“Designing Out Errors: Working Towards Systems Solutions”
Thursday 22\textsuperscript{nd} September 2016

Bruce Hunt Lecture Theatre
Royal Perth Hospital
Perth, Western Australia
Welcome

Welcome to the Western Australian Medication Safety Group's 2016 Symposium, 'Designing out Errors: Working Towards Systems Solutions'.

Medication errors are often not necessarily subject to clear delineations between cause and effect. In a complex system which is our health system and its interplay with the community, it can take a trajectory of failures along a continuum to set up the right conditions for an error to occur.

If it takes a number of failures to create the conditions for a medication error, it requires often a number of strategies which address the environmental, technical and human factors which interplay in the potential error to prevent it. As health care systems become more complex, so our thinking should change to consider medication errors as not simplistic in their cause and prevention, but as multiple events leading to errors, in a rapidly changing environment which requires a holistic view of prevention.

Today we will explore how a systems approach is applied to identifying and addressing medication management errors. I hope the symposium will provide opportunities for you to share ideas, promote innovative thinking and foster networks with others interested in practical improvements in medication safety.

I wish you an enjoyable and stimulating day!

With best wishes

Neil Keen
Chief Pharmacist
Chairman
Western Australian Medication Safety Group
22nd September 2016
# WAMSG Symposium 2016 Program

**“Designing Out Errors: Working Towards Systems Solutions”**

**Bruce Hunt Lecture Theatre, Royal Perth Hospital Thursday 22nd September 2016**

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<td>Improving the accuracy of medication history through better utilisation of Patients Own Medicines.</td>
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<td>ABC: Making it easy! (with medication Advice, Blister packs, Community pharmacies)</td>
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<td>Closing speech</td>
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### Abbreviations

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<th>Abbreviation</th>
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<tr>
<td>AMU</td>
<td>Acute Medical Unit</td>
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<td>CAHS</td>
<td>Child and Adolescent Health Service</td>
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<td>DoH</td>
<td>Department of Health</td>
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<td>ECU</td>
<td>Edith Cowan University</td>
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<td>FSH</td>
<td>Fiona Stanley Hospital</td>
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<td>GP</td>
<td>General Practitioner</td>
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<td>HMR</td>
<td>Home Medicines Review</td>
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<td>KEMH</td>
<td>King Edward Memorial Hospital</td>
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<td>MH</td>
<td>Mental Health</td>
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<td>NIMC</td>
<td>National In Patient Medication Chart</td>
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<td>NMHS</td>
<td>North Metropolitan Health Service</td>
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<td>OCMO</td>
<td>Office of the Chief Medical Office</td>
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<td>NPS</td>
<td>National Prescribing Service</td>
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<td>QICM</td>
<td>Quality Improvement Change Management Unit</td>
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<td>RPH</td>
<td>Royal Perth Hospital</td>
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<td>SCGH</td>
<td>Sir Charles Gairdner Hospital</td>
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<td>SMHS</td>
<td>South Metropolitan Health Service</td>
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<td>UWA</td>
<td>University of Western Australia</td>
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<td>WA</td>
<td>Western Australia</td>
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<td>WACHS</td>
<td>West Australia Country Health Services</td>
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<td>WAMSG</td>
<td>West Australia Medication Safety Group</td>
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<td>WNHS</td>
<td>Women and Newborn’s Health Service</td>
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Western Australian Medication Safety Group

Neil Keen, Chief Pharmacist WA Health (Chair)
Amanda Bryce, Community Pharmacist
Barbara O’Callaghan, FSH
Christine Proctor, Joondalup Hospital Pharmacy (JHP)
David McKnight, RPH
Deirdre Criddle, Swan District Hospital
Dr Alison Maclean, Armadale Health Service (AHS)
Dr Arankanathan Thillainathan, Dept of Corrective Services
Dr Ioana Vlad, SCGH
Dr Mark Newman, SCGH
Dr Pradeep Jayasuriya, Belgravia Medical Centre
Dr Roger Goucke, Sir Charles Gairdner Hospital (SCGH)
Elvira Caporn, CommunityWest
Graham Stannard, Rockingham General Hospital (RGH)
Helen Lovitt, Pharmacist
John Gourlay, East Metropolitan Health Service
Katherine Birkett, Royal Perth Hospital (RPH)
Ken Tam, FSH
Kerry Fitzsimons, WA Health & Fiona Stanley Hospital (FSH)
Kathy Irwin, Project Coordinator – OCMO, (DoH)
Lesley Gregory, WA Health (Ex-officio)
Margaret England, Graylands Hospital (NMHS)
Melinda Leeder, Osborne Park Hospital
Nancy Pierce, Health Consumer
Nick May, RPH
Nicole Harwood, Cunderdin Health Service
Nikki Perry, WACHS-Kimberley
Peggy Briggs, WA Country Health Service (WACHS)
Sally Simpson, RPH
Shirilee Kerrison, WACHS Central Office
Stephanie Teoh, King Edward Memorial Hospital (KEMH)
Sue Ying Yee, Graylands Hospital
Yvonne Bagwell, Bunbury Hospital
Zeyad Ibrahim, Child and Adolescent Health Service (CAHS)

Symposium organising committee
Kerry Fitzsimons, Shirilee Kerrison, Zeyad Ibrahim, Nick May, Lesley Gregory, Kathy Irwin.
# Biographies

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<th>Name</th>
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<tr>
<td>Nick May</td>
<td>Staff Development Educator, Royal Perth Hospital</td>
<td>Nick is a highly experienced Staff Development Educator at Royal Perth Hospital. He is an active member of WAMSG and is passionate about medication safety.</td>
</tr>
<tr>
<td>Miranda Nikolich</td>
<td>Working together and managing medication safety in the home and clinical care setting</td>
<td>Miranda has three boys aged six, 10 and 13. Miranda’s 10 year old; Alex has a complex seizure disorder with no identified cause, diagnosed at five weeks old. His medication regime has topped 13 drugs at one time, including experimental seizure treatments. Alex’s medication management is complex and complicated further by the ketogenic diet and the need to manage his complex physical needs. Miranda is passionate about making a difference for the consumer in the health care system and has worked with the PMH Consumer Advisory Council for approximately 7 years, including the 2014/15 PBS pharmacy reform, as well as other consumer driven initiatives aimed at creating a more responsive and family-centred service for patients and their families when they visit PMH.</td>
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<tr>
<td>Dr Aria Lokon</td>
<td>Resident Medical Officer, Royal Perth Hospital</td>
<td>Aria is a resident medical officer at Royal Perth Hospital where he has been working for the past three years since completing his medical degree at the UWA in 2013. He is currently the Resident Medical Officer representative on the hospital’s medication safety committee responsible for NSQHS standard 4. He has an interest in quality improvement particularly in the area of medication related issues. He hopes to eventually pursue a career in anaesthesia.</td>
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<tr>
<td>Dr Arjun Shivananda</td>
<td>Resident Medical Officer, Sir Charles Gairdner Hospital</td>
<td>Arjun is a graduate from the UWA, completing his MBBS degree in 2013. Currently he is a PGY3 resident medical officer and completing his service improvement term through SCGH. He has an interest in quality and safety improvement through innovation. His career goal is to eventually become a radiologist. When he is not at work his hobbies include video games and stand-up comedy which he performs at the Sail and Anchor Club in Fremantle.</td>
</tr>
<tr>
<td>Ken Tam</td>
<td>Senior Pharmacist – Electronic Medicines Management, Fiona Stanley Hospital</td>
<td>Ken is the Senior Pharmacist – Electronic Medicines Management at FSH. For the past three years, Ken has led the implementation of pharmacy robots, automated drug cabinets, electronic drug safes, anaesthesia workstations and medication workstations on wheels at FSH. He has also led the redesign of clinical and non-clinical workflows to integrate the new technology platform into existing hospital processes to improve patient safety, efficiency and governance throughout the medication management system.</td>
</tr>
<tr>
<td>Samantha Hilmi</td>
<td>Deputy Chief Pharmacist, Clinical Services Royal Perth Hospital</td>
<td>Samantha is a Curtin University masters graduate and has been coordinating clinical pharmacy services at RPH for the last 17 years. She’s a member of the Clinical Alerts Committee, Drugs and Therapeutics Committee and the Medication Safety Committee at RPH.</td>
</tr>
<tr>
<td>Chris Shenton</td>
<td>Pharmacist, Joondalup Hospital Pharmacy</td>
<td>Chris Shenton is a pharmacist of 29 years. Chris has a B.Pharm from Curtin and Graduate Diploma in Health Economics from Monash. He has experience in hospital, home hospital programs, aged care and community pharmacy. He founded Joondalup Hospital Pharmacy in 1996. Chris has a keen interest in practice innovation and health economics.</td>
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<tr>
<td>Meeghan Clay</td>
<td>Chief Pharmacist</td>
<td>Meeghan started her pharmacy career in the community pharmacy sector in Albany and was involved in home and residential medication management reviews from their inception in 1999. She moved into the hospital pharmacy sector 11 years ago and was appointed as chief pharmacist for the Great Southern in 2013. She has a keen</td>
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WACHS-Great Southern interest in medication management systems and how they impact on patient safety.

Andrew Campbell
Pharmacist, Sir Charles Gairdner Hospital
Andy is an early career pharmacist who joined the profession after a career in events and performance management. He completed his Bachelor of Pharmacy (Hons) at Curtin University in 2014, where his honours project “Research in hospital pharmacy: An analysis of stakeholders needs” sparked a love of hospital pharmacy. He is passionate about further developing the scope of hospital pharmacists, with interests in medication safety, innovation in pharmacy practice and pharmacoeconomics.

Brock Delfante
Pharmacist, Sir Charles Gairdner Hospital
Brock works in a clinical role and in quality use of medicines. Brock is also an associate lecturer at the University of Western Australia and is the branch chair of the Society of Hospital Pharmacists of Australia, WA Branch. His special research interest is in optimizing medicines management processes in order improve the cost-effectiveness of patient-centred care.

Patricia Peng
Senior Pharmacist at Royal Perth Hospital
Patricia has a special interest in Aboriginal Health. She has recently been involved in the Lighthouse Project in collaboration with the Heart Foundation which is aimed at improving outcomes for Aboriginal and Torres Strait Islander people living with Acute Coronary Syndrome.

Dr Anam Kamran
Resident Medical Officer
Anam is a postgraduate year 3 Resident Medical Officer, who has been working at RPH since 2014. She graduated from King Edward Medical University in 2012; ranked 2nd out of a class of 290. Anam plans to develop a career in general practice after gaining a broad range of hospital experience.

Stephanie Teoh
Supervisor Pharmacist (Clinical), King Edward Memorial Hospital
Stephanie is a Curtin University masters graduate and has worked in hospital pharmacy for the past 12 years. She has worked in obstetrics and neonatology, medication safety, Obstetric Medicine Information Services and coordinating breast milk research on the transfer of medication into breast milk and the effect to the breastfed infant.

Nam-Anh Nguyen
Medication Safety & Clinical Pharmacist, Sir Charles Gairdner Hospital
As a clinical pharmacist at Sir Charles Gairdner Hospital, Nam-Anh enjoys working in a multidisciplinary environment but understands the risks inherent in the management of medicines within such as large and diverse setting. In her role as the Medication Safety Pharmacist she is able to use this clinical experience to influence and improve the practices and processes surrounding medicines management, the ultimate aim being to optimise medication safety for all patients.

Csilla Ambrus
Staff Development Nurse, Rehabilitation and Aged Care, SGGH Osborne Park Hospital group
Csilla is a Registered Nurse who qualified in WA in 1992. Csilla has 24 years of experience working in the speciality area of Rehabilitation and Aged Care at Osborne Park Hospital. She has been in her position as Staff Development Nurse for 16 years providing excellent service in education and training of staff. She is a driving force behind implementation of new initiatives and promoting effective teamwork.

Johnathan Soggee
Clinical Pharmacist, Sir Charles Gairdner Hospital
Johnathan values working collaboratively in the interdisciplinary environment in a clinical role, as well as quality improvement, and medication management as the quality use of medicines pharmacist. Johnathan is chair of the Pharmaceutical Society of Australia Early Career Pharmacist Working Group Western Australia and a guest lecturer at Edith Cowan University. His interests are around clinicians and healthcare consumers collaborating to improve health systems and services.

Jacqueline Kewley
Senior Pharmacist Medication Safety, PMH & Senior Policy Officer Medication Safety Department of Health.
Jacqueline’s interest in medication safety began during her training at the Princess Alexandra Hospital, Queensland and led her to her current role at PMH. Her other interests include organisational safety & quality, consumer engagement and health promotion. Jacqueline is currently completing a Masters of Pharmaceutical Public Health.
Robyn Ellis
Regional Palliative Care Coordinator, WACHS-Midwest

Is the WACHS Midwest Regional Palliative Care Nurse Manager since 2012. From 2003 to 2011 Robyn was the Nurse Unit Manager St John of God Hospital Geraldton (SJOG) Hospice. Robyn has a Bachelor of Science (Nursing) degree from Curtin University, and is currently undertaking further study to gain a Master in Palliative care for Nurse Practitioner. Robyn was instrumental in developing the Palliative Medication for Carers procedure. This enables suitable carers to be able to administer sub cutaneous medications in phone consultation with nurses, and in agreement with GP’s, ensuring palliative patients have timely access to symptom control medications. She is tireless and passionate in her work and a strong advocate for patients and families alike.

Julie Hodgson
Clinical Nurse Consultant in Pain Medicine at Royal Perth Hospital

Julie has worked in the field of Pain Medicine since 1991. She has worked in Acute and Persistent Pain; assisted in interventional pain procedures in theatre with pain specialists and has been the lead nurse in community pain clinics for the Pain Service. Julie holds a higher national diploma with the University of Wales in Pain Management, successfully completed the nurse prescribing course with the University of Teesside in the UK and is a qualified nurse acupuncturist with the British Academy of Western Medical Acupuncture.

Panel Members

Susan Hogan - Surgical Services Coordinator, WACHS-Midwest
Dr Aria Lokon - Resident Medical Officer, RPH
Dr Arjun Shivananda - Resident Medical Officer, Sir Charles Gairdner Hospital
Miranda Nikolich - Consumer
Neil Keen - Chief Pharmacist, Public and Clinical Services, Department of Health, Western Australia and WAMSG Chair
Nick May - Staff Development Educator, Royal Perth Hospital
Dr Meredith Arcus – Deputy Director of Medical Services, Sir Charles Gairdner Hospital
Kerry Fitzsimons – Medication Safety Pharmacist, Fiona Stanley Hospital
Co-authors biographies

Sean Grieve  
Pharmacist, Joondalup Hospital Pharmacy  
Sean is a pharmacist with 13 years’ experience. Sean completed his internship at Joondalup Hospital Pharmacy. He worked in dispensary, chemotherapy compounding and aged care. His keen interest in information technology has transformed into a full time position creating innovative systems that support efficient pharmacy processes. Sean has created many applications for desktop, web and mobile use including clinical intervention, AMS and document management solutions.

Katherine Travers  
Pharmacist, Sir Charles Gairdner Hospital  
Katherine has been working as a hospital pharmacist at SCGH for 10 years and has been working in the medical assessment unit (MAU) for almost 6 years. During this time there has been the introduction of the four hour rule, or NEAT target. She was successful in the approval of a second MAU pharmacist position. This saw the service expand with cover from 7.30am until 8 pm, 7 days a week. It led to the development of the first SCGH pharmacy team, for which Katherine is the general medicine pharmacy team leader. Her passion for clinical pharmacy includes a current focus on clinical incident reporting, medication safety, the mentoring and training of junior staff and discharge reconciliation. In particular, transition of care from hospital to the community.

Gillian Babe  
Head of department, Pharmacy Department, Sir Charles Gairdner Hospital  
Gillian has worked as a Pharmacist in community and hospital settings in both Canada and Australia. She commenced employment at Sir Charles Gairdner Hospital in 1998 and currently holds the Head of Pharmacy Department role. Her professional interests include preserving the patient focus, developing clinical and corporate engagement strategies to improve the management of medicines, innovating for value, and asking “why”?

Elisa Chia  
Resident Medical Officer  
Elisa is a year 2 postgraduate Resident Medical Officer at Royal Perth Hospital. In her capacity as a medical officer, Elisa has worked in the Acute Medical Unit on multiple occasions and is able to provide insight to some areas of the department. Born and bred in Victoria, Elisa has a particular interest in Interventional Radiology.

Roesia Miranda  
Senior Resident Medical Officer  
Roesia is a Senior Resident Medical Officer at Royal Prince Alfred Hospital in Sydney. She graduated from the University of Notre Dame, Fremantle and completed her first 2 years of work at Royal Perth Hospital before moving to Sydney. She hopes to start her basic physician training in 2017.

Dr Claire Tobin  
Respiratory Medicine & AMU, Royal Perth Hospital  
Is a Respiratory Medicine and Acute Medical Unit Consultant and Chair of the Clinical Alerts Committee at Royal Perth Hospital.

Ralph Baker  
Manager Medical Illustration & A/Manager Telehealth, Royal Perth Hospital  
Is the Head of Department, Medical Illustrations and a member of the Clinical Alerts Committee at Royal Perth Hospital.

Melissa Daines  
Clinical Nurse Manager, Rehabilitation and Aged Care, SCGH Osborne Park Hospital group  
Melissa is a registered Nurse who qualified in the UK in 1987. She has 33 yrs experience as a Rehabilitation Nurse, with an interest in ‘Stroke’. She has been in her position as Clinical Nurse Manager at OPH for 3 years, after migrating from the UK in 2010. She strives for excellence in patient care and ensures evidence based practice is delivered.
08:45  Medication errors: Minimising collateral damage
Presenter: Nick May

09:10  Working together and managing medication safety in the home and clinical care setting
Presenter: Miranda Nikolich
9:30 "Walk a Mile in Our Shoes...Medication Safety through the eyes of Junior Doctors"

Presenter: Dr Aria Lokon
‘Why don’t doctors report clinical errors and incidents?’

(Authors: Dr Arjun Shivananda and Jenny Francis)

Presenter: Dr Arjun Shivananda

Objectives

To measure the awareness among doctors in regards to clinical incident reporting at SCGH and to determine the root causes for poor reporting among medical staff.

Design, setting, and participants

A cross-sectional survey was designed to determine the level of awareness about incident reporting among doctors at a tertiary teaching hospital. The survey was completed by 92 doctors. Following the completion of the survey, a focus group was organised with approximately 20 representatives from all areas including ICU consultants, anaesthetics fellows and junior doctors from medical and surgical specialties. An affinity diagram was used to determine the root cause for the lack of incident reporting by medical staff.

Results

Of the 92 doctors who started the survey, 81 completed it. Over 95% of doctors had never referred to the policy regarding incident reporting and only 45% were confident in knowing what determined an incident. 73% of doctors were not aware about how to report an incident in their hospital. Only 7% of doctors had reported a clinical incident. The focus group identified several reasons as potential root causes for these findings. These were ranked as follows; lack of awareness about how to report, negative connotations associated with reporting, lack of awareness on responsibility, lack of knowledge on what constitutes an incident and a lack of feedback.

Conclusions

This study was designed to gain some insight into incident reporting in healthcare from the perspective of doctors. We found that although doctors were aware of incident reporting, knowledge on how to actually file an incident was lacking. In keeping with literature, our study also showed that less than 10% of doctors had ever reported a clinical incident. The major barriers to incident reporting by doctors were a lack of knowledge of the process, lack of clarity around what constitutes an "incident", belief that reporting has no value, often related to poor feedback and the negative stigma around reporting. Based on this information, targeted interventions can be implemented to increase the rates of reporting by medical staff.
Manual vs Auto – Driving Medication Safety

Presenter: Ken Tam
Clinical alert reporting: Electronic solutions to the rescue!

(Authors: Samantha Hilmi, Dr Claire Tobin, Ralph Baker)

Presenter: Samantha Hilmi

Objectives

To promote and implement an efficient, safe system of clinical alert reporting in accordance with the Western Australian Clinical Alert Policy 2014 at Royal Perth Hospital (RPH).

Methods

A multidisciplinary Clinical Alerts Committee (CAC) at RPH was formed in February 2015. Staff were surveyed to determine awareness around clinical alerts. An electronic solution to reporting alerts convenient to clinical staff, efficient to coders, and ultimately improving safety for patients was identified and implemented. Strategies for promoting clinical alert reporting were devised.

Results / Issues

Staff survey (June 2015) determined poor level of awareness around clinical alerts: 51.8% aware of alert information available at point of care (on iSoft); 14.8% aware of Policy; 3.7% fully aware of reporting form (MR006). Availability of the reporting form was also identified as a barrier (forms on 42.8% of wards). An application which generated an electronic form was developed. Completed e-forms are submitted to the CAC (for assessment) and for entry on the Patient Administration Systems (PAS). Staff education has occurred via: the Medication Safety Newsletter; PowerPoint display on main thoroughfare; orientation / induction. A recent audit on reporting rates for serious drug reaction alerts showed: 7% (1/14) vs 100% (5/5) pre- and post-implementation of e-form respectively. Coders have reported reduced time taken for alerts to be entered on PAS/iSoft, from days-weeks to within minutes (maximum two hours). Ongoing promotion to report alerts remains a priority.

Conclusions

The process of utilising an electronic solution for reporting clinical alerts and ongoing staff education at RPH has shown improvement in reporting rates and in the efficiency of clinical alerts being available on iSoft, thereby improving patient safety.

Relevance to other services

The WA Clinical Alert Business User Group is aware of the electronic systems utilised at RPH and are considering wider adoption of the same processes.
11.10  
**PBS-HMC chart implementation – creating an electronic document workflow ImPROVES medication safety and efficiency (Authors: Chris Shenton and Sean Grieve)**

**Presenter:**  
Chris Shenton

**Background**

Joondalup Health Campus is a private/public hospital of 650 beds in Perth’s northern suburbs. SJOG Bunbury is 160 bed private hospital in a regional town. Both hospitals participated in the PBS-HMC (Pharmaceutical Benefits Scheme – Hospital Medication Chart) trial from September 2015. These charts replaced triplicate PBS charts in private wards and standard NIMC charts in public wards.

**Methods**

PBS-HMC charts gave the opportunity for a complete redesign of the dispensing process. Prior to the trial orders were either transcribed in wards, faxed or charts delivered to pharmacy and returned. We created a mobile app to capture chart images and integrated the images into an electronic document workflow. Orders can be captured by pharmacy staff, including technicians, or nurses.

**Results**

The workflow queues chart orders and tracks through dispense, check and delivery. The high quality images allow clear interpretation of orders. Charts never leave the ward areas. All images of charts have claim and dispensing data attached as meta-data before being stored in a document management system.

**Conclusions**

The PBS-HMC charts are a welcome improvement in medication management. This workflow method of ordering and dispensing provides improved medication safety, is valid for storage of PBS documents, and is more cost efficient for all stakeholders. Nurses save time in ordering and can easily locate charts. Doctors have the obvious benefits of writing PBS compliant orders the first time. Pharmacy is able to reduce risk of medication error and financial risk of PBS non-compliance. A cost-effectiveness analysis of the process indicates savings for all.
The reality of the electronic discharge documents

Presenter: Meeghan Clay

Background

Great Southern was the first regional area to implement the Notification and Discharge Summary (NACS) in February 2016. Unlike other services there was not an integrated electronic discharge summary available prior to implementation.

Aim: to determine changes in the quality of medication information in discharge summaries prior to and post introduction of NACS.

Method

Three audits of discharge summaries were conducted prior to, during and post implementation of NACS exploring timeliness of summary, allergy recording and the provision of a best possible medication list (BPML).

Results

137 discharge summaries were randomly selected for discharges (44 in December, 42 in February and 51 in March). 81% of February summaries were completed in NACS but this had reduced to 68% in March. The median (and average) time between discharge and completed summary reduced from 2.5 days (9.8 days) in December to same day (4.1 days) in February. The median of same day summary was sustained in March with a reduction in average to 2.3 days. 50% of patients in the December audit had allergies and 63% of patients with an allergy did not have this recorded on the discharge summary. This improved with only 24% of all charts having no allergy status or incomplete allergy status recorded in February and 34% in March. There was also improvement in the medication list. 45% of summaries had a BPML in December compared to 60% in February and 59% in March.

Conclusions

Despite the sentiment among the medical staff of the increased time taken to produce summaries in NACS, there were improvements in the timeliness and accuracy of medication information the discharge summaries after NACS implementation.
Medication-related incidents are common in the hospital setting, may cause patient harm and, are important to report in order to identify areas for improvement. Electronic systems exist to facilitate formal reporting of incidents that do/have potential to affect patient safety. Evidence suggests that medication-related incidents are generally underreported with studies suggesting self-reporting rates for doctors of 20-35%. However, there is a lack of evidence describing formal reporting in relation to actual incident occurrence.

This study aimed to collect quantitative and qualitative information regarding prescribing incidents made due to inaccurate admission medication histories, and to compare this to incidents formally reported.

Medication charts for 100 patients newly admitted to the Medical Assessment Unit of a Western Australian tertiary hospital during July-August 2015 were assessed for prescribing discrepancies. Incidents were identified by reviewing medication charts and reconciling them with a pharmacist-completed best possible medication history. Data collected included the number, type, clinical significance (determined by ward clinical pharmacist) and incident severity. Data was entered and analysed using Microsoft Excel®. This hospital uses the Datix Clinical Incident Management System® (CIMS) to formally report incidents. CIMS data for the same ward and period was exported and compared to the collected data.

Of 898 orders audited, 247 incidents were identified. Of these, 174 (70.4%) were clinically significant. The most frequent incidents were omissions (68.4%) and incorrect dose/frequency (21.5%). Standard severity assessment codes were assigned to each incident with 97.2% of incidents considered minor, and 2.8% considered moderate. Comparatively, only five incidents were formally reported on CIMS for the same period, with 60% considered minor and 40% considered moderate.

Results indicate that prescribing incidents are underreported, and that incident severity may impact likelihood of formal reporting. Additional studies identifying barriers and enablers for formal incident reporting may help identify interventions that may improve formal reporting rates.
Improving the accuracy of medication history through better utilisation of Patients Own Medicines.

Presenter: Brock Delfante

An accurate medication history upon hospital admission improves patient health outcomes. Patient's Own Medicines (POMs) are medicines that patients use in the community setting, which are brought into hospital. POMs provide a source of information for medication history-taking, and have been shown to increase medication history accuracy when used. The aim of this study was to evaluate the effect of POMs on admission medication histories and to assess this effect on particular medicines/medicine categories.

A retrospective study randomly sampled 400 patients admitted to general medical/surgical wards of a tertiary referral hospital between January-March 2015. A data collection tool was used to collect data from medical records including admission history drugs recorded by both pharmacy and medical staff. Pharmacist completed medication histories were considered the gold-standard. Medical admission histories were compared to pharmacist-completed histories. Statistical analysis included independent t-tests, Chi-squared tests, univariate and multivariate Poisson regression.

Of the 174 patients included in the analysis (patients excluded due to incomplete documentation, medical notes unavailability, absent pharmacist-completed medication history or if using dose administration-aid), 39% (n=68) brought in POMs and 61% (n=106) did not. There were significantly fewer errors in medication histories for high-risk medicines in patients with POMs (P =0.04). There was a non-significant trend for fewer errors when looking at all drugs. Age and gender did not impact results. In total, 53% (n=844) of medicines on medication histories were considered high-risk.

When patients brought POMs into hospital, the high-risk medicines on their admission medication histories were significantly less likely to contain errors. This is consistent with the literature, and highlights the potential of a system change to better utilise POMs having the ability to improve medication safety. Awareness of the benefits of POMs should be promoted, particularly in patients taking high-risk medications where medication errors have increased risks.
Objective

To improve efficiency of the discharge process for Aboriginal and Torres Strait Islander (Aboriginal) patients, increase compliance by improving patient understanding of their medications and enable easier access to medications in the community.

Methodology

A 10-week progressive comparative group study was initiated on all Aboriginal patients discharged from the Cardiology ward. Data was collected for patients using the current model of discharge from 2/3/16-11/4/16 (group 1 - patients counselled, given discharge medications in original boxes, no hospital contact with community pharmacy). Data was collected for patients using the new model of discharge from 12/4/16-12/5/16 (group 2 - patients counselled, discharged with a blister pack [dose administration aid], liaison with local community pharmacy). Patients previously already on a blister pack and/or able to arrive home within business hours on the same day were excluded. Time from receipt of prescription to time of receipt of medications was compared between the two groups and costed to expenditure and activity on the ward and in pharmacy. Local community pharmacies were contacted once the blister packs had run out to confirm ongoing compliance.

Conclusions/Implications

24 patients were audited. After stratifying, 8 patients remained in group 1 and 5 patients in group 2. Of the 13 patients, 54% were male, 69% from the country, 62% had 6-10 medications, 92% on at least one high risk medication and 69% diagnosed with acute coronary syndrome. Group 2 received their medications 2.9 times quicker (1.283 vs 3.705 hours) and the mean return of investment was 340%. All 13 patients continued their medications after discharge in the community.

Utility/relevance to other services

The new model of discharge has demonstrated increased efficiency and cost effectiveness for this cohort of patients and can be extended to other areas of Aboriginal healthcare. Ongoing research with larger patient numbers will strengthen these findings.
12.50  Lightning Posters

Presenters:  Dr Anam Kamran (Co-authors: Elisa Chia, Roesia Miranda)
Stephanie Teoh
Nam-Anh Nguyen
Csilla Ambrus
Johnathan Soggee

13.40  Reducing codeine use in paediatric pain management (Authors: Kwi Moon, Jacqueline Kewley)

Presenter:  Jacqueline Kewley
Many palliative care patients wish to remain at home for as long as possible. To help achieve this, patients need rapid access to medications to provide symptom relief. The Midwest palliative care nursing team recognized the need for patients receiving home based palliative care.

The ‘Medication Safety for Palliative Carers at Home Procedure’ supports patient independence and maximizes their quality of life. This is achieved through the optimal pharmacological management of the symptoms related to their disease processes. It is anticipated that a culture of medication safety will emerge that will be embraced by carers, families and patients in liaison with the palliative care team and the patients General Practitioner (GP).

Improving medication safety for patients and their carers in the palliative care home setting has commenced in response to clinicians identifying that no formalized process existed within the WA Country Health Service for carer medication administration. It was recognized that formalized protocols and standardized training was required for carers to support patient safety.

The palliative care team respects the patient and carer choices in medication administration. This includes evaluation of the carer’s preparedness to administer subcutaneous medication and education with structured support provision for medication administration. Carers have access to palliative care nursing staff 24 hours 7 days/week for support, education and care provision.

The expected outcomes of the introduction of the ‘Medication Safety for Palliative Carers at Home’ procedure will result in carers being trained to safely administer subcutaneous medication in a timely manner in response to pain and other symptom control in the palliative care home setting. In an effort to ensure that these practices “do no harm” carer evaluation surveys will be conducted. Surveys are conducted pre and post administration, and then six months after patient death, with unpaid palliative carers who participate in the administration of subcutaneous medications in the last few days of life.
Objective or purpose

The attached guidelines were designed to promote safe and appropriate prescribing of analgesic medication Pain and adjuvants to manage pain in the post discharge period

There was a need to initiate safety guidelines for the following reasons:

- Inappropriate prescribing of larger amounts of medication than needed.
- Slow release opioids being prescribed by primary teams without consideration of requirements of immediate release opioids, appropriate step- down instructions and support for patients and their General Practitioners (GPs)
- Inappropriate prescribing of Adjuvants without step instructions or support to GPs
- No referral provision of guidance on referral to outpatient sources
- No guidance to Pharmacists on managing prescriptions with obvious over prescribing.
- Evidence of abuse of prescription opioids in the community increasing with data showing diversion of over prescribed discharge medication.

Post-operative guidelines for discharge analgesia were designed to guide prescribers on appropriate discharge medication in line with individual patient’s requirements in the 24 hours prior to discharge. The guidelines are aimed to:

- Improve safe prescribing
- Provide standardisation of such prescribing
- Support pharmacists in their role of medication management
- Permit appropriate weaning of analgesic medication
- Lead to support GPs in complex cases

They aim to provide general recommendations and ground rules for discharge prescribing and advice on appropriate involvement of the Acute Pain Service in such prescribing. Furthermore, they provide guidance on contacting the Pharmaceutical Services Branch of the Department of Health with regard to checking the opioid status of a patient.

The guidelines were distributed to all wards at RPH and directly to all prescribers. The guidelines are displayed in the vicinity of the working space of medical teams on all wards. They encourage prescribers to contact the Acute Pain Service regarding discharge medication.

They have resulted in pharmacists now making direct contact with the Acute Pain Service if prescribing falls outside the guidelines.

The guidelines were finalised and approved by DTC in October 2015 and have led to safer and more appropriate prescribing and reduced supply of take home medications and thereby costs to RPH.

- We have named the guidelines ‘Post-operative inpatient discharge guidelines’, but perhaps we need to remove the term post-operative guidelines and rebadge these as discharge guidelines for all wards and departments.
14.40 **Panel discussion/ Hypothetical** – Panel members:
Dr Aria Lokon
Dr Arjun Shivananda
Dr Meredith Arcus
Miranda Nikolich
Neil Keen
Nick May
Susan Hogan
Kerry Fitzsimons

**Facilitator**: Dr Christopher Etherton-Beer