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*Abstracts 2012*

# Abstracts

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## **TITLE: ETHICAL ISSUES - EXPERIENCES FROM A GERMAN UNIVERSITY HOSPITAL.**

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### **OBJECTIVES**

German hospital managers and physicians are under enormous economic pressure on the micro and macro level. Over the past decade the German hospital market has seen a significant market concentration. In addition 43% of all hospitals expect financial losses in 2012.

Despite the process of 'economisation' we still have to respect the ethical perspective in our hospital.

Healthcare rationing is a major topic among German physicians. A frequently discussed question is: How doctors in our own hospital act in a medically as well as ethically appropriate manner.

### **METHODS**

What did we do:

- Regular communication between hospital managers and clinicians
- Focus on top medicine (e.g. transplantation medicine) and quality targets
- Establish (sub) special departments (e.g. epilepsy treatment)
- Palliative care to improve end-of life care for oncological and neurological patients
- Multidisciplinary and multi-professional ethic-conferences for developing treatment advices for terminally ill patients
- No 'cherry-picking'
- Patients first - no 'red flag/traffic light policy' during the treatment
- Respecting physicians autonomy, but also understanding the impact and complexity of economic requirements by the physicians
- Dialogue with physicians about high-cost new drugs and innovative procedures
- No bonus payments for doctors who are referring patients to our hospital

### **CONCLUSIONS**

Overall governance (corporate and clinical governance) is necessary for practicing and creating values to achieve better performance for our patients and economic success.

Our actions are based on the understanding that in addition to create patient value, the crucial goal of our organisation is the commitment to our patients and a careful stewardship of resources.

Physicians and managers have realised that even routine choices and relationships have an ethical dimension.

Trustful communication is important to avoid 'last-minute' rationing decisions at the bed side.

Ethical behaviour in times of budgeting and limited financial resources must be possible. Every patient will receive appropriate treatment.

## **TITLE: IGNITING JOB SATISFACTION IN HEALTHCARE THROUGH HUMAN RESOURCE MANAGEMENT**

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### **OBJECTIVES**

To identify strategies to develop clinician job satisfaction through effective Human Resource Management (HRM) in healthcare organisations.

### **METHODS**

A mixed method cross sectional study was conducted focusing on multi-professional rehabilitation services in Sydney, Australia. Rehabilitation clinicians (n=152) and managerial staff (n=11) from seven public hospitals were enrolled between March and October 2010. Twenty four focus groups and eighteen interviews were conducted with participants to assess contextual variations in HRM areas. HRM areas covered were; Human Resource (HR) planning and evaluation, work systems, staff development, and staff well being. Research questions assessing HRM areas were developed based on the Human Resource Development and Management category from the Baldrige Healthcare Pilot Criteria (Meyer and Collier 2001). A questionnaire incorporating the overall job satisfaction scale (Warr et al. 1979) was administered to participating clinicians. Qualitative data from focus groups and interviews were thematically analysed while quantitative inputs from questionnaires were analysed using statistical methods.

### **RESULTS**

Results indicate HRM to have contextual associations with job satisfaction. In one context, high job satisfaction was connected to a combination of efficient HR planning and evaluation, a work system with flat organisational structure, and accessibility between clinicians and managers. High job satisfaction was also found in a context where the work system was positively impacted by improved management from improved work system and where adequate staffing positively impacted staff well being. There was low job satisfaction in a context where the rehabilitation service work system was perceived to lack leadership support.

### **CONCLUSIONS**

Through the positive and negative associations identified between HRM and job satisfaction, the findings suggest the need for both a holistic and targeted HRM approach in promoting job satisfaction among clinicians. To ignite job satisfaction through effective HRM, the study highlights influence of different elements in different contexts. The elements of efficiency, structure, accessibility, work system, staffing and leadership play varying roles to drive improvements in different organisational environments. The identified elements associated with HRM in healthcare could translate into a range of strategies for managers to advance clinician job satisfaction.

### **REFERENCE**

MEYER, S. M. & COLLIER, D. A. 2001. An empirical test of the causal relationships in the Baldrige Health Care Pilot Criteria. *Journal of Operations Management*, 19, 403-425.

WARR, P., COOK, J. & WALL, T. 1979. Scales for the measurement of some work attitudes and aspects of psychological well-being. *Journal of Occupational Psychology*, 52, 129-148.

## **TITLE: CLINICAL GOVERNANCE COMMUNICATION – RAISING THE (IS)BAR.**

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<sup>1</sup>Alfred Health

### **OBJECTIVES**

To provide a structured methodology for more efficiently managing the clinical incident review process and facilitating communication at key stages.

### **METHODS**

Following introduction of the ISBAR format to structured clinical handover in a variety of situations, it was recognised the same communication principles could be applied to governance processes surrounding the review of clinical incidents, complaints and clinical issues. An ISBAR-based, staged tracking tool was developed that included key tollgates for successfully managing a clinical incident from initial notification to reporting outcomes at governance level committees. These tollgates included appropriate notifications and authorisation for the review, participation of key stakeholders, completion of documentation, use of a standardised set of analytical tools and techniques, reporting and presentation of results and recommendations. At each tollgate, an ISBAR format can be used to identify and communicate current issues and review status. The tools were designed to clarify roles and responsibilities, as well as structure the review process to facilitate efficient incident review management by clinical governance staff from varied clinical backgrounds and levels of review experience.

### **RESULTS**

The ISBAR Clinical Review process is undergoing a staged implementation for the reviews of incidents, complaints and clinical issues. Improvements to the review processes include:

- A more comprehensive suite of tools to facilitate communication and handover with key stakeholders and more actionable recommendations.
- More structured and concise briefings
- Improved documentation of notifications
- Greater understanding by Clinical Governance Unit staff regarding their roles, responsibilities, and steps in the clinical review process.

### **CONCLUSIONS**

The ISBAR format provides an easily recognisable and implementable format for structured communication and handover in both clinical and non-clinical situations, which is well-accepted by staff and can also improve work efficiency. The increased use of ISBAR in health has facilitated a strong awareness and use of the principles of structured communication.

**TITLE: THE LATEST NEWS FROM THE NATIONAL E-HEALTH TRANSITION AUTHORITY**

LEWIS Roshan<sup>1</sup>

<sup>1</sup>National E-Health Transition Authority

**OBJECTIVES**

To raise awareness of ehealth

**METHODS**

NEHTA is the lead organisation supporting a national vision for eHealth for Australia. Established in 2005, NEHTA is jointly funded by the Australian Government and all State and Territory Governments

**RESULTS**

- Twelve sites across Australia now rolling out eHealth.
- From 1 July 2012, all Australians can choose to register for a Personally Controlled Electronic Health Record (PCEHR)
- The foundations for eHealth now being put in place across Australia.
- Release of specifications and standards for software vendors working on the personally controlled electronic health records system.
- Adoption of eHealth through engagement and collaboration with consumers, healthcare providers, vendors, and policy makers.

**CONCLUSIONS**

From 1 July 2012, all Australians can choose to register for a Personally Controlled Electronic Health Record (PCEHR)

**REFERENCE**

None

## ISBAR – A STANDARDISED TOOL FOR COMMUNICATION

BURTON Katherine<sup>1</sup>, YEAMAN Katie<sup>1</sup>, MOORFOOT JoAnne<sup>2</sup>, DWYER Alison<sup>1</sup>

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<sup>2</sup> Sub Acute Services, Austin Health, Heidelberg, Victoria

### OBJECTIVES

To improve the quality of clinical communication in the Austin Health Emergency Department through the implementation of ISBAR as a standard communication technique for all clinical communication.

### METHODS

Clinical staff in the Emergency department received ISBAR education sessions, lanyard tags, phone stickers, information posters and note pads related to ISBAR in February, 2011. Post-education evaluation occurred in March, 2011, via staff survey and direct observation.

### RESULTS

Pre implementation findings identified <20% of staff discussed vital signs during clinical communication and only 22% of people gave recommendations for future treatment. Post ISBAR training 65% of staff felt that standardisation across Austin Health was worthwhile. After a 4 week period staff felt that the use of ISBAR decreased the likelihood of communication based errors.

Elements of ISBAR used	Prior to ISBAR training	After ISBAR training
Introduce themselves by name	95%	96%
State their position	31%	60%
State the urgency of the situation	32%	63%
Give a clear explanation of the presenting condition?	78%	96%
Give relevant medical history?	87%	87%
Explain the lead up to the situation?	77%	73%
Discuss the provisional diagnosis?	86%	96%
Advise what they have done for the patient?	71%	96%
Discuss test performed and findings available?	60%	90%
Mention vital signs?	16%	70%
Make it clear what was required of the receiver?	96%	100%
Advise of recommendations for further treatment?	22%	76%

### CONCLUSIONS

ISBAR brings a standardised approach to clinical communication which ensures vital information is consistently provide; and was well received by staff in the Emergency Department at Austin Health. Future plans are to implement and evaluate ISBAR to a range of settings across Austin Health with the aim to improve the safety and consistency of clinical communication.

### REFERENCE

[1] Agency for Healthcare research and Quality (USA)

[2] Baker, D.P., Gustafson, S., Beaubien, J. Medical teamwork and patient safety: the evidence-based relation, American Institutes for Research report. 2003.

[3] Marshall. S, Harrison. J, Flanagan. B, The teaching of a structured tool improves the clarity and content of interprofessional clinical communication. Quality and Safety of Health Care. 2009; 18(2):137-40.

## **TITLE: MAPPING TEAMSTEPPS® STRATEGIES TO THE IMPLEMENTATION OF THE NATIONAL SAFETY AND QUALITY HEALTH CARE STANDARDS (NSQHS)**

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<sup>2</sup> Alfred Health

<sup>3</sup> Department of Health and Ageing, South Australia

### **OBJECTIVES**

Mapping Team Strategies and Tools to enhance Performance and Patient Safety (TeamSTEPPS®) to the implementation of the National Safety and Quality Health Care Standards (NSQHS).

### **METHODS**

TeamSTEPPS® is an effective, evidence based program that centres safety and quality improvement with the unit/service level team by improving teamwork and communication for patient safety. The South Australian pilot of TeamSTEPPS® was a funded project of the Australian Commission on Safety and Quality in Health Care under the Clinical Handover Initiative. Following a successful evaluation of the pilot in 2008, TeamSTEPPS® transitioned to an ongoing program in South Australia. Alfred Health became a Victorian pilot for TeamSTEPPS® through the Victorian Quality Council in 2010.

In September 2011, Australian Health Ministers endorsed the National Safety and Quality Standards (NSQHS). It is intended that the NSQHS will drive improvement in safety and quality for patients through their use in accreditation.

In 2012, staff from the Lyell McEwin Hospital and members of the SA Department of Health and Ageing TeamSTEPPS® Support Network in collaboration with Alfred Health, conducted a review of the NSQHS in February 2012 to identify how TeamSTEPPS® could support the implementation of the NSQHS.

### **RESULTS**

A matrix document was created to match the NSQHS and TeamSTEPPS®. TeamSTEPPS® tools and successful interventions by teams map well to the NSQHS. A particularly strong correlation between the National Standard for Clinical Handover and TeamSTEPPS® was identified. The matrix document is to be shared across Safety and Quality Clinical Governance networks ensuring innovative linkages with the NSQHS occur across the state. Ongoing work will include TeamSTEPPS® measures within the matrix to support teams to achieve the NSQHS.

### **CONCLUSIONS**

TeamSTEPPS® and the work undertaken by various teams in SA and at Alfred Health highlight the significant benefits of the TeamSTEPPS® program to address the NSQHS. The matrix can be used to demonstrate the benefits of TeamSTEPPS® to organisations considering the program with the potential to assist with accreditation.

## **TITLE: TROUBLE IN TROPICAL PARADISE?: THE EVOLUTION OF DIVERGENT EXPECTATIONS OF ACCREDITATION STAKEHOLDERS**

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### **OBJECTIVES**

To investigate the understandings and concerns of Australian stakeholders regarding the evolution of healthcare accreditation programs.

### **METHODS**

Participants were representatives associated with three accreditation programs: the Australian General Practice Accreditation Limited; the Australian Council on Healthcare Standards; and Aged Care Standards and Accreditation Agency. There were 8 individual and 44 group interviews involving 259 participants, conducted between August 2011 and February 2012. Participants included: consumers, health professionals, managers and executives from accredited services; professional advocacy groups; health departments delegates; and accreditation agency representatives. Interviews lasted, on average, one hour, and were digitally recorded and transcribed. Transcriptions were analysed using textual referencing software.

### **RESULTS**

Analysis identified four significant issues of concern for stakeholders. First, participants viewed the philosophical model underlying an accreditation program as a critical influence on the participation, motivation and behaviours of professionals in accreditation activities. Three models were noted: regulatory compliance, continuous improvement, and a hybrid model incorporating key elements of the other two. Respondents debated the compatibility or incommensurability of the first two models, and how clinicians, managers, policy officers and consumers react to them. The second issue of concern was the aim of a program. Participants' discussions centred upon whether programs strive to: improve organisational performance, clinical performance or both; enforce a minimum standard or promote innovation or both; and, address structure, process or outcomes. Third, the implementation and outcomes of the different models caused frustration or affirmed respondents view of accreditation. Participation in a program was reportedly experienced on a continuum, which respondents termed 'malicious compliance' to 'performance audits' to 'quality improvement journeys'. Experiences were reportedly shaped by: participation expectations (voluntary or enforced); engagement in accreditation activities; program flexibility; and surveying reliability issues. Wider contextual factors were noted as the fourth issue shaping respondents' understandings. Political and community expectations, and associated media reporting, were considered influences on the evolution and operations of programs. Participants discussed the increasing external expectation that accreditation programs will 'ensure' high quality and safe services in time pressured, high intensity, organisationally and interprofessionally bounded, resource limited environments.

### **CONCLUSIONS**

This study found that accreditation programs now embody multiple divergent expectations of differing stakeholders that give rise to tensions and conflicts. These insights can be used to retain the engagement of stakeholders and guide the development of accreditation programs. How these issues are managed will, in turn, shape the ongoing acceptance and credibility of programs.

**TITLE: ACCREDITATION IS A KEY COMPONENT OF AUSTRALIAN HEALTH SYSTEM REFORM: WHAT IS THE EVIDENCE-BASE?**

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**OBJECTIVES**

To examine the evidence-base for health service accreditation by providing a systematic identification and narrative synthesis of empirical research published prior to 2012.

**METHODS**

Two search strategies were used. First, an interrogation of three electronic bibliographic databases was undertaken prior to January 2012. 'Accreditation', 'JCAHO', 'Joint Commission' and 'research' were searched as keywords. Websites of jurisdictional health departments, accreditation agencies and the International Society for Quality in Health Care were also searched to identify articles. Key study features were recorded. The quality of included studies was assessed using National Health and Medical Research Council checklists. In addition, a content analysis was conducted to determine the frequency of prominent themes examined in the literature.

**RESULTS**

The search identified 122 empirical studies that examined health service accreditation. More than half the studies were published since 2006 (n=67) and focused on acute care (n=79). Research was most commonly conducted in the United States (n=60) and Australia (n=16). Eight key themes were frequently explored in the literature, and multiple themes were often examined within individual studies. The key themes and their frequency within the literature were: relationship to quality measures (n=65); organisational impacts (n=62); program assessments (n=42); change mechanisms (n=41); professionals' attitudes towards accreditation (n=38); financial impacts (n=15); consumer views or patient satisfaction (n=13); and survey and surveying issues (n=12). The literature is limited in terms of the design and quality of studies, but highlights likely relationships between accreditation programs, high quality organisational processes and safe clinical care.

**CONCLUSIONS**

The body of health service accreditation evidence is increasing, but remains modest relative to its central place within current health system reform in Australia. While some evidence exists regarding the ability of accreditation to drive improvements in the care provided by health services, ongoing effort is required to build the evidence-base by employing high quality experimental or interventional study designs to examine the processes, effectiveness and financial value of accreditation programs and their critical components in different healthcare domains. Particular issues requiring increased research attention include accreditation survey methods, the potential role of consumers within accreditation processes, and the financial impacts of accreditation programs. Due to the limitations of the literature, it is not possible to evaluate the effectiveness of health service accreditation to the level sought in clinical trials. Nonetheless, this study identified several critical issues and knowledge-gaps that may help stimulate and inform discussion amongst healthcare stakeholders.

## **TITLE: IMPLEMENTATION OF THE INCIDENT CONTROL SYSTEM (ICS) TO ALL CODES IN A HEALTH CARE ENVIRONMENT**

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<sup>1,2</sup> Portland District Health

### **OBJECTIVES**

Portland District Health (PDH) has reviewed the emergency response procedures to assess how PDH responds to emergency situations and how PDH manage the continued achievement of critical clinical and business functions during any major interruption.

As a result PDH has adopted the Incident Control System (ICS) approach. The ICS follows an all hazards approach, which refers to a single set of emergency management arrangements capable of encompassing all major incidents whether they are of internal or external origin. ICS is an incident management system that integrates personnel, procedures, facilities, equipment and communications into a common organisational structure.

### **METHODS**

Project commenced 2009 with the aim of implementing Incident Control Methodology from emergency service framework into a health care setting.

Existing in house responses were reviewed and determined as having varied responses to differing codes.

### **RESULTS**

PDH determined that the organisation lacked central control for significant incidents. Current warden model did not have "span of control" oversight. The ICS provided overarching management of incident to all organisational codes. Roll out included the delivery of broader concepts of the model with subsequent implementation of reference folders containing all key elements and information required for system implantation.

### **CONCLUSIONS**

The ICS approach effectively enables PDH to manage all activities that may evolve or eventuate, by prescribing delegation to ensure that vital functions are adequately performed during an incident response. The type and scale of an incident does not affect the principles of the system and can be used in a wide range of situations. The System was implemented February 2012 and established in all organisational areas. Existing warden structure dismantled and comprehensive ICS model implemented.

Implementation demonstrated a clear need in the following areas: In addition to the rollout of the ICS framework other improvements include but are not limited to:

- Implementation of the incident action plan(IAP)
- Glow in the dark arrows pointing to the nearest exit at crawling height
- All fire plans on the walls are orientated and identify the assembly point
- Implementation of an event log book to improve documentation
- Coloured vests (red, yellow and blue) to ensure clear identification
- Matching coloured folders with checklists, cheat sheets, maps, stickers and paperwork to record information.
- Stickers to identify evacuating people and the level of attention required.
- After analysis of results, what is the opinion or judgement of the author(s)?
- Has the project achieved its objective(s)?
- What new knowledge was gained from the project and what change(s) happened as a result?
- What are the implications of the study?

### **REFERENCE**

- 1.State Health Emergency Response Plan-Department of Human Services 2006.
- 2.Planning for emergencies-Health care facilities, Standards Australia, January 2011

## **TITLE: GETTING PATIENTS MOBILE WITH THE MOBILE REHABILITATION TEAM**

PARKER Shari<sup>1</sup>, MCMAHON Rosemary<sup>1</sup>, MENZ Fred<sup>1</sup>, TEN CATE Lisa<sup>1</sup>,  
LUNN Lesley<sup>1</sup>, SCHULTZ Regina<sup>1</sup>, FAUX Steven<sup>1</sup>

<sup>1</sup>St Vincent's Hospital, Sydney

### **OBJECTIVES**

To develop an innovative in-reach mobile rehabilitation team to provide multidisciplinary rehabilitation to patients in the acute setting, with the aim of avoiding inpatient rehabilitation, and improving function.

### **METHODS**

The model of care was developed to provide a 2 week period of multi-disciplinary rehabilitation in the acute setting to up to 10 patients across the spectrum of medical and surgical specialities. It is a shared care model between the acute medical / surgical team and the rehabilitation team, with specialist rehabilitation medicine, nursing, physiotherapy, occupational therapy, social work and psychology input. Assessment tools include the Functional Independence Measure and the Goal Attainment Scale (GAS).

### **RESULTS**

Over the first 10 months, there were 192 admissions, a 94.1% occupancy rate, and average length of stay of 11.3 days. The average patient age was 64.7 years.

Patients were admitted from most medical and surgical specialities hospital-wide, most commonly haematology, cardiology and cardiothoracic surgery. The most common impairments accounting for admission were de-conditioning resulting from medical or surgical illnesses (45% of admissions). At the end of the MRT program, 2/3 patients were discharged directly to home, avoiding the need for an inpatient rehabilitation admission. The number of referrals to inpatient rehabilitation declined by 6.5% following the introduction of the MRT. The average FIM efficiency was 2.47 points per day, demonstrating a high rate of improvement in functional tasks. Excellent GAS results were achieved, demonstrating that patients usually achieved their individualised patient specific functional goals. There has been widespread acceptance of the new service hospital wide. This has fostered not previously seen collaboration between acute and rehabilitation teams.

### **CONCLUSIONS**

This has been a successful trial of an innovative approach, providing multidisciplinary rehabilitation care in the acute setting. Improvements have been realised both at the individual patient level (improved function), and also improving patient flow in the hospital, avoiding rehabilitation admissions. This model of care could be implemented widely in other acute care settings. With the ageing of the population and advances of medical technology, there will be greater need for rehabilitation services into the future. Alternative models of rehabilitation care that take the pressure off inpatient rehabilitation beds need to be further investigated and embraced.

## **TITLE: POSITIONING THE NATIONAL SAFETY AND QUALITY STANDARDS AS DRIVERS OF GREAT CARE**

BALDING Cathy<sup>1,2</sup>

<sup>1</sup>Qualityworks P/L

<sup>2</sup>La Trobe University

### **OBJECTIVES**

The NSQQHS Standards (ACSQHC, 2011) must be strategically positioned in an organisation's quality governance system to fulfil their potential as drivers of great care, and not as just another set of compliance requirements.

### **METHODS**

This presentation reports on the author's experience over 20011/12, providing training for and working with a range of health services and quality managers to develop an understanding of, and organisational approaches to, meeting the national standards. This is supported by research on effective quality governance systems to offer a framework for successfully integrating the NSQHS Standards into quality governance systems.

### **RESULTS**

There are many concerns about the national Standards. In particular, quality managers worry that the compliance based nature of the standards will reduce their current improvement programs to a series of audits. Many complain that their organisations expect that they will take on responsibility for implementing the Standards, and don't understand the importance of an organisation-wide approach.

But the National Standards do offer opportunities, and recognising and taking advantage of these will be key to success. They have the potential to develop quality programs that strengthen quality governance, develop manager/clinical collaboration, enhance the quality manager role and significantly improve the consumer experience. The degree to which this potential is realised will depend largely on how the Standards are introduced and positioned within the organisation's overall direction.

### **CONCLUSIONS**

This presentation proposes three critical steps for positioning the national standards as part of a broader approach to creating a great experience for each consumer, that engages governing bodies and executives and links to organisational strategic and operational directions.

### **REFERENCE**

ACSQHC (2011) National Safety and Quality Health Service Standards, Australian Commission on Safety and Quality in Healthcare, Sydney.

## **TITLE: PAPER WHAT? ELECTRONIC MEDICAL RECORDS REFORM**

BENTON Deborah<sup>1</sup>, SANDS Jennifer<sup>1</sup>

<sup>1</sup>Gold Coast Health Service District

### **OBJECTIVES**

The Gold Coast Health Service District (GCHSD) implemented an electronic medical record using Cerner Millennium (eMR), subsequent to this Gold Coast Mental Health and Alcohol, Tobacco & Other Drug Services (GCMHATODS) Division developed a user manual that would guide our mental health staff to use the Consumer Integrated Mental Health Application (CIMHA) as the one source of truth for our consumer's electronic medical record.

### **METHODS**

GCMHATODS implemented a variety of measures coordinated by an Electronic Medical Record Working Group. The measures implemented were: developing a project plan; key stakeholders across the Division, District and State; terms of reference with clear scope, methodology and timelines; dedicated working party; focus groups looking at gap analysis in regards to forms, documents, training, processes and resources including computers and scanning functionality; issues register; communication strategy for suggestions, concerns or issues; development of an action plan utilising a Gantt chart highlighting risks using the Queensland Health Integrated Risk Implementation Analysis Matrix and, timelimited focus groups to look at specific areas and functionalities.

### **RESULTS**

CIMHA as an Electronic Medical Record User Manual was developed. Positive feedback from working group members highlighting positive outcomes and time limited focus groups; alleviated risks associated with a disjointed approach utilising two systems - paper and electronic; no consistency in the Division's approach to documentation and whilst information was there, it as hard to find at times; reduction in the multitude of and inconsistency of forms and documents used in the Division; reduction in a disjointed retention and storage of clinical documentation.

### **CONCLUSIONS**

- User Manual developed including workarounds on CIMHA's functionality
- Reduction in risk as mental health consumers medical records is now one source of truth
- Reduction in the number of forms that were not officially recognised
- Increased understanding and engagement by all staff on the importance of CIMHA to improve overall communication of clinical information between services and to remove paper based medical records
- Working group members embraced and were motivated in moving to paperless
- The increased need to advocate for additional resources to support clinicians in an electronic environment
- GCMHATODS is the only Division in the State to go electronic with CIMHA

### **REFERENCE**

National Health Reform

<http://www.yourhealth.gov.au/internet/yourhealth/publishing.nsf/content/home>

Queensland Health's Mental Health Information Development Strategy 2010-2014

<http://qheps.health.qld.gov.au/mhinfo/documents/mhids2010-2014.pdf>

Mental Health Act 2000 - <http://www.legislation.qld.gov.au/LEGISLTN/CURRENT/M/MentalHealA00.pdf>

CIMHA Data Element Definitions - <http://qheps.health.qld.gov.au/mentalhealth/cimha/data-elements.htm>

Qld Health (Clinical Records) Retention and Disposal Schedule

<http://qheps.health.qld.gov.au/policy/docs/ptl/qh-ptl-280-1.pdf>

## **TITLE: HAS TRANSFUSION PRACTICE IMPROVED IN AUSTRALIAN HOSPITALS?**

BIELBY Linley, STEVENSON Lisa, PERILLO Jo, GLAZEBROOK Bridget

Blood Matters Program, Department of Health Victoria

### **OBJECTIVE**

To improve patient care by ensuring blood product administration policies and procedures are available, appropriate and practised within hospitals.

### **METHOD**

In 2011, 155 public and private hospitals across Victoria, Tasmania, Northern Territory and Australian Capital Territory were invited to participate. Sites audited 30 random transfusion episodes, or all transfusion episodes from 18 April to 18 July 2011, extended to 8 August 2011. Two audit tools used:

1. Desk top audit of blood transfusion policy for alignment with guidelines regarding specimen collection, labelling, provision of patient information, consent, patient identification, observations and adverse reaction management.
2. Prospective bedside observational audit of 30 transfusion administration episodes within the specified audit time period. Including location, consciousness of patient, identification, monitoring, documentation and adverse event management.

Data were entered electronically by participants via Blood Matters website.

### **RESULTS**

Eighty-five hospitals provided information regarding blood transfusion policy/procedures, 69 public (81%) and 15 private hospitals (17%). One hospital no longer provided transfusions. All sites had a hospital-wide transfusion policy (100%), improved from 66% (2005) and 84% (2007). In 2011, 82 hospitals reported 1595 transfusion episodes. Transfusions in secluded areas decreased from previous audits, and 90% percent took place between 8am-8pm. Most patients (95%) wore identification (ID) wristbands; of those not wearing wristbands a greater proportion were out/day patients. Of concern, 34 hospitals reported that at least one patient was not asked to affirm identification; at 4 sites this was as high 40% and 1 site 70%. Forty-three transfusion episodes indicated patient identification did not match compatibility report and/or prescription. Data did not identify what process was followed when discrepancy recognised.

Observations were undertaken in 97% pre, and 88% post-transfusions. Twentythree of 82 hospitals reported an adverse effect associated with transfusion. In 2011, 16% had no documentation of the adverse event occurring; whereas in 2007 this was 30%. In 48% of the cases it is not documented if the laboratory was advised showing no improvement from previous audits.

### **CONCLUSION**

Ongoing improvement is demonstrated in the quality of policy to guide transfusion practice, particularly in the area of providing information for consumers and informed consent. Transfusion practice safety has also shown improvement; however areas where practice can still be improved include confirming identification, reporting and managing transfusion adverse events.

### **REFERENCE**

Department of Health, to be published, 'Comparative audit of blood transfusion policy and practice 2011', State Government of Victoria, Melbourne.

## TITLE: THE WRITING ON THE WALL

PARSOTAM Nirasha<sup>1</sup>, LOE Elizabeth<sup>2</sup>

<sup>1</sup> Health Quality and Safety Commission (at time of study, Hutt Valley and Auckland District Health Board)

<sup>2</sup> Health Quality and Safety Commission (at time of study, District Health Boards New Zealand)

### OBJECTIVES

To determine whether using the structured letter format to prescribe medicine names increases legibility.

### METHODS

A minimum of 1000 medicine orders were audited retrospectively in two different sites over a three month period. Each medicine name was assessed using predefined criteria for scoring clear or unclear and whether the structured letter format was used or not. Auditing was completed in pairs, individually and then combined to reduce inter-variability. The combined data was entered into a purpose built Excel® database, which performed the consistency review based on validation rules and measure formulas. Data inconsistencies were checked with the individual sites concerned.

### RESULTS

The use of the structured letter format to write medicine names when prescribing significantly increased the absolute proportion of legible medicine names by 15% (95% CI 6.2% to 24.2%).

	Structured Letter		Analysis (all equivalent in terms of statistical significance)
	Yes	No	
Clear	980 (95.4%)	61 (80.3%)	Relative Risk of Clear 1.19 (95% CI 1.06 to 1.33), P<0.001 (significant)
Not Clear	47	15	Absolute risk difference for Clear, Structured minus Unstructured: 15.2% (95% CI 6.2% to 24.2%)

Aggregated Legibility Analysis using Fishers Exact Test

### CONCLUSIONS

The structured letter format provided an easy method to increase the legibility of medicine names on a paper based system. The method may be applicable to other components such as dose, route and frequency of the order. Other known innovations to improve legibility include electronic prescribing, pre-printed orders and use of alternative staff to write the orders.

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**TITLE: CURRENT PRACTICE AND ROLE OF PRACTICE NURSES IN THE MANAGEMENT OF VENOUS ULCERS IN VICTORIAN GENERAL PRACTICE SETTINGS**

WELLER Carolina, EVANS Sue

**AIMS**

Venous leg ulcers (VLU) represent the most common chronic wound problem managed in General Practice and are commonly managed by Practice Nurses (PN) in Australia. The aims of this study was twofold; to determine whether current PN practice is in line with Australian and International Best Practice Guidelines and to investigate which aspects of VLU management could be improved to increase healing rates.

**METHODS**

A cross sectional survey of PNs in a major General Practice (GP) Network in Melbourne, Australia comprising 325 registered General Practice clinics between May and July 2010. Main outcome measures included compliance with evidence-based guidelines for patient and wound assessment, measurement of ankle-brachial pressures indices, application of compression systems, referral practices to specialist services. Descriptive statistics were used to describe venous leg ulcer management, knowledge and adherence to best practice guidelines for venous leg ulcers.

**RESULTS**

PNs reported not routinely using or have confidence in using a Doppler to measure ABPI prior to compression application, not routinely undertaking differential diagnostic assessment to rule out arterial involvement and do not have confidence in applying compression therapy. Despite recognition by PNs that specialist wound clinics provide a valuable resource and relieve pressure on GP clinics, many do not refer patients for treatment and retain patients for an unacceptable length of time before referring for specialist assessment. Suggestions to improve referral process included the need to better coordinate care and improve access to specialist information, compression application and assessment resources.

**DISCUSSION**

PN knowledge of venous ulcer management is sub-optimal and current practice does not comply with evidence based venous leg ulcer guidelines. The vast majority (86%) of PNs do not routinely use or have confidence (76%) in using a Doppler to measure Ankle Brachial Pressure Index to rule out arterial involvement prior to compression application. A total of 57% of PNs reported not being responsible for compression application.

**CONCLUSION**

Current venous ulcer management provided by PNs in primary settings is inadequate and expensive. Reluctance by General Practice settings to refer to specialist care may reflect inadequate knowledge of current best practice guidelines or services available. Referral pathways need to be improved to better coordinate venous leg ulcer management in primary care settings. Venous leg ulcer management is best provided using a multidisciplinary approach, evidence based guidelines and patient involvement.

## **TITLE: A TECHNICAL PRODUCT SUITE FOR AUSTRALIAN CLINICAL QUALITY REGISTRIES**

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### **OBJECTIVES**

To provide a practical suite of technical standards to aid and standardise the development of efficient, effective and robust clinical quality registries in Australia in order that the appropriateness and effectiveness of health care can be monitored and improved.

### **METHODS**

In November 2010, Health Ministers endorsed Strategic and Operating Principles for Australian Clinical Quality Registries (CQRs) and requested that the Australian Commission on Safety and Quality in Health Care (ACSQHC) draft costed infrastructure options for national CQRs. Partnering with the National E-Health Transition Authority (NEHTA), in 2011 ACSQHC convened a series of face-to-face workshops and teleconferences with staff of Australian CQRs and other experts in the field. Consultations and information-gathering activities included site visits to established registries. Additionally, NEHTA conducted a review of the ACSQHC's Architecture and Technical Standards for Australian Clinical Quality Registries against relevant national and international standards.

### **RESULTS**

From these consultations, detailed business, operational and technical requirements specifications for CQRs were documented. The requirements specifications informed the development of architecture blueprints for CQRs. In turn, these blueprints facilitated the creation of design and costed infrastructure deployment options for high priority Australian CQRs. To facilitate security of CQR information, assessment criteria were documented within a Security Certification Framework. Additionally, the Architecture and Technical Standards for Australian Clinical Quality Registries were updated.

### **CONCLUSIONS**

A suite of practical technical products, accessible in the public domain, will assist with the standardisation and development of effective, efficient and robust technical infrastructure for new and established clinical quality registries in Australia.

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**TITLE: MEASURING ASPECTS OF EXCELLENT CARE (MAXC): EMBEDDING PATIENT SAFETY AND QUALITY IMPROVEMENT IN CLINICAL SETTINGS.**

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**OBJECTIVES**

The purpose of MAXC is to establish a system for the auditing of process indicators to monitor the quality and safety of clinical care in the organisation.

**METHODS**

A decision was made to implement an electronic clinical safety system that will predict where problems relating to patient safety are likely to occur.

Key quality and safety domains were identified through the analysis of incident data; current literature; the Garling Report (2008), poor results in previous audits, and the need to evaluate compliance with policy.

Workshops and focus groups were conducted with staff and consumers to develop process indicators in relation to the selected quality and safety domains such as skin integrity; medication safety, infection control and communication.

An audit tool was developed and piloted in 13 wards across the St. George and Sutherland Hospitals in Sydney from Nov 2009 to Jan 2010. Education was provided to all nursing unit managers to support implementation.

A review and reporting framework was developed to ensure deficits are managed and improvements made.

Following the success of the pilot, the audit tool was refined and implemented in all units across the organisation.

**RESULTS**

Following the introduction of the reporting framework, compliance with the auditing process has improved and is now embedded in the culture of the organisation.

Improvements have been demonstrated over many process indicators on individual wards and units. From an organisation wide perspective the two most improved process indicators are that two nurses check a schedule 8 drug before administration ( from 59% to 96% compliance ) and that nursing handover occurs at the bedside (from 60% to 92% compliance).

**CONCLUSIONS**

MAXC provides a process for measuring current and relevant indicators based on organisational; District; State and National targets. Its success is attributed to the fact that it has been designed and administered by clinicians. MAXC enables the empowerment of clinicians and inspires them to raise clinical standards.

The outcomes of MAXC have resulted in the development of action plans and local quality improvement projects. Ongoing reporting against outcomes ensures that the Executive are aware of the strengths and weaknesses in quality and safety across the organisation at all times. It is a useful tool in demonstrating compliance with policy and meeting Accreditation requirements. The design of MAXC is easily transferable to other organisations and settings.

**REFERENCE**

NSW Health Final Report of the Special Commission of Inquiry into Acute Care Services in NSW Public Hospitals Commissioner Peter Garling SC, November 2008

## **TITLE: MEASUREMENT FOR IMPROVEMENT: IMPROVING PATIENT COMFORT IN COLONOSCOPY**

SANDEFORD Jayne<sup>1</sup>, DRAPER Bev<sup>1</sup>, BAMPTON Peter<sup>1</sup>

<sup>1</sup>Flinders Medical Centre, Endoscopy Unit

### **OBJECTIVES**

To improve comfort for patients undergoing colonoscopy in the Endoscopy Unit at Flinders Medical Centre.

### **METHODS**

In 2004 a number of patient complaints were received from patients who had experienced significant discomfort during colonoscopy procedures. This supported anecdotal reports from nursing staff of patient discomfort. Anaesthetic support for endoscopic procedures has increasingly been used to provide a comfortable procedure, with 90% of procedures using standard sedation in our Unit; we believed optimising standard sedation administration could also improve patient comfort in colonoscopy.

A Clinical Practice Improvement (CPI) project was commenced using the standard CPI Framework involving nursing and medical team members. All patients were asked to rate their discomfort on a score of 0-10, with patients rating 0 and 1 having minimal discomfort, and 9 to 10 unacceptable discomfort, with data being prospectively collected on the Endoscopy Unit recovery spreadsheet. Length of time in recovery, dosage of sedation (midazolam and fentanyl) used was also recorded in a quarterly fashion. The following interventions were introduced in a step wise fashion: collection and distribution of baseline data, improved patient education on the nature of sedation, providing individual data to Endoscopists in comparison to peers on a quarterly basis, education of medical staff in resuscitation management and administering conscious sedation, introduction of CO<sub>2</sub> as insufflating gas, identification of patient factors predicting likely poor tolerance of procedure and booking these patients on the existing and an additional anaesthetic list (15% of total lists, up from 10%) and facilitated learning from proceduralists with good patient comfort ratings.

### **RESULTS**

The percentage of patients describing no or minimal discomfort increased from a baseline of 57% to 2004 to 79% in 2012, with improvement being accrued with each of the interventions introduced. Triage of 'at risk' patients to anaesthetic lists only contributed to 3% of this improvement. The dose of midazolam and fentanyl used initially increased, but is now decreasing despite ongoing improvement in sedation outcomes, there was no increase in flumazenil or naloxone use or increased time spent in recovery. The number of patients having unacceptable discomfort has decreased from 6.9% to 3.1% over this period.

### **CONCLUSIONS**

Patient comfort in colonoscopy can be improved through optimisation of standard sedation avoiding the cost implications of universal anaesthetic support. Providing data on outcomes of care to clinicians is meaningful and supports improvement efforts when developed with clinicians for clinicians.

## **TITLE: POTENTIALLY AVOIDABLE SEVERE MATERNAL MORBIDITY AMONG MATERNITY PATIENTS 2010-2011**

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### **OBJECTIVES**

To identify factors contributing to severe maternal morbidity, defined by admission of pregnant and postpartum women to intensive care (ICU) at Auckland City Hospital (ACH) in 2010-2011, and to determine potentially avoidable morbidity, using local multidisciplinary review.

### **METHODS**

All cases of admission of pregnant and postpartum women (to six weeks) to intensive care at ACH in 2010-2011 were identified via relevant databases. Case notes were summarised and then discussed by a multidisciplinary team including midwifery, obstetrics, anaesthesia, medicine, and intensive care. The presence of contributory factors and potentially avoidable morbidity were determined by consensus using a tool developed by the New Zealand Perinatal and Maternal Mortality Review Committee (PMMRC) for the review of maternal and perinatal deaths<sup>1</sup>. Specific recommendations were identified by the multi-disciplinary group.

### **RESULTS**

Nine pregnant and thirty three postpartum women (n=42) were admitted to ICU in 2010-2011. Reasons for admission were postpartum haemorrhage (14), pre-existing medical condition (12), sepsis (5 obstetric and 5 non-obstetric), hypertension of pregnancy (3), overdose (2) and venous thromboembolism (1). Sixteen (38%) required ventilation.

Contributory factors were identified in 30 cases (71%). Twenty cases (48%) were believed to be potentially avoidable (95% CI 32-64%). Among potentially avoidable cases, personnel factors were the most commonly identified (16 cases), followed by organisation and management (12 cases), access or engagement with care (4 cases), and technical/equipment (3 cases).

Specific recommendations included the need for development of a guideline for management of puerperal sepsis, improved management of known risk of postpartum haemorrhage, enhanced supervision of junior staff in birthing suite and on the postnatal wards, and sharing of knowledge through multidisciplinary meetings.

The case note summary required on average 3 hours per case. Multidisciplinary review included 10 meetings of 3 hours, involving on average 7 reviewers per meeting.

### **CONCLUSIONS**

Forty eight percent of severe maternal morbidity (leading to intensive care admission) in 2010-2011 at ACH was determined by local multidisciplinary review to be potentially avoidable. Contributory factors among potentially avoidable cases were most often personnel. Specific recommendations have been communicated to the service.

The multidisciplinary team recommend the methodology as an efficient and effective tool for review of severe maternal morbidity and for identifying priorities for improvement of local maternity services.

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**TITLE: LUNG CANCER: AN URGENT CALL FOR QUALITY ASSURANCE. THE DEVELOPMENT OF A POPULATION BASED LUNG CANCER REGISTRY**

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**OBJECTIVE**

The aim of this project is to develop and pilot a population-based lung cancer clinical quality registry to monitor and improve the safety and quality of health care provided to patients with lung cancer in Victoria.

**BACKGROUND**

Lung cancer is the fourth most common cancer type and the leading cause of cancer mortality in Victoria. Despite a high disease burden little local knowledge exists of the factors which influence outcome in lung cancer. A pressing need therefore exists to describe regional structure, process and outcome in lung cancer care to improve quality of care, and to inform translational research and health care planning.

**METHODS**

The establishment of the Victorian Lung Cancer Registry Pilot Project commenced with the appointment of a Steering Committee to provide governance, with representation from consumers, clinical care, cancer research, epidemiology, cancer agencies, health information systems and the Victorian Department of Health.

An extensive review of literature and evidence based national and international clinical practice guidelines was undertaken by an expert working group. Members were asked to consider the feasibility of collecting data items which were epidemiologically sound, reproducible and valid. A data set was constructed to enable the capture of identified quality indicators and to describe the nominated structural, process and outcome indicators.

Case ascertainment was derived from institutional ICD-10 coding to include all incident cases of small and non-small cell lung cancer. Recruitment to the registry occurs via an “opt-off” system where all patients are invited to participate and automatically included in the registry unless they request to be excluded from the study. Follow up and outcome measures are to be captured 3 and 12 months after initial diagnosis using validated symptom and quality of life assessments.

**RESULTS**

Ethics approval was received for an initial pilot site in June 2011 and data collection commenced the following month. A mechanism for rapid case ascertainment has been established and tested. Eight data extractions have provided 83 patients for inclusion in the registry. Further institutional sites have been identified and ethics applications are underway. A web enabled data collection tool has been developed and data linkage options are being explored. Stakeholder report mechanisms are in development. **CONCLUSION:** Lung cancer registries have proven capacity for improving outcomes in lung cancer. The development of rapid case ascertainment and “opt off” recruitment strategies appear viable and should ensure broad recruitment from eligible patients diagnosed with lung cancer in Victoria.

## **TITLE: JURISDICTIONAL-WIDE INCIDENT SYSTEMS: CHANGING THE BALANCE BETWEEN REPORT AND RESPONSE**

HIBBERT Peter<sup>1</sup>

<sup>1</sup> University of New South Wales

### **OBJECTIVES**

Reducing patient harm by developing a method to robustly and proportionately respond to 1,000,000 incidents per year at a national level.

### **METHODS**

All Australian and many international jurisdictions have set up whole of health system incident reporting systems. One of the main jurisdictional-wide benefits is purported to be learning due to recognising and acting upon infrequent but significant risks. However, arguably this aim is often not achieved as resources for responding are under-estimated and the response methods are largely undeveloped. A major challenge is that jurisdictions may receive over 100,000 of incidents per year creating difficulty in prioritisation, analysis and response.

The National Patient Safety Agency in England and Wales developed a standardised system for national rapid response to incidents in the National Reporting and Learning System (NRLS). The components of the system were:

implicit review screening and prioritisation by clinical experts; multi-disciplinary, open and transparent shared decision making and analysis by clinical and human factors experts; triangulation with hard and soft literature and consultation; standardised branding and product development; dissemination and formal governance using a web-based system; and embedding compliance to recommendations in a regulatory framework. 300 incidents associated with an outcome of death or serious outcome were managed nationally every week.

### **RESULTS**

The system for developing rapid responses was accredited as a high quality process by NHS Evidence. The Rapid Response System produced one set of recommendations every month, on diverse patient safety topics applicable to both acute and primary care. In 2010, topics included transfusion of blood in an emergency, preventing fatalities from medication loading doses, checking pregnancy before surgery, vaccine cold storage, and reducing the risk of tourniquets left on after finger and toe surgery. Evaluation demonstrated positive changes in procurement of supplies, a high degree of satisfaction with the topics selected based on rigorous target selection and research.

### **CONCLUSIONS**

The NRLS response system is an appropriate and efficient mechanism to prioritise and respond to risks nationally.

Questions that were internally debated include the strategic trade-off of spending time and resources on retrospective analysis versus prospective quality improvement; regulation of safety and the NPSA's role; the responsibility (as a national learning organisation) to potential child safeguarding and organisational or clinical reckless behaviour; and whether a health sector drowning in central mandates could cope with more recommendations.

Potential future innovations include using a combination of clinical intelligence and quantitative means to identify organisations at risk.

## **TITLE: RESEARCH ON THE RELATIONSHIPS AMONG THE WORK VALUES, PSYCHOLOGICAL EMPOWERMENT, JOB BURNOUT AND WORK MORALE OF CONTRACT STAFF IN PUBLIC HOSPITALS**

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### **OBJECTIVES**

Recent years in Taiwan, the NHI system and health care environment change, which create an impact on the public hospitals. In order to reduce financial costs, and to have strict control on personnel costs, the "Operating Fund Revenue in Accordance with Medical Employment Medical Manpower" was generated, resulting in yearly increase of public hospitals contract staffing ratio. The contract staffs become an indispensable role. The work environment affect morale of the contract staff directly, and affect the quality of the health care jobs. Therefore, this study was aimed to explore the relationship between the work values and the work morale of the contract personnel of the public hospital.

### **METHODS**

Using a structured questionnaire, four public hospitals were enrolled into this study. The number of persons interviewed was 470, of whom 424 completed the survey. Descriptive analysis, one-way ANOVA, regression analysis and multiple regression, cluster analysis, was applied.

### **RESULTS**

1. The "learning "knowledge", "psychological empowerment" dimension to each other with meaning of job and capabilities have significant difference effects on gender ( $p < 0.049^*$ ,  $p < 0.007^{**}$ ), all the male better than female. Analysis of the difference of "job burnout", there are significant differences ( $p < 0.016^*$ ), shows that women better male. 2. The "self-growth orientation" of self-values, "decision-making" of psychological empowerment, "emotional exhaustion", and "work alienation" of job burnout. The marital status among them have significant difference ( $p < 0.027^*$ ,  $p < 0.015^*$ ,  $p < 0.011^{**}$  and  $P < 0.014^{**}$ ), all display unmarried than married. On organizational loyalty, willingness of the work morale dimensions were significant differences ( $p < 0.045^*$ ,  $p < 0.004^{**}$ ), the married better than the unmarried. 3. The "community spirit" of "work morale" dimension, there are very significant differences ( $p < 0.008^{**}$ ) on education. Specialist qualification better than the master's degree, group cohesion dimensions, there are significant differences ( $p < 0.027^*$ ), work morale, willingness to work dimensions, significant differences ( $p < 0.042^*$ ). 4. Work morale variables as the dependent variable, Four different variables for knowledge, learning, work values, psychological empowerment, and the awareness level of job burnout have significant difference. And cluster analysis on cognitive variables, high cluster better than the low cluster.

### **CONCLUSION**

In this study, based on the above conclusions, recommendations are made public hospitals, contract staff, managers and future researchers.

Research on The Relationships Among knowledge Learning, Work Values, Psychological Empowerment, Job Burnout and Work morale of Contract Staff in Public Hospitals - The Veterans Hospital in The Southern Region and The Military Hospital as an Example.

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## **TITLE: DESIGNING A CLINICAL GOVERNANCE SYSTEM FOR THE AUSTRALIAN DEFENCE FORCE (ADF)**

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### **OBJECTIVES**

To design and implement a national Clinical Governance system that will standardise and enhance organisational capability to measure and improve clinical performance.

### **METHODS**

A desktop audit of existing healthcare systems used to measure clinical performance in the Australian Defence Force (ADF) was undertaken in Jan/Feb 2011. A gap analysis was then performed to identify the gaps in existing ADF healthcare systems to collect measure, analyse and report performance outcome measures. This was done by comparing ADF systems against industry standards of practice in performance outcome measures. Following the gap analysis the systems required to be implemented to meet industry standards were identified and prioritised.

### **RESULTS**

The primary outcome from the gap analysis was the development of a JHC Clinical Governance Strategic Plan. This plan prioritised criteria and actions required to implement Clinical Governance initiatives against specified timeframes. Formal endorsement was sought and gained from Surgeon General Australian Defence Force (SGADF) and the plan continues to be tested reviewed. The Strategic Plan is dynamic and can be altered to respond changes in the scope of the project and human and financial resource constraints. Regular reporting requirements and Key Performance Indicators (KPIs) were identified and measurement and reporting tools have been introduced to improve reporting and analysis capability. The establishment of a Health Quality and Safety committee and subordinate working group structure has formalised performance outcomes reporting and improved the flow of information up and down the organisation. As a result of the implementation of these elements it has been possible to design a Clinical Governance system that promotes standardised practice, reporting and measuring of clinical performance and co-ordination of clinical and corporate risk management. It has also effectively enhanced organisational capability in a growing market.

### **CONCLUSIONS**

- The project to date has resulted in the design of a blueprint for current and future requirements to implement a robust Clinical Governance system in the ADF to assure the quality and safety of the health services delivered to entitled members of the ADF.
- The project has achieved the primary objective of designing a Clinical Governance system. The next phase is to further implement key priorities of the strategic plan. This will enhance organisational capacity to measure and inform performance improvement.
- Knowledge gained includes identification of the needs for performance measurement systems for the ADF; the financial, physical and human resources required to implement contemporary healthcare systems; and development of complex clinical governance systems across a large and diverse organisation requires broad consultation, time and clear rationale for implementing initiatives.

**TITLE: IMPACT OF ONLINE EDUCATION ON INTERN BEHAVIOUR AROUND JOINT COMMISSION NATIONAL PATIENT SAFETY GOALS: A RANDOMISED TRIAL**SHAW Tim<sup>1</sup>, HELFRICK John<sup>2</sup>, GANDHI Tejal<sup>3</sup><sup>1</sup> Sydney Medical School, The University of Sydney<sup>2</sup> Partners Harvard Medical International<sup>3</sup> Harvard Medical School, Harvard**OBJECTIVES**

To compare the effectiveness of 2 types of online learning methodologies for improving the patient-safety behaviours mandated in the Joint Commission National Patient Safety Goals (NPSG).

**METHODS**

This randomized controlled trial was conducted in 2010 at Massachusetts General Hospital (MGH) and Brigham & Women's Hospital (BWH) in Boston USA. Incoming junior doctors were randomised to either receive an online Spaced Education program (SE) consisting of cases and questions that reinforce over time, or a program consisting of an online slide show followed by a quiz (SQ). The outcome measures included NPSG-knowledge improvement, NPSG-compliant behaviours in a simulation scenario, self reported confidence in safety and quality, program acceptability and program relevance.

**RESULTS**

SE interns demonstrated a mean 4.79 (36.6%) NPSG-compliant behaviours when tested in the central line simulation (out of 13 total), while SQ interns completed a mean 4.17 (32.0%) ( $p=0.09$ ). Among those in surgical fields, SE interns demonstrated a mean 5.67 (43.6%) NPSG-compliant behaviors, while SQ interns completed a mean 2.33 (17.9%) ( $p=0.015$ ). Both online learning programs improved knowledge retention. On four out of seven survey items measuring satisfaction and self reported confidence, the proportion of SE interns responding positively was significantly higher ( $p<0.05$ ) than the fraction of SQ interns. Focus group data indicates that SE was more contextually relevant than SQ and significantly more engaging.

**CONCLUSIONS**

This is one of only a small number of studies to report on the impact of online learning on junior doctors using a randomised study design. While both online methodologies improved knowledge surrounding the NPSG, SE was more contextually relevant to trainees and engaging. SE impacted more significantly on both self reported confidence and the behaviour of surgical residents in a simulated scenario.

**TITLE: OPERATION MEDSAFE**

CABLE Emma, CHRUSZCZ Janelle, COUGHLAN Julie, COOPER Janet, FRANCIS Sally, VERMA Manpreet

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**OBJECTIVES**

Interruptions in the process of medication administration can lead to medication error (Westbrook et al., 2010). To examine the practices of nurses administering S4/S8 medications, and develop and implement strategies to reduce the incidence of interruption leading to error using Clinical Practice Improvement (CPI) methodology.

**METHODS**

CPI methodology provided the framework to review current practice and resources, and analyse the care delivery process (Clinical Excellence Commission, 2011). Nurses from the palliative care ward undertook data analysis which included medication incident rates, and S4/S8 drug book audit results to June 2010. Brainstorming was undertaken by the project team, and a cause and effect diagram was developed. Four Plan, Do, Study, Act (PDSA) cycles were planned and implemented. Each intervention was introduced for two weeks, followed by a week of observational audits.

**RESULTS**

There was a decrease in the frequency of interruptions from one every 11 minutes to one every 18 minutes. There was a statistically significant reduction in interruptions by staff. The value of using CPI methodology through teamwork was able to reduce harm by raising awareness and cultural change. The team felt it had a positive impact on decreasing the risk of error.

**CONCLUSIONS**

The results show an overall decrease to interruptions during the medication administration process. Applying CPI methodology to learn through practice had an impact on the culture of harm prevention. The project team, in collaboration with the ward nursing staff, felt there is increased awareness of medication safety issues, which positively impacts clinical care.

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## **TITLE: IMPROVING INFORMED CONSENT PROCESSES – UTILISING A MULTI-DISCIPLINARY APPROACH AND A STRUCTURED AUDIT PROGRAM**

LEECH Dianne

Gold Coast Health Service District

### **OBJECTIVES**

To improve the quality of the informed consent (IC) process utilising a multidisciplinary approach and a structured audit program.

### **METHODS**

- Plan:
- Increased impetus to improve process due to High Priority Recommendations (HPRs) for IC criteria (Periodic Review November 2011).
  - Working group of key stakeholders established December 2011 - reviewed identified issues, current processes and auditing practices
  - Number of solutions identified; communicated via action plan.
- Do:
- Solutions implemented in collaboration with key services.
- Check:
- Action plan progress monitored via working group.
  - Audit results reviewed from a District wide perspective - monitor success of strategies; continue to consider alternative strategies.
- Act:
- Changes being embedded into normal practice for sustainability.

### **RESULTS**

- Standardised audit process, staff information sheets, tools and reports.
- Formalised audit schedule; data entry template standardised.
- Audit report format includes weighted percentage targets for each audit question aligned with level of risk.
- Improved health practitioner awareness and compliance with documentation.
- Improved orientation/induction information for interns/registrar.
- District procedure updated.
- Successful achievement of MA rating, completion of HPRs 13th February 2012.

### **CONCLUSIONS**

A functioning multidisciplinary working group to review and improve a process can provide an organisation with quick wins and long term sustainability of the critical elements identified in the change process.

Overall:

- Progress in embedding the changes has been incremental
- Audit results have indicated improvements in the high risk key performance indicators identified in the IC documentation audit tool
- Outcomes vary between clinical specialities.
- Future focus of the IC process review to include:
- Delving into our patient's comprehension of information provided
- Alternative models for gaining consent e.g. nurse's role.

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**TITLE: ADVERSE OUTCOMES ASSOCIATED WITH ELECTIVE KNEE ARTHROSCOPY IN VICTORIA, AUSTRALIA FROM 2000-2009**

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**OBJECTIVES**

The number of elective knee arthroscopies performed are increasing in Australia and internationally.[1,2] Further examination of post-operative complications using population-based data is indicated to help surgeons better inform their patients about risks associated with these procedures. Accounting for the cost of complications will allow health systems and insurers to evaluate how much they should invest in prevention initiatives.

**METHODS**

Retrospective, longitudinal cohort study of elective knee arthroscopies using hospital separation data in Victoria from 1-July-2000 to 30-June-2009. In-hospital complications were defined by ICD-10-AM diagnosis codes flagged by in-hospital timing codes. Primary diagnoses associated with readmissions (< 30 days) after the arthroscopy were also examined. Cost data were derived from national estimates of patient-level costing for each diagnosis-related group. Total direct hospital costs associated with thromboembolism, joint complications and infections were calculated. Multiple linear regression was used to determine the excess cost of each type of complication after adjusting for relevant patient characteristics.

**RESULTS**

There were 180,717 episodes involving only an elective arthroscopy during the time period. The most common adverse outcomes within 30 days were thromboembolism (733, 0.4%), effusion and synovitis (154, 0.09%), and haemarthrosis (134, 0.7%). The 30-day orthopaedic readmission rate was 0.77% and there were 55 deaths (0.03%). The median cost of elective knee arthroscopies without complications was \$AUD 1438 (IQR: \$1438-\$3346) compared to \$AUD 5973 (IQR: \$4134-7331) for episodes with identified complications. After adjustment for relevant patient factors, the excess cost of thromboembolism was +\$AUD 4,455.35, for joint complications it was +\$AUD 4,365.24 and for infections it was \$AUD +8,577.39.

**CONCLUSIONS**

Our study confirms that there is a small but measurable risk associated with elective knee arthroscopy. Patients with adverse outcomes were found to have increased readmissions, adjusted costs and lengths of stay compared to patients without adverse outcomes. With growing attention focused on improving patient outcomes and containing costs, it is important for health systems and practitioners to understand the nature and impact of complications on clinical outcomes and costs.

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2. Bohensky M, De Steiger R, Kondogiannis C, et al. Trends in the utilisation of knee arthroscopies among a population-based cohort from 2000 to 2009. *Med J Aust* (In Press).

**TITLE: WHAT DO JUNIOR DOCTORS THINK ABOUT QUALITY AND SAFETY?**MOULDEN Annie<sup>1</sup>, FINNIGAN Monica<sup>2</sup>, KU Emma<sup>3</sup>, COX Liz<sup>4</sup><sup>1</sup> Southern Health<sup>2</sup> Southern Health<sup>3</sup> Southern Health<sup>4</sup> VMIA**OBJECTIVES**

Determine a base line of junior medical staff perceptions of quality and safety in the organisation by undertaking a safety culture survey.

**METHODS**

Southern Health has been working towards improving medical staff engagement in quality and safety initiatives. A review of claims data and organisational culture surveys undertaken by the Victorian Managed Insurance Agency (VMIA) demonstrated a relationship between poor culture and cost of claims. Literature also reports an association between positive safety climate scores and positive patient outcomes.

In an Australian first, 863 Junior Medical Staff (JMS) working throughout the health service were surveyed. An email-based questionnaire that was compatible with handheld devices such as iPhones was utilised. The survey composed of 40 survey items scored on a Likert scale. Items were grouped into six patient safety domains, stress recognition, teamwork climate, job satisfaction, safety climate, working conditions and perceptions of management.

**RESULTS**

A 34% response rate (n=293) was achieved. The key item 'I would feel safe being treated here as a patient' resulted in a mean score of 3.76 (where 1=strongly disagree, 5=strongly agree). The lowest performing domains were perceptions of management (3.13) and working conditions (3.56). The lowest performing items included 'Health service management supports my daily efforts' (3.13), and 'My suggestions about safety would be acted upon if I expressed them to management' (3.26). Responses to the question, '(How) can your health service improve patient safety?' included improving support and communication from management, increasing staff feedback about safety issues, and a more supportive work environment and culture.

**CONCLUSIONS**

The information provided by the JMS respondents regarding their perceptions of management, knowledge and understanding of the management of safety and risk issues within the organisation has been invaluable. Southern Health has responded positively to this information, engaging a Quality and Safety Liaison Registrar to design and implement a number of key strategies to engage with JMS. Key focus areas include the education of JMS about Southern Health's clinical risk management and quality improvement methods for change, the provision of individual clinician and unit-based feedback on the outcome of incident reporting, and encouraging JMS to report quality and safety concerns.

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**TITLE: DOES INCLUSION OF COMORBIDITY SCORES IMPROVE MORTALITY PREDICTION FOR INTENSIVE CARE PATIENTS?**

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<sup>2</sup> Northern Clinical Research Centre, Northern Health, Epping, Victoria, Australia

**OBJECTIVES**

The objective of this study was to examine if inclusion of the Charlson or Elixhauser comorbidity scores in an established intensive care unit (ICU) specific mortality prediction model improves in-hospital mortality prediction.

**METHODS**

A retrospective cohort study of adult (>16 years) patients admitted to 23 Victorian public hospital ICUs between 2008-2011 was undertaken. Charlson and Elixhauser comorbidity scores based on administrative data were computed for each admission and in-hospital deaths identified. Hierarchical logistic regression models were developed to explore the probability of in-hospital death using each comorbidity score, the Critical care outcome prediction equation (COPE) model and the COPE model plus each comorbidity score. C-Index (AUC) values were used to compare model performance. The COPE model includes age, admission diagnosis, admission type, cardiac surgical procedure and the need for mechanical ventilation variables. We have previously demonstrated that the performance of the COPE model is equivalent to if not better than the current 'gold-standard' (APACHE-III) used by ANZICS1.

**RESULTS**

A total of 53,305 admission episodes and 6,652 deaths were included in the analysis. Models that included only comorbidity scores provided moderate mortality prediction (AUC: 0.61). The COPE model provided good mortality prediction (AUC: 0.82). There were no improvements in mortality prediction when either the Charlson or Elixhauser Comorbidity scores were added to the COPE model (AUC=0.82).

**CONCLUSIONS**

Comorbid conditions are recognised as important contributors to morbidity and mortality in hospital admissions<sup>2-4</sup>. Despite this, the addition of comorbidity scores to the COPE model does not appear to improve mortality prediction. These findings suggest that whilst the Charlson and Elixhauser scores can predict in-hospital mortality in critically ill patients, greater discrimination is achieved by including admission, cardiac procedure and primary diagnosis details. A possible explanation for only moderate mortality prediction in ICU patients is that comorbidities may be under-coded and under-reported in critically ill patients.

**REFERENCE**

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**TITLE: IMPROVING QUALITY OF JUNIOR MEDICAL OFFICER WRITTEN HANDOVER: AN AUDIT CYCLE**MAZZOLA Francesca<sup>1</sup>, KENYON Rebecca<sup>2</sup><sup>1</sup> Manly Hospital, NSW<sup>2</sup> Manly Hospital, NSW**OBJECTIVES**

The implementation of an audit cycle to assess and improve the quality of written weekend handover by junior medical officers across medical, surgical and orthopaedic teams at Manly Hospital.

**METHODS**

We collected data over a 5-week period from written weekend handover proformas that are completed by junior medical officers (JMOs) each Friday. Data fields and standards were identified from literature review. The data was analysed and a new handover proforma was implemented based on deficits identified in the first audit and JMO opinion gathered from a questionnaire. A teaching session was also given to JMOs to educate about the importance of high quality written handover. Re-audit was undertaken 3 months later covering a period of 3 weeks.

**RESULTS**

36 handover entries were audited in the first audit compared to 86 entries at re-audit. Use of the modified handover proforma showed an improvement in inclusion of clinical information, with inclusion of presenting complaint and past medical history increasing from 34.2% to 97.7% and 2.6% to 40.7% respectively. It also showed improvement in a clear plan for patient management from 44.7% to 57.0%.

**CONCLUSIONS**

The new handover proforma has improved written weekend handover by providing the weekend team with more clinical information and increasing the number of clear plans present for patients. This audit cycle succeeded in identifying specific areas of written handover that required improvement, implementing a successful new handover proforma and showing this through re-audit. This study illustrates that appropriate handover tools and systems enable high quality handover for JMOs, supporting the use of a standardised written handover system that is specifically tailored to JMO needs.

**REFERENCE**

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## **TITLE: MONITORING QUALITY OF CARE FOR MEN DIAGNOSED WITH PROSTATE CANCER**

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<sup>8</sup> Cancer Epidemiology Centre, Cancer Council Victoria

### **OBJECTIVES**

To compare processes of care and outcomes for men diagnosed with prostate cancer in Victoria: results from the Prostate Cancer Registry

### **METHODS**

The Prostate Cancer Registry was established in 2009 to monitor patterns and quality of care for men diagnosed with prostate cancer. Initially established in four sites, it has expanded to cover 85% of all newly diagnosed cases of prostate cancer in Victoria. Men are recruited concurrent with notification of cancer to the Victorian Cancer Registry. An opt-off consent model is used. Treatment data are collected from consulting rooms and hospital databases. Attempts are made to contact all men 12 and 24 months after diagnosis to validate treatment details and PSA results and administer a quality of life tool. Quality indicators have been developed and are fed back to institutions.

### **RESULTS**

The registry has collected treatment and 12 month follow up data from 3400 men and has a 1.9% opt off rate. It has recently transitioned from a paper-based registry to a web-based registry, improving capacity for remote data collection and clinician-accessible reports.

Quality indicators have been developed to assess processes and outcomes of care and are collected at 12 and 24 months post diagnosis. They assess risk adjusted mortality, appropriateness of follow up post treatment, documentation in the medical record, whether treatment is given in accordance with recommended guidelines, capacity to remove all tumour at prostatectomy, disease recurrence and patient reported quality of life.

The registry has identified that most men receive care according to evidencebased guidelines. However, more than 40% of men with clinically localised low risk disease receive active curative treatment in the first 12 months which might indicate over treatment while 11% of men at high risk of disease recurrence received no treatment which might indicate under-treatment. While risk adjusted mortality rates do not vary according to Health service organisational boundaries, there is variability in positive margin rates, and this is being addressed. Diseasespecific quality of life varies according to treatment modality.

### **CONCLUSIONS**

The Prostate Cancer Registry provides an example of how high quality data can be collected rapidly to drive quality improvement. The registry model is well accepted by patients and clinicians.

### **REFERENCE**

1. Monash University. Prostate Cancer Registry. Accessible at [www.pcr.registry.org.au](http://www.pcr.registry.org.au)

**TITLE: TRENDS AND WEEKLY AND SEASONAL CYCLES IN THE RATE OF ERRORS IN THE IN THE CLINICAL MANAGEMENT OF HOSPITALISED PATIENTS**BUCKLEY David<sup>1</sup>, BULGER David<sup>2</sup><sup>1</sup>Clinical Governance Unit, Murrumbidgee Local Health District<sup>2</sup>Department of Statistics, Macquarie University, Sydney**OBJECTIVES**

To determine if there are long term trends, weekly and seasonal cycles in the error in clinical management of hospitalised patients.

**METHODS**

A retrospective analysis of the adverse events in the clinical management of patients reported to the IIMS database between January 2006 and December 2011 in the Murrumbidgee Local Health District. The health service has facilities ranging from large non-metropolitan hospitals to small community and aged healthcare facilities. Poisson regression incorporating an observation-driven autoregressive effect using the GLARMA framework was used to explain daily error counts with respect to long-term trend and weekly and annual effects, with procedural volume as an offset. The annual pattern was modelled using a firstorder sinusoidal effect.

**RESULTS**

The rate of errors reported demonstrated an increasing annual trend of 13.4% (95% CI 10.6% to 16.3%); however, this trend was only significant for errors of minor or no harm to the patient. A strong 'weekend effect' was observed. The incident rate ratio for the weekend versus weekdays was 2.74 (95% CI 2.55 to 2.93). The weekly pattern was consistent for incidents of all levels of severity, but it was more pronounced for less severe incidents. There was an annual cycle in the rate of incidents, the number of incidents peaking in October, on the 282nd day of the year (spring in Australia), with an incident rate ratio 1.09 (95% CI 1.05 to 1.14) compared to the annual mean. There was no so-called 'killing season' or 'July effect', as the peak in incident rate was not related to the commencement of work by new medical school graduates.

**CONCLUSIONS**

The major finding of this study is the rate of adverse events is greater on weekends and during spring. The annual pattern appears to be unrelated to the commencement of new graduates and potentially results from seasonal variation in the case-mix of patients or the health of the medical workforce that alters healthcare performance. These mechanisms will need to be elucidated with further research.

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**TITLE: MONITORING SAFETY OF HIGH RISK DEVICES: THE BREAST DEVICE REGISTRY**

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<sup>2</sup> Australasian Foundation for Plastic Surgery

**OBJECTIVES**

It is estimated 17,000 Australian women receive breast implants and more than 7,000 undergo revision surgery each year. Since 1962 breast implants have been implicated in major public health issues:

- 1992: US sales of silicone implants were banned due to chronic disease implications; by 2006 studies refuted disease association, sales permitted.
- 2010: French brand PIP found to be manufactured using industrial grade silicone.<sup>1</sup> Approximately 12,500 implants were inserted in Australia. A Senate Inquiry was conducted in May 2012 into the Government's role in this situation.<sup>2</sup>
- 2011: Breast implants were associated with higher than expected incidence of Anaplastic Large Cell Lymphoma (ALCL).<sup>3</sup>

Despite being classified 'high risk' devices there is no systematic population-based monitoring either in Australia or internationally. Complications resulting in replacement are mostly 'known' risks of breast implants. Therefore expected and unexpected complication rates are indistinguishable and quality of care is immeasurable. There is an urgent need for a national registry to ensure patient safety and understand device related health outcomes.

**METHODS**

The Breast Device Registry (BDR), launched in October 2011, was modelled on Australian Commission on Safety and Quality in Healthcare best-practice guidelines and experience gained from established registries. Key elements of the BDR include: opt-out patient consent; population based collection; active clinician involvement, and embedded data validation and auditing processes.

Monash University has driven political negotiations for BDR stakeholders including: three clinical groups (plastic surgeons, cosmetic doctors, general surgeons); device manufacturers; and national policy developers. Data contributed to a registry from competing practices have extreme sensitivity and require impenetrable governance arrangements and secure data management.

**RESULTS**

Three hospitals' ethics committees have approved BDR's opt-out consent to collect 65 data points and collaborations with eight other countries are seeking to standardise an international minimum dataset.

Several professional bodies submitting to the Senate Inquiry proffered support for our new opt-out Breast Device Registry.

**CONCLUSIONS**

The BDR has laid the foundations of a world-first population based breast device registry. It is an invaluable quality assurance tool enabling rapid comparison and benchmarking of outcome data providing an early warning system for investigation into device batches, brands, and clinical procedures, thereby improving patient care and outcomes.

**REFERENCES**

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2. Commonwealth of Australia. Hansard: Approval and Monitoring of Medical Devices Listed on ARTG. Community Affairs References Committee., 2012.
3. Center for Devices and Radiological Health. ALCL In Women with Breast Implants. FDA; 2011.

**TITLE: DELAYS TO SURGERY: WHO, WHAT, WHEN, WHERE, WHY**

REY-CONDE Therese, NORTH John, ALLEN Jenny, FAINT Sonya

Queensland Audit of Surgical Mortality

Royal Australian College of Surgeons

**OBJECTIVES**

The aim is to improve patient care and reduce surgical mortality by determining the causes and effects of delays to surgical diagnosis in surgical patients attending public hospitals in Queensland.

**METHODS**

A retrospective analysis was performed of data from Queensland Audit of Surgical Mortality (QASM) over five years and covering all the teaching hospitals in Queensland. Reasons for delays were counted using simple frequencies. Effects were measured by using risk ratios to compare non-delayed surgical patients against delayed surgical patients.

**RESULTS**

The source data was 632 887 episodes of surgical care. 3 139 cases were notified to QASM and included in the analysis. 9.3% of those surgical patients had a delay to diagnosis (293/3 139). The most common causes and sources of delays were medical units, surgical units, emergency departments and referring hospitals.

General surgical patients were the most common group of surgical patient delayed. The most frequent effects of delays in diagnosis were unplanned returns to theatre and post-operative complications. These effects were significant when compared against patients who had not been delayed.

**CONCLUSIONS**

We found that General surgery patients were more frequently delayed compared with patients from all other surgical specialties.

We determined that trainees should be taught to have a higher level of awareness of potential complications when patients with abdominal pathology present to emergency departments. Triage conventions should be changed to protect these patients.

This analysis which compares delays to diagnosis in all surgical specialties has not been previously written up in the literature.

This study shows that patients with abdominal pathology are not being diagnosed at the same level of efficiency as other patients, especially those where imaging techniques can be used.

## **TITLE: THE ORGANISATIONAL AND CULTURAL DETERMINANTS OF A HOSPITAL-WIDE SYSTEM IMPLEMENTATION IN ACUTE HOSPITALS**

NOSRATI Hadis, HILLMAN Kenneth<sup>1</sup>

<sup>1</sup> The Simpson Centre for Health Services Research, Australian Institute of Health Innovation, UNSW

### **OBJECTIVES**

This research aims at developing a prototype model for the Medical Emergency Team (MET) system (Hillman, Chen et al. 2005) using the Bayesian Network (Spiegelhalter, Dawid et al. 1993) approach to identify the organisational and cultural variables which influence the success of MET utilisation and consequently the patients' outcomes in acute hospitals.

### **METHODS**

In order to develop this model and achieve further understanding of how these factors influence the success of the implementation process and indeed, how the implementation process influences the clinical/organizational performance, the following two steps were conducted:

1. Structure learning of the MET system: finding the relationships between the variables describing the clinical performance, the MET utilization index and the patients' outcomes given the datasets from 68 Australian hospitals using Bayesian Network modelling (Spiegelhalter, Dawid et al. 1993).
2. Given the structure and the links between the environmental, clinical variables, we can then find the most likely model that explains the MET intervention adoption in hospitals across NSW using the Bayesian Network modelling.

### **RESULTS**

The study produced a prototype of a Bayesian statistical network, showing how the hospital characteristics such as the type of facility, the level of ICU and the clinical performance of a particular organization would affect the adoption of a hospital-wide system implementation, in this case Medical Emergency Team System. Importantly, the model could correlate the success level of the system implementation to the patient outcomes such as the number of cardiac arrest or mortality rate. This model is potentially able to identify cultural and organizational variables that would influence the adoption of a hospital-wide intervention system and consequently the patient outcomes in acute hospitals. This is expected to have significant clinical benefits by providing a systematic approach to the endorsement of a hospital-wide system implementation in acute hospitals.

### **CONCLUSIONS**

The Bayesian network shows the relationship between the organizational characteristics of the hospital, the adoption of MET system and the improvement of the patient outcomes. Given the database from 33 hospitals across Australia, the prototype model shows that implementing a medical emergency team system in an acute care, simply would not improve the patient outcome, since the demographics of the hospital, its organizational characteristics and clinical performance also play an important role in the utilisation of MET system and consequently patients outcomes. This study provides a framework for the clinicians, and governance body of the healthcare organizations to identify the effects of the organisational variables on the adoption of a potentially promising hospital-wide intervention system.

### **REFERENCE**

Hillman, K., J. Chen, et al. (2005). "Introduction of the medical emergency team (MET) system: a cluster-randomised controlled trial." (1474-547X (Electronic)).

Spiegelhalter, D. J., A. P. Dawid, et al. (1993). "Bayesian Analysis in Expert Systems." *Statistical Science* 8(3): 219-247.

**TITLE: PROCESS SCREEN - A CLINICIAN'S MORTALITY REVIEW TOOL FOR TURNING DISCUSSION INTO ACTION.**

KATTULA Andrea<sup>1</sup>, WAY, Margaret <sup>1</sup>, PARIKH, Seema<sup>1</sup>, LEMKE, Renata<sup>1</sup>, Sarah Larwill<sup>1</sup>

<sup>1</sup>Alfred Health

**INTRODUCTION**

Patients who die in hospital have usually traversed a number of hospital services and a review of their hospital journey can shed light on routine systems and processes of care.

**OBJECTIVES**

To develop and implement a structured approach for clinician-led mortality review that facilitates identification of patterns of clinical risk arising from systems and processes of care.

**METHODS**

PROCESS SCREEN, a Clinician's mortality review checklist was designed for use by clinicians involved in the patient's care. Familiar clinical language is used to describe key categories and patterns of clinical error. The checklist order follows the typical course of a patient's admission and management, which parallels the traditional structure for M&M meeting case discussion. The first component, PROCESS, examines the processes of care during the patient's hospital stay (from planning and assessment, through responses and communication, to escalation and supervision).

The second component, SCREEN, examines the context in which that care occurred (staffing, competence and experience, evidence base, and environment). The guided checklist prompts clinicians to ask questions in each of these domains in a structured and logical order to capture information about possible deficiencies in the systems and processes of care. Primary measurements of improvement have included: engagement of clinical units in use of the tool; identification of patterns of clinical risk and generation of concrete, actionable recommendations.

**RESULTS**

PROCESS>SCREEN was initially tested on 10 cases in which adverse or unexpected patient outcomes had previously been identified by traditional review or root cause analysis (RCA). The tool identified new clinical risk patterns in all 10 cases. PROCESS SCREEN was then prospectively tested on 20 cases by a clinician-led unit mortality review panel. PROCESS SCREEN was able to facilitate communication about clinical risks through use of familiar clinical language. This resulted in the generation of a patient safety grid identifying the clinical area's patterns of clinical risk, enabling prioritisation of targeted clinical practice improvements.

An unexpected finding was the value of coaching for M&M meeting Chairs in theory of clinical error and systems analysis, which was requested by the meeting Chair prior to the meeting. This has resulted in enhanced working relationships with the Clinical Governance Unit. PROCESS SCREEN tool has now been actively sought by other clinical units, and incorporated into the hospital's serious clinical incident review processes for both morbidity and mortality.

**CONCLUSIONS**

Clinical Units are actively seeking structured tools to enhance the quality of their M&M case review meetings. PROCESS>SCREEN appeals to clinician's from a range of clinical backgrounds. Its systematic, structured, checklist approach to clinician-led morbidity and mortality review, can effectively and efficiently facilitate comprehensive case discussion with a logical flow that does not disrupt the traditional M&M meeting format. PROCESS SCREEN has engaged Clinical Units in case review methodology and can facilitate generation of targeted of clinical practice improvements from M&M review.

## **TITLE: CLINICAL DETERIORATION – EVALUATING A FRAMEWORK USING PROGRAM LOGIC**

KELLY Cate<sup>1</sup>, HAMLEY Lee<sup>2</sup>

<sup>1</sup> Alfred Health

<sup>2</sup> Alfred Health

### **OBJECTIVES**

To design and implement a framework for measuring the performance of Alfred Health against its “recognising and responding to clinical deterioration” logic model.

### **METHODS**

In 2009 / 10 there was growing recognition, from our internal case reviews and in the literature that failure to consistently identify and escalate deteriorating patients can result in harm<sup>1</sup>. As such, this risk was identified as an extreme risk on our risk register.

A Steering Committee and project team were established to develop and implement a program of work to improve our recognition of, and response to, clinical deterioration.

A logic model, a series of interventions and an evaluation framework were developed for the program of work. This presentation reports on the first 18 months of work undertaken within this program.

### **RESULTS**

The logic model outlines agreed long term goals and the intervening short and medium term steps required to meet long term goals, which were:

- Reduction in morbidity and mortality attributable to failure to escalate
- No inpatient code blue calls

Key short and medium goals include:

- implementation of a graphical observation chart
- establishment of ‘mandatory’ MET (Medical Emergency Team) calls
- improved paging systems
- improved understanding of barriers to escalation
- improved information collection, reporting and feedback of management of clinical deterioration, MET calls and code blue calls

An organisation-wide project audit has been undertaken pre- and postimplementation of the graphic observation chart and an ongoing process for ward-based self assessment has been developed and these data are presented.

Comprehensive junior medical staff orientation, staff education, ‘Mandatory MET’ (even with the parent team in attendance) and feedback processes have been successfully implemented.

Focus groups and a survey of the junior medical staff have been undertaken to better understand some of the barriers to escalation.

Key findings include:

- The variability of consultant response to escalation;
- Not knowing how to escalate the ‘not quite right’ patient;
- Not knowing how/who to contact (e.g. in the context of multiple team involvement in care).

### **CONCLUSIONS**

Alfred Health has implemented a number of processes to improve our recognition of, and response to, clinical deterioration. These have achieved some improvements however, it is likely that significant cultural change will be required to achieve and sustain our long-term objectives.

### **REFERENCES**

1 ACSQHC, Recognising & Responding to Clinical Deterioration – Background Paper, June 2008

## **TITLE: ARE IN-PATIENTS BETWEEN THE FLAGS?**

GUPTA Jai, RUBIN George, SCHACTH Suzanne, PIZA Michael

South East Sydney Local Health District, NSW Health

### **OBJECTIVES**

Early identification of clinically deteriorating patient is important. With an effective process in place the number of escalated patients should be managed in the wards itself. However some may need higher level of care. Effectiveness of early identification should show an increase in admissions to intensive care services and reduction in number of deaths.

### **METHODS**

We analysed the number of admissions to intensive care services (ICS) and the number of deaths for two years before and during implementation of a rapid response team (RRT) alert system (known as Patient with Acute Condition for Escalation –PACE) in two teaching hospitals. PACE has two components beside the documentation protocol – the first determining signs for patients indicating deterioration and the second the two tier response protocols for frontline staff.

Tier 1 calls are initiated when a patient meets any one or more per-determined criteria and Tier 2 when the condition deteriorate rapidly or if patient is not attended within 30 minutes of Tier 1 call.

### **RESULTS**

There were 35,011 and 36,450 occupied bed days (OBD) for year 2008-09 and year 2010-11 respectively. Formal admission to ICS decreased from 1642 to 1147 and in ward transfers increased from 9,339 to 10,897. Transfers from ICS to the wards increased 8696 to 10,033. The number of deaths in ICS decreased from 510 to 485 and in the hospitals from 2886 to 2646. During the study period tier 1 calls increase from 6444 to 7302 and tier 2 calls that went up from 514 to 617 in the year 2010 and 2011. Number of transfers to ICU of escalated patients have showed dramatic drop. Statistical process charts and statistical treatment to this data will be presented. During this period the number of documented arrests during RRT alerts reciprocated the increase in ICS transfers.

### **CONCLUSIONS**

The PACE system used in our facilities meets its objectives. Our results demonstrate that there is now increased level of awareness (indicated by increase in number of tier 1 calls) eventuating in increase use of ICS and this has reduced the mortality rate in spite of increase in OBD in the . The results are encouraging to scrutinise the different RRT alert systems that are in place using a more robust methodology.

## **TITLE: MY HEALTHSCOPE – PUBLIC REPORTING OF QUALITY PERFORMANCE**

JONES CH<sup>1</sup>, NGUYEN R<sup>1</sup>

<sup>1</sup>Healthscope

### **OBJECTIVES**

MyHealthscope ([www.MyHealthscope.com.au](http://www.MyHealthscope.com.au)) was developed to display comprehensive clinical and quality performance data for Healthscope's 44 private hospitals.

### **METHODS**

Public reporting of hospital performance is routine in the United States and United Kingdom. The MyHospitals website, mandatory for Australian public hospitals, is a major new initiative in the arena of public reporting.

MyHealthscope was launched in November 2011. Hospitals are rated against established industry benchmarks and averages in categories including falls, infections, hand hygiene, rehabilitation outcomes, unplanned hospital readmissions, unplanned returns to the operating theatre and emergency department waiting times. Where possible, categories align with the MyHospitals government website.

### **RESULTS**

At a national level fifteen out of fifteen (15/15) key indicators showed abovebenchmark performance. However for individual hospital results, 6% were worse than benchmark. For each of these, an action plan to improve rates is described on the website.

MyHealthscope also provides resources for consumers, including tips for improving safety. Consumers were involved in drafting the webpages and reviewing the content, to make sure that it was relevant and clearly understood.

### **CONCLUSIONS**

Healthscope is the first private hospital group in Australia to voluntarily publish comprehensive performance data. It is one of the first private hospital groups in the world to include any unfavourable outcomes.

Positive feedback has been received from the private insurance sector, government agencies, private and public hospital groups and the Federal Minister for Health. In the first 3 months after the launch, MyHealthscope, averaged approximately 1000 web hits per month.

Finally, the media outcomes were strong. On release of infection data on the MyHospital website in November 2011 there was approximately 50 negative stories and one positive story. In contrast, the MyHealthscope launch a week later, resulted in over 140 positive news stories and not a single negative report.

Greater transparency is beneficial to patients, doctors, hospitals and the healthcare system. Although Healthscope has been benchmarking internally for many years, motivation for improvement has increased as a result of public disclosure. The project has also demonstrated that private hospitals are willing to disclose their quality outcomes.

## **TITLE: PATIENT SAFETY INDICATORS USING ADMINISTRATIVE DATA AT NEW ZEALAND HOSPITALS 2001-9**

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<sup>2</sup> Compass, Centre of Methods and Policy Application in the Social Sciences, University of Auckland, New Zealand

### **OBJECTIVE**

To examine the application of the AUSPSIs in the assessment of patient safety at New Zealand public hospitals 2001–9.

### **METHODS**

AusPSIs were adapted for use with New Zealand National Minimum Dataset administrative data for the period 2001-9. The NMDS data was filtered and restricted to 35 facilities with more than 500 admissions per year. Crude positive events rates for each of the 20 indicators were assessed over time and across regions. Rates were considered in relation to important patient variables including age, sex, ethnicity, rurality of residence, and NZDep score.

### **RESULTS**

Some 88,021 admissions were associated with a positive indicator event however rates for some indicators were low (<1% of denominator admissions). Considerable variation was evident for positive indicator event rates across the 35 public hospitals around New Zealand. Less variation was apparent with indicator results over time. Indicator results often varied in relation to age and gender but did not seem to consistently change in relation to ethnicity or rural domicile.

### **CONCLUSIONS**

- The AusPSIs can be successfully applied to New Zealand administrative hospital data.
- While infrequent rates hinder the use of some the indicators several of them could be employed to foster a better understanding of the local epidemiology of adverse events and measure the impact of quality improvement initiatives.
- Work now focuses on adjustment methods for case mix and random variation.

### **REFERENCE**

McConchie S, Shepheard J, Waters S, McMillan AJ, Sundararajan V. The AusPSIs: the Australian version of the Agency of Healthcare Research and Quality patient safety indicators. *Aust Health Rev.* 2009 May;33(2):334-41.

**TITLE: HARNESSING SHARED DETERMINATION TO DEVELOP A NATIONAL SYSTEM OF TRAUMA QUALITY IMPROVEMENT - THE AUSTRALIAN TRAUMA QUALITY IMPROVEMENT PROGRAM (AUSTQIP)**

FARROW Nathan<sup>1</sup>, GRUEN Russell<sup>1,2,3</sup>, MOK Meng Tuck<sup>1</sup>, GABBE Belinda<sup>2</sup>, O'REILLY Gerard<sup>2,3</sup> on behalf of AusTQIP

<sup>1</sup> National Trauma Research Institute

<sup>2</sup> Monash University

<sup>3</sup> Alfred Health

**OBJECTIVE**

The key to effective collaboration is harnessing shared determination and turning it into action. Although some of the trauma systems in Australia are international leaders in reducing injury mortality and improving trauma care, regionalisation has limited opportunities for national development. To address this, we aimed to harness the shared determination of Australia's 26 major trauma centres and 4 established state trauma registries to develop a collaborative, national system of trauma quality improvement supported by a national clinical quality registry for trauma – the Australian Trauma Registry.

**METHODS**

Seed funding was obtained from two leading Australian organisations for trauma - the National Trauma Research Institute and the National Critical Care and Trauma Response Centre.

Trauma service leaders, hospital executives, state department of health officials, trauma clinicians and a wide range of key stakeholders were engaged in a shared commitment to overcoming system barriers and improving trauma patient survival and quality of life. A governance structure was developed to secure national participation; including working groups empowered to deliver on shared objectives. To plan future programs, a survey of trauma quality activities and data capability was undertaken to establish an understanding of the strengths and weaknesses of the current system.

**RESULTS**

On the basis of survey results, collaborative trauma quality improvement projects have been established to build system resilience and address issues requiring development. Methods used in these projects have focussed on using human factors approaches to systems development, improved governance and loop closure around quality improvement activities. Legal and ethical issues have been addressed and approval obtained from Human Research Ethics Committees in each jurisdiction.

The AusTQIP Portal - a web-based platform for sharing information and trauma data - has been designed to facilitate collaboration across geographic boundaries and ensure optimal use of registry data to improve trauma care.

**CONCLUSION**

AusTQIP has effectively harnessed the shared determination of Australia's designated major trauma centres and state based trauma registries. This has resulted in national agreement and action to share information, benchmark performance and quality improvement efforts using high quality, risk-adjusted data from an Australian Trauma Registry under a transparent governance framework.

## **TITLE: ENGAGING CONSUMERS: A PAEDIATRIC ONCOLOGY MODEL IN PRACTICE**

WILLIAMSON Jane

### **PURPOSE**

The Paediatric Integrated Cancer Service (PICS) recognises the valuable role that consumers play in supporting health policy development and service delivery. The experiences of patients and families dealing with a diagnosis of childhood cancer are both challenging and unique. It is important that these experiences are recognised in service planning. The need for a consumer participation model was necessary to support this.

### **METHOD**

In partnership with the health services, PICS developed a consumer participation model. It identified and documented methods of how consumers can, and should, be included in health service activities.

### **RESULTS**

Major elements of consumer participation include:

- Establishment of the Parent and Family Advisory Group (PFAG) as the consumer reference group for children's cancer across the State
- Expansion of the membership of the PICS Clinical Advisory Committee to include the Chair of the PFAG
- Representation of consumers on service improvement and development working parties
- Formal patient satisfaction feedback through annual validated surveys at each of the PICS sites and implementation of the electronic Patient Experience Trackers
- Creation of a registry/database for consumers interested in participating in focus groups
- Formal consumer input during the development of all patient information, leaflets, surveys and research projects.

Future work includes the "in principle" agreement to establish a Community Reference Group that will include members from the philanthropic and community support groups and the Chair of the PFAG. The PICS commitment to engaging consumers as key stakeholders will support the health services in meeting the Australian Commission on Safety and Quality in Health Care, National Safety and Quality Health Service Standards.

### **CONCLUSION**

PICS will continue to draw upon consumer expertise to provide input into both individual care and broader service development. This model ensures PICS will maintain an organisational culture that values consumer participation and in turn, will assist health services to meet the National Safety and Quality Health Service Standards.

## **TITLE: CONSUMER INVOLVEMENT IN ACCREDITATION: DEMOCRATISATION OR TOKENISM IN HEALTHCARE?**

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### **OBJECTIVES**

To critically examine stakeholder views of the role of consumers within Australian health service accreditation programs.

### **METHODS**

Forty six individual and group interviews involving 259 participants were completed between August 2011 and February 2012. Data collection activities occurred in every Australian state and territory. The sample included representatives from the following stakeholder groups: consumers; government health agencies; accreditation agencies; accreditation surveyors or assessors; professional advocacy groups; and staff from accredited health services. Participants were asked to discuss the key processes and effects of the main programs of three accreditation agencies from across the healthcare system: Australian Council on Healthcare Standards; Australian General Practice Accreditation Limited; and Aged Care Standards and Accreditation Agency. Interview transcriptions were analysed to identify emergent themes.

### **RESULTS**

Participants frequently argued that consumer's involvement is substantial and has increased in recent years in parallel with the promotion of patient-centred concepts within health policy and professional discourse. The place of consumer participation standards and criteria within Australian accreditation programs, including the National Safety and Quality Health Service Standards, was referred to by respondents to substantiate these claims. While presented as a potential driver of 'meaningful democratisation' within healthcare, it was widely noted that consumer involvement strategies in accreditation have been largely haphazard and infrequently informed by research evidence. Detailed analysis revealed four main areas of involvement: standards development; patient satisfaction measures within standards; membership of accreditation agency management groups; and the role of consumer surveyors. Although the first three participatory approaches were mainly discussed positively, the utility of consumer surveyors emerged as a particularly divisive issue, with a range of views provided by different respondents within each stakeholder group. While participants noted that consumer surveyors can provide valuable non-clinical perspectives, it was widely argued that they often possess insufficient knowledge of healthcare organisational processes to effectively contribute to survey teams. Indeed, some participants argued that consumer surveyors exemplify the frequently 'tokenistic' involvement of consumers within current accreditation programs.

### **CONCLUSIONS**

This study found that stakeholders generally believed the role of consumers within accreditation programs is increasing. Views of consumer involvement were positioned on a continuum ranging from 'promoting meaningful democratisation' to 'exemplifying cynical tokenism'. These findings indicate that there remain important questions to be answered concerning the relative value of different methods through which consumer participation within accreditation programs can be achieved in order to provide maximum potential benefit to the Australian healthcare system.

**TITLE: CONSUMER PARTICIPATION: CONTRIBUTING TO IMPROVING HEALTH SERVICES DURING TIMES OF FINANCIAL CONSTRAINT.**

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<sup>1</sup> Southern Health Community Advisory Committee (CAC)

<sup>2</sup> Southern Health, Quality Unit, Consumer Participation Coordinator

**OBJECTIVES**

During times of financial constraint, health services increasingly look at the cost-saving benefits of consumer participation and input into decision-making, particularly on proposed expenditure for capital development/ improvement or operational change.

**METHODS**

Through National accreditation and reporting requirements, Southern Health has mapped consumer participation across the organisation as a governance structure, which provides a framework for influencing culture change by involving consumers in strategic and operational committees and advisory groups. The benefits of this work have been three-fold; identifying consumer participation gaps has provided an opportunity to embed consumers in areas previously not considered; identifying achievements that validate current activity and highlight opportunities to frame future direction. The Community Advisory Committee (CAC) has been able to influence and direct the inclusion of consumers as partners in improved service delivery through representation on steering committees.

**RESULTS**

Through the mapping of both strategic and operational committees, Southern Health revised its support structures for consumer participation; including position descriptions and orientation around existing committees or advisory groups that are facilitated across the organisation.

Examples include, Clinical Risk, Falls and Skin Integrity, Nutrition Risk and Quality and Safety committees. Southern Health has also integrated co-design activities across new and existing developments through “grassroots” work with patients, families and carers accessing Diagnostic Imaging services, residential care at Chestnut Gardens & Kingston and the larger Monash Children’s new hospital development and expansion.

This integration has highlighted the potential and real cost saving measures through consumer input contributing to, but not being directly responsible for ensuring that dollars spent on new programs, equipment or existing programs is well spent. This participation and resultant ideas about enhancing patient experience and improving health service delivery has proven to be low tech and low cost. This exercise has also consolidated a majority of consumer participation work that is being undertaken across the organisation, which has also provided cost-saving benefits.

**CONCLUSIONS**

Consumer participation in strategic and operational committees and consumer advisory groups has provided Southern Health and its Community Advisory Committee (CAC) with a sharpened focus on improving health service delivery and health outcomes for the community through direct consumer input into strategic and operational discussions and decisions. This leads to direct cost benefits in the identification of more effective expenditure and efficient problem-solving measures.

Through involvement of those who have a “lived” experience of health services, Southern Health is leading the way in providing improvements in health care delivery across its services[RLE1].

**REFERENCES**

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Department of Health (Victoria) 2011. Doing it with us not for us: Strategic direction 2010-13. Melbourne, Victoria.

Southern Health 2010. Community Participation Plan 2010-2013. Melbourne, Victoria.

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**TITLE: PARTNERING WITH PATIENTS IN HEALTH SERVICE DESIGN: MULTI-DISCIPLINARY DIABETES TEAM CARE**

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**OBJECTIVES**

Attrition rates for young Australian adults with Type 1 Diabetes (T1D) from health services are reported at around 50%. The guidelines recommend a multi-disciplinary diabetes team care model for the management of T1D. We wanted to assess the extent to which the multi-disciplinary team model is reflected in the consulting behaviour patterns of young Australian adults with T1D

**METHODS**

We designed an online, self-reported, survey for adults 18-35 years with T1D. Participants (n=150) were recruited from advertisements with diabetes consumer-organisations. Respondents were questioned about their consultations with multi-disciplinary diabetes team clinicians. To expand on the results of the questionnaire, 36 respondents participated in focus groups.

**RESULTS**

**Survey:** The percentages of respondents who consulted with clinicians from the five groups comprising the recommended multi-disciplinary team were: endocrinologists 90%; diabetes educators 39.3%; dieticians 33.3%; psychologists social workers 18.6%, general practitioners 37.5%; 3% consulted no clinicians. The average participant consulted 2.3 clinicians. The most common consulting patterns were: endocrinologist and educator (22%), endocrinologist only (18%), endocrinologist, educator and dietician (14%), endocrinologist, educator, dietician and GP (8%), and endocrinologist and GP (11%).

**Focus groups:** The reasons why respondents did not consult with clinician groups included: lack of opportunity to build a therapeutic relationship; failure of the clinician to provide patient centred care or impart new knowledge; perception that the clinician lacked the relevant expertise; inaccessibility of services; not referred by other clinicians; time constraints; cost of consultations. Patient preferences were for clinicians who: practiced patient-centred care; undertook joint consultations with multi-disciplinary team members; provided flexible access to advice by email or telephone consultation; appeared up-to-date with recent research.

**CONCLUSIONS**

Our results suggest that multi-disciplinary team care is not the model of care adopted by the majority of young Australian adults with T1D. In fact only 2% consulted the recommended five clinician groups. Given the number of young adults with T1D who discontinue access to diabetes health services and who fail to reach treatment target levels of glycaemic control, our results provide evidence for the potential value of patient engagement in health service design and have implications for improved health service delivery.

## **TITLE: CONSUMERS DRIVING SAFETY AND QUALITY IMPROVEMENT**

GAL Alison<sup>1</sup>, LUXFORD Karen<sup>2</sup>

<sup>1</sup> Project Coordinator, Patient Based Care, Clinical Excellence Commission

<sup>2</sup> Director, Patient Based Care, Clinical Excellence Commission

### **OBJECTIVES**

To evaluate effectiveness of Consumer Advisors working with the Clinical Excellence Commission to improve safety and quality.

### **METHODS**

An organisation wide policy was developed in 2010 to proactively include principles of Patient Based Care<sup>1</sup> within the Clinical Excellence Commission (CEC), ensuring a consistent approach to consumer engagement.

Consumer Advisors were recruited in September 2010 and matched by interest and relevant experience to CEC programs and projects.

Evaluation was through a case-controlled qualitative survey in November 2011. 105 participants were divided into four groups; CEC Employees (n=11), CEC Consumer Advisors (n=5), CEC Working Group Members (n=14) and CEC Event Attendees (n=75). Participants completed a questionnaire anonymously online. Participation implied consent.

### **RESULTS**

Responses indicated positive engagement with Consumer Advisors by CEC Event Attendees (n=75) and CEC Working Group Members (n=14) who 'Strongly agreed-agreed' 'patient stories reminded them of their original values and why they became a health care professional' (82%). Similarly, CEC Staff (n=11) 'Strongly agreed-agreed' that 'listening to patient stories positively influenced them to want to improve the quality of care' (90%).

Non-consumer participants (n=100) selected one or more of the following perceived roles of Consumer Advisors, demonstrating the top three perceived roles for Consumer Advisors are to: 'share patient experiences' (n=70), 'inspire quality improvement in health care' (n=76), and 'raise awareness of consumer and patient-related issues' (n=80).

Responses received by CEC Consumer Advisors (n=5) 'Strongly agree-agree' that they have 'made an impact in their role', have been 'engaged by staff' (100%), and 'engaged by working group members and other professionals' (100%).

Top three potential barriers were identified by participants (n=105) as Consumer Advisors being 'disregarded as not a health professional', 'having an axe to grind' or 'lack of clinical knowledge'.

### **CONCLUSIONS**

The need for 'partnership with consumers' in governance and care is growing, including the Australian Commission for Safety and Quality in Health Care National Safety and Quality Health Service Standards<sup>2</sup>.

CEC recognises the importance of patient engagement to drive quality improvement and the study has identified Consumers within the CEC as important team members who are valued and can contribute to quality improvement processes.

Future directions are to identify opportunities to maintain relationships between Staff and Consumer Advisors, increase engagement of Consumers in all CEC programs, and to recruit Consumers to match demand.

### **REFERENCE**

1 ACSQHC (2011), Patient-centred care: Improving quality and safety through partnerships with patients and consumers, Sydney.

2 ACSQHC (2011), National Safety and Quality Health Service Standards, Sydney.

## **TITLE: KEY DRIVERS FOR IMPROVING THE PATIENT EXPERIENCE – WHAT DO PATIENTS REALLY WANT?**

HAWKINS Cindy<sup>1</sup>

<sup>1</sup> Southern Health

### **OBJECTIVES**

To undertake a comparative analysis of patient experience data from Southern Health, Victoria and New South Wales to identify key drivers for improving the patient experience.

### **METHODS**

In January 2012 a comparative analysis of patient experience reports was undertaken. The analysis involved a review of patient experience reports at a national, state and organisational level for the period January – December 2010. Key drivers of patient satisfaction were identified from: New South Wales Health Patient Experience Survey, Victorian Patient Satisfaction Monitor (VPSM) State-Wide Annual Report and VPSM Report for Southern Health. In addition, 150 randomly selected complaints received at all Southern Health sites were reviewed. Issues were categorized into themes such as environment (e.g. noise, space, cleanliness) and staff courtesy.

### **RESULTS**

Following a review of these reports a number of key themes were identified:

- Doctors and nurses working well together and courtesy of staff were key drivers of satisfaction in the New South Wales Health and Victorian Reports
- Explanation of care, including information about treatment, medicines and discharge were key drivers for satisfaction in the Southern Health and state-wide VPSM Report
- Southern Health complaint issues relate to how staff communicate with and treat patients are were consistent with key drivers of satisfaction in the New South Wales Health and Southern Health and state-wide VPSM Reports
- Environmental issues such as quality of food, noise and hospital cleanliness performed least well in the Southern Health and state-wide VPSM report however were not identified as key drivers of satisfaction

Based on these findings two key drivers for improving the patient experience were identified. These include:

- Communication between health professionals (e.g. Drs and nurses working well together)
- Communication between health professionals and patients (e.g. keeping patients informed about their care)

As a result of this analysis an action plan and monitoring strategy has been developed and implemented.

### **CONCLUSIONS**

This analysis confirms that communication between health professionals and the patient is fundamental in improving the patient's experience of hospital care. Furthermore, it provides evidence that environmental issues such as quality of food, noise and hospital cleanliness are not as important to patients. In our endeavour to provide safe and effective patient centred care this information is invaluable.

## **TITLE: KNOW, SHARE, REVIEW AND ACTION: IMPLEMENTING STRUCTURED TEAM-BASED WARD ROUNDS**

SKINNER Matthew<sup>1</sup>, WAY Margaret<sup>1</sup>, HOILES Andrew<sup>1</sup>, SCHWARTZ Laura<sup>1</sup>, NEWNHAM Harvey<sup>1</sup>

<sup>1</sup>Alfred Health

### **INTRODUCTION**

The General Medicine Unit identified that “delays in decision making” “communication” and “lack of teamwork” were amongst barriers to achieving safe and effective care. Ward rounds were not multidisciplinary, were time consuming, poorly documented and patients and their carers were not active participants in the process.

### **OBJECTIVES**

The goal was to provide safer person-centred care by improving teamwork, optimising communication between multidisciplinary team members and actively involving patients and carers in their plan of care: Know the plan, share the plan, review the risk and action the plan.

### **METHODS**

A Structured Interdisciplinary Bedside Round (SIBR) was implemented within the TeamSTEPPS<sup>®</sup> framework. This enabled staff and patients to actively contribute to management in an efficient bedside forum. SIBR was developed by Dr Jason Stein from Emory University and TeamSTEPPS<sup>®</sup> was developed by the US Department of Defense Patient Safety Program in collaboration with the Agency for Healthcare Research and Quality (AHRQ).

The TeamSTEPPS<sup>®</sup> intervention was coordinated by a local steering group. SIBR was supported by a medical lead, a nursing ward rounds manager, “5 golden rules” and a structured documentation tool. Evaluation used both quantitative (audits) and qualitative (validated surveys and observation) approaches to assess the impacts of TeamSTEPPS<sup>®</sup> and SIBR in 3 areas: Teamwork, communication and risk reduction.

### **RESULTS**

A total of 212 staff have been trained in teams over a 12 month period. Observational audits have identified improvements in team structure, leadership, situation monitoring, mutual support and communication. Medical record audits have identified improved documentation of Medical Unit (by 40%) and date (by 12%) and time (by 70%) of the ward round. Documentation of team members presented has improved from 10% to over 50%. The use of the structured format has meant it is clearer and easier to find. Documentation of working diagnosis and issues have both improved by over 60%. The risk based checklist has increased documentation of DVT prophylaxis from 33% to over 70%, with similar results for the presence of a consensus resuscitation plan. A video has been produced and included in the TeamSTEPPS<sup>®</sup> training to standardise and embed the process.

### **CONCLUSIONS**

TeamSTEPPS<sup>®</sup> provides an important foundation for introducing multidisciplinary approaches to care, including structured ward rounds. SIBR is an effective method for demonstrating to patients that there is a well organised and coordinated team approach to their care. It provides opportunities for patients, relatives and staff to communicate briefly but concisely at a predetermined time at the bedside. It ensures that important quality and safety concerns are regularly considered and reviewed. Know the plan, share the plan, review the risk and action the plan.

## **TITLE: IMPROVING PATIENT SAFETY VIA CONSUMER AND COMMUNITY ENGAGEMENT: A SYSTEMATIC META-REVIEW**

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### **OBJECTIVES**

We examined the availability and quality of evidence for the role of consumers and community engagement in enhancing and promoting patient safety.

### **METHODS**

We undertook an extensive systematic search of the PubMed, Embase, EBM reviews, CINAHL, APA PsycNET, and Scopus databases. A comprehensive list of phrases and MeSH terms was used to search for the most recent systematic reviews on the role of consumers and community engagement.

### **RESULTS**

According to the systematic reviews included in this meta-review, there is inadequacy of high quality evidence for patients' involvement in creating safety outcomes. Multiple authors report finding only limited, poor quality evidence [1]. Nevertheless, it has been proposed that patients could observe errors in the administration of drugs and so could assist in error prevention. Training, supporting and encouraging patients to be 'cautious partners' seems feasible [2]. Patients often have a positive attitude to be involved in their own safety; however, their intentions and behaviours could vary [3].

### **CONCLUSIONS**

Our meta-review has mapped out and identified current perspectives on the role of consumers and community engagement in patient safety. Although there is strong support for consumers being engaged in health care decision-making and their care, there is limited evidence about how to do this and what gains can be made, and there are many important gaps in our knowledge. Future research should not only focus on providing high-quality evidence in the efficacy of engagement methods in increasing safety, but also on the development of relevant measurement tools and evaluation methods.

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2. Schwappach DLB, Wernli M: Medication errors in chemotherapy: incidence, types and involvement of patients in prevention. A review of the literature. *Eur J Cancer Care (Engl)* 2010, 19(3):285-292.
3. Schwappach DLB: Engaging patients as vigilant partners in safety: A systematic review. *Medical Care Research and Review* 2010, 67 (2):119-148.

## **TITLE: “I THOUGHT I WOULD DIE FROM IT” PRESSURE ULCERS: THE IMPACT ON PATIENTS’ LIVES**

KILLMIER Col<sup>1</sup>, SOMMERVILLE Catherine<sup>1</sup>, WATSON Wendy<sup>1</sup>

<sup>1</sup> Western Health

### **OBJECTIVES**

The toolkit provides a comprehensive communication package for staff to support an organisational wide campaign to achieve behavioural change in relation to the prevention of hospital acquired pressure ulcers.

### **METHODS**

Digital storytelling is used to explore the experience and impact on the quality of life of two patients and their family/carers after the patients sustained grade four hospital acquired pressure ulcers. The Digital Versatile Disk (DVD) is the centrepiece of the package to support broader training and Grand Round style presentations. The package includes promotional materials, images of staff taking pressure ulcer prevention measures, evaluation forms and key message items such as badges and pens.

The toolkit includes an open ended questionnaire pre / post the educational sessions, with follow-up and reflection (staff perceptions of the DVD) at 3 and 12 months, using qualitative and quantitative data to measure impact.

### **RESULTS**

Interim results show 90% of attendees completed the evaluation questionnaires with 25-33% of staff changing their response post DVD, indicating it was a multidisciplinary responsibility to be assessing the patient’s skin integrity. A high proportion indicated increased vigilance around skin assessment, focussing on bedside handover and increased sensitivity to patients’ reports of pain.

Staff comments were overwhelmingly positive, with words such as: excellent, powerful, moving, confronting, fantastic and thought provoking. The DVD also generates discussion of issues involved in preventing pressure ulcers and leads to further resolution of potential barriers. The DVD’s greatest value is seen to be in the triggering of behavioural change as a result of the powerful and poignant stories it presents.

### **CONCLUSIONS**

The toolkit demonstrates the power of involving patients in storytelling in a non blaming way and the impact it has had across the organisation in relation to pressure ulcers and raising multidisciplinary awareness of preventative strategies.

The DVD is used for all new staff at orientation sessions and other audiences. Its success is measured as part of an ongoing multi-faceted strategy to reduce pressure ulcers.

Additional measures have also been taken as a direct result of the impact of the DVD, for example hospital patients discharged after acquiring severe pressure ulcers have an alert placed on their medical records and are issued with an “at risk” card identifying specific strategies required, when triaged in the ED.

### **REFERENCE**

Australian Wound Management Association Inc, Pan Pacific Clinical Practice Guideline for the Prevention and Management of Pressure Injury. 2012, <http://www.awma.com.au>

<http://www.cec.health.nsw.gov.au/programs/between-the-flags>>

## **TITLE: MEASURING ATTENDANT CARE PERFORMANCE AND OUTCOMES**

THORNER Mike<sup>1</sup>, BENNETT Craig<sup>2</sup>

<sup>1</sup> Health Audit NZ Ltd

<sup>2</sup> Attendant Care Industry Association

### **OBJECTIVES**

The project purpose was to establish accurate and precise measurements of attendant care service provider performance that lead to improved outcomes for service users.

### **METHODS**

The project was implemented jointly by the Australian Attendant Care Industry Association (ACIA) with auditing agency Health Audit New Zealand (HANZ). Since 2007 the project involved developing quality focused standards specifically for attendant care provision. The standards were to be structured as a basis for developing management systems built on lean thinking i ii . HANZ supplied input from the perspective of an auditing agency seeking robust standards that avoid the pitfalls experienced in other sectors such as rest home care iii. The standard establishes a platform for continuous improvement by provider organizations iv. The Attendant Care Industry Management System Standard (ACIMSS) was published in 2008 v . The auditing methodology included determination of the scope of attendant care services delivered by each provider organization. Since 2011, the accumulated audit findings have been analyzed by ACIA and conclusions drawn about strengths and gaps in the quality of Australian attendant care services.

### **RESULTS**

The ACIMSS structure consists of outcomes for service user rights and responsibilities, organizational management, service delivery and environment. The structure recognizes the importance of clearly defining the exact scope of attendant care services delivered by individual providers. Analysis of the data indicates governance is not fully appreciated and understood by some providers. There is a need for rigorous assessment of a service user's current needs, immediately prior to commencing service delivery and thereafter. The ACIMSS tool must take into account subcontracting arrangements. Funder requirements could be covered through a "one stop" audit and certification process.

### **CONCLUSIONS**

Publication of the ACIMSS has established quality standards for attendant care service provision. The project demonstrated the importance of accurately and precisely defining the scope of an individual provider's attendant care services prior to commencing the audit process. ACIMSS will require a focus on governance, care planning and subcontracting arrangements. ACIMSS can readily incorporate funder contractual requirements and can reduce compliance costs.

### **REFERENCE**

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iv Raheja, D, "Safer Hospital Care – Strategies for Continuous Innovation", CRC Press (2011).

v Attendant Care Industry Association, "Attendant Care Industry Management System Standard", [www.acia.net.au](http://www.acia.net.au) (2008).

## **TITLE: STATEWIDE STANDARDISATION OF RURAL AND REMOTE EMERGENCY SERVICES**

McCORMACK Peter<sup>1</sup>

<sup>1</sup>Office of Rural and Remote Health, Queensland Health

### **OBJECTIVES**

The project aims to improve the patient journey through rural and remote emergency services using standardisation as the methodology to reduce clinical risk and improve quality of care, patient safety and outcomes of emergency treatment.

### **METHODS**

The project proceeded through steps including: approval; sourcing funding; appointment of a clinical expert Project Officer and stakeholder reference group; review of a previous similar project; survey of target facilities; standardisation design; updating target facilities about project progress; provision of expensive equipment items; documentation and roll out of clinical guidelines.

### **RESULTS**

The results of the project implemented in 130 rural and remote facilities have included ready acceptance by front line clinicians and an easily audited quality and patient safety initiative. The practical outcomes include standardisation of: cardiac monitors/defibrillators; emergency/resuscitation trolleys (model, contents and layout); procedural kits; procedural information for advanced life support; point of care testing capacity; transport ventilators (where implemented).

### **CONCLUSIONS**

- The standardisation guidelines have only recently been rolled out but it has become obvious that it is eagerly supported by front-line clinicians.
- Engagement of frontline clinicians and their ownership of the design of the standardisation are vital to the success of the outcomes.
- The standardisation will assist regular staff and medical and nursing locums/relievers undertaking placements in rural and remote facilities by providing a standardised emergency treatment environment, familiar equipment, familiar and readily accessible procedural kits and a reduced requirement for orientation to emergency areas.
- It is possible that not all recommended procedural kits are required by all facilities, dependent on a number of factors such as other available support services, accessibility and modes of patient transport and the transport time to a facility capable of providing more advanced clinical care.
- Financial and information support for facilities to acquire equipment are vital aspects of establishing the standardisation.
- The objective of standardising salient features of rural and remote emergency services that will improve quality, safety and patient outcomes will only realise its full potential if all individual facilities implement the Rural and Remote Emergency Services Standardisation Guidelines.
- Any failure to implement or maintain the standardisation in target facilities will seriously dilute the effectiveness and the gains in quality, safety and improved outcomes.
- The standardisation needs to be regularly audited at individual facility level to ensure that both the emergency equipment is checked regularly and that the checks confirm that the standardisation is maintained.

### **REFERENCE**

N/A

**TITLE: IMPLEMENTATION OF A LARGE SCALE TEAMWORK AND COMMUNICATION SYSTEM 'TEAMSTEPS' – LIGHTS, CAMERA, ACTION!**

WOOD Matthew

The Lyell McEwin Hospital South Australia

**OBJECTIVES**

A short film to share staff and patient experiences with TeamSTEPS® in the Lyell McEwin Hospital.

**METHODS**

In 2010 the Lyell McEwin Hospital (LMH) commenced the implementation of TeamSTEPS®. TeamSTEPS® is an effective, evidence-based program to improve teamwork, communication and patient safety. Since the implementation of the program 63 staff have completed the 2.5 day TeamSTEPS® train the trainer workshop and subsequently trained approximately 400 staff in-house.

A short film was produced to learn from teams about their experiences of the implementation of TeamSTEPS® in their units so they could be shared across the Northern Adelaide Local Health Network (NALHN).

**RESULTS**

The film highlights teams use of several TeamSTEPS® tools of briefs, huddles, debriefs, ISBAR & Situational Awareness in diverse areas of ICU, Cardiology, Theatres, Medical and Surgical Wards. The film also includes an interview with a member of the Consumer Advisory Council and her personal experiences in the hospital.

**CONCLUSIONS**

The film assists in TeamSTEPS® training, orientation, in-services, trainer workshop and online to share with the community the hospitals commitment to safety and quality.

## **TITLE: ELECTRONIC DISCHARGE SUMMARY SELF EVALUATION TOOLKIT**

McFADDEN Siobhan<sup>1</sup>, BOARD Neville<sup>1</sup>, ALLEN Suellen<sup>1</sup>

<sup>1</sup> Australian Commission on Safety and Quality in Health Care

### **OBJECTIVES**

To reduce the risk associated with patient transfer, and support sites planning for and implementing Electronic Discharge Summary (EDS) systems through the development of a Self Evaluation Toolkit. This presentation introduces the EDS Toolkit and the essential elements of an EDS implementation.

### **METHODS**

The Australian Commission on Safety and Quality in Health Care (ACSQHC) and the National E-Health Transition Authority (NEHTA) undertook a safety and quality evaluation of electronic discharge summary (EDS) systems. EDS systems at two sites were the focus of the evaluation, with the learnings from implementation also considered from a third group. The evaluation also reviewed the recent research on EDS systems and, where available, incorporated 'lessons learned' from other Australian health services<sup>1</sup> that have implemented EDS systems. The evaluation produced two key documents: a Final Report<sup>1</sup> and the EDS Self-Evaluation Toolkit (the Toolkit)<sup>2</sup>. Development of the Toolkit was also informed by a scan of international literature<sup>3</sup> and extensive stakeholder consultation.

The ACSQHC then engaged hospitals in an additional study of uptake and refinement of the Toolkit, comprising 11 site visits and a national workshop.

### **RESULTS**

The second edition of the Toolkit provides guidance on the activities required for safe and effective EDS implementation, with an enhanced focus on the planning, self evaluation tools and benefits realisation.

### **CONCLUSIONS**

Implementing an EDS within a hospital is a major transformational project with major effects on clinical service delivery and hospital work flows. The Toolkit is intended to be a useful resource for sites implementing EDS, as well as those that have already implemented an EDS in order to:

- Provide implementing health services a consistent approach and appropriate tools to facilitate local evaluation of the safety and quality impacts of implementing an EDS system.
- Provide health services with pre-implementation planning guidance based on the lessons learned from other Australian health services that have recently implemented an EDS system.

### **REFERENCES**

1 ACSQHC, Safety and Quality Evaluation of Electronic Discharge Summary Systems Final Report (August 2011)

2 ACSQHC, Electronic Discharge Summary Systems: Self Evaluation Toolkit (September 2011)

3 ACSQHC, Electronic Discharge Summary Systems Literature Scan (July 2010)

**TITLE: THE NEVER NEVER (EVENTS) LAND**HIBBERT Peter<sup>1</sup><sup>1</sup>Australian Institute of Health Innovation, University of New South Wales, Sydney, NSW.**OBJECTIVES**

To outline key national policies in England that use financial levers to reduce patient harm.

**METHODS**

A “Never Event” is defined as a serious, largely preventable patient safety incident that should not occur if the available preventative measures have been implemented by healthcare providers<sup>1</sup>. In 2007, publicly funded agencies (Medicare and Medicaid) in the United States introduced the policy of not paying for additional costs associated with Never Events<sup>2</sup>. The National Patient Safety Agency in England introduced their own version in 2009 as part of a broad national quality strategy (High Quality Care for All)<sup>3</sup>. The policy was designed to provide impetus to increase patient safety through greater transparency and accountability and to inform new ways in which local funding models can act as a lever for quality<sup>1</sup>.

England initially opted for an approach based on investigation and action by the Trust involved and soft regulation and support by funders. Eight categories of adverse events were initially included. These were based on explicit criteria – they had the potential to seriously harm patients, are preventable, there is widely distributed national guidance, and they are measurable. In 2011, 17 categories were added, and the policy changed such that funders could recover the cost of the procedure or treatment related to Never Events and notification became a statutory requirement<sup>4</sup>.

**RESULTS**

In 2009 and 2010, 56 and 85 Never Events were reported with over 90% being either wrong site surgery or misplaced naso/orogastric tubes. Key policy developmental issues were the doseresponse of financial (dis)incentives, impact on reporting culture within Trusts, public disclosure of outcomes data, how organisational incentives affect clinical behaviour, and whether focussing on low-frequency events distracts from broader quality goals.

**CONCLUSIONS**

Never Events policies continue to evolve. The nature of relationships between funders and Trusts is a key to balancing the imposed penalties on Trusts with driving desirable organisational and clinical behaviours.

**REFERENCE**

1. National Patient Safety Agency. Never Events Framework 2009/10. Process and action for Primary Care Trusts 2009/10.(2009)
2. Agency for Health Research and Quality. Patient Safety Primers: Never Events. (2012) <http://psnet.ahrq.gov/primer.aspx?primerID=3>
3. Department of Health. High Quality Care for All. NHS Next Stage Review Final Report. (2008)
4. Department of Health. The “never events” list 2011/12. Policy framework for use in the NHS (2010)

## **TITLE: INNOVATION AND QUALITY MEDICAL OFFICER - A SOLUTION FOR ENGAGING JUNIOR DOCTORS IN QUALITY IMPROVEMENT**

HAWKINS Cindy<sup>1</sup>, CAIRNEY Helena<sup>1</sup>, FINNIGAN Monica<sup>2</sup>, MOULDEN Annie<sup>3</sup>, WALKER Carmen<sup>4</sup>

<sup>1</sup>Southern Health

<sup>2</sup>Southern Health

<sup>3</sup>Southern Health

<sup>4</sup>Southern Health

<sup>5</sup>Southern Health

### **OBJECTIVES**

Introduce a junior doctor rotation into the Innovation and Quality Unit to: assist with medical engagement in improvement projects, provide rapid skills acquisition in project management for junior doctors and provide a 'voice' for junior doctors across the organisation.

### **METHODS**

Southern Health has implemented a program which provides a unique opportunity for junior doctors to link into system level design and quality. The Innovation and Quality Medical Officer (IQMO) works in conjunction with the Quality Unit and Innovation Team at Southern Health.

### **RESULTS**

Over the past 12 months the Innovation & Quality Medical Officer has:

- Conducted in depth retrospective incident reviews and presented several cases to the organisational Clinical Review Panel
- Conducted monthly clinical reviews of hospital-acquired VTE cases, refining the data in terms of preventable and non-preventable incidents
- Implemented multidisciplinary medication error feedback meetings between junior doctors and pharmacists, assessing their usefulness and collating real-time data on prescribing errors. As a result the number of prescribing errors in participating wards have significantly reduced
- Conducted a comprehensive review of inpatient falls utilising lean methodology. As a result the expectations for junior doctors around falls and now clearly documented and a concise summary is provided on a lanyard card for easy access
- Conducted a project addressing the longstanding issues of computer speed and access as well as associated workplace inefficiency and unrostered overtime for junior doctors
- Engaged junior doctors in redesign and quality improvement by allowing them the opportunity to consult on current projects as well as updates on the outcomes of completed projects

Benefits have been evident for both the individual and the organisation. Individuals have been exposed to organisational processes and key committees whilst learning about clinical governance processes and redesign methodology. This has provided a voice for junior doctors across the organisation, an avenue for inter-professional collaboration and an opportunity to build resilience for organisation change within the junior doctor cohort.

### **CONCLUSIONS**

The opportunity to get doctors involved in innovation and quality has been invaluable. As a result the program has been extended and discussions have commenced regarding potential to expand this opportunity to the nursing and allied health disciplines.

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**TITLE: STRATEGIES FOR IMPROVING PATIENT SAFETY CULTURE IN HOSPITALS:  
A SYSTEMATIC REVIEW**

MORELLO Renata<sup>1</sup>, LOWTHIAN Judy<sup>1</sup>, BARKER Anna<sup>1</sup>, MCGINNES Rosemary<sup>1</sup>, DUNT David<sup>2</sup>, BRAND Caroline<sup>1</sup>

<sup>1</sup> Centre of Research Excellence in Patient Safety, Department of Epidemiology and Preventive Medicine, Monash University, Victoria, Australia

<sup>2</sup> Centre for Health Policy, Programs and Economics, Melbourne School of Population Health, The University of Melbourne, Victoria, Australia

**OBJECTIVES**

To critically assess the evidence for the effectiveness of patient safety culture strategies for improving patient safety climate in hospitals, to support decisionmaking by organisations and funding providers.

**METHODS**

An electronic search was conducted of the Cochrane Library, OVID Medline, Embase, CINAHL, proQuest and psychinfo databases; with manual searches of relevant quality and safety websites, bibliographies of included articles and key journals.

Study selection: English language studies published between January 1996 and April 2011 that measured the effectiveness of patient safety culture strategies using a quantitative measure of patient safety climate in a hospital setting. Studies included were randomised controlled trials (RCTs), non RCTs, controlled before and after studies, interrupted time series and historically controlled studies.

Data extraction: Data extraction and critical appraisal were conducted by two independent reviewers. Study design, intervention, level of application, setting, study participants, safety climate outcome measures and implementation learnings were extracted from each article. Data were reviewed looking for common themes and presented in a narrative format.

**RESULTS**

Over 2000 articles were screened, with 21 studies meeting the inclusion criteria; one cluster RCT, seven controlled before and after studies, and 13 historically controlled studies. A meta-analysis was not possible due to insufficient homogeneity of studies (populations, interventions, patient safety climate measurement tools used and follow up periods). Included studies tested a variety of strategies that targeted a diverse range of issues including leadership, accountability, communication and teamwork, identification of safety concerns, reporting of near misses, and reliability. All studies had a number methodological limitation including non-equivalent contemporary control groups, risks of selection bias, small sample sizes, limited follow-up response rates, short observational periods, use of post hoc statistical analysis for examination of effect. There was some evidence to support that leadership walk rounds ( $P=0.02$ ) and multifaceted unit-based programs ( $P<0.05$ ) may have a positive impact on patient safety climate. Many of the remaining patient safety culture strategies were supported by a small number of studies with limited or conflicting results.

**CONCLUSIONS**

Despite strong face validity for a variety of patient safety culture strategies, there is limited evidence to support definitive impacts on patient safety climate outcomes. Research efforts should focus on strengthening the evidence around the effectiveness of strategies to change patient safety culture. Organisations are advised to consider robust evaluation designs when implementing these potentially resource intensive strategies.

**TITLE: IMPLEMENTING AN EMR – EARLY INVESTMENT RETURNS**

JAMIESON Lyn<sup>1</sup>, PARGETTER Karla<sup>2</sup>

<sup>1</sup>Peninsula Health - Victoria

<sup>2</sup>Peninsula Health - Victoria

**OBJECTIVES**

Improving efficiency, increasing quality and improving patient safety and outcomes through the Implementation of an Electronic Medical Record (EMR) System.

**METHODS**

Peninsula Health, as a selected lead agency for the Victorian Government's State Build Clinical System, has implemented a new Clinical System to support the creation of the EMR in the Victorian Public Health Sector. The implementation has taken place over the last 2 years and has covered the majority of the health service including, Emergency Department, Inpatient Wards (Acute, Critical Care, Sub Acute, Maternity, Paediatrics and Mental Health), Outpatients Department and Community Based Services. The implementation included the roll out of the following electronic workflows;

- Ordering of Pathology, Radiology, Medication and Patient Care Orders
- Results Review and Acknowledgement (Endorsing)
- Clinical Decision Support at Point of Care
- Alert Management and Allergy Data Capture
- Recording of Inpatient Medication Administration
- Fluid Balance Chart
- Medication Reconciliation
- Pharmacy Verification
- Discharge Prescriptions
- Discharge Summaries

**RESULTS**

The first steps towards achieving an EMR have been realised, benefits to date are:

- Move towards a single source of truth for clinical data
- Clinical information readily available throughout the Health Service
- Centralised Alerts Management System
- Enhanced decision-making support eg. Class allergy checking rather than previous individual allergy checking
- Safety and efficiency enhancements eg. Orders legible, complete and provider/prescriber ID clearly identified
- Stream lined pathology and radiology ordering processes, reducing clarification time
- New consent process for consumers input into their treatment planning
- New Patient ID wristbands and ID barcoding for positive patient identification
- New standardised handover reports, used universally across multiple disciplines
- Agreed endorsing results process
- VTE Assessments and recommendations – a standardised approach to prophylaxis treatment based on Health Service Protocols.

**CONCLUSIONS**

Evidence directly linking the implementation of an EMR system and a reduction of preventable inpatient adverse events is still pending, but there is a growing recognition of the critical role an EMR system will play in clinical transformation(1)

Current literature provides evidence that an EMR system will be pivotal in enabling the efficient collection of meaningful, accurate and complete data that supports active clinical decision support and the development and implementation of clinical pathways(1)

After reviewing preliminary results, Peninsula Health has already started to see the emerging benefits from the EMR system implementation and a return on its investment for improved quality and patient safety outcomes. It is believed this trend will continue and the organisation will realise the anticipated benefits/objectives for both patient and health service.

**REFERENCE**

Department of Health Victoria. Electronic Medical Record Benefits - A Literature Review. In: Office of the Chief Information Officer, editor. Victoria: Department of Health Victoria; 2012.

**TITLE: ACCREDITATION PROGRAMS AS AN INVESTMENT IN QUALITY: EXAMINING KEY ISSUES**

MUMFORD Virginia, GREENFIELD David, BRAITHWAITE Jeffrey

Centre for Clinical Governance Research, Australian Institute of Health Innovation, Faculty of Medicine, University of New South Wales

**OBJECTIVES**

To conduct a stakeholder analysis of the return-on-investment for an accreditation program.

**METHODS**

The study took as an example the General Practice accreditation program in Australia. Three methods were employed. First, we conducted an investigation of the healthcare accreditation research literature for studies addressing economic issues. Second, we analysed documents from the following bodies: the main funder - The Australian Government; the general practice accreditation standard setting agency - The Royal Australian College of General Practitioners (RACGP); and, one of the two RACGP approved accreditation agencies - Australian General Practice Accreditation Limited (AGPAL). Third, we applied the social-return-on-investment [2] framework to stakeholders associated with the general practice accreditation program.

**RESULTS**

The literature review did not uncover any economic evaluation of general practice accreditation. Key program stakeholders were identified as: the government; RACGP; accreditation agencies, including AGPAL; general practices; and consumers. The main investment comes from: the development of standards; survey fees; and the general practice input, such as staff time and education, into preparing for and undergoing the survey; and ongoing development of the standards[1]. One report, from the Australian Productivity Commission [3] indicated that accreditation was approximately 5% of total practice costs. The 2009 AGPAL annual report [4] shows fee and service income of AUD\$5.61 million but accreditation figures were not shown separately and so could not be identified. Similarly, the specific return on investment was difficult to identify and more challenging to assess. Stakeholders such as Government, RACGP and general practices benefit from perceived improvement in accountability and professionalism implied by accreditation. Accredited practices are eligible for Practice Incentive Payments (PIPs) but only receive these after meeting other safety and quality goals. While PIPs create incentives, the benefits are only indirectly related to accreditation.

**CONCLUSIONS**

The study demonstrates the challenges of reconciling the return-on-investment for an accreditation program without clarifying the expected benefits and assessment of alternatives. Consumers are a critical stakeholder in determining the impact accreditation and further work using econometric assessment techniques, such as willingness to pay, could help answer this important issue.

**REFERENCES**

- 1 The Royal Australian College of General Practitioners. Standards for general practices (4th edition). 2010.
- 2 The SROI Network. A Guide to Social Return on Investment. 2012.
- 3 Productivity Commission. General Practice Administrative and Compliance Costs - Research Report, 2003.
- 4 AGPAL/QIP. Annual Report - Quality in Practice Pty Ltd, Australian General Practice Accreditation Ltd. 2009.

## **TITLE: CHANGE FOR THE BETTER: INTRODUCTION OF A CLINICAL DETERIORATION FRAMEWORK**

DORIC Andrea<sup>1</sup>, CHARLESWORTH David<sup>1</sup>

<sup>1</sup> Eastern Health

### **OBJECTIVES**

To improve the detection, recognition and response to the deteriorating patient across Eastern Health, a clinical deterioration framework was developed and implemented.

### **BACKGROUND**

Signs of clinical deterioration often precede cardiac arrest, unplanned admission to the intensive care unit and unexpected death. Early intervention in response to signs of deterioration has been shown to reduce morbidity and mortality. The “National Consensus Statement: essential elements for recognising and responding to clinical deterioration” acknowledged as the national approach, formed the basis of the framework.

### **METHODS**

An expert advisory committee was formed in April 2011 to set the standards, develop and implement the framework. A current state analysis was undertaken and meetings held with stakeholders. A comparison of sites revealed different rapid response systems with different response criteria, responders and resources.

A point prevalence study was conducted examining patients’ observation charts in one 24 hour period, focusing upon the incidence of missed Medical Emergency Team (MET) calling criteria. This study revealed a percentage of patients with missed MET criteria of 16.7% at Box Hill, 14.6% at Maroondah and 2.7% at Angliss.

Observation charts were developed for specific areas including paediatrics, obstetrics and neurology to complement the adult national observation and response chart which was also implemented. Escalation of care processes and resuscitation planning were standardised across the network, together with resuscitation equipment and processes. A standardised database was implemented to enable monitoring and evaluation of the rapid response system, planning and benchmarking.

### **RESULTS**

The introduction of a clinical deterioration framework is contributing to improved detection, recognition and response to the deteriorating patient. A trend to improved survival is also emerging. Positive feedback has been received from nursing, medical and allied health staff together with patients and their family members.

### **CONCLUSIONS**

To date the clinical deterioration framework has been successfully implemented and embraced across Eastern Health acute sites. Patients are the main beneficiaries from this change so this is indeed a change for the better!

### **REFERENCES**

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## **TITLE: TELEHEALTH CLINICAL GOVERNANCE WITHIN AUSTRALIAN HEALTH SYSTEM REFORM**

WALLACE Cheryl<sup>1</sup>

<sup>1</sup>National Health Call Centre Network (NHCCN)

### **OBJECTIVES**

This paper will establish the importance of robust telehealth clinical governance for safe, effective and appropriate patient centred care within an evolving healthcare setting.

### **METHODS**

Across Australia, Registered Nurses provide 24 hour a day, seven days a week assessment via telephone triage, including health education resources and provider referrals.

The health reform agenda aims for improved health outcomes and health access for all Australians regardless of their geographic location. The NHCCN through Healthdirect and the Afterhours GP Helpline strives to advise all Australians on the appropriate care they need for their particular health issue when they need it and where they need it.

Telehealth challenges traditional care delivery models. For example, telehealth does not have visual triggers and needs to develop telephone empathy to quickly establish a therapeutic relationship with the patient.

As such, Governance structures need to be responsive to this component of health reform and the changing health environment.

### **RESULTS**

Information and Data to be presented:

- Nurse triage Call volumes, demographics and call types
- Nurse Triage Call outcomes/dispositions
- The Afterhours GP Helpline impact
- Caller satisfaction and feedback
- The Clinical Governance Domains and Framework

### **CONCLUSIONS**

This paper will provide an overview of telehealth services and the clinical governance structures within this evolving healthcare arena.

The Australian community has responded positively to telehealth with an average 75,000 calls per month.

Sound clinical governance and leadership is essential to ensure best practice is delivered to sustain the quality domains of access and equity, safety, clinical appropriateness and effectiveness for all Australians in a reform environment.

# Posters

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## **TITLE: CHANGING CULTURE IN THE BIRTH ROOM TO IMPROVE PATIENT SAFETY**

WILKINSON Gail<sup>1</sup>

<sup>1</sup>Southern Health, Victoria

### **OBJECTIVES**

To prevent patient harm through unintentional retention of vaginal packs following birth.

### **METHODS**

Electronic incident reporting identified a sentinel event when a vaginal pack was retained following a perineal repair after birth. A root cause analysis (RCA) identified causative factors and recommendations were implemented.

A further three cases were reported in the next 12 months and an aggregate review was conducted. Implementation of the recommendations from the RCA had been partially implemented and further system gaps were identified. Patient safety recommendations were developed with a more rigorous monitoring process.

The continuous quality improvement activity then developed into an action research project as system improvements were made, evaluated, a further incident occurred and the cycle was repeated.

### **RESULTS**

Investigation identified a culture that supported a normal birthing environment rather than vigilance to ensure that a needle and pack count was conducted, similar to an operating theatre. Documentation of the pack count was inconsistently recorded one of three separate medical record forms with a high likelihood of inadequate or absent documentation.

Several recommendations were implemented, including development of an Operative procedure birth record, supply standards for vaginal packs, and revision of the education package and competency to reflect the practice change.

Additional factors identified were inconsistent communication and handover between medical staff when called away, and lack of accountability and established roles in the birth room to ensure the count was conducted.

The evolving practice change was underpinned by documentation audit that identified additional system deficiencies.

### **CONCLUSIONS**

This was a continuous quality improvement activity that developed into an action research project. What was initially envisaged as a straight forward compliance issue was to unfold into a project with multiple layers of complexity.

Key learning established that communication across a multi-site, multidisciplinary workforce must be consistent, sustained and encompass a multi pronged approach. A process of documentation audit, clinical review and education is essential to underpin and ensure sustained practice change.

### **REFERENCE**

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Reason J. 1999 Human Error. Cambridge University Press.

## **TITLE: ESTABLISHING A QUALITY, SAFETY AND RISK REPORTING FRAMEWORK WITHIN A CLINICAL SERVICE UNIT AT AUSTIN HEALTH**

PIERCE Dianne<sup>1</sup>, GOODYEAR Cameron<sup>2</sup>

<sup>1</sup> Austin Health

<sup>2</sup> Austin Health

### **OBJECTIVES**

To establish a clinical service unit (CSU) quality, safety and risk reporting framework which aligns with Austin Health quality, safety and risk reporting structure and supports robust clinical governance in accordance with the Victorian Clinical Governance Policy.

### **METHODS**

The Medical and Emergency CSU comprises; the Emergency and Nephrology departments and several smaller units.

Commencing 2010 the CSU had a fragmented quality, safety and risk reporting structure, Emergency and Nephrology having local area meetings. Remaining units had no reporting structure and the CSU had no overarching quality, safety and risk governance.

Initially the CSU organisational structure was defined, combining units other than Emergency and Nephrology into Specialist Medical Units.

Heading a two tiered quality, safety and risk reporting framework, the CSU Executive Safety Quality and Risk Committee was established. The Specialist Medical Units Quality Safety and Risk Committee was established, reporting to the executive committee along with the Emergency, Nephrology and Occupational Health and Safety committees.

Local area quality committee management and medical leads, form the membership of the CSU executive committee which reports to Austin Health executive levels.

### **RESULTS**

The most significant barriers to implementing the CSU quality, safety and risk reporting framework were:

- Cultures within existing committees
- Uniting various clinical units as Specialist Medical Units

The framework's biggest strength has been the positive engagement of medical staff, resulting in medical staff requesting to attend the executive meeting.

Overall average quality committee attendance is above 70%.

Agenda items and terms of reference at local meetings are mirrored at the executive level.

A 2012 survey of all quality committee members had a 46% compliance rate, at least 75% of respondents viewing committee functions positively. Questions on credentialing and consumer engagement drew mixed reactions.

### **CONCLUSIONS**

The Medical and Emergency CSU will seek to continue to build and strengthen the current positive quality safety and risk reporting structure by:

- Strengthening key performance indicators
- Strengthen links between the hospital wide and local CSU committees
- Repeating the quality committee survey annually
- Improving unity between the Specialist Medical Units

### **REFERENCES**

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## **TITLE: ISBAR FOR IMPROVING THE GOVERNANCE OF THE CLINICAL REVIEW PROCESS**

KATTULA Andrea<sup>1</sup>, WAY Margaret<sup>1</sup>, LARWILL Sarah<sup>1</sup>, BROWN Jacqui<sup>1</sup>

<sup>1</sup>Alfred Health

### **OBJECTIVES**

To provide a structured methodology for managing the clinical incident review process

### **METHODS**

Following the successful application of the iSBAR format to structured clinical handover in a variety of situations, the same principles were applied to improve the governance processes surrounding the clinical review of a serious clinical incident. A tracking tool was developed that identified the key tollgates in the successful investigation of a clinical incident. These tollgates included appropriate notification and authorisation for the review, participation of key stakeholders, completion of documentation, use of an agreed set of analytical tools and techniques, reporting and presentation of results and recommendations and evaluation of outcomes. At each tollgate, an ISBAR format was used to communicate the current issues and status of the review.

### **RESULTS**

The iSBAR Clinical Review process has been implemented for all serious incident review. Evaluation has identified improved documentation of notifications and outcomes. In addition, a more comprehensive suite of tools have been used to undertake the analysis, resulting in clearer and more actionable recommendations. A survey of participants in the process has indicated greater clarity about roles and responsibilities in the clinical review process.

### **CONCLUSIONS**

The iSBAR format provides an easily recognisable and implementable format for structured communication and handover in both clinical and nonclinical situations. The increased use of ISBAR in health has facilitated a strong awareness and use of the principles of structured communication.

## TITLE: ISBAR (VITALSS) - CREATING PATIENT SAFETY THROUGH IMPROVED NURSING HANDOVER

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### BACKGROUND

Communication errors occurring during nursing shift-to-shift handovers threaten patient safety. Implementing a structured handover process reduces communication errors between nursing shifts. To improve clinical handover the ISBAR(VITALSS) clinical handover process was introduced at Austin Health.

### AIM

This study sought to evaluate the implementation of ISBAR(VITALSS) as the nursing shift-to-shift handover process.

### METHOD

On one acute ward at Austin Hospital, the ISBAR(VITALSS) nursing handover process was introduced over a two-month period. The introduction of ISBAR(VITALSS) was led by a project team that used educational material and training sessions for nursing staff based on the Australian Commission for Safety and Quality in Health Care (ACSQHC) guidelines. A pre and post implementation audit of ISBAR(VITALSS) using a 'care plan' and 'medical chart' audit and staff satisfaction survey was performed.

### RESULTS

Pre-implementation revealed a low rate of accuracy and completion of patient care plans and a high percentage of missed medication doses. In the post-implementation period the accuracy and completion of patient care plans was almost 100% and there was a 27% reduction in missed medication doses. Staff survey findings revealed that the process of the handover had improved dramatically since the introduction of the ISBAR(VITALSS) process and was now the preferred method of nursing handover.

Audit		Pre ISBAR/VITALSS (Sep - Nov 2011)	Post ISBAR/VITALSS (Feb 2012)
Care Plan Audit (n=32)	Patient has a current care plan in place	6%	100%
	Care plan complete for all areas of day to day nursing care	6.25%	100%
	Relevant risks identified i.e. pressure areas, aggression etc.	0%	90%
Medication Chart Audit (n=30)	Missed Doses	70%	43%

Audit		Old Handover	ISBAR/VITALSS
Staff Satisfaction Survey (n=18)	Process that gives the most relevant information about the patients in my care	16.7%	88.9%
	Preferred nursing shift to shift handover process	11.1%	94.4%
	Comments made by staff	“took too long” “too much irrelevant information” “double up info” “not specific enough”	“Charts are being slighted by both nurses so things aren't being missed.” “Patients seem happier that they can hear the relevant information being passed onto the new nurse”

### CONCLUSION

ISBAR(VITALSS) brought a standardised approach to nursing shift handover at a single ward at Austin Health. Introduction of ISBAR(VITALSS) saw an improvement in the maintenance of nursing care plans and a reduction in missed medication doses. Importantly, nursing staff valued the ISBAR(VITALSS) process that provided a structure and logical sequence to handover. Organisation wide implementation of ISBAR(VITALSS) for Austin Health is planned for July, 2012.

**TITLE: THE PATIENT SAFETY REPORTING SYSTEM: AN ORGANISATIONAL PERSPECTIVE**

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**OBJECTIVES**

This study investigated the operation and current status of the patient safety reporting system in a teaching hospital.

**METHODS**

A teaching hospital was purposefully chosen as the study subject. This exploratory study was a qualitative one in which data were collected from in-depth interviews (n=5) and focus groups (n=43) for a total of 48 participants.

**RESULTS**

By using thematic analysis of the responses from the in-depth interviews and focus groups, we extracted seven themes: functions of the reporting system, reporting procedures, approaches to quality improvement, leadership and organisational culture, managers' roles, barriers to reporting, and feedback mechanisms. Barriers to reporting incidents in the hospital were (1) Staff were too busy to suspend or terminate their work at once and were unable to report incidents immediately. (2) Reporters were afraid of being blamed by their colleagues or managers and of facing the consequences of reporting. Such pressures made them unwilling to report. (3) Staff were afraid of the medical disputes resulting from incidents. (4) The values and attitudes of staff make themselves not to report incidents. (5) There was insufficient understanding of the reporting system.

**CONCLUSIONS**

Managers' protection of reporters is vital when encouraging staff to report incidents as most staff are afraid of being punished. If managers believed that they should protect reporters, then that would promote the use of the reporting system.

**TITLE: THE OUTCOMES OF PHARMACEUTICAL CARE IN A TAIWAN TEACHING HOSPITAL**

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**SUMMARY:**

There are approximately 5,800 older adults living alone in Tainan city, Taiwan. The increased risks of chronic illnesses, multidose-dispensed medications, and drug interactions may cause prescription errors and give rise to concerns in drug safety.

**OBJECTIVE:**

A pharmaceutical care volunteer group will be set up by the Tainan City Government, and will provide training in pharmaceutical care to pharmacists to improve professional knowledge in medication evaluation and prescription interpretation for the elderly. The trained pharmacists will then hopefully participate in promoting a community health care system.

**METHODOLOGY:**

Pharmacists at Kaohsiung Veterans General Hospital Tainan Branch will collect patient information from June 1, 2011 to November 30, 2011, perform drug efficacy assessments, implement care plans, and monitor drug effects.

**RESULTS:**

In six months, eight of the elderly living alone in the community will receive patient home visits, 1,345 will receive medication counseling, and 42 will receive pharmaceutical care through a hospital affiliated home care program. Through the intervention of pharmacists in a long-term care system and pharmacology interns conducting patient home visits, we shall improve the quality of life for the elderly and obtain overall patient satisfaction.

**KEYWORDS**

pharmaceutical care, elderly living alone, drug safety

**TITLE: MEASURING PERFORMANCE AND OUTCOMES IN A PAEDIATRIC LONG TERM FOLLOW UP PROGRAM**WILLIAMSON Jane**PURPOSE**

In 2009, the Paediatric Integrated Cancer Service established a Long Term Follow-up Program (LTFP) for survivors of childhood cancer in Victoria. The State Government Key Performance Indicator (KPI) for the program is that 80% of newly diagnosed survivors of childhood cancer will have a long term follow up plan developed and documented through the program. Most LTF programs are able to identify the number of children accessing their service but few are able to quantify the percentage of eligible patients' across a substantial geographical area (the State of Victoria) that have accessed their program. This project was commenced to establish a method that would enable the LTFP to scientifically quantify the percentage of survivors of childhood cancer from the State of Victoria that have accessed the program.

**METHOD**

Annual data was obtained from the Victoria Cancer Registry (VCR), for all new diagnosis, <17years of age from 1990 - 2009. The VCR survival rate per year was then applied, resulting in a figure that identified the estimated number of survivors at 5 years post diagnosis from the State of Victoria. Using the Government KPI of 80%, the target denominator for each year since 1990 was established. Each new patient presenting at the clinic is entered into the data base, by year of diagnosis. The number of children accessing the program by year of diagnosis is then plotted against the calculated denominator, thus establishing the percentage of State-wide eligible patients seen in the clinic. 100% of patients attending the clinic are provided with their primary treatment summary, recommendations about health surveillance and a documented follow up plan.

**RESULTS**

Using this methodology we are able to ascertain at any time point, the percentage of childhood cancer survivors who have accessed the program by the year of their diagnosis. As at 31st March 2012, 329 new patients have accessed the program since 2008/2009 with a peak in attendance numbers for patients diagnosed in 2004/05 (N=39) equating to 33% of the total target population for this year of diagnosis.

**CONCLUSION**

Using this method, we are now able to calculate, on an ongoing basis, the percentage of Victorian survivors of childhood cancer who have accessed the LTFP which is a meaningful key performance indicator for a state-wide program.

**TITLE: TUBULAR COMPRESSION SYSTEM FOR VENOUS LEG ULCERS: A RANDOMISED CONTROLLED TRIAL**WELLER Carolina**PURPOSE**

Multi-component compression is acknowledged as best practice treatment for venous leg ulcers, but many compression systems are not well tolerated, are unaffordable and are challenging to apply. Three layer tubular bandage system (3L) has been used for patients unable to tolerate conventional compression bandages, but the safety and efficacy of 3L has not been evaluated despite its frequent use in clinical settings. The aim of this study was to compare 3L with short stretch compression bandage (SS) for treatment of venous ulcers.

**METHODS**

This multicentre randomised controlled trial (RCT) recruited 46 participants with venous leg ulcers from wound clinics in Victoria and Queensland, Australia. Outcome measures included percentage wound reduction from baseline compared to week 12 following randomisation, proportion of ulcers healed, Quality of Life measures (SF 36 and Cardiff Wound Impact Schedule), self-reported bandage adherence, recurrence rates and cost effectiveness. Outcome assessment was blinded.

**RESULTS**

The proportion of healed ulcers was higher for 3L bandage group [17/23 (74%) vs. 10/22 (46%) ( $p=0.05$ )]. Mean ulcer percentage reduction for 3L group was 82.4% vs. 70.1%. The number of participants who reported tolerance at all treatment visits was 21 (91%) in 3L group vs. 17 (73%).

Self-reported compliance and study -related adverse events were similar in both groups. Healthrelated quality of life scores improved but differences between groups were not significant. Six of the 27 healed ulcers recurred within 3 months ( $p=0.83$ ). Cost per ulcer healed in 3L group was A\$200 vs. A\$618 in SS group ( $p = 0.0001$ ).

**DISCUSSION/CONCLUSION**

3L compression system applied weekly for up to 12 weeks increased healing rates when compared to SS bandage. The 3L compression system was well tolerated and more cost effective than the SS bandage group. Easy application, less pain and more comfort improved adherence to compression treatments contributed to healing outcomes.

**TITLE: ELECTRONIC TRACKERS: A USEFUL ADDITION TO THE CONSUMER FEEDBACK AND SATISFACTION TOOLKIT**WILLIAMSON Jane**PURPOSE**

Satisfaction measurement is critical in evaluating new initiatives and building a culture of service excellence. In 2012, the Paediatric Integrated Cancer Service (PICS) purchased electronic trackers to supplement the traditional methods utilised in gaining consumer feedback and consumer satisfaction. Each tracker has interchangeable cover templates that permit up to 5 questions and up to 5 responses per survey. Questions can be written in any language, or can involve pictures, signs or symbols. As data capture and analysis can be undertaken rapidly, it was envisaged the trackers would be used to support timely staff and consumer feedback for key bodies of work across three PICS health service sites. PICS consumers include: patients and their families, staff at health care facilities, health care professionals who utilise PICS as an educational resource and the broader community.

**METHOD**

Ethics review has indicated the use of the tracker as a low risk quality improvement tool as the feedback is de-identified. The methodology of engaging in feedback utilised both volunteers who 'took the tracker to the consumer' and via strategic location of the tracker in the health care setting with guidance and direction from health service staff as to the purpose of the tracker. Data analysis and report provision was via an independent research firm. Data collection, using the electronic tracker takes place both pre and post quality improvement project initiatives.

**RESULTS**

Results of a pilot survey was positive and the report considered to be timely, reliable and user friendly. The tracker has since been used to evaluate consumer satisfaction for specific improvement projects at each site, including feedback from specific workshops that PICS has coordinated. Examples include: evaluation of the Patient Information DVD, Patient satisfaction with the Regional Outreach clinic and staff feedback of an Adolescent and Young Adult education Workshop.

**CONCLUSION**

Early feedback from clinical and quality teams regarding the tracker is that it provides an easily accessible option to obtain reliable, de-identified data to quantify changes in consumer satisfaction pre and post interventions.

**TITLE: PREVENTABILITY OF SEVERE MATERNAL MORBIDITY IN PREGNANCY AND THE POSTPARTUM PERIOD: A RETROSPECTIVE ASSESSMENT OF THE POTENTIAL ROLE OF AN EARLY WARNING SCORE.**

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**OBJECTIVE**

To determine whether severe maternal morbidity (defined by admission to intensive care (ICU) or a high dependency unit (HDU)) might have been detected earlier if an Early Warning Score (EWS) had been in use.

**METHODS**

All admissions of pregnant and postpartum women (to six weeks) to ICU at Auckland City Hospital (n=42), and 71 randomly selected admissions to the HDU attached to Labour and Birthing Suite in 2010-2011 were identified. Planned admissions or women cared for exclusively in areas where an EWS would not be used (emergency department, operating theatre, post anaesthetic care unit, and intrapartum in labour and birthing suite) were excluded. Cases were summarised and an EWS plotted using all available sources. The cases were presented to a multidisciplinary team (MDT) including midwifery, obstetric, anaesthesia, medicine, and intensive care clinicians. The team determined by consensus whether an EWS would have detected deterioration earlier and therefore potentially prevented severe maternal morbidity. The maternity service did not use an EWS at this time.

**RESULTS**

Twenty four admissions to ICU and 40 admissions to HDU met the inclusion criteria (57%). Exclusion was most frequently due to observation in an area where an EWS would not apply (30) and planned admission (14).

The 64 applicable admissions were for PPH (22), hypertension (16), pre-existing medical conditions (8), obstetric sepsis (6), non-obstetric sepsis (6), APH (3), overdose (2) and other (1). In 5 cases (8% of eligible; 4% of all cases) the MDT determined an EWS would have detected deterioration earlier and may have reduced the seriousness of maternal morbidity. Three were admissions for obstetric sepsis and two for postpartum haemorrhage.

No patient had a complete set of respiratory rate, heart rate, blood pressure, and temperature recording at every time period. Respiratory rate was the most frequently omitted observation, and 60.1% of cases had no respiratory rate recordings.

**CONCLUSIONS**

An EWS would have detected deterioration earlier and might have reduced the seriousness of maternal morbidity in 5 cases (4%). There is evidence that insufficient observations are recorded in cases of severe maternal morbidity. The design of this study did not allow us to determine how often an EWS might have led to delayed escalation due to low scores, or unnecessary escalation due to high scores. An EWS may address the issue of incomplete recordings and reduce severe morbidity, however delay in escalation, and unnecessary escalation, would need to be evaluated if an EWS was implemented.

**TITLE: MEASURING PERFORMANCE AND OUTCOMES IN CLINICAL CARE**HOLLANDS Lysanda**OBJECTIVES**

Studer Group™ Principles and Tactics, are applied through the local leadership framework, in conjunction with existing quality or culture programs. Adopting healthcare systems (partners) aim to create and sustain "...a great place for employees to work, doctors to practice and patients to receive care".

**METHODS**

Using coaching with partner hospitals, the SG System works by focussing on five key pillars (balanced scorecard): Quality; Service; People; Finance and Growth. The partner is required to set goals in each area and to implement specific "Must Have" leader behaviours. The goals are aligned through all levels of the organisation so that all teams are working synchronously in meeting organisational goals. A particularly effective aspect of the system, known as the Healthcare Flywheel™, builds in sustainability by focusing on outcomes, accountability, and "Must Have" leadership behaviours. In combination these keep employees engaged by reinforcing and rewarding the value of "worthwhile work and making a difference", a value shared by most healthcare workers.

**RESULTS**

- Improved Patient Satisfaction and reduced complaints
- Improved Clinical Outcomes
- Improved staff engagement and morale
- Improved finances / growth (as a result of all the above)

**CONCLUSIONS**

StuderGroup™ uses a systematic, evidence based leadership model enhanced by specific and pragmatic tactics for leaders in each organisation. Its emphasis on outcomes and measurement whilst retaining a focus on people is a powerful combination. Senior Executives, who have participated in study tours overseas, have returned convinced of its effectiveness after visiting large organisations showing sustained improvements in culture, patient care and bottom line.

**IMPLICATIONS**

Analysis of emerging StuderGroup™ work in Australia indicates this is a highly transferable system. It is easily adapted to local environments and has produced rapid and evident results in partner hospitals. New knowledge is emerging continually as the organisations adapt strategies to the Australian Safety and Quality environment. The implication of this highly effective methodology spreading across Australia is both the availability of a coordinated, localised approach to quality and a common language and focus to enable rapid transfer of successful innovations at conferences such as this.

## **TITLE: EVALUATION OF A PILOT AGED CARE HEALTHCARE ASSOCIATED INFECTION SURVEILLANCE PROGRAM**

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<sup>2</sup> Department of Health, Grampians Region, Victoria

### **OBJECTIVE**

The objective was to evaluate the implementation of a healthcare associated infection surveillance (HAI) program in 30 residential aged care facilities (RACF).

### **METHODS**

High care level residents over three or six months were continuously monitored for trachea-bronchitis, cellulitis, conjunctivitis, gastroenteritis and symptomatic urinary tract infections. Infection data was mostly reported by RACF staff and were confirmed or excluded by an infection control (IC) consultant after reviewing relevant medical records. The accuracy of the data was estimated by calculating the sensitivity and positive predictive value (PPV). The IC consultants reported the time taken to collect, check and/or enter onto an Excel spreadsheet the infection data. The IC consultants were encouraged to provide feedback by completing open text evaluation forms and discussing any issues at bimonthly regional meetings.

### **RESULTS**

IC consultants excluded 206 reported infections. This was mostly (71.4%) because the infection did not meet the definitional criteria. Eight unreported infections were identified by IC consultants after checking microbiology reports. For all infections combined, the sensitivity and PPV of data reported by RACF staff was calculated as 97.1% and 56.5% respectively.

On average, each IC consultant required 2.2 hours/month to review the reported infections. The regional IC consultant required 1.8 hours/month to check and 4.2 hours/month to enter data.

### **CONCLUSIONS**

The evaluation of the pilot HAI surveillance program demonstrated that the collection, collation and analysis of accurate infection data in RACF can be difficult and resource intensive. It was agreed that if the program was to continue in the participating RACF, the identified issues associated with data validity and limited resources would need to be addressed.

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**TITLE: HAS THE SEVERITY OF HARMFUL INCIDENTS IN CLINICAL MANAGEMENT DECLINED?**BUCKLEY David<sup>1</sup>, REYMENT Jill<sup>1</sup><sup>1</sup>Clinical Governance Unit, Murrumbidgee Local Health District**OBJECTIVES**

To determine if the severity of adverse events in the clinical management of patients has declined during the decade of performing root cause analyses.

**INTRODUCTION**

In December 2002 New South Wales Ministry of Health and the Clinical Excellence Commission introduced a state-wide incident reporting system: Incident Information Management System (IIMS).<sup>1</sup> Based on a successful program developed in the United States by the Veteran's Health Administration,<sup>2,3</sup> staff voluntarily log incidents/adverse events to the database. The aim being to identify, report, analyse and act on all incidents so as to improve the safety of healthcare.<sup>4</sup>

The Program uses root cause analysis (RCA) as a process to identify systemic causes of incidents. The process of root cause analyses and the reporting of incidents is well covered by (Middleton). The aim of the detailed multidisciplinary analysis of the RCA is to identify the root causes and contributing factors and formulate causal statements and make structured recommendations to 'eliminate', 'control' or 'accept' the risk of a similar event occurring in the future (middleton)<sup>6</sup>

**METHODS**

Murrumbidgee Local Health District is a large statutory healthcare provider in southern-western rural New South Wales. The services facilities range from large non-metropolitan hospitals to small community and aged care facilities. The study is a retrospective analysis of the adverse events in the clinical management of patients reported to the IIMS database between 2005 and April 2012 in the Murrumbidgee Local Health District (MLHD). To reduce the bias associated with increased use of the Incident Information Management System (IIMS) by non clinical services, the analysis was restricted to incidents with the principal incident type of 'clinical management'. Initially, contingency tables were used for exploratory examination of the association between year and Severity Assessment Code (SAC). To quantify any relationship between time and SAC an ordinal logistic regression model was used. The outcome variable being SAC and with time (year) considered as linear predictor variable. The assumption of parallel regression was tested using the Brant test. Due to uncertainties around the SAC four events, in which no harm occurs, only incidents coded one to three were included in the regression model (n=2011). To enhance interpretability the predicted probabilities are calculated. All statistical analysis was performed in STATA.

**RESULTS**

In the period between January 2005 and May 2012 there were 26 672 incidents with a Severity Assessment Code logged onto the Murrumbidgee Local Health Districts Incident Information System. Of these incidents, 3637 were of the principal incident type Clinical Management. Only a small proportion of these clinical management incidents were the most severe SAC1 class (2.36%). The proportion of SAC Scores two, three and four were 7.53%, 45.4% and 44.7%, respectively. The average severity of harmful incidents has continued to fall.

**CONCLUSIONS**

Over the period the health service has conducted over 150 root cause analyses (RCAs). One of the principal aims of these is to reduce the incidence and severity of similar events in the future. Analyses, not presented here, suggest that within MLHD suggest the incidence of severe adverse events has not declined. This finding is difficult to interpret due to bias associated with the voluntary reporting of incidents. This bias should not affect changes in the severity of incidents. If the changes enacted by RCAs were effective then the incidence or severity of the incidents should decline. The evidence presented here suggests that severity has declined with time. The authors suggest that whilst the RCA process impacts strongly on the site and staff involved there may well be limited diffuse through to other sites particularly, when they are geographically dispersed. The incidence may not alter as the RCA has limits with its ability to modify causal patient and human factors.

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**TITLE: PARTNERING WITH PATIENTS: SHARED DECISION MAKING IN TYPE 1 DIABETES MANAGEMENT**

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**OBJECTIVES**

Partnering with patients in diabetes management to promote patient centred care improves health outcomes. Shared decision-making is a fundamental component of patient-centred care. We examined whether shared decision-making was a practiced component of multi-disciplinary diabetes team consultations.

**METHODS**

We designed an online, self-reported, survey for Australian adults 18-35 years with Type 1 Diabetes (T1D). Participants were recruited from advertisements with diabetes consumer-organizations. Respondents were questioned about their perceptions of multi-disciplinary diabetes team clinicians to engage patients in shared decision-making. To expand on the results of the questionnaire, respondents participated in focus groups.

**RESULTS**

Quantitative n=150. Two percent of respondents consulted the recommended multi-disciplinary team consisting of an endocrinologist, diabetes educator, dietician, psychologist/social worker, and general practitioner: 90% consulted an endocrinologist, 58% a diabetes educator, 32% a dietician, 38% a GP, and 3% a psychologist/social worker. Respondents were asked to grade on a scale from strongly agree to strongly disagree their responses to the questionnaire. Agree or strongly agree responses were totalled. Results for respondents' perceptions of endocrinologists (E), diabetes educators (DE), dieticians (D) and general practitioners (GP) as to agreement to the following questions were expressed as a percentage of those consulting clinicians and by intention to treat (in brackets), and were as follows:

Did the clinician enquire about their self-management practices? E:70%(68%), DE:88% (52%), D:70%(23%), GP:77%(29%). Did the clinician listen to the respondent's opinion? E:64%(58%), DE:85%(51%), D:66%(22%), GP:75%(28%). Was the clinician supportive of the patients' self-management practices? E:58%(53%), DE:81%(48%), D: 64(21%), GP:70%(26%). Did the clinician suggest ways to improve self-management? E:65%(59%), DE:81%(48%), D: 72%(24%), GP:54%(20%). Could the clinician's advice be understood? E:77%(64%), DE:86%(50%), D:76%(25%), GP:76%(28%). Could the clinician's advice be trusted? E:74%(60%), DE:85%(51%), D:74%(24%), GP:68%(25%). Was the clinician's advice consistent with other team clinicians? E:62%(55%), DE:76%(44%), D:68%(23%), GP:59%(22%)

Qualitative n=36. Reasons why respondents discontinued consulting with members of the diabetes multi-disciplinary team included the failure of clinicians to provide facets of patient-centred care. Alternatively patients actively sought out clinicians who practiced patient-centred care.

**CONCLUSIONS**

Young adults with T1D prefer clinicians who practice shared decision-making. They may fail to take up recommended health services when this component of patient centred care is not provided. Such findings have implications for partnering with patients to promote patient-safety, improve health outcomes, and improve health service delivery.

## **TITLE: PARTNERING WITH PATIENTS AND THEIR FAMILIES & CARERS THROUGH TEAM BASED WARD ROUNDS**

SKINNER Matthew<sup>1</sup>, NEWNHAM Harvey<sup>1</sup>, HOILES Andrew<sup>1</sup>, SCHWARTZ Laura <sup>1</sup>,WAY Margaret<sup>1</sup>

<sup>1</sup> Alfred Health

### **OBJECTIVES**

To provide safer person centred care by improving teamwork, optimizing communication processes between multidisciplinary team members and actively involving patients and their carers in their plan of care

### **METHODS**

The General Medicine Unit identified that “delays in decision making” “communication”, “efficiency of handover” and “lack of teamwork” were amongst the top 5 barriers to achieving safe and effective care. Consultant-led medical ward rounds were not multidisciplinary, were time consuming and patients and their carers were not able to fully participate in the process. The aim of the study was to implement a Structured Interdisciplinary Bedside Round (SIBR) within the TeamSTEPPS® framework to enable staff and patients to actively contribute to the daily plan of care in an efficient bedside forum. SIBR has been developed by Dr Jason Stein from Emory University and TeamSTEPPS® is a teamwork training program developed by the US Department of Defense Patient Safety Program in collaboration with the Agency for Healthcare Research and Quality (AHRQ). The TeamSTEPPS intervention was supported by a local steering group. Over a 12 month period, over 200 staff were trained in the principles of teamwork. The SIBR was supported by a medical lead, a nursing ward rounds manager, an agreed start time and a structured documentation form that functioned as both a checklist and a medical record documentation tool. In addition, a patient bedside board was implemented to improve knowledge of the plan for the day by treating staff and the patient and their carers. Evaluation has used both quantitative and qualitative approaches to assess the impacts of TeamSTEPPS® and SIBR on teamwork and communication of information.

### **RESULTS**

The improvements to date have been increased evidence of teamwork, increased patient participation in ward rounds and greater understanding of both the roles and responsibilities of team members and the purpose and outcomes of ward rounds. Medical record documentation audits have identified improved documentation of the patients' care plan and the actions required to achieve the desired progress with the plan. Audits of ward round timing and attendance found that within a 3 month period, 50% of SIBR rounds were occurring using the prescribed format and at 12 months this had increased to 100%. A video has been produced and included in the TeamSTEPPS® training to standardise and embed the processes.

### **CONCLUSIONS**

The TeamSTEPPS® program provides an important foundation for introducing multidisciplinary approaches to care, including structured ward rounds. SIBR is an effective method for demonstrating to patients that there is a well organised and coordinated team approach to their care. It provides opportunities for patients, relatives and staff to communicate briefly but concisely at a predetermined time at the bedside.

**TITLE: THE NURSING EXPERIENCE OF A PATIENT'S HOPELESSNESS FROM INTESTINAL OBSTRUCTION AFTER COLORECTAL CANCER SURGERY**

CHEN Li-Hsing<sup>1</sup>

<sup>1</sup> Kaohsiung Veterans General Hospital Tainan Branch Taiwan ROC

**OBJECTIVES**

This report describes the nursing experience for caring a patient's hopelessness because of an intestinal obstruction after the colorectal cancer surgery during February 27th to March 17th, 2008. I applied the Orem model of nursing. Aims of care were post-cancer self-care being able to promotion.

**METHODS**

This report was case study for the nursing experience of patient's hopelessness nursing by life review.

**RESULTS**

After post-operation one week, we found three problems including pain, anxiety, and hopelessness revealed from the patient. It is important to provide patient care to relieve pain and anxiety, and offer systematic continuous care from both of the medical team and patient's family in order to relief the patient's physical and mental stress. In addition, through the life review which helped the patient regain hope, the patient's positive learning motivation would be promoted to develop ego-integration and establish an independent normal life.

**CONCLUSIONS**

The life review and the autonomous of self-care could be promoted ego-integration and established an independent normal life in this post cancer operative elderly case. Especially, We have follow up this patient for two years, He has a healthy life style and subjective well-being.

**TITLE: THE USE OF COMPLAINTS TO IMPROVE SERVICE QUALITY**YEH F.M.<sup>1</sup>, HSIEH Y.S.<sup>2</sup>, LEI L.<sup>3</sup><sup>1</sup>Yuan Pei University, Taiwan<sup>2</sup> Ming Chuan University, Taiwan<sup>3</sup>Department of Management, Kaohsiung Municipal Ta-Tung Hospital, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Taiwan.**OBJECTIVES**

This study aims to explore how hospital organizations can use complaints to improve service quality.

**METHODS**

A teaching hospital in Taiwan was purposefully selected as a case study. Data were collected from a variety of sources, including interview with key managers and social workers, questionnaire survey of managers, interview with government organizations and nongovernment organizations, document collection and review, and the Critical Incident Technique using a questionnaire and nonparticipant observation. This study mainly adopted the techniques of the thematic analysis with an interpretivist approach to investigate and interpret the meanings of empirical data.

**RESULTS**

This study revealed that basic “disconnect” between the patient complaints system and the quality improvement system in the case hospital. Such a structural weakness limited the use of patient complaints to drive quality improvement. In addition to this factor, and connected to it, was that the hospital responded to complaints reactively on a case-by-case basis. Complaints were handled by social workers and required multiple actions in the case hospital. In the first instance, social workers mostly empathized with complainants, investigated the events, explained the facts to complainants, and then referred the complaint to the relevant units. When unit managers received complaints from the SWD, they simply interviewed the staff involved. If the staff members were shown to have made a mistake, they might have been penalized, for instance, by personnel change or demotion. In other words, units or departments complained against were not actively involved in any clinical quality improvement activities. Results of complaints management within units/ departments were not communicated back to the SWD. Most complainants (73.3%) were usually not satisfied with the response of the hospital when the hospital took the action of referring complaints to the relevant units to be dealt with by social workers. The attention of social workers was devoted to the social problems of individual patients rather than to the systemic problems of quality improvement in terms of complaints handling.

**CONCLUSIONS**

By becoming a “double-loop” learning organization, the case hospital will be able to encourage its staff members or groups to make their observations relating to imperative aspects of the complaints management system and to actively bring these issues to the attention of the top hospital management. Commitment from senior management can also contribute to utilizing patient complaints to improve quality of care. This study suggests some implications in regard to a best practice system for using complaints to improve service quality.

**TITLE: TEAMSTEPS<sup>®</sup> SUPPORTING TEAMWORK, COMMUNICATION AND PATIENT SAFETY IN THE LYELL MCEWIN HOSPITAL THEATRES.**

WOOD Matthew<sup>1</sup>, MAHONEY Karen<sup>1</sup>, WILLIAMS Carole<sup>1</sup>

<sup>1</sup>The Lyell McEwin Hospital South Australia

**OBJECTIVES**

To improve teamwork and communication in the Operating Theatres for patient safety and patient flow.

**METHODS**

In 2011 we had the opportunity to improve communication and patient safety with TeamSTEPS<sup>®</sup>. We implemented the TeamSTEPS<sup>®</sup> tools of a Brief, Huddle and Debrief. These team events include staff from Theatre, Anaesthetics, Day ward, Recovery, Duty Anaesthetist, Holding Bay Nurse and Theatre reception.

At the morning brief everyone has the opportunity to share their information about the patients, bed availability, sick leave, priority of the emergency cases and theatre cancellations.

The huddle regroups the team at midday to review the plan for the day.

At the debrief in the afternoon we identify if there are going to be any over runs in theatre and make any necessary arrangements to manage them. It gives us an opportunity to reflect upon the day and discuss what worked well and what we could have done differently. We also go through the next day's theatre list to see if any issues need to be addressed in advance to ensure the smooth running of the list for the next day.

**RESULTS**

There has been strong attendance at the briefs, huddles and debriefs over the 11 month period since implementation. Data from the morning brief is provided;

- Duty Anaesthetist 82%
- Theatre team leader (TL) 95%
- Anaesthetic TL 96%
- Post Anaesthesia Recovery 92%
- Day surgery TL 94%
- Holding bay nurse 90%
- Theatre reception 92%

Issues identified (total n=1257) at briefs, huddles, debriefs include

- Potential overruns: The different departments are able to plan where people are needed after hours and when they are able to take their meal breaks
- Category 1 theatre: Everyone knows which theatre will be used for category one LSCS hence avoiding any confusion
- Patient flags: (eg infectious status) this can impact the order of the theatre list which can cause delays
- Bed availability and list changes: If there is no bed, can we go on with day procedures, or contact day patients to come to hospital earlier
- Radiology: If there any issues with availability which may affect theatre lists
- Equipment: If everything available and sterilised for the theatre lists

**CONCLUSIONS**

TeamSTEPS<sup>®</sup> has helped us to improve teamwork and communication. The briefs, huddles and debriefs have become a daily routine to help with the smooth operation of theatres.

**TITLE: EVALUATION TOOLS FOR MEASURING PERFORMANCE-A PRACTICAL USER'S GUIDE.**FOLEY Donna<sup>1</sup>, REDLEY Bernice<sup>2</sup><sup>1</sup> SAI Global<sup>2</sup> Deakin University**OBJECTIVES**

The purpose of this paper is to provide recommendations to assist health services address gaps in the evaluation of frontline service provision to meet the incoming National Safety and Quality Health Service Standards (Australia)<sup>1</sup>.

**METHODS**

Briefly describe methods implemented throughout the project. List key steps carried out, tools used, and timeframe. Two case examples from the perspective of an experienced management system auditor in healthcare focus on meeting Standard 6: Clinical handover. Literature reporting methods to evaluate healthcare standards complement the real-life case examples to illustrate feasible and practical strategies for health services to meet the new standards.

**RESULTS**

Summarise the results from the project and include sufficient evidence to support the results and to identify what changes have emerged. The evidence must support your conclusions in the next section. Key themes that emerge from the case studies are fragmentation and geographic dis-location of information, inconsistent processes for communication, lack of standardisation in the documents used to transfer information, poor links between different streams of information and processes that do not support effective transfer of accountability and responsibility for ongoing patient care. In addition, health services infrequently integrate service monitoring into routine processes for frontline care delivery. Analyses of clinical handover research and practice improvements provide guidance on best available evidence for handover practices and evaluation. Proposed solutions are drawn from best evidence strategies developed outside the health industry and adapted to complex healthcare settings. These include use of risk assessment and checklists, standardised document architecture, standardised folder structures, process mapping the flow of information. Findings highlight the inherent need for monitoring and feedback to be built into the core business of everyday frontline service delivery in healthcare. Such feedback loops are critical element of successful and sustainable ongoing quality improvement. The multidimensional, mixed methods strategies often used in health services improvement research offer innovative solutions and added benefits of rigorous, tailored methods appropriate for the specific contexts of care delivery. Naturalistic approaches that integrate both qualitative and quantitative data (such as observation, audit and staff and patient feedback) can provide effective evaluation solutions to meet the requirements of the national standards in ways that are both practical and useful for frontline clinicians.

**CONCLUSIONS**

Your conclusions should address the following questions:

- After analysis of results, what is the opinion or judgement of the author(s)? Has the project achieved its objective(s)? What new knowledge was gained from the project and what change(s) happened as a result? What are the implications of the study?

Current evidence recognises the critical role of frontline clinicians in delivering high quality service standards and evaluation. This paper links evidence to solutions for common issues affecting implementation of the national standards for clinical handover. In particular, the use of mixed methods approaches has merit to enhance understanding of problems in service delivery, identify opportunities for improvement and monitor service quality in ways that are meaningful for both the organisation and frontline clinicians.

**REFERENCE**

1 Australian Commission on Safety and Quality in Health Care. (2011). National Safety and Quality Health Service Standards. Sydney, NSW: ACSQHC.

## **TITLE: RETURN ON INVESTMENT FOR QUALITY AND SAFETY**

HOLLANDS Lysanda

### **OBJECTIVES**

Studer Group™ Principles and Tactics, are applied through the local leadership framework, in conjunction with existing quality or culture programs. Adopting healthcare systems (partners) aim to create and sustain "...a great place for employees to work, doctors to practice and patients to receive care".

### **METHODS**

Using coaching with partner hospitals, the SG System works by focussing on five key pillars (balanced scorecard): Quality; Service; People; Finance and Growth. The partner is required to set goals in each area and to implement specific "Must Have" leader behaviours. The goals are aligned through all levels of the organisation so that all teams are working synchronously in meeting organisational goals. A particularly effective aspect of the system, known as the Healthcare Flywheel™, builds in sustainability by focusing on outcomes, accountability, and "Must Have" leadership behaviours. In combination these keep employees engaged by reinforcing and rewarding the value of "worthwhile work and making a difference", a value shared by most healthcare workers.

### **RESULTS**

- Improved Patient Satisfaction and reduced complaints
- Improved Clinical Outcomes
- Improved staff engagement and morale
- Improved finances / growth (as a result of all the above)

### **CONCLUSIONS**

StuderGroup™ uses a systematic, evidence based leadership model enhanced by specific and pragmatic tactics for leaders in each organisation. Its emphasis on outcomes and measurement whilst retaining a focus on people is a powerful combination. Senior Executives, who have participated in study tours overseas, have returned convinced of its effectiveness after visiting large organisations showing sustained improvements in culture, patient care and bottom line.

### **IMPLICATIONS**

Analysis of emerging StuderGroup™ work in Australia indicates this is a highly transferable system. It is easily adapted to local environments and has produced rapid and evident results in partner hospitals. New knowledge is emerging continually as the organisations adapt strategies to the Australian Safety and Quality environment. The implication of this highly effective methodology spreading across Australia is both the availability of a coordinated, localised approach to quality and a common language and focus to enable rapid transfer of successful innovations at conferences such as this.

**TITLE: FACTORS INFLUENCING THE REPORTING OF MEDICAL INCIDENTS: A TPB model**

CHANG S.C.<sup>1</sup>, HSIEH Y.S.<sup>2</sup>

<sup>1</sup> Changhua Christian Hospital, Taiwan

<sup>2</sup> Ming Chuan University, Taiwan

**OBJECTIVES**

This study aims to investigate nurses' reporting intention of medical incidents on the basis of Theory of Planned Behaviour (TPB).

**METHODS**

The design of questionnaire was based on TPB and the literature of patient safety. The researchers adopt the purposeful sampling approach. Three hospital systems in Taiwan were selected. Totally, 2,565 questionnaires were distributed and 2,151 were collected. The response rate was 81.2%.

**RESULTS**

53.8% participants had incidents reporting experiences. The average time of completing reporting by entering data was 21.67 minutes. Then, learning how to use the reporting system averagely took 17.9 minutes. There was no significance among three hospital systems in terms of incidents reporting intention by using ANOVA test. However, there were significantly different between variables( $p < .01$ ). The study found that the nurses' reporting intention of medical incidents was affected by the attitude and behaviour beliefs, self control, and the main reference groups.

**CONCLUSIONS**

The internalization of value of medical incidents reporting and the formulation of its culture would contribute to the reporting of medical incidents. The willpower control of reporters played a pivotal role of reporting incidents. Especially, the unit supervisor, colleagues in the same unit, colleagues having reporting experiences, and the same event another party were important reference groups of reporting behaviour norm.

**TITLE: NURSES' REPORTING OF MEDICAL INCIDENTS**HSIEH YS.<sup>1</sup>, CHEN LC<sup>2</sup><sup>1</sup> Ming Chuan University, Taiwan<sup>2</sup> Chang Gung Hospital, Taiwan**OBJECTIVES**

This study presents an extended technology acceptance model (TAM) that integrated variables including the information literacy, the knowledge of patient safety goals, the understanding of the reporting system, the disclosure of medical errors into the model, and personality of healthcare staff to investigate what determines the acceptance of the reporting system by nurses.

**METHODS**

The proposed model was empirically tested using data collected from a survey at a regional hospital in Taiwan. 411 questionnaires were distributed to nurses and 351 were collected. The response rate was 85.4%. A confirmatory factor analysis was performed to examine the reliability and validity of the measurement model and the software AMOS 19.0 was used to evaluate the causal model. That is, An explicit evaluation of unidimensionality can be accomplished with a confirmatory factor analysis (CFA) of individual measures as specified by a multiple-indicator measurement model. A paradigm for scale evaluation incorporating CFA for the assessment of unidimensionality is outlined here along with methodology to assess other measurement properties such as convergent validity, discriminant validity, composite reliability, and average variance extracted. A measurement model is tested first followed by a structural model of interest.

**RESULTS**

The results indicated that perceived usefulness, perceived ease of use, disclosure of medical errors, and understanding of the reporting system had a significant effect on nurses' intention to use a medical incident reporting system. Among them, perceived ease of use had the most contribution. Understanding of the reporting system had a direct effect on perceived ease of use, perceived usefulness and disclosure of medical errors. Perceived ease of use had a direct effect on perceived usefulness. The results of fitting the structural model to the data indicate that the model had a good fit as indicated by CFI(=0.997>0.9), TLI(=0.991>0.95), and RMSEA(=0.027<0.06). An overall coefficient of determination is calculated for each endogenous variable.

**CONCLUSIONS**

The proposed model provides a means to understand what factors determine the behavioural intention of nurses to use a medical incident reporting system and how this may affect future use. In addition, understanding the factors contributing to behavioural intention may potentially be used in advance of system development to predict the acceptance of the medical incident reporting system.

**TITLE: FACTORS INFLUENCING THE REPORTING OF MEDICAL INCIDENTS: A TPB model**

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