oral health assessments were conducted by nurses on admission and weekly thereafter or more frequently when indicated by the clinical conditions of the patient.

Various key performance indicators were measured before and after the implementation of the Guidelines.

The QIA resulted in an improvement in the overall quality of oral health practice in the sub-acute wards. Before the Guidelines were implemented, baseline OHAT assessments indicated that our sub-acute patients had poor oral health and required oral treatments. Results were significantly different after the implementation of the Guidelines. The mean total OHAT score improved by 18.5% (p< 0.05) from baseline at day 10-14. Patient self-reports also indicated an improvement in their oral condition.

An audit of oral health products showed an increase in product usage which demonstrated that hospital staff were adhering to the Guidelines.

Measuring Maternal Satisfaction in a Continuity Model of Midwifery Care
Calvary Health Care Bruce
Maternity Services, Continuity of Midwifery Care Service (CMCS)
Noelyn Perriman, Deborah Davis, Elizabeth Bishop

AIM: The objective of this project was to undertake a systematic integrative review specifically to identify a valid and reliable tool which could be used to measure satisfaction in a continuity model of midwifery care. In March 2014 a new model of maternity care characterised by continuity of midwifery care was implemented for low-risk women attending Calvary Health Care Bruce in the Australian Capital Territory (ACT). In light of the change, by offering a new model of care, it is vital to audit and document the views of women who have recently birthed in the new model. The women included in the program are comprised of primiparous and multiparous women, all of whom met the Australian College of Midwives' criteria for low-risk pregnancies (Australian College of Midwives, 2013).

SUMMARY ABSTRACT: Involving women in determining the important components of a service requires a well thought-out review of women’s needs. This evaluation is often carried out through an audit of the service, and the measurement of satisfaction with care has become an accepted and recommended component of such surveys. Over the years there have been many efforts to develop improved maternity satisfaction measurement tools. There are fewer validated questionnaires available for use in evaluating an Australian Continuity of Midwifery Care Service, whereas there are numerous research papers that focus on reported clinical outcomes in maternity care. The focus on clinical outcomes is valued, as this data enables health facilities to benchmark (ACHS, 2014) and compare outcomes and as such is a tangible method of assessing the quality and safety of maternity care delivered. Clinical outcomes relate to vaginal birth rate and Apgar scores for instance and accessing a database will easily uncover the statistics required. On the other hand, an awareness of measuring satisfaction with health care has increased, as evidence supports the notion that increased satisfaction leads to better health outcomes (Groene, 2011). There are a variety of patient satisfaction surveys available and these are formatted as telephone interviews, on-line surveys and written evaluation questionnaires, for example. These are designed to address a need within a particular organisation and there appears to be little uniformity or consistency. This type of patient survey is rarely evidenced by and tested for reliability and validity. In contrast, the aim of any survey should be to collect objective and unbiased information from a certain group of consumers and an integral part of a well-designed survey is to “plan in” quality all along the way (Scheuren, 2004). It is important for midwifery (and maternity services) to receive valid and reliable feedback from women about their maternity care experiences and to do this it is important that the tools are used to measure maternal satisfaction. The objective of this research was to undertake a systematic integrative review to identify the most robust tools available to measure maternal satisfaction in the context of midwifery led, continuity of care maternity models. Measuring satisfaction with a Continuity of Midwifery Care Service (CMCS) is important and complex because of the need to look at all aspects of care, including: the antenatal period, labour/birth and the postnatal period. The antenatal period is an important time of preparation, it is a time for building a relationship of trust with a midwife and an opportunity for women and their partners to learn and develop confidence in their ability to give birth naturally and prepare for the transition to parenthood. The labour and birth is an intense physical event signalling a massive shift in a women’s life as she brings a baby into the world, but in which the outcome is not always the best measure of the experience. The postnatal period is marked by a time of recovery and enablement as a couple nurture and learn about their baby as they embark or expand upon their journey through parenthood.

Family Matters: The Family and Carer Engagement Strategy (FACES)
North Metropolitan Health Service – Mental Health Clinical Research Centre
Flavie Waters, Daniel Rock, Patrick Warwick, Kerry Hawkins, Philippa Martyr, Milan Dragovic, Amanda Atkinson

AIM: The Family And Carer Engagement Strategy (FACES) project aims to (i) help clinicians in recognising and supporting the needs of families and carers of consumers, and (ii) improve carers’ access to information and support.

SUMMARY ABSTRACT: Families, carers and other supporters ('carers') are key figures in the recovery of people with mental illness, and have unique knowledge and expertise to share with mental health staff to support recovery (Mottaghipour and Bickerton, 2005; Simpson and House, 2003). If adequately consulted and supported, they represent a vital resource for mental health staff. Yet, confidentiality and information-sharing between mental health professionals and carers are complex, and carers have often been excluded from the care planning of their relative or friend. A lack of engagement and communication by mental health services can lead to distress, poorly coordinated and compromised care, and it can leave carers resentful and frustrated (Mcauliffe et al., 2009).

In his 2012 review of public mental health services in Western Australia, Professor Bryant Stokes made a number of recommendations for improving the quality of clinician
engagement with carers, and creating more robust partnerships. These included the need for greater information and support for carers, as well as good communication and meaningful involvement with clinicians.

In 2013, North Metropolitan Health Service Mental Health (NMHS MH) initiated the Family And Carer Engagement Strategy (FACES) to work on these deliverables. NMHS MH provides public mental health services to the single largest population catchment in the State, as well as providing administrative oversight for a suite of Statewide specialist mental health services. Services are delivered through inpatient units, community mental health clinics, and day therapy and outreach programs to almost 1 million people. Therefore the FACES project has significant reach across the people of WA. The FACES team makeup represents a unique collaboration and truly innovative partnership between carers, consumers, mental health clinicians and research academics, who worked across three broad objectives:

1. To improve carers’ access to information and resources. This resulted in a range of innovations including carers’ morning teas, a FACES Newsletter, development of comprehensive resources about services available to carers, and educational resources about mental illness and recovery.
2. To develop clinical pathways and educational tools for mental health clinicians. This led to work on policies about carer participation and rights, development of NMHS MH- endorsed Good Practice Guidelines to Support Families and Carers, and of an e-learning package mandatory for all staff.
3. To increase participation and partnerships with carers and Community Managed Organisations (CMOs). This comprised the establishment of a reference group representing key stakeholders, a seminar series delivered by and about key local CMOs, facilitation of CMOs in services, and work on a new resource pack for all carers.

Systematic evaluations included internal surveys of clinicians about their own performance, and external surveys of carers, CMOs and carer consultants/peer workers about clinicians’ performance. The findings show significant changes in carer-sensitive practice in the past two years, with a major shift in NMHS MH’s relationship with CMOs and carers. The project’s development of resources and material (see Appendix 1) have also earned special commendation in the 2015 ACHS Accreditation Survey Report for NMHS MH, and have been included into the rollout of WA’s Mental Health Act 2015 teaching modules on carer involvement.

Overall, the FACES project has contributed to substantial benefits in changing the local culture towards a more carer-inclusive practice. Although much work still remains to be done, increasing trust by carers and a willingness by CMOs to engage with the mental health services system are very positive signs towards true partnerships.

The OnCallogist Mobile App in the afterhours ward-call setting.
Gold Coast Hospital and Health Service (GCCHS)
Department of Medicine
Justin Wong, Siddharth Sharma

AIM: Our aim is improve patient safety and by reducing completion times of patient-care requests in the afterhours ward-call setting through the early-adoption of an innovative mobile app technology (the OnCallogist App). We also aim to extract actionable data from real-time information continually gathered by this app. Finally, we aim to demonstrate alignment with best practices in developing software in the healthcare setting.

SUMMARY ABSTRACT: Patient care activities performed in the afterhours setting are vital and safety-critical activities but are often neglected when it comes to healthcare analytics. Many of the activities that occur overnight in hospitals, such cannula re-sites, fluid orders, medications requests etc. are currently requested through the following methods:

- Paging the on-call doctor
- Calling the on-call doctor directly
- A piece of paper or whiteboard with a list of jobs for the on-call doctor.

These activities after-hours often go unrecorded and valuable actionable analytical data are lost.

The current afterhours ward-call process described above is arguably inherently unproductive. Productivity is defined simply as output over input. If a medical resident is tasked to perform a certain job (output) but is frequently interrupted by pages and calls (inputs) while trying to perform this job, then productivity suffers.

It is difficult to quantify metrics like productivity, workload, request type distribution due to the lack of data relating to after-hours activities.

The inefficiencies and lack of metrics in the afterhours ward-call process spawned the idea for the OnCallogist mobile app -- an app that provides real-time information on pending requests to afterhours doctors to empower them to prioritise and tend to jobs in an efficient manner without unnecessary interruption from pages and calls. This idea became a reality through the Gold Coast Hospital and Health Service’s “Improver’s Challenge” in mid-2014 where the idea won a grant for $50,000. The money was used to outfit five trial wards with Apple iPads and to provide Apple iPhones to the afterhours resident medical officer (RMO) and Clinical Team Consultant (CTC). The software was developed locally over the course of 10 months.

The main purpose of the OnCallogist app was to increase productivity of ward-call process at the Gold Coast University Hospital (GCUH). Productivity gains were validated by using the request completion times as a surrogate and comparing the average completion times of the wards using paper-based lists against the trial wards on which the OnCallogist app was deployed. Paper job lists that had not been destroyed dating from December 21, 2014 to April 18, 2015 from all wards (except the trial wards during the trial period) were colated examined for request and completion time entries. Note that very few of the several hundred job list sheets actually had completion times filled out. Nonetheless, we were able to extract a sample size of n=83 from these paper lists. Completion times from the OnCallogist app were obtained easily by performing a simple SQL query (structured query language) against the OnCallogist database (n=1516).

Our other main priorities were as follows:
1. To develop a mobile app that aligns to best practices in the areas of user-centered software design, security, and government ICT policies.
2. To provide the ability to extract actionable data related to afterhours ward-call activities.
3. To provide a frictionless handover process that facilitates NHQHS Standard 6 (Handover).
4. To achieve 100% compliance with NHQHS standard 5.1 (Patient Identification).
5. To architect a solution that is portable to other health districts.
Outcomes – Data gathered at three months post-deployment of the OnCallogist app showed an impressive 41% difference in average completion times: 104 minutes (paper-based, n=83) to 62 minutes (OnCallogist app, n=1916).

We achieved 100% compliance to NHQHS Standard 5.1 (Patient Identification) for all requests made through the app.

Data-mining of the OnCallogist database yielded unprecedented data on workload, completion times, and request type distribution. We were able to identify workload and delay hotspots, and we also took the opportunity to perform a workload analysis on the Easter long weekend ward-call activities.

The OnCallogist app gained positive reception from the nurses and doctors (See Appendix – Figure A1-A2) and has completely replaced the paper-based jobs list on all five trial wards.

The app has successfully implemented encryption modalities that meet and exceed the Queensland Government Enterprise Architecture Network Transmission Assurance Framework’s highest security level classification.

The app has been successfully tested on the Cloud as well as internal infrastructure and is architected in a way that is easily portable to other health districts.

Note that the data presented in this paper are for wards B5S, B5N, D5N, B4S, B4N for the date range: February 9, 2015 to April 19, 2015.