2015
Research and Quality Symposium

Health Systems Serving People: partnerships, collaboration, responsiveness

A Showcase of research and quality projects for Medicine, Nursing and Allied Health

Cairns Hospital Auditorium
Wednesday 5 August

Cairns and Hinterland Hospital and Health Service
# Research and Quality Symposium 2015

*Health systems serving people: partnerships, collaboration, responsiveness*

## Opening session 8:10am – 10.15am

**Service redesign and evaluation: Chair - Dr Colin Baskin**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:10</td>
<td>Welcome</td>
<td>Desley Harvey</td>
</tr>
<tr>
<td>08:15</td>
<td>Official Opening</td>
<td>Julie Hartley-Jones Chief Executive</td>
</tr>
<tr>
<td>08:30</td>
<td><strong>What's in a Name? Terminology, relationships and health</strong></td>
<td><strong>Keynote Speaker</strong></td>
</tr>
<tr>
<td></td>
<td>professional practice</td>
<td>Professor Melanie Birks</td>
</tr>
<tr>
<td>09:15</td>
<td>Patient, carer and provider perspectives of older people’s care</td>
<td>Dr Edward Strivens Associate Professor Michele Foster</td>
</tr>
<tr>
<td></td>
<td>transitions across acute, sub-acute and primary care</td>
<td></td>
</tr>
<tr>
<td>09:45</td>
<td>Paediatric Outpatient Remodelling Project</td>
<td>Lauren Phillips and Kelly McCafferty</td>
</tr>
<tr>
<td>10.00</td>
<td>A service evaluation: Revitalised but are we providing patient-</td>
<td>Michelle Rothwell</td>
</tr>
<tr>
<td></td>
<td>centred care?</td>
<td></td>
</tr>
</tbody>
</table>

**Morning Tea Break: 10.15am-10.40am (25 Mins)**

## Session 2 10:40am – 12.15 pm

**Research – evidence to inform our practice: Chair - Michelle Rothwell**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:40</td>
<td>Session return</td>
<td></td>
</tr>
<tr>
<td>10.45</td>
<td>Patients’ psychological and practical reasons for attending the</td>
<td>Professor Jane Mills</td>
</tr>
<tr>
<td></td>
<td>Cairns Hospital Emergency Department: A mixed methods study</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(P3ED)</td>
<td></td>
</tr>
<tr>
<td>11.15</td>
<td>When chronic conditions become emergencies – a report from</td>
<td>Linton Harriss</td>
</tr>
<tr>
<td></td>
<td>Far North Queensland</td>
<td></td>
</tr>
<tr>
<td>11.30</td>
<td>Dementia in the Torres Strait: Is there cause for concern?</td>
<td>Chris Cunningham Joan Norrie</td>
</tr>
<tr>
<td>11.45</td>
<td>Metofluthrin emanators as potential tools for preventing dengue</td>
<td>Odwell Muzari</td>
</tr>
<tr>
<td></td>
<td>transmission</td>
<td></td>
</tr>
<tr>
<td>12.00</td>
<td>Reducing the impact of cyclone, flood and storm related disasters</td>
<td>Ben Ryan</td>
</tr>
<tr>
<td></td>
<td>on non-communicable diseases through public health</td>
<td></td>
</tr>
<tr>
<td></td>
<td>infrastructure resilience</td>
<td></td>
</tr>
</tbody>
</table>
Lunch: 12:15pm - 12:55pm (40 mins)

Session 3  12:55pm – 2:15pm

Clinical practice – making a difference: Chair - Dr Jenny Sando

<table>
<thead>
<tr>
<th>12:55</th>
<th>Session return</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:00</td>
<td>Clinical pharmacists connecting with patients in rural and remote towns via tele-health</td>
</tr>
<tr>
<td>13:15</td>
<td>Vitamin D supplementation in pregnant women with diabetes mellitus residing in Far North Queensland</td>
</tr>
<tr>
<td>13:30</td>
<td>Neonatal Hypothermia - A Hot Topic</td>
</tr>
<tr>
<td>13:45</td>
<td>Evaluating the dissemination of best practice model of care for nutritional management of gestational diabetes</td>
</tr>
<tr>
<td>14:00</td>
<td>International peer access via online education portal: Hybrid High fidelity Renal based simulation education with simulated patients</td>
</tr>
<tr>
<td>14:15</td>
<td>Developing intern clinical reasoning skills during their general medicine term</td>
</tr>
</tbody>
</table>

Afternoon Tea Break: 2.30pm – 2.45 pm (15 mins)

Session 4  2:45pm - 4:30 pm

Service development and change: Chair - Professor John McBride

<table>
<thead>
<tr>
<th>2:45</th>
<th>Session return</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:50</td>
<td>Too close to home - What are the lived experiences of rural Queensland nurses who have cared for people with cancer who have died? What are the recommendations and implications for practice?</td>
</tr>
<tr>
<td>15:05</td>
<td>Gismo MET Calls: Closing the loop after Rapid Response Team call outs: an online database that issues notification and requests reviews of the deteriorating patient</td>
</tr>
<tr>
<td>15:20</td>
<td>Once the sensitivities are known: a systematic review of antibiotic choice in typhoid</td>
</tr>
<tr>
<td>15:35</td>
<td>Improved patient-centred care across continuum of care for patients undergoing elective joint surgery at Cairns Hospital</td>
</tr>
<tr>
<td>15:50</td>
<td>Responding to the physiotherapy needs of patients following breast cancer related surgery</td>
</tr>
<tr>
<td>16.05</td>
<td>Sexual Health, Is all about community!</td>
</tr>
<tr>
<td>16.20</td>
<td>Presentation of awards</td>
</tr>
</tbody>
</table>
**Poster Session: posters will be displayed in the auditorium foyer**

<table>
<thead>
<tr>
<th></th>
<th>Title</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The prevalence of lymphatic filariasis related hydrocele and lymphoedema in Mandalay Region, Myanmar</td>
<td>Benjamin Dickson</td>
</tr>
<tr>
<td>2</td>
<td>Developing a model of allied health rural generalist practice: The REACH project</td>
<td>Aneta Thomsen</td>
</tr>
<tr>
<td>3</td>
<td>The safety of Endoscopist Directed Nurse Administered Propofol Sedation (EDNAPS) for endoscopic procedures in a regional setting</td>
<td>Montri Gururatsakul</td>
</tr>
<tr>
<td>4</td>
<td>Innovative Approaches to Mind-Body Therapies for Cancer Patients</td>
<td>Kerry Francis</td>
</tr>
<tr>
<td>5</td>
<td>Establishment and maintenance of a support group for people with Hepatitis C: Are there benefits?</td>
<td>Hugh Woolford</td>
</tr>
<tr>
<td>6</td>
<td>Introducing Patient Diaries to ICU Cairns</td>
<td>Sarah Cullen, Susan Jacups</td>
</tr>
<tr>
<td>7</td>
<td>Lymphatic filariasis in mainland South-East Asia: a systematic review and meta-analysis of infection prevalence and disease burden</td>
<td>Benjamin Dickson</td>
</tr>
</tbody>
</table>

*Morning tea, lunch and afternoon tea will be provided in the auditorium foyer*
Session one: Service redesign and evaluation

Keynote Address

What’s in a name? Terminology, relationships and health professional practice
Professor Melanie Birks, Head of Nursing, Midwifery & Nutrition, James Cook University

The terminology used to refer to recipients of care has significant implications for the nature of the relationship between individual and health care professional. The use of the traditional term ‘patient’ has come into question in recent decades because of the connotations of paternalism that it brings. Factors such as consumerism, advances in medical science and technology have resulted in a shift in the roles of players in the healthcare arena. This presentation explores the social and historical influences that have shaped both the terms we use and the impact that these have on the relationship between healthcare professional and recipient of care. The emergence of terms such as ‘client’ and ‘consumer’ as an alternative to ‘patient’ are traced alongside a chronology of events over time to explore external forces on the terminology that defines the healthcare relationship.

Patient, carer and provider perspectives of older people’s care transitions across acute, sub-acute and primary care
Dr Edward Strivens, Associate Professor, James Cook University, Clinical Director
Professor Michele Foster, Griffith University

Background and rationale
Older people with complex needs increasingly present to the emergency department and transfer to other levels and locations of care. If poorly managed, care transitions can result in increased risks for patients and avoidable readmissions. Older people are at particular risk because of frailty and the frequency and unpredictability of their care transitions. The aim of this study was to explore the care transition experiences of older people who present to the emergency department, transfer to a sub-acute ward and are discharged home.

Methods
This was an exploratory, longitudinal case study design utilising qualitative data collection methods, medical chart reviews and thematic analysis. Each of the 19 “cases” comprised three patient and two carer interviews and a medical chart review. 56 semi-structured interviews were conducted with patients and 37 with carers. Twenty-three service providers participated in three focus groups. Qualitative data was transcribed, coded and synthesised to identify recurring themes.
Results
From a patient and carer perspective, three main categories of transition experience were identified: disrupted, manageable and emergent. Help seeking rationales and behaviours, personal agency, trust in health professionals and appraisal of processes of care was influential in determining care transitions experiences. From a provider perspective, four main themes characterised care transitions. First, care transitions were unpredictable, dislocating and constantly evolving. Second, weakly connected care providers focused on referral to the next transfer destination rather than the patient’s coordinated journey through the system. Third, GPs, the emergency department and sub-acute care were pivotal touch points for achieving smooth and effective care transitions. Finally, discretionary and emergent practices developed to expedite transitions or make up for system failures.

Implications for practice
Care transition coaching, system navigators, early intervention and prevention, an enhanced GP role, and broader access to specialised geriatric services can improve older people’s care transitions.

Key message
Understanding and addressing issues which arise during care transitions is important for optimising patient experience and improving the safety and quality of care for older people.

Paediatric Outpatient Remodelling Project
Lauren Phillips, Senior Physiotherapist, Paediatrics, Cairns Hospital
Kelly McCafferty, Director of Psychology, Allied Health Lead Clinician for Child Youth and Family Services

Background and rationale:
Clinical audit showed almost half of the clients referred to see a paediatrician at the Cairns Hospital either did not need to see a paediatrician as the most appropriate first contact, or may not need to see them at all. A similar project at Caboolture Hospital was effective at clearing the Paediatric outpatient waitlist category 3 of 199 patients in 12 months.

Methods
This project initially began as a 0.6 FTE HP4 project officer for 4 months to work on models of practice, GP portal information and Digital Hospital build. Additional temporary funding for a Primary Contact Clinician (PCC) and to enhance the existing AH team enabled a Primary Contact Clinic to be trialled for 6 weeks. Two client pathways were established: 1) an initial contact appointment with the PCC and another member of the AH team relevant to referral OR 2) direct referral to appropriate allied health team member e.g. sore back directly to physiotherapy.

Results
Preliminary figures indicate:
- Low FTA rate;
- Positive feedback from families;
- Referrals removed from paediatrician waitlist;
- Indications that a number of patients may only require one appointment with a paediatrician instead of multiple for diagnostic purposes.

Implications for practice
Primary contact allied health clinic model can successfully remove clients from the Paediatric outpatient waitlist, reduce the waitlist times, provide efficiency by equipping the paediatrician with vital assessment information to enable timely diagnosis and referral to a community pathway reducing the new to review ratio and improving the patient journey.

Key message
- Paediatrician not always appropriate, and not always the best option for first contact;
- Offering appointments close to time of referral potentially improves FTA and compliance rates;
- Right service, by the right discipline and the right time.
A service evaluation: Revitalised but are we providing patient centred care?
Michelle Rothwell, Senior Pharmacist, Atherton Hospital

Background and rationale
Atherton District Hospital Pharmacy Department received funding from the ‘Rural and Remote Revitalisation Programme’ to introduce new clinical pharmacy services both for the hospital and its associated rural and remote sites. This service evaluation considered the extent of the service improvement, how satisfied the patients and staff were with the new services and whether the service was providing patient centred care.

Methods
The study design consisted of the measurement of pharmacy service outputs against predefined outcomes as well as quantitative clinician and patient questionnaires. Utilisation of ‘The Small Hospitals Patient Experience Survey’ (SHPES) combined with a follow-up questionnaire was used to measure provision of patient centred care.

Results
Data collection for the study period demonstrated an increase of 93.7% in the number of patients at Atherton who received pharmacist services on admission and an 82.9% increase in the number of patients who received pharmacist education and counselling on discharge. A multi-site questionnaire at baseline and 6 months post implementation demonstrated an increase in clinician ability to access medication of 53.5% and an increase in timeliness of access to medication of 69.6%. Clinician satisfaction with the pharmacy service increased by 33% with clinicians perceiving patient access to a pharmacist had increased by 55%. Patient questionnaires confirmed that pharmacist telehealth reviews are an accepted model of care. Utilisation and follow up of SHPES identified areas for service improvement in the provision of patient centred care.

Implications for practice
Rural and remote revitalisation funding has greatly increased patient access to a pharmacist. The acceptance of pharmacist telehealth reviews as a model of care will continue to increase patient access even in the remotest areas of our health service. Increase in clinical pharmacist activity on admission and discharge translates to much safer patient medication management both in hospital and in the community. Work undertaken with the SHPES will allow for continued service improvement based on patient identified requirements.

Key message
Rural and remote funding has greatly improved the pharmacy services delivered from Atherton Hospital. Service evaluation is an integral component of healthcare delivery and data collected can identify areas for future improvement.

Session two: Research – evidence to inform our practice

Patients’ psychological and practical reasons for attending the Cairns Hospital Emergency Department: A mixed methods study (P3ED)
Professor Jane Mills, Head of Centre for Nursing and Midwifery Research (CNMR), James Cook University

Background and rationale
This study was prompted by figures showing presentations to Cairns Hospital (CH) Emergency Department (ED) were increasing at a rate greater than the national average. The aim of this mixed methods research study was four-fold: to provide an analysis of current and recent trends in utilisation of the CH ED; to estimate the rate of GP-type patients presenting to the CH ED; to identify the psychological and practical reasons for people attending the CH ED; and to consider alternative models of care to potentially reduce presentations to the CH ED.
Methods
Qualitative data gleaned from focus group meetings was combined with quantitative data from the Emergency Department Information System (EDIS) and a 28-question survey, administered face-to-face by research assistants working in the CH ED. Descriptive analyses were used for quantitative data and qualitative data was coded, categorised and analysed further using a storyline technique.

Results
A significant percentage of the increased presentations was for a primary ICD10 diagnosis for chronic disease (from 5% of total presentations in 2010 to 7.8% in 2013; for the month-long survey period in 2014, chronic disease presentations remained high at 7.5%). Other factors leading to the increase in presentations included a lack of consumer confidence in primary health care services, based on a public perception that many health conditions were ‘too complicated’ for any other setting. Parents of young children also expressed the view that the ED was the ‘best place’ for their children’s medical care. Many patients also explained that they chose the ED for their care because ‘everything was in the one place’.

Implications for practice
The study authors recommended three areas in which to focus strategies aimed at reducing CH ED presentations:
Consider alternatives: Investigate the establishment of a minor injuries clinic
Deeper analysis: Undertake targeted analysis of the existing dataset and expand the dataset to include Medicare data, ethnicity data, BEACH data, linked EDIS data and separations data.
Targeted chronic disease care: Strengthen health professional networks and implement strategies to prevent exacerbations of chronic disease.

Key message
Understanding why people choose the CH ED was an important first step in identifying red flag areas. To reduce CH ED presentations, targeted collaborative work is needed across a number of health care sectors and settings and between disciplines – both clinical and research.

When chronic conditions become emergencies – a report from Far North Queensland
Linton Harriss, Senior Research Fellow, Centre for Chronic Disease Prevention, James Cook University

Background and rationale
The burden of disease and injury varies across Australia with regional and remote populations experiencing substantially higher age-standardised rates than major cities. Aboriginal and Torres Strait Islander people experience higher rates of these conditions compared with other Australians resulting in higher levels of disability and lower life-expectancy. We sought to describe chronic conditions and injuries as a proportion of total emergency presentations to Cairns Hospital, and investigate differences in presentation rates associated with Indigenous status.

Methods
Cross-sectional analysis using Cairns Hospital EDIS data. Results were based on 95,238 presentations linked to 50,083 local Cairns residents discharged during a two-year period (01July2012-30June2014). Selected chronic conditions and injuries were identified from principal diagnosis at discharge using ICD-10-AM codes. Crude presentation rates were calculated using official local population estimates and standardised to the Australian 2001 reference population.

Results
Chronic conditions and injuries together accounted for nearly half of all presentations (20.2% and 28.8%, respectively). Over 85% of all chronic condition presentations were related to mental and behavioural disorders (34.6%, mostly psychoactive substance use, intentional self-harm and schizoid-delusional disorders), circulatory system (33.2%, mostly IHD, cardiac arrhythmias and heart failure), digestive system (9.2%, mostly oral diseases) and respiratory system (8.5%, mostly asthma and COPD). Head injuries accounted for the highest proportion of all injuries (18.9%). These conditions also had the highest age-standardised rates. Indigenous Australians represented 17.9% of all emergency presentations despite accounting for only 12.9% of the local Cairns population. Age-standardised rates for all major
Diagnostic groups were consistently higher for Indigenous people, whose presentations were lower in mean age (95% CI) by 7.7 (7.3-8.1) years, 23% less likely to be potentially avoidable “GP-type” presentations [RR (95% CI) = 0.77 (0.75-0.80)], 30% more likely to arrive by ambulance [1.31 (1.28-1.33)] and 11% more likely to require hospital admission [1.11 (1.08-1.13)].

Implications for practice and key message
Opportunities exist to enhance current co-ordinated hospital avoidance services targeting common chronic conditions as IHD, cardiac arrhythmia, heart failure, asthma, COPD, psychoactive substance use and other mental health conditions. Services specifically targeting Aboriginal and Torres Strait Islanders are also warranted given the higher presentation rates for this population.

Dementia in the Torres Strait: Is there cause for concern?
Chris Cunningham and Dr Joan Norrie, Psychologists, CHHHS Older Persons Health Service, Healthy Ageing Research Team

Background and rationale
Aboriginal and Torres Strait Islander people have higher rates of chronic disease and worse health outcomes than the general Australian population. Recently, an increased risk of dementia has also been identified within Aboriginal communities in people aged 45 and over. It is not known if Torres Strait Islanders share this increased risk of dementia, although high rates of vascular risk factors, which may increase the risk of dementia, are found in these communities. The aim of this study was to assess the prevalence of dementia amongst residents aged 45 years and over living in Torres Strait communities. An additional aim was to validate a full version of a culturally appropriate cognitive assessment tool, the Kimberley Indigenous Cognitive Assessment (KICA-cog), for use in the Torres Strait.

Methods
Residents aged 45 and over living on Thursday, Horn and Hammond Islands were invited to participate in the study. Each participant underwent a comprehensive health assessment that included the administration of the KICA-cog modified for use in the Torres Strait. Participants were also diagnosed as having dementia, mild cognitive impairment or normal cognition in a separate comprehensive dementia assessment conducted by a geriatrician.

Results
The risk of dementia and cognitive impairment in Torres Strait residents aged 45 and over, was found to be significantly higher than in the general Australian population. High rates of vascular risk factors which also predict dementia risk were also found. Consistent with previous studies, Alzheimer’s disease was the main dementia diagnosis given. The KICA-cog was validated for use in the Torres Strait.

Implications for practice
The results highlight the need for screening for cognitive impairment and dementia in Aboriginal and Torres Strait Islander communities aged 45 and over to ensure early diagnosis and intervention for those affected by dementia.

Key message
There is a role for health professionals to actively promote healthy lifestyles across the lifespan to reduce dementia risk.

Metofluthrin emanators as potential tools for preventing dengue transmission
Odwell Muzari, Senior Medical Entomologist with the Tropical Public Health Services Cairns

Background and rationale
North Queensland experiences outbreaks of dengue annually. Effective control of the outbreaks is reliant upon control of the vector mosquito, *Aedes aegypti*. The mosquitoes generally live in and around the houses, where the adults readily blood-feed on humans and deposit eggs in water-holding containers in the yard where larval development occurs. Current methods for controlling dengue mosquitoes include spraying inside premises with residual pyrethroid insecticides, which is a laborious task especially in large outbreaks. A promising new technique involving the sustained release of the spatial vapour-active
synthetic pyrethroid Metofluthrin has potential as an alternative method for the control of *Ae. aegypti* and prevention of dengue transmission in a domestic setting.

**Methods**
The efficacy of recently-developed Metofluthrin emanators (SumiOne net) was evaluated in rooms of different houses in Cairns. Impact of the treatments was assessed by observing caged female *Ae. aegypti* mosquitoes placed at varying distances from the emanators over a range of exposure times. Biting intensity was estimated by the number of mosquitoes landing and probing on a hand held against the cage netting, while knockdown was measured via periodic visual counts. The research was part of a project funded through the Health Practitioner Research Scheme.

**Results**
Biting intensity of mosquitoes in treated rooms was reduced by 70-100% overall. Level of mosquito knockdown varied among rooms, but often reached more than 50% within a 2-hr period. When used outdoors on the veranda, the emanators significantly reduced mosquito bites but knockdown levels were not as high. The results demonstrated the effectiveness of Metofluthrin at preventing or reducing contact between humans and *Ae. aegypti* through disorientation, knockdown and killing of the mosquitoes if they are exposed to sufficient doses.

**Implications for practice**
These results suggest that hanging Metofluthrin emanators in rooms where people and *Ae. aegypti* are likely to interact could be an efficacious method of preventing biting and thus could improve efficiency of dengue control programs in north Queensland. However, there is still need to determine optimal deployment patterns and evaluate whether its impact on mosquito populations could effectively break disease transmission on a larger scale.

**Key message**
The great potential of the technique has been demonstrated at household level, but its applicability in broader-scale operations requires investigation before the method can be adopted as a reliable option to current techniques.

**Reducing the impact of cyclone, flood and storm related disasters on non-communicable diseases through public health infrastructure resilience**

*Ben Ryan, Public Health, Disaster Management, PhD student, James Cook University*

**Background and rationale**
Over the last quarter of a century the frequency of natural disasters and the burden of non-communicable diseases (NCD) across Australia and the world have been increasing. For people with NCDs such as cardiovascular diseases, cancers, diabetes, asthma and kidney diseases this is a significant risk. Disasters jeopardise access to essential treatment, care, equipment, shelter, water and food. This can result in an exacerbation of existing conditions or even preventable death. This research aims to address this risk by exploring how the health impacts of cyclone, storm and flood related disasters on people with NCDs can be reduced through PHI resilience.

**Methods**
Focus groups and interviews have been completed with people who have NCDs, disaster responders, health specialists and government officials across Queensland, Australia. These discussions explored the impact of flood, storm and cyclone related disasters on NCDs, possible solutions and implementation strategies. The data was analysed following the process for a qualitative study. This included data collection and organisation, description, classification and interpretation of the results.

**Results**
Disasters can disrupt treatment and care for people with NCDs through damage to PHI. This disruption increases the risk of exacerbation of their illness (including death). Possible mitigation strategies include: a focus on strengthening PHI (e.g. multiple options for providing treatment, care and safe water), improving communication and education across the health system (e.g. consistent messages and preparations tailored to individual patient needs); basing disaster plans on community priorities (e.g.
reflect local burden of disease); and ensuring the presence of general practitioner services at evacuation centres.

Implications for practice
Disaster systems should focus on:
- Strengthening PHI
- Improved communication and education
- Developing plans based on community health needs
- Ensuring the presence of general practitioner services at evacuation centres.

Key message
A disaster can interrupt treatment, management and care of people with NCDs, which increases the risk of their condition exacerbating. To address this risk, disaster strategies need to consider the needs of people with NCDs before, during and after a disaster.

Session three: Clinical practice – making a difference

Clinical Pharmacists Connecting with Patients in Rural and Remote Towns via Telehealth
Michelle Rothwell, Senior Pharmacist Atherton Hospital
Adam Hogan, Pharmacist, Atherton Hospital

Background and rationale
A successful funding application for rural and remote revitalisation is allowing for delivery of a professional pharmacy service to patients in a large rural and remote area of Queensland. The clinical pharmacy service is delivered via telehealth, from a medium sized rural hospital to ten rural and remote healthcare facilities, covering an area of approximately 160,000 kilometres. The main aim of the new service is to provide equitable access to a pharmacist for rural and remote patients and clinicians.

Methods
Nurses identify patients from their communities, thought at risk from medication misadventure, using referral criteria adapted from the Australian Pharmaceutical Formulary and Handbook. An appointment letter and explanation brochure is emailed either direct to the patient or to the patient via the nurse; the patient is advised to bring all their medicines with them to the consult. The nurse attends the consult with the patient in their community and the pharmacist conducts the medication review via telehealth. An electronic medication list is compiled for the patient and any pharmacist recommendations are then communicated to the general practitioner/Royal Flying Doctor Service. Data collection includes telehealth activity from HBISC to measure patient uptake; patient and nursing staff surveys to measure service satisfaction and pharmacist interventions and their outcomes.

Results
Nursing staff are actively engaged with the pharmacist outpatient clinic and nurse champions are emerging. Thirty-one consults have taken place since November resulting in forty medication interventions. The service is steadily growing with the number of interventions increasing exponentially with the increase in consults.

Implications for practice
The consequences of ‘medication misadventure’ have been highlighted, prompting the development of cognitive services to enhance the management of medication use. It is well established that in rural communities timely and quality access to medication services remains a significant and growing problem. Patient access to a pharmacist is providing safer healthcare in these communities.

Key message
Data collected from this new service is showing that pharmacist mediation reviews delivered via telehealth is an appropriate and accepted model of service delivery.
Vitamin D supplementation in pregnant women with diabetes mellitus residing in Far North Queensland
Sigrid Theodore, Final Year medical student, James Cook University

Background and rationale
Women with diabetes in pregnancy (both pre-existing and gestational, GDM) are routinely tested in Far North Queensland for low serum vitamin D levels, following the results of a recent study which revealed around 20% of such women had either insufficient or deficient levels of vitamin D. (Cheng et al, ANZJOG 2014) The purpose of this study was to assess the appropriateness of vitamin D supplementation in the treatment of low vitamin D levels in this population of pregnant women.

Methods
A prospective chart audit was conducted between February 2014 and February 2015 of all women attending the diabetes clinic of the Integrated Women’s Health Unit at Cairns Hospital. All women were given an initial pathology request form to assess serum vitamin D levels. Those women diagnosed with vitamin D insufficiency or deficiency were given a script for supplementation and a repeat pathology request form to monitor serum vitamin D levels.

Results
A large proportion of women with GDM did not proceed to have a blood test to assess their vitamin D levels (42.9%). Of the women diagnosed with vitamin D insufficiency or deficiency, 69% did not have a follow-up blood test. Of those women who had a follow-up blood test, mean serum vitamin D levels were found to have increased significantly. However, when the sample was stratified by ethnicity, it was found that the mean serum vitamin D levels of non-Indigenous women incremented significantly, whereas the mean serum vitamin D levels of Indigenous women did not increment significantly.

Implications for practice
The results of this study indicate that the current RANZCOG recommendations for monitoring and treatment of vitamin D deficiency in pregnancy are not suitable for the majority of pregnant women with inadequate vitamin D levels in Far North Queensland. Other methods of treatment need to be considered including culturally appropriate education regarding vitamin D inadequacy and the possibility of providing supplements to women most at risk.

Key message
Further research is required to assess the most effective education and treatment solution.

Neonatal Hypothermia – A Hot Topic
Jonelle Mayers, Nurse Unit Manager, Special Care Nursery (SCN), Cairns Hospital

Background and rationale
Neonatal hypothermia is defined by the World Health Organisation (WHO) as an axillary temperature less than 36.5 degrees Celsius. Neonatal hypothermia is a contributor to neonatal morbidity and mortality. Neonatal Hypothermia impacts on the newborn resulting in respiratory distress and biochemical imbalances. PRIME reporting identified a significant number of newborns were recording an initial temperature of less than 36.5 on admission to the SCN. This was identified as a concern and a need for processes to be reviewed. Hypothermia has significant consequences to the small and compromised neonate who is vulnerable in terms of maturity and size. It was this vulnerable and small neonate, <32 weeks completed weeks gestation, less than 1500 grams and or requiring respiratory support that this study chose as its cohort.

Methods
A retrospective data audit was undertaken of all newborns <32 weeks completed gestation , less than 1500 grams and or requiring respiratory support who were admitted to the Special Care Nursery. From this cohort it was then identified neonates who had an admission axillary temperature of less than 36.5 degrees Celsius which is consistent with the WHO definition of Neonatal Hypothermia.
Results
The retrospective data over a seven year period identified that Neonatal Hypothermia continues to be a problem in the at risk newborn. Hypothermia peaked at 42% in the at risk group.

Implications for practice
Neonatal hypothermia is something that we as midwives and neonatal nurses can be proactive and not reactive about. Through education we can review neonatal heat loss through convention, radiation, evaporation and conduction and change our practices to minimise opportunities for heat loss. We recognise that of all the admissions to the neonatal unit 33% are indigenous and this population group also has its own health risks including small for gestational age in the newborn which predisposes them to hypothermia. Currently newborns are received in warm wraps at delivery in the birth suite and theatre environments. However it is the environmental temperatures in these areas that continues to contribute significantly to heat loss through radiation. From the environments of Theatre and Birth Suite the newborn has to be transported to the SCN. The transporting of the newborn places them at risk of further heat loss impacting on morbidity and mortality. This study reviewed these practices with recommendations.

Key message
Neonatal Hypothermia is preventable and by preventing hypothermia neonatal outcomes can be improved.

Evaluating the dissemination of best practice model of care for nutritional management of gestational diabetes
Shelley Wilkinson, Advanced Accredited Practising Dietitian, Senior Research Dietitian, Mater Mothers’ Hospitals, Brisbane

Background and rationale
A gestational diabetes mellitus (GDM) model of care (MOC) implementation project is underway at Cairns & Hinterland and Darling Downs Hospital and Health Services (HHS), with support from the Mater Mothers’ Hospital (MMH). This project builds upon work undertaken at the MMH in 2012-2013 that aimed to improve the dietetic management of women with GDM through the implementation and evaluation of a ‘full scope of dietetic practice MOC’.

Methods
Project phases include: Consultation (2 months) - project team formation and role negotiation, project planning, site visits for launch, and resource familiarisation, refinement, and feedback; Baseline (4-6 months) - monitoring current practice, stakeholder assessment of GDM service against best-practice flowchart, facilitation of decisions around space and human resources, recommendation of education materials and monitoring processes (using an Access database, GDM Assist); Transition (2 months) - embedding the new MOC; Implementation (4-6 months) - delivery of the evidence-based MOC alongside evaluation of process and clinical outcomes. The primary outcome is ‘optimal strategies to facilitate local adoption of the MOC by HHS’s’. Secondary outcomes relate to MOC adherence and effect on pharmacotherapy requirements.

Results
The project is running according to timeline. To date project team members have been identified per site (project lead, site champion, GDM dietitian, and research position). Four site visits and one teleconference have occurred, with further visits and teleconferences planned at key milestones. Stakeholder engagement occurs through meetings, email circulation, and newsletter distribution through networks. Feedback and modification regarding the flowchart and resources has occurred.

Implications for practice
The MMH project demonstrated that following the implementation of an evidence-based MOC significantly more women received best-practice care (<0.01% pre vs. 50.6% post, p=0.02). This project aims to develop an off-the-shelf package for statewide roll-out, facilitating optimal clinical outcomes for women with GDM across Queensland.
Key message
This implementation project provides partner sites with an opportunity to make a difference to patient outcomes, participate in a multi-site trial with expert support and resources, evaluate both the current service and an alternative MOC, and build (implementation) research capacity.

International peer access via online education portal: Hybrid High fidelity Renal based simulation education with Simulated patients
Kylie Dunbar-Reid, Nurse educator

Background and rationale
Simulation is a well-established and proven teaching method, yet its use in renal education has not been widely adopted since its introduction in 2009. Criticisms of high fidelity simulation based teaching include lack of access to the equipment, limited realism and a lack of authentic patient interaction. This can be overcome through the use of simulated patients (SiP) wearing a removable renal vest. SiP can be used as a cost effective alternative to high fidelity mannequins for renal departments without access to clinical skills laboratories. Once the work was completed, identification of an appropriate online education portal system was sort to provide National and International peer access.

Methods
After consultation and experimentation, a high fidelity hybrid haemodialysis simulation training program was developed. Encompassing patient and staff safety principles, this program has promising results in relation to a new and evolving renal specific method of teaching. To support National and International access to this body of work, it will soon be available online through the support of the Australian Online Nephrology Education Portal.

Results
Evaluations reveal high participant satisfaction and confidence in the delivery of safe haemodialysis interventions in a no risk learning environment. Initial uploads onto the Online Nephrology Educators portal has commenced, with a view of completion by December 2015.

Implications for practice
Hybrid renal simulation training provides a safe, controlled environment for renal clinicians to practice and up skill both routine and emergency haemodialysis specific patient scenarios. With the introduction of utilizing an online education portal, this work will be available for National and International professional peers caring for patients with chronic kidney disease.

Key message
High fidelity haemodialysis simulation using hybrid renal adaptations and simulated patients is an innovative way to deliver renal training, mastery of competencies, and an opportunity for staff to debrief and learn in a risk free environment. Online access of this work has the potential to positively influence patient safety and quality patient care both nationally and internationally.

Developing intern clinical reasoning skills during their general medicine term
Paul Welch, Development Manager of the Northern Clinical Training Network, PhD student
Colin Baskin, Senior Medical Education Officer, Cairns Hospital

Background and rationale
Clinical reasoning skills are core to medical practice but are seldom discussed, difficult to conceptualise and problematic coach. The transition year from medical school to junior doctor provides a high pressured learning environment. During this year there is a significant expectation placed on the new doctor to rapidly develop clinical reasoning skills. Understanding how interns conceptualise their acquisition of clinical reasoning skills is understudied.

Methods
This project introduced some of the core concepts from the clinical reasoning literature to interns at the start of their general medicine term using a PowerPoint slide presentation. This term was selected as the
literature focuses on general medicine, and during the term interns see a wide range of undifferentiated patients. At the end of their general medicine term the interns were interviewed using a stimulated recall methodology. The slides from the initial session at the start of term were used to stimulate the intern to comment on concepts that resonated with their own learning, reflection and experience. These semi-structured interviews were recorded, transcribed and then analysed using a membership categorisation devices framework.

Results
This two centre intern study is expected to give insight into the usefulness of the initial coaching session as well as the interns’ reflections on their acquisition of clinical reasoning skills during the term. The study is in the data collection phase having already established a framework for the clinical reasoning coaching session that is currently in press.

Implications for practice
Actively raising awareness of how clinical reasoning skills are acquired by junior doctors is important and understudied.

Key message
The acquisition of clinical reasoning skills is core to medical practice. Junior doctors may benefit from being taught a conceptual framework to better integrate the theoretical abstract of clinical reasoning with their working experience.

Session four: Service development and change

Too close to home – What are the lived experiences of rural Queensland nurses who have cared for people with cancer who have died? What are the recommendations and implications for practice?

Ann Aitken, Director of Nursing, Midwifery and Facility Manager for Atherton Hospital

Background and rationale
This paper will present a brief overview of this PhD project concentrating on the recommendations and implications for practice from the research. The objectives of the study were to understand the experience of the nurses, providing participants with the opportunity to share their feelings and experiences of caring for people with cancer, and of the impact of their death, and to develop recommendations for the development of strategies to support rural nurses in similar situations.

Methods
The phenomenological methodology of van Manen was used in this study to examine and understand the lived experience of rural nurses caring for people with cancer who have died. In-depth interviews were conducted with nurses from across rural Queensland, providing them with the opportunity to share their feelings and experiences of caring for people with cancer, and of the impact of the death of their patient.

Results
Common themes have been highlighted and explored, with the three main phenomenological themes being accepting the need to adopt progressive ways of delivering nursing care, learning different ways of relating to patients and families, and seeking to achieve a life-work balance. There are several sub-themes in each main theme.

Implications for practice
The results from this study have led to the development of recommendations relating to staff support in the rural setting for nurses caring for patients with cancer. The recommendations have been categorised into the areas of implications for nursing practice, education, policy and research. I believe that the findings of the research can be transferred to areas outside of the care of patients with cancer, to include the support of nursing staff in rural settings who care for patients with chronic and complex illness who also spend extended or frequent periods in hospital, and who die from their disease.
Key message
Systemic challenges impact on the experience of rural nurses caring for people who are dying. Through a greater understanding of the experience of the nurse a proactive approach can be taken to ensure that rural nurses are appropriately prepared and supported to provide quality care in our rural facilities.

GISMOM MET Calls at Cairns Hospital; Closing the loop after Medical Emergency Team (MET) calls: an online database that issues notification and requests reviews of the deteriorating patient
Bruce Bates, Quality Officer – Clinical Audit
Susan Jacups, Clinical Data Manager ICU, Cairns Hospital

Background and rationale
Cairns ICU historically recorded all MET call data in an MS Excel worksheet, accessible only to ICU. The data was only available to treating teams in summary form as monthly and annual reports. GISMOM MET Calls is an on-line application that provides two way communication/reporting of the data collected at MET calls and provides the opportunity for the treating teams to review the Adult Deteriorating Detection System (ADDS) in a timely manner. GISMOM MET Calls supports the requirements for the National Standard 9.2.

Methods
The Quality and Patient Safety Unit developed an on-line Information System (GISMOM) for the Health Service auditing across the National Standard. MET Call data is entered into GISMOM immediately following each MET event, this triggers an email notification to ward Nurse Unit Manager (NUM) to review patient ADDS observations at the time of the MET Call. The NUM then nominates the consultant and GISMOM launches them an email notification requesting review of the case evaluated against the requirements for ADDS. Staff can review their MET calls on-line and also access summary reports with service delivery trends of ADDS observation chart use.

Results
GISMOM MET, launched in October 2014, reports on three layers of information; clinical information from MET call, NUM review of patient record and medical review of patient. In the first 8 months; ICU have attended 431 MET calls averaging 54/month, NUMs have reviewed 82%, and Consultants reviewed 23% of records, clinically assessing 22% of patients within 24hr.

Implications for practice
Although it is too soon to determine if clinical care has improved; communication between ICU and treating/nursing teams has improved and the Health Service complies with National Standard 9 in closing the loop on MET communication. Additionally, Cairns Hospital has improved patient quality control, as each MET event is audited against the ADDS.

Key message
No other Australian hospital (in the literature) has the capacity to provide similar timely notification of a MET event to the home team. GISMOM MET Calls also prompts a review of the patient against the ADDS, as a quality improvement audit.

Once the sensitivities are known: a systematic review of antibiotic choice in typhoid
Rukaiya Malik, Medical student, James Cook University
Professor John McBride, Infectious Disease Physician and Clinical Microbiologist at Cairns Hospital

Background and rationale
Typhoid fever is an important tropical infectious disease and effective antibiotic management is essential to its treatment. Therapeutic guidelines vary between different countries and are complicated by evolving resistance patterns. Currently nalidixic acid resistant (NaR) and multi drug resistant (MDR) isolates are
common. The aim of this systematic review is to determine the most clinically effective antibiotic to treat both fully sensitive and resistant typhoid and to highlight the gaps in research.

**Methods**

PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines were adhered to in this review. Data was identified through an electronic search of PUBMED/MEDLINE and SCOPUS databases. Combinations of the following search terms were applied: ‘enteric fever’, ‘typhoid fever’, ‘Salmonella Typhi’, ‘fluoroquinolones’, ‘ciprofloxacin’, ‘ofloxacin’, ‘gatifloxacin’, ‘cephalosporins’, ‘ceftiraxone’ ‘cefixime’, ‘macrolides’, ‘azithromycin’ and ‘chloramphenicol’. Pre-defined inclusion/exclusion criteria determined the final selection of seven open-labelled, well-powered randomised control trials.

**Results**

Fluroquinolones and azithromycin are equally effective in treating fully sensitive typhoid, while azithromycin is favoured over quinolones in the presence of NaR typhoid. Quinolones are favoured over oral cephalosporins in all typhoid resistance types. However, there are no well-powered comparative trials involving ceftriaxone due to its high cost. Two small clinical trials indicate that there is no significant difference between azithromycin and ceftriaxone. Another small trial indicates ofloxacin is more clinically effective than ceftriaxone. Gatifloxacin is clinically equivalent to azithromycin, even in regions of MDR and NaR. Lastly, chloramphenicol, azithromycin and gatifloxacin are clinically equivalent in patients who do not have MDR typhoid.

**Implications for practice**

Broadly, this review supports the Australian Therapeutic Guideline recommendation for the use of either azithromycin or fluoroquinolones in the treatment of fully sensitive typhoid. The use of ceftriaxone as an alternative treatment is supported by some inadequately powered trials. It is important for doctors and nurses to be aware of the level of evidence associated with established guidelines.

**Key message**

Overall, there is a need for further comparative trials, involving ceftriaxone, ciprofloxacin and azithromycin. No definite recommendation for the most efficacious treatment for typhoid can be made due to the small number of large, well-powered comparative trials.

This article has been accepted for publication in the *Annals of the Australasian College of Tropical Medicine.*

**Improved patient-centred care across the continuum of care for patients undergoing elective joint surgery at Cairns Hospital: A Pilot Project**

**Ben Glenwright, Acting Orthopaedic Senior Physiotherapist**

**Background and rationale**

Total hip replacement (THR) and total knee replacement (TKR) are major, commonly performed surgeries. These procedures can be stressful for patients, contributing to compromised recovery and prolonged hospital stays. Pre-admission patient education programs prior to surgery have been shown to reduce anxiety, improve patient satisfaction and reduce length of stay (LOS). Patients of Cairns Hospital scheduled for THR and TKR received a three page printed information sheet. In 2015, a patient education package developed elsewhere and revised by clinicians was introduced. Patients scheduled for TKR and THR surgery were invited to attend a group education session conducted by a Physiotherapist and Occupational Therapist within four weeks of their surgery.

The aim of this pilot study was to investigate the impact on LOS of a group pre-admission patient education program for patients scheduled for THR and TKR surgery. A further aim was to assess patient satisfaction with the program.

**Methods**

A small descriptive study using historical controls was designed. Mean length of stay per month for the period May to July 2015 was calculated and compared with the same period in 2014. Patient satisfaction data is being collected using a survey designed for the study.
Results
At June 30th, 10 THR and 18 TKR patients who attended the patient education session have undergone surgery. Preliminary results show a reduction in LOS for patients who attended pre-admission group education. LOS for THR patients was 7.5 in May 2015 and 7.4 in June 2015 compared with 8.65 in May 2014 and 9.07 in June 2014. For TKR patients; LOS was 3.6 in May 2015 and 4.4 in June 2015 compared with 5.76 in May 2014 and 6 in June 2014. Preliminary survey results show high levels of patient satisfaction with the program.

Implications for practice
Pre-admission group education may potentially reduce LOS for THR and TKR patients and have a positive impact on patient satisfaction. Robust study designs which investigate the statistical significance of the impact of the education sessions and other factors which have been shown to reduce LOS are required.

Key message
The study highlights the potential benefits of pre admission group patient education for patients undergoing THR and TKR surgery.

Responding to the physiotherapy needs of patients following breast cancer related surgery
Michelle Whap, Senior physiotherapist, Cancer Care

Background and rationale
Early physiotherapy after breast cancer related surgery can assist with musculoskeletal (MSK) recovery and avoid unnecessary delays in cancer treatments. Prior to the HHS restructure in 2013, all Cairns based post-operative breast care patients were managed by the community health team. With the change in the model of care, staff and patients expressed concerns about gaps and delays in post-operative physiotherapy follow-up for patients following breast surgery. A quality project was designed to review current referral pathways, identify gaps in services and review the cancer care physiotherapy service to address these issues.

Methods
A clinical audit of patients discharged from hospital after breast cancer related surgery and referred for post-operative physiotherapy was conducted between November 2013 and April 2014. Details of breast surgeries, post-operative physiotherapy, referral location, treatment commenced > one month post discharge, outcome of referrals, MSK recovery and associated complications, and demographic details were collected and manually entered into an excel spreadsheet for analysis. Frequencies and percentages were calculated for all data.

Results
There were gaps in post-operative physiotherapy follow-up and associated adverse outcomes for some patients. Approximately 74% of patients referred for physiotherapy follow-up in the community did not meet the new service acceptance criteria. 74% of the patients referred for community physiotherapy (and who were ineligible) developed musculoskeletal (MSK) complications within 2-4 weeks post operation. 92% of patients needed further cancer treatment. 35% of patients resided in regional/remote areas and Yarrabah. This data informed a redesign of physiotherapy follow up following breast surgery.

Implications for practice
Following breast cancer-related surgery, all Yarrabah and local Cairns patients were referred to the Cancer Care Physiotherapy Service for post-operative follow up unless the patient was more suited to community based therapy. The change in practice allowed for a more consistent approach to physiotherapy follow up, less uncertainty of service provider, more clear expectations of physiotherapy service, a more seamless cancer care journey for patients and improved communication within the multidisciplinary team. Further investigation of services for regional and remote patients is required.
Key message
Early physiotherapy after breast cancer related surgery can assist with MSK recovery and avoid unnecessary delays in cancer treatments while promoting a supported cancer journey with the multidisciplinary team.

Sexual Health, Is all about community!
Simon Doyle-Adams, Team Leader for Cairns Sexual Health

Background and rationale
We have undertaken extensive change in our service model of care over the last 5 years and migrated from booked appointments only to now 70% of our clients accessing through a walk in service offered all day Monday to Friday.

Methods
We have undertaken client satisfaction surveys and needs analysis of our clients in 2009/2011/2014. The surveys have asked about overall satisfaction with all aspects of our service from booking, appointment availability and walk in provision and quality of care. The results have been reviewed and the service adapted to meet the needs of our clients.

Results
74% increase in number of clients accessing our service with only a small increase of staffing FTE. From the most recent survey when asked to comment on the following statement “overall, I am satisfied with the service I received” 90% strongly agreed and 10% agreed, overall 100% satisfaction from the respondents. With the innovative screening pathways and more accessibility in our service we are increasing our screening by 1000 more clients in the last 12 months but we are seeing the same levels of infection rates, which indicates we are still seeing those most at risk of STI.

Implications for practice
Sexual Health clients need easy and flexible access to sexual screening, blood borne virus treatment and care. If this is provided then more clients can access the service. Innovative and client focused targeted screening pathways have increased screening rates. Furthermore using innovation and “lean” processes in the clinic we have managed the increase in clients using current resources and staffing FTE.

Key message
Consult your communities to establish what their need is and tailor your service to meet that need. Innovative client focused planning has led to increase in client numbers and in client satisfaction.

Poster session
The prevalence of lymphatic filariasis related hydrocoele and lymphoedema in Mandalay Region, Myanmar
Benjamin Dickson, Final year medical student, honours candidate, James Cook University

Background and rationale
Lymphatic filariasis (LF) is highly endemic within Myanmar. Despite the establishment of an elimination programme in 2004, little remains known about the prevalence of LF related morbidity in the country.

Methods
We therefore conducted a cross-sectional survey to determine the prevalence of LF infection and morbidity and their associated risk factors in 24 randomly selected villages in four endemic townships within the Mandalay region of Myanmar - Amarapura, Patheingyi, Tada-U and Wundwin - between February and March 2015. Within each village, twenty households were randomly chosen for inclusion. Household members one year and older were tested for antigenemia with rapid immunochromatographic card tests (ICT). A night-blood slide was done for those with positive ICT results to quantify microfilaraemia. Ultrasound assisted clinical examination was done on household members 15 years and older for signs of LF-related morbidity. Household questionnaires and GPS mapping were completed for risk factor analysis.
Results
Of those tested with ICT in 414 households, 45 of 1018 individuals (4.4%, 95% confidence interval (CI) 3.2 to 5.9%) were positive. ICT antigenemia was highest in Amarapura (32/294, 10.9%, 95% CI 7.6 to 15.0%) followed by Tada-U (8/267, 3.0%, 95% CI 1.3 to 5.8%), Wundwin (4/343, 1.2% 95% CI 0.3 to 3.0%) and Patheingyi (1/114, 0.9%, 95% CI 0.02 to 4.8%). Eighteen of the 289 males (99% of those eligible for scrotal examination) had hydroceles (6.2%, 95% CI 3.7 to 9.7%). Thirteen were unilateral and five were bilateral. Of the 23 hydroceles, 14 were stage one, seven were stage two and two were stage three. No cases of limb lymphedema or elephantiasis were found in the 827 individuals examined (0%, 97.5% one-sided CI 0 to 0.4%).

Implications for practice
These results highlight the strong need for further rounds of mass drug administration as well as targeted surgery and morbidity alleviation programmes in the region. Further LF morbidity prevalence studies are needed to elucidate the morbidity burden in the remainder of the country.

Key message
The results of this study indicate a high prevalence of LF infection and hydrocele with low levels of limb lymphedema in the Mandalay Region of Myanmar.

Developing a model of allied health rural generalist practice; The REACH Project
Aneta Thomsen, Senior dietitian, Mareeba Hospital

Background and rationale
Hinterland hub has identified significant unmet need for specific allied health services. Generalist practice is widely proposed as the most appropriate model of care for rural and remote settings. However, Hinterland hub lacked the workforce and the capacity to provide on the job training required for development of rural generalist skills. Funding was obtained for a twelve month allied health rural generalist training position targeting new graduates. The position included quarantined time to develop skills relevant to rural generalist practice. Service models in Hinterland hub were redesigned around this position to help meet unmet demand for nutrition and dietetic services. The aim of the REACH study was to investigate the impact on clinical service activity of a rural generalist allied health model of care in an area of unmet service demand.

Methods
A program logic methodology was used to document the project, and design a quality improvement activity to evaluate the impact of the redesigned service on clinical service activity. The service redesign included: A daily inpatient service at Atherton and Mareeba hospitals; participation in daily ward and discharge planning meetings; home visits for palliative or severely disabled clients; tele-health consultations with Georgetown, Croydon and Forsayth clinics; outpatient clinics and chronic disease education for individuals and groups. Clinical service activity data 12 months pre and post implementation was collected from the Performance Indicator System version 5 (PI5) and analysed using descriptive statistics.

Results
The redesign increased dietetic occasions of service for in patients and out patients at Atherton Hospital, reduced wait times for outpatient dietetic appointments at Atherton Hospital and a tele-health service for remote primary health clinics was commenced.

Implications for practice
Rural generalist service models have the potential to improve timely access to dietetic services. There are challenges in relation to competing rural generalist training and service delivery priorities and setting up a new service in a tight twelve month time frame.

Key message
The redesigned service model incorporating a rural generalist position has improved accessibility to dietetic services in Hinterland hub.
The safety of Endoscopist Directed Nurse Administered Propofol Sedation (EDNAPS) for endoscopic procedures in a regional hospital setting
Montri Gururatsakul, First year gastroenterology advanced trainee, Cairns Hospital

Background and rationale
EDNAPS has been proven to be a safe and efficient way of performing endoscopic sedation\(^1\). Despite this, ANZCA PS09 guidelines do not support this and EDNAPS is practised in only a few centres in Australia. We have previously reported retrospective experience of EDNAPS in approximately 30,000 cases in the last 15 years with excellent safety. Our current endoscopy reporting system allows us to prospectively audit sedation practice.

Methods
No pre-set sedation regime was mandated. The majority of Endoscopists used Midazolam 2.5 mg and Propofol 20-40 mg as an initial dose followed by 20-30 mg aliquots of Propofol as required. Provation MD\(^\text{®}\) electronic reporting system is used to record endoscopic procedures including details of medication and dose, ASA class and complications contemporaneously. Procedures performed under formal anaesthetic supervision were excluded.

Results
From June 2013 to April 2015, we performed 7,879 procedures, 790 with anaesthetist support were excluded from the analysis (including all ERCP, 265). Procedures performed without Propofol were also excluded (994). 6,095 procedures were performed by EDNAPS. Of these, 2,792 were ASA 1 (45.9%), 2,824 ASA 2 (46%), 471 ASA 3 (8%) and 8 were ASA 4 (0.1%). Sedation related complications were two hypoxic episodes requiring brief bag mask ventilation (1 during gastroscopy, 1 during colonoscopy) with good patient outcomes.

Implications for practice
Ongoing audit of the safety of the current method of sedation in the endoscopy unit.

Key message
EDNAPS appears to be a safe way of performing endoscopic sedation in a regional hospital setting.

Innovative Approaches to Mind-Body Therapies for Cancer Patients
Kerry Francis, Psychologist, Cancer Care Centre

Background and rationale
Evidence exists for the benefits of mind-body therapies as an effective component of integrative cancer care. Relaxation, visualisation, meditation, yoga, and art/music therapies have demonstrable effectiveness as adjunctive interventions for anxiety, depression, stress, pain, nausea, and sleep issues. Additionally, there is ample evidence for the efficacy of group programs that combine a formal educative component with the opportunity for the development of informal support networks. Analysis identified a gap in efficient service provision with Cairns cancer patients having no access to ongoing regular mind-body group therapy programs.

Methods
A new Relaxation and Wellbeing Group for cancer patients and their support persons commenced in February 2015. Overseen by the Cancer Care Psychologist, the group is a collaboration between Queensland Health, Cairns Cancer Council, and the Khacho Yuoling Buddhist Centre. The group meets weekly at the Cancer Council. A roster of expert facilitators from the local community ensures attendees are exposed to diverse skills and experience. The development of informal support networks around group attendance is fostered.
Results
Group attendance ranges from 4-12 attendees, with a weekly average of 7. Group attendance is fluid with a mix of new and regular participants each session. Observational and formal feedback data confirm that attendees find the experiential focus beneficial and enjoy the diversity in facilitator skills and perspectives. Attendees on average strongly agree that they have learnt more about and increased their skills and confidence in using relaxation and wellbeing skills. Facilitator feedback has been positive with all facilitators volunteering to host further sessions.

Implications for practice
Teaching patients and caregivers helpful self-management skills in a group setting has enhanced clinician efficiency, client outcomes, and ultimately may help to reduce the burden on health care systems. This collaborative project has fostered networking, and skill and resource sharing.

Key message
Cairns cancer patients and their support personnel report multiple benefits from participation in this innovative, uniquely local approach to service delivery.

Establishment and maintenance of a support group for people with Hepatitis C: Are there benefits?
Hugh Woolford, Psychologist, Cairns Hospital

Background and rationale
For three years I have conducted a monthly support group to provide information and support as well debunking common myths; helping to de-stigmatise Hep C; and encouraging health professionals to view Hep C as another chronic illness. A simple survey of attendees was conducted to determine their views about the benefits of conducting the group. Discrimination and stigma impact greatly on most affected by Hep C: unfortunately, health professionals also unwittingly complicate overall treatment attempts by not talking about Hepatitis C in an open manner, thus many people remain unaware of their status while others are unaware there are effective treatments available.

Methods
Subjects were the 36 individuals who had attended the group. A two page survey was developed using a five point likert scale for 12 questions with additional questions allowing qualitative responses. The surveys were posted out to former attendees with a prepaid envelope for them return the survey and a brief explanation about the survey. Questions were grouped in to general usefulness (Q’s 1-4); specific usefulness (Q’s 6,7,8); and self-esteem/discrimination (Q’s 9-12); and the single question on assisting decision making regarding starting treatment.

Results
Fourteen responses were received representing about 50% of the anticipated sample.
General usefulness: All respondents, with one exception, answered either “strongly agree” or “slightly agree” and five of them had “strongly agree” for all four questions. All but three strongly endorsed, the view they would recommend the group, the other three slightly agreed.
Specific usefulness and self-esteem/discrimination: Most found the attendance of the group useful.
Assistance to start: Five of the six people reported agreement.

Implications for practice
Overall both the quantitative and qualitative responses indicate strong support for the group in that it gave all of them general support, specific support for some of them, and helped a proportion to have an improved self-perception. The small sample size raises questions of generalisability to the wider Hepatitis C population, however with about 50% response rate it appears representative of the study sample. This is preliminary evidence supporting further investigation in to the validity of support groups for people with Hep C. The study does indicate many potential benefits of using groups for different chronic diseases.

Key message
Participants gain:
• increased knowledge
better coping skills
increased confidence and esteem
greater acceptance of their liver disease

It appears, for some, information and support coming from somebody who shares the same condition and has “lived the treatment experience” is more credible and valuable than from health practitioners.

Introducing Patient Diaries to ICU Cairns
Sarah Cullen, Clinical nurse, ICU, Cairns Hospital
Susan Jacups, Clinical Data Manager ICU, Cairns Hospital

Background and rationale
Many long-term ICU survivors are profoundly affected by the trauma of an ICU experience. The interventions and treatments that occur in a critical setting may inadvertently impact psychological recovery, including: sedation, sleep deprivation, and sensory overload. Patient Diaries have been shown to aid the restoration of memory and reduce psychological complications in patients who require long-term ICU care. Diary entries are completed by staff and relatives to serve as a chronological record, in words and photographs, of the patient’s ICU experience. Once the patient has recovered, they can elect to take their Patient Diary with them. Diaries are generally welcomed by patients and relatives.

Methods
We wanted to introduce Patient Diaries to Cairns ICU, but first we needed to research how they have been used in other hospitals in Australia and internationally. We then compiled our own protocols for use and created appropriate Information packs for different audiences. Because the Patient Diary contains personal and clinical information to will be released with the patient, we were required to apply to the Human Research Ethics Committee for approval. We requested an ethics exemption on the grounds that Patient Diaries fulfill the criteria of “Quality assurance” as data (information) collected is not retained or analysed, it is released with the patient and becomes their property and their resposibility.

Results
Research findings indicate that Patient Diaries are already in use in several Australian ICUs. The Australian protocols are based on those from the Whiston Hospital, UK. We modified published guidelines to suit our ICU setting and submitted these to the Ethics committee.

Implications for practice
Now that we have gained ethics exemption the next step to implementing the diary successfully will be staff education and involvement. The diary will not be a mandatory task during the shift and its success depends wholly on staff making an effort to make entries regularly. Other ICUs with patient diaries have also raised the importance of all members of the multi-disciplinary team contributing to the diary so this means involving our Medical Team, Physios, Speech Therapists and Dieticians and keeping up regular education to rotating staff such as Registrars. Other wards/units at the Cairns Hospital may consider introducing Patient Diaries to assist long-term patients who would benefit from memory triggers, such as Oncology, CCU, and rehabilitation.

Key message
Small initiatives that aim to improve patient outcomes can be transformed into reality by first thoroughly researching the topic, then creating or modifying protocols specific to a local setting, and seeking Ethical approval for use within the unit.

Lymphatic filariasis in mainland South-East Asia: a systematic review and meta-analysis of infection prevalence and disease burden
Benjamin Dickson, Final year medical student, honours candidate, James Cook University

Background and rationale
Accurate prevalence data is essential for the elimination of lymphatic filariasis as a public health problem. Despite bearing one of the highest burdens of disease globally, there remains limited reliable information on the epidemiology of filariasis in mainland South-East Asia.
Methods
We conducted a systematic review and meta-analysis of available literature to assess the current prevalence of infection and morbidity in the region. 39 journal articles and reports containing original prevalence data were identified. Data were summarised using percentage prevalence estimates and a subset compared using a random effects meta-analysis by country and year.

Results
Pooled estimates for microfilaraemia, immunochromatographic card positivity and morbidity were 4.9%, 2.90% and 2.62% respectively. Taking into account pooled country estimates, grey literature and the quality of available data, we conclude that the prevalence of LF infection remains moderate in Myanmar, whilst low in Bangladesh, Cambodia, Northeast India and Malaysia. Thailand appears close to eliminating the disease. We estimate that the burden of morbidity is moderate in Cambodia, Myanmar, Northeast India and Thailand, whilst low in Bangladesh and Malaysia. Insufficient evidence was identified to accurately estimate the burden of filariasis in Lao PDR or Vietnam.

Implications for practice
The results of this study will assist policy makers to advocate and budget for future control programs.

Key message
The results of this study demonstrate significant need for both further filariasis control programmes and prevalence studies in the mainland South-East Asia.