

# GOLD COAST HEALTH & PARTNERS RESEARCH SHOWCASE 2021

**Abstract Book** 







# **WELCOME**

We are proud to welcome you to the Gold Coast Health and Partners Research Showcase 2021.

Now in it's 5th year, the event provides a platform for health and medical research on the Gold Coast and aims to:

- showcase the outcomes of research and highlight its role in effecting positive change
- encourage and strengthen collaboration; both within the health service and with our university and commercial partners
- grow and support Gold Coast Health's emerging research presence

The event has been organised by Gold Coast Health in collaboration with University partners, Griffith University, Bond University and Southern Cross University and with the support of the Gold Coast Hospital Foundation and DynaMed.

Our energetic and growing research community will share the highlights of the research year and the event will provide learning opportunities from experienced researchers.

The program includes the announcement and presentations by the 2021 Gold Coast Health Collaborative Research Grant Scheme awardees, presentations by previous grant scheme recipients, a panel discussion on research funding pathways, and a keynote address by the Chair of the Research Committee of Gold Coast Hospital and Health Services Board, Professor Cindy Shannon AM.

The program also features our popular Lightning and Oral presentations by researchers and includes an online poster gallery. Attendees are encouraged to vote online for their favourite Lightning Presentation, Oral Presentation and Poster.

Please visit our website for more information and voting: https://tinyurl.com/GCHResearch

Thank you for supporting our research and we hope you will enjoy the event.

Dr Greta Ridley Director, Office for Research Governance and Development Gold Coast Health



# **SPONSORS**



# CONTENT

# p.3 Day ONE Program

# p.4 Day TWO Program

p.9 Research presentations & lightning presentations abstracts

p.41 Poster abstracts



# PROGRAM

# DAY ONE

Monday 29 November | PED Building – Small Lecture Theatre, Gold Coast University Hospital, 1 Hospital Boulevard, Southport

Session 1		
9.30 – 9.45am <u>Teams Event - Session 1</u>	<b>Welcome and Official Opening</b> Dr Jeremy Wellwood Executive Director Medical Services, Clinical Governance, Education and Research, Gold Coast Health	
9.45 – 12 midday <u>Teams Event - Session 1</u>	Gold Coast Health Collaborative Research Grant Scheme PresentationsGold Coast Health Collaborative Research Grant Scheme 2018 Funded Research Presentations:1. "MenGO study: Does the licenced meningococcal vaccine Bexsero® provide cross-protection against gonorrhoea?" Dr Caroline Thng, Doctor, Sexual Health Service2. "Economic Evaluation: Comparing midwifery caseload care with other models of maternity care." Ms Hazel Brittain, Acting Executive Director, Women's Newborn and Children's Services2021 Gold Coast Health Collaborative Research Grant Scheme Awards	Chair: Professor Andrea Marshall Professor of Acute and Complex Care Nursing Gold Coast Health and Griffith University
12 midday – 1pm	<b>Lunch</b> Research Poster Display in the foyer	
Session 2		
1-1.45pm <u>Teams Event - Session 2</u>	Research Funding Pathways Panel Discussion Moderator: Ben Cox CEO Gold Coast Hospital Foundation	Panel members: Dr Dinesh Palipana Principal House Officer – Emergency Department, Gold Coast Health Dr Maretta Mann Research Development Manager, Griffith University Ms Tanya Forbes Research Development Manager, Bond University Ms Vicki James Fundraising Manager, Gold Coast Hospital Foundation
1.45 – 2.30pm <u>Teams Event – Session 2</u>	<ul> <li>Research Presentations – Group 1</li> <li>Ms Christine Brown – Older populations and non-beneficial treatment / An audit and feedback loop intervention to reduce non-beneficial care for older patients in three Queensland hospitals</li> <li>Dr Richard Pellatt – Emergency medicine and neurology / The Headache in Emergency Departments study: Opioid prescribing in patients presenting with headache. A multicentre, cross-sectional, observational study</li> <li>Ms Paula Baldan – Gynaecology / The Introduction of the day case Total</li> </ul>	<b>Chair:</b> <b>Professor Rhona McInnes</b> <i>Professor of Maternal and Child Health</i> <i>Gold Coast Health and Griffith</i> <i>University</i>

Laparoscopic Hysterectomy (TLH) at Gold Coast University Hospital

2.30–3pm PED Foyer/ online	<b>Afternoon Tea</b> Research poster display	
Session 3		
3–4pm <u>Teams Event - Session 3</u>	<b>Keynote Presentation</b> "The Value of Research at Gold Coast Health"	<b>Chair:</b> <b>Dr Greta Ridley</b> <i>Director</i> <i>Office for Research Governance and</i> <i>Development, Gold Coast Health</i>
	<b>Professor Cindy Shannon AM</b> Chair Research Committee of the Gold Coast Hospital and Health Service Board Pro Vice Chancellor Indigenous, Griffith University	
DAY TWO		
Tuesday 30 November   PE	D Building – Large Lecture Theatre	
9–10.30am	Research Presentations - Group 2	Chair:
<u>Teams Event - Session 4</u>	Dr Vicky Stewart – Allied Health / Evaluating diagnostic and management agreement between physiotherapists and ear, nose and throat specialist in a primary contact physiotherapy-led vestibular clinic: A prospective blinded inter-rater agreement study	<b>Dr Kelly Weir</b> Allied HealthResearch Team Leader Gold Coast Health and Griffith University
	Mr Xavier McMahon – Surgery and sustainability / Surgical waste pilot study: Analysis of surgical waste produced by three common surgical specialties across different Gold Coast Health facilities	
	Miss Caitlin Swalwell – Surgical (Orthopaedics) / I think about it over and over again: Catastrophising is the most important predictor of pain severity in tertiary referral orthopaedic foot/ankle patients	
	Mrs Elizabeth Wake – Trauma / Feasibility, acceptability and unintended benefits of a telephone follow up program for major trauma patients	
	<ul> <li>Dr Alana Schuurs – Allied Health/ Diagnostic complexity of Functional Neurological Symptom Disorder</li> </ul>	
	<ul> <li>Dr Kelly Weir – Allied Health/ Oral feeding safety and aspiration risk in preterm and term neonates receiving high flow nasal cannula respiratory support</li> </ul>	
	Dr Eve Purdy – Organizational anthropology / Exploring psychological safety in a tertiary care emergency department, familiarity as a critical factor for team performance	
10.30–11am PED Foyer / online	<b>Morning Tea</b> Research Poster Display	
Session 5		
11–12 midday	Lightning Presentations – Group 1	Chair:
<u>Teams Event - Session 5</u>	<ul> <li>Dr Elizabeth Elder – Nursing / The co-designed work-based strategy to ameliorate stress in ED clinicians using nominal group technique</li> </ul>	<b>Dr Laetitia Hattingh</b> Clinical Researcher and Research Development Officer Office for Research Governance and Development, Gold Coast Health
	Mr Rowan Pickering – Allied Health and Emergency Medicine / How are scaphoid fractures managed in the Emergency Department within Gold Coast Hospital and Health Service?	
	Dr Thuy Frakking – Allied Health/ Using an automated speech recognition approach to differentiate between normal and aspirating swallowing sounds recorded from digital cervical auscultation in children	
	Dr Jayne Hewitt – Health service delivery / Walking on common ground, the implementation of voluntary assisted dying into acute health services in Queensland	

in Queensland

Mrs Jennifer Eakin – Allied Health / Evaluating diagnostic and management agreement between an audiologist and ear, nose and throat specialist in a paediatric Allied Health primary contact clinic

Professor Brigid Gillespie – Nursing and Obstetrics / Effect of negative pressure wound therapy on wound complications in obese women after caesarean birth: A systematic review and meta-analysis

Dr Kelly Weir – Allied Health and consumer engagement / An Allied Health research team's reflections on consumer partnering and coproduction on the ATHENA project

Dr Navin Niranjan – Respiratory Medicine and Epidemiology / Emergent diagnosis of lung cancer - a retrospective audit of patient demographics and outcomes

# DAY TWO

#### Tuesday 30 November | PED Building – Large Lecture Theatre **Lightning Presentations** Ms Rumbi Mutsekwa – Allied Health/ Role substitution of specialist medical doctors with allied-health professionals, a qualitative exploration continued of patient's experiences and perceptions of healthcare quality Teams Event - Session 5 Ms Hui (Grace) Xu - Emergency Medicine / A randomised controlled trial using digital mindfulness to optimize staff stress and wellbeing Dr Emma Walker – Multidisciplinary / Exercise induced oxygen desaturation and perceived breathlessness in six-minute walk test and grocery shelving task in patients with COPD ▶ Ms Kristin Gomes – Allied Health/ Bioelectrical impedance analysis: A feasibility study for measuring body composition in the outpatient haemodialysis setting Dr Jerneja Sveticic – Mental Health / Reduced suicidal presentations to emergency departments during the COVID-19 outbreak in Queensland, Australia Ms Samantha Clayton – Health Systems Research / Translating research into practice: Using benchmarked length of stay data to target and drive service improvement in general medicine Dr Thuy Frakking – Allied Health / Effect of care coordination via an Allied Health liaison officer for chronic non-complex medical conditions (non-CMC) in children: a multi-centre randomized control trial 12 midday-1pm Lunch PED Foyer / online **Research Poster Display** Session 6 1-2pm Lightning Presentations – Group 2 Chair: Dr Anna Vinkhuyzen Teams Event - Session 6 Mrs Dima Nasrawi – Nursing / Development and implementation of Research Development Officer inpatient cardiac rehabilitation following cardiac surgery: An integrative Office for Research Governance and review. Development, Gold Coast Health Dr Rachel Wenke – Allied Health and research capacity building / How do I keep this live in my mind? Allied Health professional's perspectives of barriers and enablers to implementing Good Clinical Practice in research Dr Emma Brownlow – Mental Health / Identification and management of eating disorders in the peripartum, in women admitted to a psychiatric Mother-Baby Unit Ms Therese Gardiner – Nursing / A qualitative exploratory study exploring the process of obtaining consent from adult patient's having elective surgery at Gold Coast Health.

► **Mr Michael Salmon** – Allied Health/ Post treatment gastrostomy tube dependency in head and neck radiation oncology patients

Dr Georgia Tobiano – Nursing / A new survey to measure patients' views of participation in bedside handover

Dr Vicky Stewart – Physiotherapy / Does a clinical pathway and vestibular physiotherapy in Emergency Department improve quality and efficiency of care for people with vertigo and dizziness?

Dr James Furness – Emergency Medicine / A retrospective clinical audit of acute ankle sprains within the Gold Coast Hospital and Health Service Emergency Departments

Dr Lisa Chen – Nursing / Do acute care nurses have competency in electrocardiogram interpretation? A systematic mixed studies review

▶ Ms Claire Chapman – Allied Health/ Determining the gross energy of foods available to patients by the Gold Coast University Hospital food service using oxygen bomb calorimetry

Miss Carly Hudson – Perinatal Mental Health / What goes into a care plan? Understanding care plans and developing a care plan framework for psychiatric mother-baby units

Ms Belinda Gray – Nursing Education / Nursing student clinical placement assessment and moderation: lessons from the Clinical Clusters Education Model

# DAY TWO

#### Tuesday 30 November | PED Building – Large Lecture Theatre

Lightning Presentations continued <u>Teams Event - Session 6</u>	• Mr Jarryd Brown – Persistent Pain / In a pandemic that limits contact, can videoconferencing enable interdisciplinary persistent pain services and what are the patients' perspectives?	
	<ul> <li>Dr Jerneja Sveticic – Mental Health / Efficacy of the Zero Suicide</li> <li>Framework in reducing recurrent suicide attempts</li> </ul>	
	Miss Carly Hudson – Perinatal Mental Health / Evaluation of a psychiatric mother-baby unit using a patient outcome and experience measure	
	Mr Alex Dymond - Mental Health / Factors associated with Health of the Nation Outcomes Scales (HoNOS) in an acute young adult psychiatric unit	
2-3.15pm	Research Presentations - Group 3	Chair:
<u>Teams Event - Session 6</u>	Dr Uyen Duong – Palliative care / GCH Specialist Palliative Care in Aged Care (SPACE) Project	Associate Professor Laurie Grealish Associate Professor of Subacute and Aged Nursing
	<ul> <li>Dr Kristen Jones – Women, Newborn, and Children / Enacting Women's Newborn and Children's service change during the COVID-19 pandemic: A realist informed evaluation</li> </ul>	Gold Coast Health and Griffith University
	Dr Mark Morgan – Patient Safety / Improving patient safety in primary care with real-time computer decision support	
	<ul> <li>Dr Sharon Latimer – Nursing / The use of prophylactic sacral dressings to prevent hospital-acquired pressure injuries in adult intensive care unit patients: A pilot randomised controlled trial</li> </ul>	
	Dr Elizabeth Elder – Nursing / A mixed methods study exploring stress management and coping in Emergency Department clinicians	
	Dr Ping Zhang – Health Informatics / Utilizing computational feature extraction strategies to help improve prediction of ICU outcome in traumatic brain injury patients	

3.15-3.45pm	
PED Foyer / online	

Afternoon Tea Research poster display

PED Foyer / online		
Session 7		
3.45-4.30pm	Lightning Presentations – Group 3	Chair:
<u> Teams Event – Session 7</u>	Mrs Joanne Hilder – Medical Education / Trainee feedback: not just a matter for individuals	Development Officer Office for Research Governance and
	Dr Rachel Wenke – Allied Health/ Tailoring Research Evidence and Theory (TREAT) into Allied Health Journal Clubs: A mixed methods hybrid implementation study	
	Dr Rhys Harris – Gynaecology / Evaluation of enhanced recovery after surgery protocols in day Case Total Laparoscopic Hysterectomy: a pilot study	
	Dr Sharon Latimer – Nursing / Are we on the same page? Nurses' and patients' perceptions of the feasibility and acceptability of implementing a patient education pressure injury prevention care bundle in acute care units	
	Dr Jayne Hewitt – Health Service Research / Exploring end-of-life decision-making in the Emergency Department and Intensive Care Unit: What do clinicians know about the law and how is it applied?	
	Mrs Catherine Edmunds – Allied Health and Nursing / Analysis of user experience and interaction with SMART infusion pumps	
	Dr Kang Xiang Tan – Medical / Requesting CTPAs wisely: an update	
	Dr Carmen Nayer – Alcohol and Other Drugs / Comparison of the characteristics of patients treated with sublingual versus long-acting injectable buprenorphine formulations for treatment of opioid use disorder: a retrospective cohort study	
4.30–4.45pm <u>Teams Event – Session 7</u>	Special presentation: Emerging Researcher Alliance and how to get involved	<b>Mrs Joanne Hilder</b> Allied Health Research Officer
4.45–5pm	Awards and Official Close	Dr Greta Ridley

<u> Teams Event – Session 7</u>

Director Office for Research Governance and Development, Gold Coast Health





# ABSTRACTS

Monday 29 November Session 2 Research Presentations Group 1

#### **Abstract No: 8**

An audit and feedback loop intervention to reduce non-beneficial care for older patients in three Queensland hospitals.

#### Ms Christine Brown (13)

Qld. University of Technology (13)

# Introduction:

Stepped wedge randomised trials are increasingly being used in the evaluation of service delivery type interventions. The Intervention for Appropriate Care and Treatment (InterACT) trial is an NHMRC-funded partnership study (GNT1151923) used this design to examine the impact of an objective risk profiling audit and feedback loop to increase appropriate care towards end of life for older patients.

#### Methods:

The InterACT trial was implemented in three large acute Queensland hospitals between May 2020 and June 2021, including GCUH. Purposive sampling was used to recruit clinical teams who see large volumes of older patients.

Hospitals were randomly allocated to one sequence of study timings. Five stages were sequentially rolled-out across the three hospitals. Exposure phases were between 16-34 weeks. Trained auditors used two validated tools to identify patients aged ,â• 75 years at-risk of nonbeneficial treatment. A two-fold customised feedback loop was used during the intervention phases to notify clinicians of at-risk patients under their care.

# **Results:**

The study was successfully implemented despite suspension due to the COVID-19 pandemic and subsequent hospital restrictions and major differences in patient record management. Fourteen clinical teams participated across the three hospitals: 6,000 patients were screened, with 48% identified as at-risk.

#### Discussion:

Implementation using a stepped-wedge design was practical. The incremental roll-out

of each hospital's intervention establishment and intervention phases allowed for customised feedback mechanisms. This proved valuable, as each hospital differed substantially in clinical team structure, patient record screening process, and available methods of clinician notification.

#### Abstract No: 61

The Headache in Emergency Departments study: Opioid prescribing in patients presenting with headache. A multicentre, cross-sectional, observational study.

# Dr Richard Pellatt (1)

Dr Sinan Kamona (15), Dr Kevin Chu (23), Ms Amy Sweeny (1), Dr Win Sen Kuan (35), Dr Frances Kinnear (38), Dr Mehmet Karamercan (41), Ms Sharon Klim (34), Dr Tissa Wijerante (45), Dr Colin Graham (46), Dr Richard Body (47), Dr Tom Roberts (48), Dr Daniel Horner (49), Dr Said Laribi (50), Dr Gerben Keijzers (1), Dr Anne-Maree Kelly (34)

Gold Coast Health (1), Auckland City Hospital, NZ (15), Royal Brisbane and Women's Hospital (23), National University Hospital, Singapore (35), Prince Charles, Brisbane (38), Ankara Hospital, Turkey (41), University of Melbourne (34), Western Health, Victoria (45), Chinese University of Hong Kong (46), Manchester University, UK (47), North Bristol NHS, UK (48), Salford Hospital, UK (49), Tours University Hospital, France (50), University of Melbourne (34)

#### Introduction:

We describe opioid use in patients presenting to the emergency department (ED) with nontraumatic headache by severity and geography. Guidelines recognise opioids as ineffective in treating primary headache disorders. Globally, many countries are experiencing an opioid crisis. The ED can be a point of exposure leading to tolerance.

#### Methods:

This observational study used data from the Headache in Emergency Departments (HEAD) study. Participants with non-traumatic headache were identified from 67 hospitals in Europe, Asia, Australia and New Zealand (NZ).

# **Results:**

Overall, 4536 patients were enrolled in the HEAD study. Opioids were administered in 1072/4536 (23.6%) patients in the ED, and 386/3792 (10.2%) of discharged patients. High opioid use occurred pre-hospital in Australia (190/1777, 10.7%) and NZ (55/593, 9.3%). Opioid use in the ED was highest in Australia (586/1777, 33.0%) and NZ (221/593, 37.3%). Opioid prescription on discharge was highest in Singapore (125/442, 28.3%). Independent predictors of ED opioid administration included: severe headache (OR 4.2, 95% CI 3.1,5.5), pre-ED opioid use (OR 1.42, 95% CI 1.11,1.82) and long-term opioid use (OR 1.80, 95% CI 1.26,2.58). ED opioid administration independently predicted opioid prescription at discharge (OR 8.4, 95% CI 6.3, 11.0).

# Discussion:

Opioid prescription for nontraumatic headache in the ED and on discharge varies internationally. Severe headache, prehospital opioid use, and longterm opioid use predicted ED opioid administration. ED opioid administration was a strong predictor of opioid prescription at discharge. These findings support education around policy and guidelines to ensure adherence to evidence-based interventions for headache.

#### Abstract No: 159

# The Introduction of the Day Case Total Laparoscopic Hysterectomy (TLH) at Gold Coast University Hospital

# Ms Paula Baldan (1)

Dr Graeme Walker (1), Dr Drishti Madhok (1), Dr Sally Byford (1), Dr Guy Amey (1), Dr James Barber (1)

Gold Coast Health (1)

# Background:

Traditionally Total Laparoscopic Hysterectomy (TLH) patients are admitted for 1-2 days post

operatively. Day Case TLH has been proven to be feasible and safe in other countries, however Gold Coast University Hospital (GCUH) is the first Australian institution to introduce a Day Case TLH protocol.

# Aim:

To determine the feasibility, safety and patient satisfaction of same-day discharge for TLH patients at GCUH.

#### Materials and methods:

A single-centre prospective cohort study of 77 TLH patients at GCUH was conducted. Primary outcome was length of post-operative hospital stay. Secondary outcomes included perioperative complications and post-operative representation rates. This data was compared to retrospective cohort data of 81 patients who underwent a TLH prior to implementation of the Day Case TLH protocol. Patient satisfaction of the prospective group was assessed through a patient questionnaire.

#### **Results:**

94.81% of prospective patients went home on the same day. Their average length of post-operative hospital stay was 7.72 (SD ±3.36) hours, compared to 35.63 (SD ¬±18.11) hours in the retrospective group. Of the patients who did achieve same day discharge, the average length of stay was 7.05 (SD ¬±1.46) hours. There were no significant differences in perioperative complications or representation rates. Patients reported that they were extremely satisfied with Day Case TLH.

#### Conclusion:

Day Case TLH is feasible, safe and well received by patients. These results can have multimodal effects in healthcare: decrease in hospital costs by reducing length of stay and overnight admissions, improved theatre efficiency and patient flow, whilst maintaining patient safety and satisfaction. Tuesday 30 November Session 4 Research Presentations Group 2

#### Abstract No: 40

Evaluating diagnostic and management agreement between physiotherapists and ear, nose and throat specialist in a primary contact physiotherapy-led vestibular clinic: A prospective blinded inter-rater agreement study.

# Dr Vicky Stewart (1)

Mrs Jennifer Eakin (1), Mr Christopher Payten (1), Dr Fritha Ellen Noonan (1), Dr Kelly Weir (10), Dr Tamsin Smith (1)

Gold Coast Health (1), Menzies Health Institute of Queensland | Griffith University (10),

# Introduction:

Investigate diagnostic and management agreement between physiotherapists and ENT specialist for patients attending a primary contact physiotherapy-led vestibular clinic.

## Methods:

This prospective blinded inter-rater agreement study was undertaken in an Australian hospital's ENT primary contact physiotherapy-led vestibular clinic.

Participants included adults referred to ENT from a general practitioner, triaged (Category 2 or 3) to the primary contact physiotherapy-led vestibular clinic with clinical symptoms consistent with vestibular disorder. Primary outcome measures included diagnoses, and primary management decisions (imaging, ENT/ neurology/ physiotherapy management). Adverse events were reviewed 11-months post data collection.

#### **Results:**

Fifty-one participants were recruited consecutively from the primary contact physiotherapy-led vestibular clinic. A 78% agreement between physiotherapy and ENT on categorised diagnosis was found. Agreements between physiotherapy and ENT for recommending Magnetic resonance imaging was 86%, and 94% for computorised tomography. There was moderate to near-perfect agreement regarding management recommendations between physiotherapy and ENT. An 82% agreement was found for recommendations to ENT, 94% for neurology and 73% for physiotherapy. There were no adverse events from physiotherapist's management decision, based on the final recommendations undertaken 11-months post the completion of data collection.

# Discussion:

Our findings indicated that the physiotherapists and ENT made comparable diagnostic and management decisions for adults with signs of vestibular dysfunction within an ENT primary contact physiotherapy-led vestibular clinic. This provides reassurance about the competency of physiotherapists to accurately diagnose vestibular disorders and make safe onward management decisions.

# Abstract No: 85

Surgical Waste Pilot Study: Analysis of Surgical Waste Produced By Three Common Surgical Specialties Across Different Gold Coast Health Facilities

#### Mr Xavier McMahon (2)

Mr Aaron Nihal (2), Miss Thejaani Aran (2), Mr Bailey Craig (2), Mr Aidan Crayton (2), Mr James Pietris (2)

Bond University (2),

# Background:

The Australian healthcare system accounts for 7% of Australia's total carbon footprint, with a substantial amount of this being healthcare waste.1 Yet, the contribution of surgical waste to carbon emissions remains a major and under recognised issue in healthcare. The aim of this study was to measure the quantity of surgical waste and calculate yearly carbon emissions for a range of common surgical procedures performed at the Gold Coast University Hospital, Varsity Lakes Day Hospital, and Gold Coast Private Hospital.

#### Method:

Measurement of surgical waste was conducted for three common surgical specialties: Obstetrics and Gynaecology, Orthopaedics, and Ophthalmology. In theatres, waste was segregated into the five different waste streams of , soft plastics, hard plastics, paper/cardboard, metal and electricals, and textiles .All waste was measured in kilograms per surgery before and after segregation. Yearly carbon emissions produced by the surgeries in total was estimated based on the number of procedures performed per year. Results

Waste measured from 44 procedures including 21 Cataract Surgeries, 10 Lower Segment Caesarean Sections (LSCS), 6 Standard Vaginal Births (SVBs) and 7 Orthopaedic Disc Replacement Surgeries, yielded a total of 202.822 kilograms of waste. The estimated yearly waste for all surgeries was 19,372.357 kilograms. The calculated yearly carbon emissions for all surgeries combined was 28.913 tonnes CO2-e.

#### Conclusion:

These data reiterate the substantial contribution of surgical waste towards Australia's total carbon footprint. Observations from this study highlight several concerning waste disposal practices and proposes measures including the 5Rs,Äù principle to mitigate waste and reduce surgery's carbon footprint.

References: 1. Malik A, Lenzen M, McAlister S, McGain F. The carbon footprint of Australian health care. The Lancet Planetary Health. 2018;2(1):e27-e35.

# Abstract No: 96

I think about it over and over again: Catastrophising is the most important predictor of pain severity in tertiary referral orthopaedic foot/ankle patients

# Miss Caitlin Swalwell (1)

Dr Matthew Holt (16), Dr Gayle H Silveira (24), Prof Vivienne Tippett (13), Dr Tom P Walsh (13), Dr Simon Platt (1)

Gold Coast Health (1), Sunshine Coast University Hospital (16), Lyell McEwin Hospital (24), QUT (13),

#### Introduction:

Australians with non-urgent, chronic foot/ankle pain are frequently referred to orthopaedic departments. However, waiting-times are long and surgical conversion rates are low. Recent work suggests that pre-operative psychological measures, like pain catastrophising, may influence post-surgical outcomes. This study aimed to a) determine the prevalence of compromised psychological health features, and b) delineate the contribution and relative importance of these features to foot/ankle pain severity in people referred to public-sector orthopaedics.

# Methods:

People with non-urgent foot/ankle complaints referred to the Gold Coast University Hospital were recruited over a 12-month period. Participants completed questionnaires relating to their demographics, psychological health (depressive symptoms, central sensitisation syndrome (CSS), pain catastrophising), and foot/ankle pain/disability (Manchester-Oxford Foot and Ankle Questionnaire). Participant characteristics were summarised descriptively, and hierarchical multiple regression was used to establish the extent to which psychological variables explained additional variance in foot/ankle pain severity beyond the effects of demographic variables (age, sex, BMI).

# Results:

One-hundred and seventy-two adults were recruited (64.0% female, median (IQR) age 60.9 (17.7) years, and BMI 27.6 (7.5) kg/m2). Compromised psychological health was prevalent: 48.3% had depressive symptoms, 38.4% had CSS and 24.4% were pain catastrophisers. Demographic variables accounted for 11.7% of the variance in foot/ankle pain severity, and psychological variables accounted for an additional 28.2%. Pain catastrophising was the largest unique predictor (14.4%).

# Discussion:

Over one-third of foot/ankle pain severity was uniquely accounted for by pain catastrophising. Since orthopaedic surgeons cannot routinely identify catastrophising in their patients, early psychological triage could positively alter outcomes for foot/ankle orthopaedic patients.

#### Abstract No: 101

# Feasibility, acceptability and unintended benefits of a telephone follow up program for rmajor trauma patients

# Mrs Elizabeth Wake (1)

Gold Coast Health (1)

# Introduction:

A novel, hospital-led telephone follow-up program was implemented by the multi-disciplinary clinical trauma service team; data were collected on 6 and 12-month functional outcomes. The parallel process evaluation reported here, was conducted to examine what factors promoted or impeded the program's implementation.

#### Methods:

A prospective mixed methods observational study design was embedded was used to evaluate the programs implementation.

# **Results:**

274 major trauma patients (ISS , $\hat{a} \cdot 12$ ) were eligible for follow up. A response rate of over 75% was achieved at both follow -up timepoints, with nurses responsible for the majority of calls. Limited time and competing clinical demands were identified as barriers to the timely completion of the calls, although over 75% of calls were completed within the designated timeframe.

Staff and patients valued the pre-existing trauma service/patient relationship, and this facilitated program implementation. Clinicians were motivated to evaluate their patient's recovery, whilst patients felt ,cared for and ,not forgotten post-hospital discharge. Teamwork and leadership were highly valued by the clinical staff throughout the implementation period as ongoing source of motivation and support.

Although primarily designed as a data collection activity, staff spontaneously developed the program to incorporate clinical follow up processes by providing guidance, advice and referrals to patients who indicated ongoing issues such as pain or emotional problems.

# **Conclusion:**

Telephone follow up within a clinical trauma service team is feasible, accepted by staff and

valued by patients and families. Despite time constraints, the successful implementation of this program is reliant on existing clinical/patient relationships, staff teamwork and leadership support.

#### Abstract No: 130

Diagnostic Complexity of Functional Neurological Symptom Disorder

Dr Alana Schuurs (1)

Dr Jessica Davis (1)

Gold Coast Health (1),

#### Background:

A clinical review was initiated following an observation of a dramatic increase in referrals to a community rehabilitation program of patients with the diagnosis of 'Functional Neurological Disorder' (FND). Functional neurological disorders are defined by the presence of one or more symptoms of altered voluntary motor or sensory function that cannot be explained medically or by another mental health condition.

#### Method:

A retrospective qualitative analysis of the diagnosis, semiology, and treatment of patients with suspected functional or medicallyunexplained neurological symptoms referred to a community rehabilitation program was undertaken. Sixty-six referrals were identified as having a diagnosis of FND. Patient data was reviewed from when FND was first suggested or diagnosed in their medical records, through to all inpatient, outpatient and community admissions, longitudinally until two years after their diagnosis.

#### **Results:**

The clinical review indicated a considerable issue with overdiagnosis and misdiagnosis of FND, with only 10% of participants still meeting criteria for an FND within two years of diagnosis. Missed medical and mental health conditions occurred for a number of patients, and mislabelling of persistent pain symptoms was an issue.

# Conclusion:

Clinicians working in neurological and rehabilitation settings would benefit from further training in the assessment and differential diagnosis of functional neurological symptoms to improve patient outcomes.

# Abstract No: 155

# Oral feeding safety and aspiration risk in preterm and term neonates receiving high flow nasal cannula respiratory support.

# Dr Kelly Weir (3)

Ms Angie Canning (1), Dr Timothy Hong (1), Dr Manbir Chauhan (1), Dr Susan Moloney (1), Dr Shane George (1), Dr Thuy Frakking (1), Professor Sheena Reilly (10), Professor Robert Ware (10), Professor Keith Grimwood (5)

Gold Coast Health |Griffith University (3), Gold Coast Health (1), Menzies Health Institute of Queensland (10), Griffith University (5)

## Introduction:

Traditionally, preterm infants receiving High Flow Nasal Cannula(HFNC) respiratory support received nutrition/hydration via nasogastric tube feeding due to concerns about oropharyngeal aspiration (OPA). Despite a lack of supporting evidence, some neonatal intensive care units (NICUs) commence oral feeding for infants on HFNC who demonstrate feeding readiness cues to support earlier transition to full oral feeding and reduced length of stay.

#### Aims:

To determine i)the incidence of OPA during oral feeding detected by clinical feeding evaluation(CFE) and videofluoroscopic swallow study(VFSS); and ii)whether there is an association between presence/degree of aspiration and ventilatory flow rate (litres/ min).

#### Methods:

We conducted a prospective cohort study of preterm (,â•35 weeks gestational age) & term neonates receiving HFNC and demonstrating feeding readiness cues. Each

infant completed a CFE and, within 24 hours, a VFSS where they were imaged ingesting

breastmilk/formula with water-soluble contrast via a bottle/teat whilst on HFNC. Laryngeal penetration or aspiration of contrast during VFSS was rated on the Penetration-Aspiration Scale (PAS).

# **Results:**

Eighteen infants (61% male; 100% preterm) ranging from 24-36+6weeks gestational age at birth, and 34+1-42+5 (36+2 $-\pm$ 2) weeks corrected gestational age at CFE, were included. One(6%) child had suspected aspiration following CFE, and one(6%) had confirmed aspiration on VFSS. Flow rate at VFSS ranged from 4-8 (Mean 5.9 $-\pm$ 1.3) litres/min, with PAS scores ranging from 1-8 (Mean 2 $-\pm$ 7.8). Level of laryngeal penetration-aspiration was not correlated with HFNC ventilatory flow rate ( $\mathbb{C}\leq$ -.331, p=0.195).

# **Conclusions:**

These novel findings are the first in the world to investigate relationship of HFNC and aspiration risk using instrumental confirmation of aspiration (VFSS). Dysphagia trained speech pathologists should assess aspiration risk based on patient specific factors, not just presence of HFNC.

# Abstract No: 56

Exploring psychological safety in a tertiary care emergency department , familiarity as a critical factor for team performance

# Dr. Eve Purdy (1)

- Ms. Laura Borchert (2), Mr. Anthony El-Bitar (2), Dr. Warwick Isaacson (1), Dr. Cindy Jones (2), Ms. Lucy Bills (1), Dr. Victoria Brazil (8)
- Gold Coast Health (1), Bond University (2), Gold Coast Health | Bond University (8)

# Background:

Team culture underpins team behaviours and the resulting performance. Psychological safety - a shared belief held by members of a team that the team is safe for interpersonal risk taking,Äù - is a crucial aspect of team culture for high performing teams. However, little is known about psychological safety in emergency department (ED) teams.

# Methods:

This was a sequential mixed-methods study of nursing and medical staff at the GCUH ED. First, participants completed the Team Learning and Psychological Safety Survey,Äù and a narrative survey. These findings informed semi-structured interviews. Analysis included an a priori planned ANOVA of the quantitative results comparing psychological safety to work role and time working in the department. Qualitative results were analyzed using a deductive thematic analysis using a previously generated framework for enablers of psychological safety in healthcare at the individual, team, and organizational levels.

# **Results:**

The survey was completed by 72/410 members of the department and 19 interviews were conducted. The mean psychological safety score was 35.5/49 (SD=7.4). Psychological safety was not experienced universally, with nurses and new staff experiencing lower levels. Individual, team, and organizational factors impacted psychological safety. The primary force shaping psychological safety was familiarity with colleagues and leaders.

#### Discussion:

Familiarity of team members and leaders was of particular importance to the development of psychological safety within the ED setting. Fostering familiarity should be a focus on the floor each shift and a priority in broader departmental decisions for groups seeking to enhance ED team performance. Small moments (shift huddles, team briefings, after action reviews) and bigger departmental decisions (team-based rostering, geographic podding, orientation structure) should be considered by individuals and groups hoping to transform their good teams into great teams.

> Tuesday 30 November Session 5 Lightning Presentations Group 1

#### Abstract No: 30

How are scaphoid fractures managed in the Emergency Department within Gold Coast Hospital and Health Service?

#### Mr Rowan Pickering (1)

Mr James Furness (2), Ms Deborah Lenaghan (1), Ms Margaret Chang (2), Ms Maggie Price (2), Mr Kevin Kemp-Smith (2), Vini Simas (2)

Gold Coast Health (1), Bond University (2),

# Introduction:

This study aimed to outline the current management approaches for suspected scaphoid fractures across all practitioners (Nurse practitioners (NP), Physiotherapists (PT) and Doctors) from the GCHHS Emergency Department (ED).

#### Methods:

This retrospective cohort study included 493 patients who presented to the ED in 2019 diagnosed and coded in their medical record with a scaphoid fracture. The study protocol was approved as a Quality Activity and Clinical Audit (LNR/2019/QGC/57334).

#### **Results:**

The ages of patients ranged from 8 to 90 years, with an interquartile range between 14 to 41 years. Palpation of the anatomical snuff box was the most frequently used physical test (79.1%) and the application of a cast was the most common treatment (97.1%). The greatest difference between practitioners was seen when a combination of a cast, simple analgesia and education was applied, with Physiotherapist completing this 82.3% of the time, followed by Nurses 49.7% and Doctors 18.5%. The conversion rate of patients presenting with a negative x-ray in the ED but having a positive x-ray in outpatient fracture clinic was 11.7% (34/290). There was an estimated loss of income of \$327,433.60 (AUD) for 221 patients who missed work due to overtreatment with 2 weeks immobilization. The strongest predictors for a confirmed scaphoid fracture were of male gender (OR: 3.2; 95% CI: 2.1, 5.0; p<0.001) and a positive x-ray in ED (OR: 36.6; 95% CI: 17.4, 77.0; p<0.001).

#### Discussion:

Further precision is needed in the diagnosis of scaphoid fractures to minimize economic and social impact because of overtreatment of suspected injuries with the use of immobilization.

#### Abstract No: 150

Using an automated speech recognition approach to differentiate between normal and aspirating swallowing sounds recorded from digital cervical auscultation in children

# Dr Thuy Frakking (1)

Gold Coast Health (1)

Use of machine learning to accurately detect aspirating swallowing sounds in children is an evolving field. Previously reported classifiers for the detection of aspirating swallowing sounds in children have reported sensitivities between 79-89%. This study aimed to investigate the accuracy of using an automatic speaker recognition approach to differentiate between normal and aspirating swallowing sounds recorded from digital cervical auscultation in children. We analyzed 106 normal swallows from 23 healthy children (median 13 months; 52.1% male) and 18 aspirating swallows from 18 children (median 10.5 months; 61.1% male) who underwent concurrent videofluoroscopic swallow studies with digital cervical auscultation. All swallowing sounds were on thin fluids. A support vector machine classifier with a polynomial kernel was trained on feature vectors that comprised the mean and standard deviation of spectral subband centroids extracted from each swallowing sound in the training set. The trained support vector machine was then used to classify swallowing sounds in the test set. We found high accuracy in the differentiation of aspirating and normal swallowing sounds with 98% overall accuracy. Sensitivity for the detection of aspiration and normal swallowing sounds were 89% and 100%, respectively. There were consistent differences in time, power spectral density and spectral subband centroid features between aspirating and normal swallowing sounds in children. This study provides preliminary research evidence that aspirating and normal swallowing sounds in children can be differentiated accurately using machine learning techniques.

#### Abstract No: 63

Walking on common ground , The implementation of voluntary assisted dying into acute health services in Queensland

# Dr Jayne Hewitt (5)

Associate Professor Laurie Grealish (5), Professor Charles Lawson (5), Dr Elise Maehler (1),

Griffith University (5), Gold Coast Health (1)

# Introduction:

In January 2023, the Voluntary Assisted Dying Act 2021 will be operational in Queensland. Because of its contentious nature, implementation in Queensland Health Services will require special consideration. This study aims to identify the health policy components of an implementation plan, and their acceptability to Gold Coast clinicians and consumers.

**Methods:** The study uses an exploratory sequential qualitative design and has ethical clearance (GU HREC number 2021/309). Phase 1 was an analysis of written submissions made to the Queensland Parliamentary Health Committee Inquiry into VAD to identify the beliefs of stakeholders engaged with the VAD debate. In Phase 2, semi-structured interviews were undertaken to inform the development of an implementation plan. The final phase involves presentation of draft components of the implementation plan to a Gold Coast Community Forum, and the Gold Coast Health Clinical Council to seek feedback on its acceptability.

#### **Interim Results:**

Although community support for VAD is high, clinicians and those who administer health services where VAD may be offered are less supportive. The provision of VAD requires multidisciplinary collaboration, and multifactorial support so that clinicians understand and can navigate the process. Knowing how to support those who choose to participate, as well as those who choose not to is resource intensive, but essential for equitable access for patients wanting to choose VAD.

#### Preliminary discussion:

The extent to which community expectations about access to VAD services are met will depend

on how the Voluntary Assisted Dying Act 2021 is implemented into practice.

# Abstract No: 64

Evaluating diagnostic and management agreement between an audiologist and ear, nose and throat specialist in a paediatric allied health primary contact clinic.

#### Mrs Jennifer Eakin (1)

Mrs Simone Michael (1), Mr Christopher Payten (1), Ms Tamsin Smith (1), Ms Vicky Stewart (1), Dr Elle Noonan (1), Dr Kelly Weir (4)

Gold Coast Health (1) Gold Coast Health | Menzieis Health Institute of Queensland (4)

# Introduction:

ENT Allied Health Primary Contact services(ENTAH-PCS) optimising the scope of allied health practitioners use audiologists as a first contact triage point for children referred to ENT with middle ear and hearing concerns. To provide evidence for the efficacy of this model, we investigated the agreement between an audiologist and ENT specialist on the diagnosis and management of children referred to the Gold Coast University Hospital ENTAH-PCS.

#### Methods:

A prospective inter-rater agreement study of 50 children seen in the ENTAH-PCS compared agreement on differential site of lesion diagnosis and primary management decisions for each patient and examined the nature of disagreements.

# **Results:**

The audiologist and ENT specialist agreed on the primary management decision for 74% of cases[Gwet's AC .63; Cohen's Kappa .56]. Disagreement about suitability for discharge was rare(4/50) and focused on the need for conservative monitoring when a normal diagnosis had been agreed upon. There were no cases where the ENT specialist felt the child required medical opinion while the audiologist recommended discharge. The remaining disagreements(9/50) concerned whether a ,Äòwatchful wait'period was indicated or if the child should proceed directly to medical opinion, with no clear preference from either professional. The audiologist and ENT specialist agreed on a selected site of lesion differential diagnosis 100% of the time.

#### Discussion:

These findings suggest that both professionals make comparable diagnostic and primary management decisions for children with middle ear and hearing concerns, building confidence in the continued use of ENTAH-PCS as a triage point to reduce lengthy ENT waitlists.

#### Abstract No: 69

Effect of negative pressure wound therapy on wound complications in obese women after caesarean birth: A systematic review and metaanalysis.

# **Professor Brigid Gillespie (3)**

Professor Lukman Thalib (17), Professor David Ellwood (3), Evelyn Kang (10), A/Professor Kassam Mahomed (36), Professor Sailesh Kumar (20), Professor Wendy Chaboyer (10

Gold Coast Health |Griffith University (3), Istanbul Aydin University, Turkey (17), Gold Coast Health | Griffith University (3), Menzies Health Institute of Queensland (10), Ipswich Hospital (36), University of Queensland (20),

# Background:

Obesity is associated with increased surgical site infection (SSI) following caesarean section (CS).

# **Objective:**

To synthesize the evidence on the effectiveness of negative pressure wound therap in preventing SSI in obese women after CS.

#### Methods:

Inclusion criteria: Randomised controlled trials (RCTs) of NPWT compared to standard dressings after CS birth. Systematic searches in MEDLINE, Embase, CINAHL, Cochrane CENTRAL databases and Clinical Trials.gov. were undertaken in March 2021.

# **Data Analysis:**

Absolute risk reduction and pooled effect size were calculated.

#### Main Results:

10 RCTs with 5,583 patients were included; studies were published between 2012 and 2021. Nine RCTs with 5,529 patients were pooled using fixed effect model (I2 =12%) for the outcome SSI. Meta analysis showed a significant difference favouring the NPWT group (RR 0.79, 95%CI 0.65-0.95, p< 0.01). The incidence of SSI among women receiving NPWT was 178/2761 (6.4%), while those in standard care was 229/2768 (8.2%), with an absolute risk reduction of 1.8%.

However, the risk of blistering in the NPWT group (81/1967; 4.1%) was significantly higher (RR 4.13, 95% CI 1.53-11.18, p=0.005) than the standard care (28/1946; 1.4%). Regarding risk of bias, 70% of the trials adequately reported randomisation and allocation concealment. However, all studies were unclear on blinding of personnel and participants. Only 40% of the studies reported blinding of outcome assessments. 50% of the trials had Incomplete outcome data.

Conclusions: The decision to use NPWT should be considered both in terms of its potential benefits and limitations.

#### Abstract No: 79

# An allied health research team's reflections on consumer partnering and coproduction on the ATHENA project

# Dr Kelly Weir (4)

Mrs Zara Howard (1), Mrs Heidi Townsend (1), Mrs Jennifer Nucifora (1), Mrs Leanne Smith (1), Mrs Nadine Baker (1), Dr Lynda Ross (13), Dr Shelley Roberts (4)

Gold Coast Health | Menzies Health Institute Queensland (4), Gold Coast Health (1), QUT (13),

#### Background:

Consumer and community involvement (CCI) in healthcare service design, delivery and research is supported by a number of Australian National Safety and Quality Health Care Standards, and the Australian Charter of Healthcare Rights; and increasingly a requirement of funding bodies for healthcare research. However, there is limited training for researchers or consumers as to how to effectively engage consumers in health research teams.

# Aims:

The aim of this study was to explore an allied health research team and consumer coinvestigator perspectives of coproduction on the ATHENA project (An exercise Training and Healthy Eating group program for overweight and obese women with urinary incontinence).

#### Methods:

A qualitative research design was utilised. At the completion of the ATHENA project, all eight team members including physiotherapists, dietitians, allied health research fellows, university academics and the consumer co-investigator were interviewed using a semi-structured interview format. Eight questions explored members'perceptions of their experience of the coproduction process, barriers and possible solutions, facilitators for coproduction, effectiveness, and benefits to the project and participant experience. Interviews were digitally recorded, transcribed with member checking, and analysed according to Braun and Clarke's 6-step guide to thematic analysis.

# **Results:**

While most team members had no prior experience of consumer coproduction in research, all felt that the consumer coinvestigator provided a lived experience perspective that was heavily influential on the development, design and conduct of the research, and critical to the study's successful outcomes. Detailed findings will be presented.

#### Conclusion:

Consumer coproduction is essential for effective health research.

## Abstract No: 94

# Emergent Diagnosis of Lung Cancer-A Retrospective Audit of Patient Demographics and Outcomes

Dr Navin Niranjan (1)

Dr Krishna Sriram (1)

Gold Coast Health (1),

# Introduction/Aim:

Lung cancer remains the leading cause of cancer related death in Australia. Literature has shown a significant proportion of these patients are diagnosed via emergency department. This audit seeks to better define the patient demographics, staging and time to diagnosis of emergently diagnosed lung cancer patients in the GCHHS.

# Methods:

De-identified data from all 890 patients discussed at GCUH Lung Cancer MDT from 2018-2020 were collected. Medical records for included patients were reviewed to collect data around demographics, cancer stage, time to diagnosis and treatment, and mortality.

#### **Results:**

23.6% of MDT patients had lung cancer diagnosed via ED presentation. Mean (-±SD) age of patients was 70-±11 years and 50% were male. 69.7% of patients had Stage IV disease at time of diagnosis. 88.6% of patients were admitted to hospital for further work up, with mean(-±SD) LOS of 8.8-±8.3 days. 43% of patients required additional outpatient investigations. There was a 18.6 day average from initial ED presentation to MDT discussion, and an average of 18.9 days between MDT recommendation and treatment.

# Discussion:

Our audit has confirmed emergently diagnosed patients are a significant proportion of the GCUH lung cancer population and have more advanced disease. This suggests need for more community education about symptoms concerning for lung malignancy to encourage early presentation.

While patients are generally being worked up in a timely fashion, this is usually facilitated by hospital admission. These findings also support further utilisation of rapid access lung cancer clinics to

reduce hospitalisation without delays to diagnosis and treatment.

# Abstract No: 121

Role Substitution of Specialist Medical Doctors with Allied-health Professionals , A Qualitative Exploration of Patients'Experiences and Perceptions of Healthcare Quality

# Ms Rumbi Mutsekwa (5)

Joshua M. Byrnes , Vicki Larkins, Russell Canavan Rebecca L. Angus, Katrina L. Campbell

Griffith University (5)

# Introduction:

Increasing pressure on resources is driving the need for the healthcare workforce to evolve. Extending allied-health scope of practice by integrating models of care that traverse traditional professional boundaries has been one such strategy. This study explored patients'experiences and perceptions of four allied-health extended scope of practice models of care. The study aimed to identify dimensions of quality healthcare that matter to patients and describe the extent to which these were delivered in allied-health professional role substitution models of care.

# Methods:

Qualitative methodology using semi-structured interviews were conducted with 29 patients who had received treatment from an allied-health professional role substitution model. This was a purposeful sample with recruitment across genders, ages, and social backgrounds. Interviews were audio recorded, transcribed, and independently analysed by two researchers using a thematic approach.

# **Results:**

Six major themes were identified which revealed dimensions of healthcare quality that were important to patients: Balancing expectations and overall satisfaction; Timely access and convenience; Continuity, integration, and coordination of care; Clinician expert skills, professional manner, and interpersonal attributes; Financial considerations when receiving care; and Perceptions of treatment outcomes.

# Discussion:

Quality healthcare is multidimensional for patients. Allied-health extended scope of practice models of care can deliver many aspects of care that matter and appear to be an acceptable alternative to traditional specialist medical care for patients.

# Abstract No: 135

# A randomised controlled trial- Using digital mindfulness to optimize staff stress and wellbeing.

Ms Hui (Grace) Xu (14)

Dr Robert Eley (18), Dr Kate Kynoch (25), Dr Anthony Tuckett (33)

QEII Jubilie Hospital (14), Princess Alexandra Hospital (18), Mater Hospital (25), Curtin University (33)

#### **Background:**

Occupational stress in the emergency department (ED) is a burning issue requiring effective solutions. Research shows that digital mindfulness can effectively reduce occupational stress. However, it is unknown if mindfulness training via an app can reduce occupational stress in an ED environment.

# Aim:

To test if daily mindfulness practice delivered via a mobile phone app could decrease occupational stress in ED.

# Method:

A two arms, randomised controlled trial was conducted in two Metro South EDs in Queensland. Participants were randomised to either the App group or the Wait group. Participants were instructed to practice 10 minutes app guided meditation daily. Pre and post-intervention online surveys were conducted to assess staff stress and wellness levels by using the Perceived Stress Scale and Warwick-Edinburgh Mental Wellbeing Scale, respectively.

Results: A total of 97 out of 148 enrolled participants completed all the surveys. Participants reported statistically significant improvement in stress (F=15.70, p<0.001) and wellbeing levels (F=10.71, p<0.001).

#### Conclusion:

This cheap and self-direct mindfulness mobile phone app can optimise staff stress and wellbeing in the ED setting. The findings of the study will help researchers to create a wellness tool kit to assist individual staff to increase wellness.

# Abstract No: 148

Exercise induced oxygen desaturation and perceived breathlessness in six-minute walk test and grocery shelving task in patients with COPD

#### Dr Emma Walker (1)

C French (1), A Sinclair (1), A McCowan (1), N Morris (10)

Gold Coast Health (1), Menzies Health Institute of Queensland | Griffith University (10)

# Introduction:

Exercise-induced oxygen desaturation (EID) and exertional dyspnea occur in patients' with chronic obstructive pulmonary disease (COPD) during upper and lower limb tasks. Pulmonary rehabilitation (PR) is recognized as improving quality of life and exercise capacity, its effect on EID and exertional dyspnea remain unknown. Aim: To examine the relationship between the degree of change in EID and exertional dyspnea in 6minute walk test (6MWT) and grocery shelving task (GST) in patients with COPD following PR.

#### Methods:

Retrospective audit from August 2014 to December 2018 of patients who attended an 8week PR. Pre and post PR outcomes of 6MWT distance (6MWD) and the GST recovery time were measured. Changes (ie  $\Delta$ ) EID during each test (oximetry, SpO2) and exertional dyspnoea (modified Borg scale) were analysed. Withinsubject comparisons of pre and post PR cases using appropriate parametric (t-test) and nonparametric statistics (Wilcoxon- signed ranks test). Missing data for cases were excluded. Results: 224 subjects were included. Post PR 6MWD increased by 34m (p=0.00) and GST recovery time reduced by 15s (p=0.00). There was a significant reduction in EID post PR for the 6MWT ( $\Delta$ =0.4%, p=0.02) and the GST ( $\Delta$ =0.8%, p=0.00). Exertional dyspnea was not reduced in 6MWT ( $\Delta$ =0.09, p=0.26) and significantly reduced in GST (0.26, p=0.00).

# Discussion:

PR has an impact on the degree of EID during the 6MWT and GST and on perceived dyspnea during GST. PR may be better at preventing EID during upper limb tasks, however additional studies are warranted to address this question.

# Abstract No: 114

Bioelectrical Impedance Analysis: A Feasibility Study for Measuring Body Composition in the Outpatient Haemodialysis Setting.

# Ms Kristin Gomes (5)

Dr Shelley Roberts (3), Dr Ben Desbrow (1), Dr Chris Irwin (1)

Griffith University (5), Gold Coast Health | Griffith University (3), Gold Coast Health (1),

# Introduction:

Bioelectrical impedance analysis (BIA) is a lowcost, safe and validated approach that has been used to measure fluid status and body composition in haemodialysis (HD) patients. This study evaluated the feasibility, acceptability and clinical utility of using BIA for measuring body composition among HD patients in an outpatient hospital setting.

#### Methods:

A mixed-methods approach was employed. Patients attending thrice-weekly dialysis sessions in an outpatient HD unit at a tertiary hospital were consecutively recruited. Feasibility indicators included consent and measurement completion rates. A pre- and post-dialysis BIA measurement and nutrition assessment were completed during a single dialysis session. Acceptability was measured via a satisfaction survey and semi-structured interviews exploring patients and practitioners'perceptions of BIA use in clinical practice.

# **Results:**

Patient consent rate was 83%; the pre-dialysis and post-dialysis measurement completion rate was 93% and 87%, respectively. Patients were satisfied with the measurement process, found it easy to complete and valued the results. Multidisciplinary staff involved in the care of HD patients also found targeted use of BIA acceptable and valued using BIA results to support patient education and counselling.

# **Conclusion:**

BIA use in an outpatient HD setting is feasible and acceptable to patients and practitioners. Targeted BIA use with groups of HD patients, led by hospital dietitians, will increase the feasibility and improve BIA uptake. Furthermore, practitioners can use BIA data to tailor nutrition education and patient counselling. Nevertheless, the local context should be considered when developing policies for BIA use in clinical practice in the outpatient HD setting.

# Abstract No: 157

Reduced suicidal presentations to emergency departments during the COVID-19 outbreak in Queensland, Australia

# Dr Jerneja Sveticic (1)

Prof Chris Stapelberg (1), Dr Kathryn Turner (26), ,

Gold Coast Health (1), Metro North Health (26)

# Introduction:

Reductions in suicidal and self-harm presentations to emergency departments (EDs) since COVID-19 indicate changes in help-seeking behaviours, but it is unknown if hospital avoidance equally affects all population groups.

# Method:

The numbers of ED visits between January and August 2020 were compared with the expected numbers during the same period in 2019. Sociodemographic and clinical information relating to suicidal and self-harm presentations to EDs in Queensland, Australia, were compared for the period before (March,August 2019) and since the COVID-19 outbreak (March,August 2020).

# **Results:**

From March 2020 onwards, a marked divergence between observed and projected numbers is noted, corresponding to the oscillations in the numbers of diagnosed COVID-19 cases in Queensland. At the peak of the pandemic in March and April 2020, the reductions in suicidal presentations reached up to 30%. Since COVID, Indigenous Australians and persons with less severe suicidal and self-harm presentations had significantly reduced presentations, while persons younger than 18 years had more presentations. Less suicidal presentations resulted in an admission to inpatient care.

# Discussion:

Ongoing promotion of telehealth and enabling safe hospital presentations or alternatives to ED are needed to prevent the adverse outcomes of the COVID-19 pandemic due to delayed access to care.

#### Abstract No: 158

Translating research into practice: Using benchmarked length of stay data to target and drive service improvement in general medicine

Ms Samantha Clayton (1)

Rachael Smithson (1), Stacey Murray (1), Adelaide Michael (1)

Gold Coast Health (1),

#### Introduction:

Gold Coast's rapidly growing population is placing strain on healthcare resources and increasing demands for public healthcare across Gold Coast Health, leading to frequent shortfalls in inpatient bed capacity. This presentation describes how research to understand and target capacity challenges and opportunities supported clinical business units to develop and implement improvement strategies.

#### Methods:

Relative Stay Index (RSI) is a measure of hospital efficiency that benchmarks inpatient length of stay (LOS) to other health services. An RSI=<1 indicates organisational efficiency compared to peers. This research used RSI to identify and target clinical specialties with the greatest opportunity for RSI improvements due to high patient volumes and higher than expected RSI. Activity data and clinical records were analysed to identify system and patient factors that were more prevalent in cases that had a longer than expected LOS.

# **Results:**

General Medicine was identified as the initial test case. Through partnering with the clinical team, two initiatives were introduced to address identified challenges: weekend rapid discharge team and criteria led discharge. Early data indicates improvements in patient flow and throughput metrics for this cohort including increased weekend discharges, discharges before 10am and reduced RSI, LOS and ED LOS.

# Discussion:

These results demonstrate the value of using robust research to target and drive service improvement. Presenting localised data to clinical teams challenged their beliefs about the scale and drivers of performance challenges and assisted them to focus and monitor service improvement initiatives. This research has directly translated into practice, and early improvements are evident.

#### Abstract No: 149

Effect of care coordination via an allied health liaison officer for chronic non-complex medical conditions (non-CMC) in children: a multi-center randomized control trial

Dr Thuy Frakking (1)

Gold Coast Health (1)

#### Importance:

There is a paucity of high quality evidence on the impact care coordination has on health related quality of life for children with chronic noncomplex medical conditions (non-CMC).

# **Objective:**

To determine if care coordination delivered by an allied health liaison officer resulted in improved QOL outcomes for children with chronic non-CMC. DESIGN, SETTING AND PARTICIPANTS: A multicenter, open label, randomized controlled trial in pediatric outpatient clinics across three Australian hospitals consisting of tertiary and secondary level pediatric care facilities. We randomized 81 children with chronic non-CMC between October 2017 to October 2020. We used intent-to-treat to analyse the data.

# Intervention:

Eligible children were randomized to care coordination or standard care. Families receiving care coordination were provided access to an Allied Health Liaison Officer, who was responsible for facilitation of health care access across hospital, education, primary care and community sectors. Primary care reviews were offered at standard timepoints of 1 week, 3 months and 6 months post diagnosis. Children and their families participated in the trial for a period of up to 12 months.

# Main Outcome Measure and Measures:

Primary outcomes were the Pediatric Quality of Life (PedQLv4) and the PedQL Family Impact Module Version 2.0 at 6 and 12 months. Secondary outcomes included the Child Behavior Checklist (CBCL), Subjective Units of Distress Scale (SUDS) and Rotter's Locus of Control.

# **Results:**

The mean age of the 81 children randomized was 8.2 years (SD 3.5), 55 males]. Care coordination (n=42) resulted in higher improvements in overall child QOL [7.10 (95%CI: 0.44 to 13.76; p=0.04)], overall family QOL [8.62 (95%CI: 1.07 to 16.16; p=0.03)] and family functioning QOL [15.83 (95%CI: 5.05 to 26.62; p<0.01)], compared to standard care at 12 months post-diagnosis. There were no significant differences in caregiver locus of control, caregiver distress and child behaviors between groups at 6 and 12-months post-diagnosis.

# **Conclusions and Relevance:**

As care coordination improved the quality of life of children with chronic non-CMC and their families, an orientation of health services to provide such a model could lead to longer-term improved clinical outcomes. Tuesday 30 November Session 6 Lightning Presentations Group 2

# Abstract No: 3

Development and implementation of inpatient cardiac rehabilitation following cardiac surgery: An integrative review.

# Mrs Dima Nasrawi (6)

Professor Brigid Gillespie (5), Dr Sharon Latimer (5), Asssociate Professor Debbie Massey (7)

Southern Cross University | Griffith University (6), Griffith University (5), Southern Cross University (7)

# Introduction:

Cardiovascular diseases (CVD) is the leading cause of death and morbidity worldwide. Coronary artery bypass grafting (CABG) is the most common complex surgical procedure for patients with CVD. Inpatient cardiac rehabilitation (ICR) is implemented in the immediate post-care surgical phase and includes patient education. However, existing education packages lack patientcentredness and are not co-produced with patients and clinicians.

# Methods:

Whittemore and Knafl's methodology guided this review. This process included five database searches, data evaluation, data integration, and presentation of results. Studies that addressed Phase1/ inpatient phase cardiac rehabilitation after cardiac surgery between 2000 to 2021 were included. Included studies were appraised using the Mixed Method Appraisal Tool (2018), and an inductive content analysis was adopted to analyse the data.

# Results:

607 articles were screened using the inclusion and exclusion criteria, and five articles were included in this review. The integrative review findings (phase 1) indicate the need for a multidisciplinary and patient-centred ICR. Including families and patients' peers when delivering an ICR and having religious faith are essential enablers to participation in ICR. In contrast, barriers to participation in ICR include inconsistent referrals to cardiac rehabilitation and detachment from patients' needs and views.

# Discussion:

ICR delivered during the immediate postoperative phase constitutes the first stage of cardiac rehabilitation. This period creates the most significant opportunity for patients to be educated on their physical recovery, especially if they do not attend subsequent phases of cardiac rehabilitation delivered in primary healthcare.

# Abstract No: 15

How do I keep this live in my mind?,Äù Allied Health Professional's perspectives of barriers and enablers to implementing Good Clinical Practice in research

# Dr Rachel Wenke (1)

Dr Shelley Roberts (3), Dr Rebecca Angus (1), Ms Maame Owusu (1), Dr Kelly Weir (3)

Gold Coast Health (1), Gold Coast Health | Griffith University (3),

# Introduction:

Allied health professionals (AHPs) engaged in research are required to comply with Good Clinical Practice (GCP) principles to protect participant safety and wellbeing and enhance data integrity. There is limited exploration into AHPs'perceptions of adhering to GCP standards. Such knowledge is vital to guide future interventions to increase adherence.

# Methods:

This study aimed to develop, implement, and evaluate a tailored intervention package to encourage adherence to GCP principles in allied health research. The first of three phases in this mixed methods study involved understanding baseline behaviours and practices. An audit of GCP adherence was conducted on current GCHHS ethically approved Allied Health Research projects across 29 criteria based on GCP standards. AHP investigators leading research projects were interviewed to understand barriers and enablers to GCP adherence and support needs, with interview questions guided by the Theoretical Domains Framework.

# **Results:**

The audit of 13 allied health research projects revealed 73% (range 56-90%) adherence. Areas of reduced adherence included data storage, archiving and accurate completion of Participant Information Consent Forms. Ten AHPs were interviewed across six professions. While participants felt adhering to GCP principles helped improve project safety and rigour, they reported areas of low knowledge and confidence in applying specific processes to their own research and keeping GCP in mind, and difficulties sourcing resources relevant to their study design.

# Discussion:

This project provides important insights into AHP experiences of implementing GCP principles in research, to inform targeted interventions. Recommendations for support beyond training including other physical resources and one-on-one support will be discussed.

# Abstract No: 27

Identification and Management of Eating Disorders in the peripartum, in women admitted to a psychiatric Mother-Baby Unit

# Dr Emma Brownlow (1)

Aleshia Ellis (1), Dr Grace Branjerdporn (1), Dr Susan Roberts (1)

Gold Coast Health (1), ,

# Introduction:

The postpartum period presents as a particularly high,Äêrisk time for the relapse or exacerbation of eating disorders. Eating disorders in postpartum women, when left untreated, contribute towards lower quality of life and functioning, as well as impaired infant development. The Lavender Mother-Baby Unit (MBU) provides inpatient treatment to mothers with mental illness, including those with eating disorders.

# Methodology:

A four-phased research programme was conducted consisting of (1) a retrospective audit of women admitted to the MBU identified with an eating disorder; (2) a staff survey to assess knowledge and skills for assessing and treating women with eating disorders; (3) auditing the applicability of the current standardised process as outlined by our health service for assessment and management of adults with disordered eating behaviours in a mother-baby unit; and (4) prospective data collection of disordered eating behaviours using the Eating Disorder Examination Questionnaire.

# **Results:**

Of 264 women admitted to the MBU, 18 women (6.82%) were identified to have an eating disorder. On average, these women were 28 years old and 5 months postpartum. 61.11% were diagnosed with Anorexia Nervosa (including Atypical) and 44.44% had a primary diagnosis of an eating disorder. Women frequently had comorbid depression (66.67%) or personality disorder (33.33%). Women with eating disorders had a longer length of stay compared to women without eating disorders. Admissions with eating disorders were significantly increased in 2020 (during the COVID-19 pandemic) compared with 2017-2019. The staff survey highlighted the unique challenges of managing this group in an MBU & identified key areas for future staff training. Administration of the Eating Disorder Examination-Questionnaire uncovered disordered eating behaviours in women with no known eating disorder history.

#### Discussion:

Eating disorders are complex mental illnesses that require a coordinated and specialised multidisciplinary approach to management in an MBU. Results and recommendations of the four phases of the research programme will be discussed.

#### Abstract No: 29

A qualitative exploratory study exploring the process of obtaining consent from adult patient's having elective surgery at Gold Coast Health.

Ms Therese Gardiner (1)

Gold Coast Health (1)

#### Introduction:

Obtaining consent from adult patients'having planned surgery is a legal requirement and a professional standard, which informs an important patient safety process in the operating room. Information documented on the consent form is repetitively verified with the patient by multiple health care professionals as they move through the operating room. The surgical consent process and its influence on patient safety remains unclear.

#### Methods:

Qualitative exploratory design was used to examine healthcare professionals'perception of the process of obtaining consent from planned surgery adults in the Gold Coast Health operating room. The Systems Engineering Initiative for Patient Safety 3.0 model was used to map work system influence on the consent process.

Purposive sample of 17 participants included surgeons, anaesthetists and nurses. Semistructured interviews took place between April and May 2021.

Framework Analysis was used to inductively and deductively analyse interview data.

#### **Results:**

Four key themes were identified; verifying consent was standard practice and went beyond the World Health Organisation's Surgical Safety Checklist; effective communication was crucial for obtaining and verifying consent; work system factors contribute to re-obtaining consent on the day of surgery; and resources supported the consent process. Two-time intervals were identified during process mapping; obtaining and verifying consent.

# Discussion:

Consent processes are complex, involving many interdisciplinary operating team members and occur repetitively over numerous timepoints. We found legal and patient safety implications from the consent verification process which could impact surgical patient, Äôs, healthcare professionals and this healthcare organisation.

# Abstract No: 31

Post Treatment Gastrostomy Tube Dependency in Head and Neck Radiation Oncology Patients

Mr Michael Salmon (1)

# Ms Georgia Brett (1), Dr Rebecca Angus (1)

Gold Coast Health (1),

# Introduction:

Gastrostomy tube placement in patients undergoing radiation therapy (RT) for head and neck cancer can be important to maintain nutritional status and prevent weight loss and malnutrition. Patients often ask how long they will have a gastrostomy tube after completing their RT. Previously, we have not been able to provide any specific guidance other than when they are eating enough to maintain weight.

# Methods:

We have prospectively maintained a database of all patients with gastrostomy tubes that have undergone RT at GCHHS since 2014. From this, time to gastrostomy tube removal was examined with dependency rates calculated at 6 and 12 months post-RT completion. Exclusion criteria were patients <12 months post RT completion, lost to follow up, did not complete treatment or tube removal prior to treatment completion.

# **Results:**

188 patients met inclusion criteria (8 excluded). The median time to tube removal was 77 days (IQR: 47-120 days). Data was graphed to show percentage of tubes in situ each month for 6 months after RT completion. Gastronomy tube dependence was observed in 25 (13%) patients at 6 months, and 9 (5%) patients at 12 months.

#### Discussion:

From this project we have developed a handout for patients on potential outcomes based on real world data. We are now able to advise patients and manage their expectations regarding how long gastrostomy tubes will be required.

The next planned step is to investigate if there are any modifiable characteristics to assist with reducing tube dependency and improving patient outcomes for this population.

# Abstract No: 36

A new survey to measure patients'views of participation in bedside handover

# Dr Georgia Tobiano (3)

Professor Marshall Andrea (3), Ms Therese Gardiner (1), Ms Kim Jenkinson (1), Dr Margaret Shapiro (1), Dr Michael Ireland (39)

Gold Coast Health | Griffith University (3), Gold Coast Health (1), Gold Coast Health (1), Gold Coast Health (1), University of Southern Queensland (39)

# Introduction:

In 2012, bedside handovers were implemented into Australian hospitals, in response to the Australian Commission on Safety and Quality in Health Care (ACSQHC) Standards. Bedside handover enhances patient participation, enabling patients to identify errors in information transferred. But patient participation happens in 5% of handovers. The aim of this study is to develop and test a survey to measure patients'perceptions of participation in bedside handover.

# Methods:

Our research team consisted of a Patient Advisor, nurse and researchers. First, we generated a long list of items, based on the literature. Next, four Patient Advisors, four nurses and four researchers assessed the content validity of items. The resultant survey was pilot tested and then administered to 321 patients at Gold Coast University Hospital. Survey results are undergoing psychometric analyses.

## **Results:**

We created a three-section survey: Section 1: conditions for patient participation; Section 2: levels of patient participation; and Section 3: evaluation of patient participation. Questions with the highest scores included ,the nurses were welcoming during bedside handover Questions with the lowest scores included before starting, nurses asked me if I wanted family/friends/carers/significant other to participate in bedside handover.

# Discussion:

Current ACSQHC methods of audit and feedback do not uncover the nuances of patient participation in beside handover. We have developed the first international and robust survey to address this deficit. Our survey data can complement audit data, enhancing a patientcentred approach to handover.

# Abstract No: 41

Does a clinical pathway and vestibular physiotherapy in Emergency Department improve quality and efficiency of care for people with vertigo and dizziness?

Dr Vicky Stewart (1)

Gold Coast Health (1)

# Introduction:

The objective was to determine the effects of a vertigo/dizziness ED clinical pathway incorporating vestibular physiotherapy on quality and efficiency of care.

#### Methods:

This multi-site, retrospective, pre-post cohort study investigated an ED vertigo clinical pathway. Differences between pre-post clinical pathway cohorts, and patient cohorts who received and did not receive vestibular physiotherapy assessment were determined.

Participants included adults presenting to, two, Australian EDs with clinical features consistent with vestibular disorder were captured via ED diagnostic codes screening and subsequent medical record review., Medical record audits obtained quality of care indicators: diagnosis Head-Impulse-Nystagmus-Test-of-Skew, (HINTS); vestibular physiotherapy management., Linked hospital administrative datasets provided efficiency measures: time from ED presentation to assessments; hospital admission rates; ED and total hospital length of stay.

# **Results:**

Post-pathway (N=329) showed greater use of HINTS (by 27%; 95% CI 21, 33); more frequent vestibular physiotherapy assessment (by 27%; 95% CI 20, 33); reduced wait-time to assessment (25.0 to 4.6hours; 95% CI, -27.1, -14.1);and reduced ED LOS (3.9 to 3.2hours; 95% CI, -0.3, -1.0) compared to pre-pathway (N=214). Compared to those not receiving vestibular physiotherapy assessment, patients assessed by vestibular physiotherapist (N=150) received a specific diagnosis more frequently (65% vs 34%; 95% CI, 22, 40 but were admitted more often (79 vs 49%; 95% CI 22, 38) with longer total hospital LOS (13.0 vs 5.0hours; 95% CI 6.1, 10.6)

#### Discussion:

An ED vertigo clinical pathway was associated with improved quality and efficiency of care including reduced ED time. Vestibular physiotherapist review was associated with greater diagnostic specificity, but higher hospital, admissions.

## Abstract No: 53

# A retrospective clinical audit of acute ankle sprains within the Gold Coast Hospital Health Service Emergency Departments

#### Dr James Furness (2)

Jenna Clements (2), Madeline Simpson (2), Dr Kevin Kemp-Smith (2), Deborah Lenaghan (1)

Bond University (2), Bond University (2), Bond University (2), Bond University (2), Gold Coast Health (1)

#### Introduction:

Ankle and foot related injuries are the most prevalent musculoskeletal injury within the Australian ED setting. The purpose of this study was to outline and benchmark the current management of acute ankle injury within the ED settings in the Gold Coast Hospital Health Service.

# Methods:

A retrospective cross-sectional design was used. The study was approved as a Quality Audit (LNR/2018/QGC/46335). A total of 400 charts with the diagnosis of ankle sprain/ strain were reviewed and relevant data was extracted and analysed.

# **Results:**

A total of 241 (60.3%) were female and the median age of the entire cohort was 24.0 (IQR of 15 , 41). Mechanism of Injury was recorded in 99.3% of

the charts; injury history in 24.8% of charts and application of Ottawa Ankle Rules in 89% of charts. A minimum standard clinical diagnostic assessment involved the combination of all these variables above and was recorded in 30% of the charts. A total 98% of charts reported an Xray. At least one form of treatment was recorded in 99% of charts with load education only being reported in 15.5% of charts. Variation across Physiotherapists, Nurse Practitioners and Doctors was greatest for load education (55.1%, 2.9% and 4.5% respectively) and referral for follow up (64%, 13.2% and 24.7% respectively).

# Discussion:

Discrepancies in management across practitioners and when benchmarked against clinical guidelines is evident. Specifically, injury history and load education need to be included in ankle management as these factors may lead to mechanical and sensorimotor impairments and contribute to ongoing ankle pathology.

# Abstract No: 65

# Do acute care nurses have competency in electrocardiogram interpretation? A systematic mixed studies review

# Dr Lisa Chen (7)

Elicia Kunst (7), Dima Nasrawi (7), A/Prof Debbie Massey (7), Dr Amy N.B. Johnston (20), Prof Kathryn Keller (40), A/Prof Frances Fengzhi Lin (42)

Southern Cross University (7), University of Queensland (20), Florida Atlantic University (40), University of Sunshine Coast (42)

# Introduction:

Although nurses interpret electrocardiograms as routine practice, their competency remains unclear. This review aimed to identify and synthesise research evidence on nurses'competency in electrocardiogram interpretation in acute care settings.

#### Methods:

This mixed studies review involved a search of Cumulative Index to Nursing and Allied Health Literature, Medline, Scopus, and Cochrane in April 2021. Data were selected using the updated Preferred Reporting Items for Systematic Reviews and Meta-Analysis framework. A data-based convergent synthesis design using qualitative content analyses was adopted. Quality appraisal was undertaken using validated tools accordingly.

# Results:

Forty-three papers were included with the methodological quality from low to high. Most studies referred to competency,Äù in the context of knowledge about electrocardiogram interpretation, with skills and attitudes often not assessed. Nurses'knowledge levels in this important nursing role varied notably, partly due to a range of assessment tools being used. Several factors were found to influence nurses'competency in electrocardiogram interpretation across the included studies from individual, professional, and organisational perspectives.

# Discussion:

Our review shows limited understanding of acute care nurses'competency in ECG interpretation, when knowledge, skills, and attitude are all considered. Nurses identified a lack of regular training and insufficient exposure in electrocardiogram interpretation. Hence, regular, standard training and education are recommended. Also, more research is needed to develop a standardised and comprehensive electrocardiogram interpretation tool, thereby allowing educators to safely assess nurses'competency.

# Abstract No: 95

Determining the gross energy of foods available to patients by the Gold Coast University Hospital foodservice using oxygen bomb calorimetry.

# Ms Claire Chapman (5)

Associate Professor Ben Desbrow (5), Dr Chris Irwin (5), Dr Shelley Roberts (1)

Griffith University (5), Gold Coast Health (1)

# Introduction:

The dietary intake of hospitalised patients affects clinical outcomes, hence it is critically important that dietitians can accurately assess patients'energy intakes.

# Aim:

The aim of this study was to directly measure the energy content of foods/beverages supplied to patients by Gold Coast University Hospital (GCUH) foodservice and compare these to manufacturers'reported values.

# Methods:

Bomb calorimetry was used to determine the energy content of 59 food/beverage items (~48% of total menu items) using validated sample preparation procedures. Measured energy values were then compared to manufacturers'labels. Equivalence between measured values and manufacturers'reports were determined by comparing the measured mean ±90% CI to a ±20% threshold in allowable calorie variance. Food items were considered equivalent when the CI of the measured values fell within this threshold.

#### **Results:**

17 (29%) items had measured values that were considered not equivalent to the manufacturers'value. Of these, 10 exceeded manufacturers'energy values (highest mean = 176% of manufacturer's report). Seven items were lower than manufacturer's reports (lowest mean = 61% of manufacturer's report). Non-equivalent items came from four food groups and four different diet codes however, foods exclusively prepared for the smooth-pureed menu had the least accuracy (60% non-equivalency).

# Discussion:

This study found manufacturers'reported energy content of food items supplied via GCUH foodservices often failed to reflect directly measured values. Given the importance of understanding caloric intake and provision to hospitalised patients, this level of inaccuracy is concerning and warrants determination of the remaining items on the GCUH foodservice menu.

# Abstract No: 127

What goes into a care plan?, Understanding care plans and developing a care plan framework for psychiatric mother-baby units

# Miss Carly Hudson (1)

Dr Grace Branjerdporn (1), Ms Hollie Hurst (1)

Gold Coast Health (1)

# Introduction:

Care plans outline collaborative goals for recovery and treatments provided by the health service. While care plans in inpatient mental health unit are recommended by international guidelines, scant attention has focused on the nature of care plans in a mother-baby unit. The Lavender Unit, a public mother-baby unit admitting mothers with severe mental illness and their baby under one year old, devises care plans at commencement of admission, every week during admission, and at discharge. The aim of this retrospective audit is to understand the content of care plans at a motherbaby unit, compare against internationally recognised frameworks, and devise a care plan framework to support development of admission goals.

# Methodology:

A total of 63 care plans across admission, midadmission and discharge were analysed from 21 consumers between June 2020 and February 2021. Using deductive content analysis, care plan goals were compared to the World Health Organisation's (WHO) International Classification of Functioning, Disability, and Health (ICF) codes. Care plans were also analysed using inductive content analysis to generate a framework for care plans.

# **Results:**

When compared to the WHO ICF codes, care plans were most commonly coded against d570 (looking after one's health) and d7600 (parent-child relationships). Six themes derived from inductive content analysis of care plans were: mental health recovery, physical health, caring for baby, baby health and development, relationship with family, and preparing to go home.

# Discussion:

This study is the first to examine the nature of recovery goals in care plans within a psychiatric mother-baby unit. The results inform a framework to support care planning and thereby facilitate holistic well-being and recovery for a mother with mental illness, and her baby and family.

# Abstract No: 147

# Nursing student clinical placement assessment and moderation: lessons from the Clinical Clusters Education Model

Ms Belinda Gray (1)

Ms Letitia Del Fabbro (5), Dr Kristen Ranse (5), Associate professor Laurie Grealish (3)

Gold Coast Health (1), Griffith University (5), Gold Coast Health | Griffith University (3)

# Introduction:

In 2016 Gold Coast Health introduced the Collaborative Clusters Education Model (CCEM) to support learning for nursing students undertaking clinical placement. The CCEM was found to be feasible but new strategies for collecting and evaluating information about student performance were required (Grealish et al., 2018).

# Methods:

Individual and small group interviews were conducted (March 2021), with Clinical Facilitators (CFs) working in the CCEM. The interviews explored the barriers and facilitators to assessing nursing student clinical placement performance. The qualitative analysis of the interview transcriptions involved thematic analysis including open coding, aggregation of themes and theorisation of findings.

#### Results:

Participants (n=7) had a range of experience, and in-depth descriptions of assessment and moderation processes were obtained. Moderation in the CCEM draws together the expertise of numerous assessors to reach a consensus regarding student performance. Assessment in the CCEM involves ongoing sharing and joint evaluation of student performance evidence, transparency in assessment decision making and moderation is normalised. This transparency brings to light ambiguity in determining student performance expectations, according to their year level, and in the application of the assessment tool (ANSAT).

#### Discussion:

Our findings highlight the strengths of an assessment model that involves multiple perspectives. There is a need for clarification of student performance expectations and ANSAT score interpretation norms, for equitable assessment of student cohorts across diverse settings and sites. References Grealish, L. et al. 2018. Redesigning clinical education for nursing students and newly qualified nurses: a quality improvement study. Nurse Education in Practice 33.

## Abstract No: 156

In a pandemic that limits contact, can videoconferencing enable interdisciplinary persistent pain services and what are the patient's perspectives?

Mr Jarryd Brown (1)

Gold Coast Health (1)

#### Introduction:

Patients' thoughts and satisfaction with using videoconferencing during the COVID-19 pandemic were explored. The current study aimed to gather patient feedback on i) satisfaction with videoconferencing across all health professions as well as divided into a subgroup for each profession, ii) preferences for either videoconference or face-to-face during the pandemic lockdown, and iii) whether patients would consider using videoconferencing once faceto-face appointments were available.

#### Methods:

Design: An observational cross-sectional, mixed methods study design.

Setting: Tertiary level persistent pain centre.

Participants: Sixty-five consecutive patients aged 18-85 years with persistent pain lasting > 12 months.

Data was collected using a patient survey. Descriptive statistics were used to report findings from 5-point Likert scales. Qualitative analysis was guided by content analysis to organise and categorise the text.

# **Results:**

Videoconferencing platform features including audio-visual, usability, and privacy worked well for most patients (,â•90%). Two-thirds of those surveyed reported the videoconferencing sessions as equal to face-to-face attendance (67%), and, in the context of the pandemic, almost as many preferred videoconferencing (65%), while 26% preferred face-to-face attendance and 9% were unsure. Preferences for videoconferencing over face-to-face in context to the pandemic varied depending on the health discipline involved: Pharmacy (83%), Occupational Therapy (78%), Psychology (61%), Pain Specialist Physician (59%), Physiotherapy (53%). Even outside of a pandemic situation, 80% would consider using videoconferencing in the future. Qualitative analysis regarding patients'experience with the videoconference consultation, found three main categories: 1) overall satisfaction with videoconferencing, 2) technology qualities and 3) clinical interaction.

# Discussion:

In the context of a pandemic, videoconferencing for interdisciplinary persistent pain management services was effective, preferred and most patients would continue its use into the future. Alternative or mixed modes of support may be needed for the 26% who currently prefer onsite attendance, when that mode of delivery is not available.

# Abstract No: 164

# Efficacy of the Zero Suicide Framework in reducing recurrent suicide attempts

Dr Jerneja Sveticic (1)

Dr Jerneja Sveticic (1), Dr Ian Hughes (1), Dr Kathryn Turner (26)

Gold Coast Health (1), Metro North Health ((26)

## Introduction:

This study aimed to evaluate the effectiveness of the Zero Suicide framework, implemented in a clinical suicide prevention pathway (SPP) at Gold Coast Mental Health and Specialist Services, in reducing repeated suicide attempts after an index attempt.

# Method:

A total of 604 persons with 737 suicide attempt presentations were identified between 1 July and 31 December 2017. Relative risk for a subsequent suicide attempt within various time periods was calculated using cross-sectional analysis. Subsequently, a 10-year suicide attempt history (2009,2018) for the cohort was used in time-torecurrent-event analyses.

# **Results:**

Placement on the SPP reduced risk for a repeated suicide attempt within 7 days (RR = 0.29), 14 days (RR = 0.38), 30 days (RR = 0.55) and 90 days (RR = 0.62). Time-to recurrent event analysis showed that SPP placement extended time to representation (HR = 0.65). A diagnosis of personality disorder (HR = 2.70), previous suicide attempt (HR = 1.78) and Indigenous status (HR = 1.46) increased the hazard for representation, whereas older age decreased it (HR = 0.92). The effect of the SPP was similar across all groups, reducing the risk of re-presentation by about 35%, compared to persons not placed on the SPP.

# Discussion:

This paper demonstrates a reduction in repeated suicide attempts after an index attempt and a longer time to a subsequent attempt for those receiving multilevel care based on the Zero Suicide framework.

# Abstract No: 163

Evaluation of a psychiatric mother-baby unit using a patient outcome and experience measure

#### Miss Carly Hudson (1)

Mr Roy Sheshinski (1), Dr Susan Roberts (1), Dr Grace Branjerdporn (1)

Gold Coast Health (1),

#### Introduction:

Mother-baby units (MBUs) are currently considered best practice for treating mothers'mental health whilst avoiding separation from her baby. Whilst the effectiveness of such services has been established, an evaluation of the mothers'satisfaction with the experience and outcome is yet to be completed. This study aims to understand patient-perceived outcome at discharge from the Lavender MBU, as well as satisfaction with experiences and service during admission.

#### Methodology:

The Patient Outcome and Experience Measure (POEM) is a self-report questionnaire that combines both patient reported outcome- and experience-measures (PREMs and PROMs). Additional questions were asked to examine the patient's perception of the helpfulness of group programs during admission. Open-ended qualitative feedback was also examined.

# **Results:**

A paired samples t-test revealed a patientperceived significant positive increase in mental health outcome at discharge when compared to admission. Correlation analyses found that patients who were under the mental health act were less satisfied with their experience than those who were voluntary inpatients. Patients with Bipolar Affective Disorder were also less satisfied, compared to other diagnoses.

#### Discussion:

This study examined patient-reported outcomes and experiences of admission to Lavender MBU. The results reinforce the effectiveness of MBU in treating maternal mental health, however emphasise the importance of voluntary treatment. The qualitative findings identify both areas of the MBU service that patients are satisfied with, as well as areas for improvement.

#### Abstract No: 107

Factors associated with Health of the Nation Outcomes Scales (HoNOS) in an acute young adult psychiatric unit

Mr Alex Dymond (1)

#### Dr Grace Branjerdporn (1), Mrs Julia Robertson (1),

#### Gold Coast Health (1),

The transition from adolescence to adulthood is a highly vulnerable period for mental health concerns and is a key life-stage, fundamental to later health and quality of life. Scant research has investigated the health outcomes of young adults admitted to a specialised acute psychiatric unit for this cohort. Understanding health and functional outcomes for young adults admitted to a specialised acute mental health inpatient unit is beneficial in identifying treatment effectiveness and vulnerable groups. The study examines the relationship between demographic and clinical factors with admission, discharge and change in Health of the Nation Outcomes Scale (HoNOS) scores in patients admitted to an acute young adult psychiatric unit. The HoNOS was completed at admission and discharge for patients admitted to an acute young adult psychiatric unit in Australia. Descriptive statistics, paired t-tests, generalized estimating equations, independent samples t-tests and correlations were completed. Patients (N=130) were aged between 18 and 25 years old (M=21.26 years old, SD=2.31). Patients were diagnosed with mood disorders (21.54%), substance abuse disorders (20.00%), personality disorders (19.23%), and psychotic disorders (17.69%). HoNOS scores across all subscales improved from admission to discharge, when controlling for confounding variables. Admission, discharge and change in HoNOS scores were associated with gender, country of birth, number of admissions, mental health act, diagnosis, socioeconomic status. This study is the first to explore HoNOS scores, demographic factors and clinical variables in young adults admitted to a specialised psychiatric inpatient unit for this age group. While further research is required, the findings identifies vulnerable subgroups (e.g., individuals with personality disorders, individuals with substance use, those admitted involuntarily, those readmitted) that may benefit from increased tailored support to foster more optimal health outcomes.

# Tuesday 30 November Session 6 Research Presentations Group 3

# Abstract No: 4

# GCHHS Specialist Palliative Care in Aged Care (SPACE) Project

# Dr Uyen Duong (1)

Mr Harish Aakula (2), Dr Nicola Morgan (1), Dr Sharon Mickan (2), Mrs Tracey Norling (1), Ms Lucy Tripp (1)

# Gold Coast Health (1), Bond University (2),

Palliative care in Australian Residential Aged Care Facilities (RACFs) is patchy and often inadequate, despite an aging population with complex care needs and high mortality. In response, the GCHHS SPACE team was established and implemented palliative care needs rounds in RACFs. Needs Rounds combine triaging, anticipatory patientcentred care and case-based education; shown in pilot studies to improve symptoms at the end of life and reduce length of hospital stay.

Customised data analytic tools were designed to provide real-time, continual monitoring of the program performance. This project explores whether needs rounds are associated with reduced ED presentations and length of hospital stay for RACF residents admitted to GCHHS.

Key observations from data over a period of 6 months (May 2021, Oct 2021):

130 residents reviewed per month (average).

25% reduction in RACF ED presentations in 2021 compared to 2019. All ED presentations increased 8% in the same period.

SPACE RACF ED presentations reduced 31% while non-SPACE RACF reduced 8%.

The reduction in the number of SPACE RACF ED presentations is statistically significant at 5% level of significance.

Negative correlation between RACF reviews handled by SPACE and average Ward Length of stay (-0.43 moderate) and average cost per patient (-0.88 strong) The SPACE project demonstrates how real-time data analytics can be used to automate the process for monitoring KPIs of a new program and aids in faster data driven decision making. Potentially, this concept could be extended to other projects to inculcate data driven decision making and culture.

# Abstract No: 11

# Enacting Women, Newborn and Children's service change during the COVID-19 pandemic: A realist informed evaluation

# Dr Kristen Jones (1)

Professor Rhona McInnes (3), Dr Samantha Nolan (1), Dr Valerie Slavin (1), Dr Belinda Lowe (1), Mrs Michelle Noyes (1), Mrs Simone Martin (1), Ms Geraldine Dyer (1), Professor Melanie Zimmer-Gembeck (5), A/Professor Susan Moloney (1), Ms Natalie King (1)

Gold Coast Health (1), Gold Coast Health | Griffith University (3), Griffith University (5),

# Introduction:

Care provision to women, newborns and children was restructured in response to the global pandemic. Actions taken to flatten the curve and stop the spread of COVID-19 led to service changes such as appointment relocation, changes in mode of care, service reduction and/or cessation, and HITH implementation. Ensuring the preparedness of health systems to respond to global pandemics and learn from the current response is vital. This three-part project focused on WNCS staff and two groups of healthcare users whose care could not be delayed in response to COVID-19 restrictions , women having their baby in 2020 (postnatal women) and parents of children with complex healthcare needs (P-CCHN).

# Method:

Cross-sectional surveys.

# **Results:**

Limited engagement despite numerous methods of recruitment.

a) P-CCHN (n = 29): Satisfaction with care remained high. Identified themes of community restrictions facilitating physical safety/wellbeing of children (e.g., less hospital admissions). Changes to routine and social contact detrimental to psychological wellbeing of some.

 b) Postnatal women (n = 69):
 Telephone/telehealth worked for some, some perceived challenges in care access. Biggest impact was limitations to birth companions and older children unable to visit sibling/mother in hospital.

c) Staff (n = 111): Greater concerns regarding safety of changes to care delivery expressed by maternity care providers than child health/paediatrics. Most staff experienced high levels of life interference in at least one area.

# Discussion:

Recruitment was challenging and respondents reported varied experiences of service restructure. Importance of tailored, person-centred care with consistent provider highlighted as potential buffer for life disruption.

# Abstract No: 13

# Improving patient safety in primary care with real-time computer decision support

# Dr Mark Morgan (9)

Prof Mark Morgan (2), Ms Debbie Davies (27)

Bond University & Gold Coast PHN (9), Bond University (2), Gold Coast PHN (27)

# Introduction:

Medication related harms are estimated to result in 400 000 presentations to Australian emergency departments per annum and cost Australia \$1.4 billion dollars which equates to 15% of the total funding for the pharmaceutical benefits scheme.

Primary Sense is a GP data analysis tool designed in the Gold Coast that provides prescribing alerts using real-time pathology and analysis of patientspecific risk factors for over 90% of our population.

# Methods:

Opportunities to intervene in high-risk prescribing were selected by examining potentially preventable hospital admissions, coroners reports and gaps in existing warning systems. Primary Sense was programmed to provide 12 succinct pop-up alerts that provide GPs with relevant patient information at the point of prescribing. GPs indicated their response to alerts with one click. Primary Sense was able to track whether the alert was enacted.

# **Results:**

Between July 2020 and June 2021, 312 out of 487 GPs received one or more medication alerts representing 3153 potentially dangerous prescriptions. 1250 (40%) of these alerts resulted in action being taken. GP response rates have been sustained over 2 years

# Discussion:

Computer decision support software has the potential to significantly reduce medication related harms. Primary Sense functionality has now been enhanced to provide risk-stratified prompts for gaps in care. About half of Australian PHNs are considering implementing Primary Sense, including all of Queensland.

# Abstract No: 22

The use of prophylactic sacral dressings to prevent hospital-acquired pressure injuries in adult intensive care unit patients: A pilot randomised controlled trial

# Dr Sharon Latimer (10)

# Menzies Health Institute Queensland | Griffith University (10)

# Introduction:

Intensive care unit patients are at 3.8 times more likely to develop a hospital-acquired pressure injury compared to other patients, with the sacrum the most frequent site. Prophylactic sacral dressings are recommended for pressure injury prevention however comparative evidence on their performance is lacking.

# Methods:

This 3-arm pilot feasibility randomised controlled trial was designed to test the effectiveness of two prophylactic foam dressings (Mepilex; Allevyn) versus usual care to prevent sacral pressure injuries in adult intensive care patients. Secondary outcomes were sacral pressure injury incidence rate, stage and cost-effectiveness. During MaySeptember 2021, participants were randomised to one of three groups and followed each day for a maximum of 14-days or until a study end point (sacral pressure injury, discharge, death). Feasibility was assessed using pre-determined criteria: recruitment, randomisation, retention, resource allocation and intervention fidelity.

# **Results:**

Of the 602 patients screened; 48 (8.0%) were eligible; 44 (92%) recruited and randomised (13: Mepliex, 15: Allevyn, 16: Control). Two (4.5%) patients were loss-to-follow-up. More males (n=31; 70.0%) were recruited and the sample median age was 61 years (range 21-93). On average, participants remained in the trial for 4days. Five participants (11.3%) developed a sacral pressure injury (stage 1 n=3; stage 2 n=2), with a mean time to development of 3 days. Costeffectiveness analysis underway.

# Discussion:

Our findings show a larger trial is feasible and a 2021 NHMRC clinical trials and cohort studies grant application was submitted. Outcome pending: March 2022.

# Abstract No: 161

A mixed methods study exploring stress management and coping in Emergency Department clinicians

Dr Elizabeth Elder (3)

Dr Amy Johnston (18), Professor Marianne Wallis (5), Professor Julia Crilly (3)

Gold Coast Health | Griffith University (3), Princess Alexandra Hospital (18), Griffith University (5),

# Introduction:

Emergency departments (EDs) are notoriously busy and challenging working environments. Recognising the challenges faced by ED clinicians has prompted growth in interest around occupational stress. Despite the interest in occupational stress there is a paucity of ED clinician-informed interventions to improve perceptions of working environment and/or coping among clinicians.

# Methods:

Underpinned by the transactional stress and coping theoretical framework, a three-phase mixed methods study utilising a sequential explanatory design was conducted at a single health service with two EDs in south-east Queensland. Phase One consisted of surveys. Phase Two involved interviews. Phase Three comprised of a scoping review and a nominal group technique.

# **Results:**

Workload was consistently identified as a leading stressor across all three phases. In Phases Two and Three, staff also described perceptions of demoralisation, feelings of not being valued, and lack of leadership within the workplace. Wellness, staffing, and teamwork were the foci of the nominal group discussions, with three core interrelated themes emerging from these discussions: increased individual and team support, development of professional resilience, and maximising opportunities for social connection. These three themes, if embedded into a workbased strategy, were suggested to be associated with developing a psychologically safe working environment, and improving team synergy.

# Discussion:

Exposure to occupational stress for clinicians working in the ED remains an issue. The unique working environment calls for ED-specific, tailored, and focussed interventions designed to meet the demands and needs of ED clinicians. These findings can be used to inform intervention development within EDs, locally and internationally.

# Abstract No: 162

Utilizing computational feature extraction strategies to help improve prediction of ICU outcome in traumatic brain injury patients

Dr Ping Zhang (10)

MS Tegan Roberts (5)

Menzies Health Institute Queensland | Griffith University (10), Griffith University (5)

# Background:

Prediction of patient outcome in medical intensive care units (ICU) may help for development and investigation of early interventional strategies. Several ICU scoring systems have been developed and are used to predict clinical outcome of ICU patients. These scores are calculated from clinical physiological and biochemical characteristics of patients. HRV has been identified as a promising electronic biomarker'of disease severity. Traumatic brain injury (TBI) is a subset of critically ill patients admitted to ICU, with significant morbidity and mortality, and often difficult to predict outcomes. Changes of HRV for brain injured patients have been reported in several studies. This study aimed to utilize the continuous HRV collection and machine learning techniques to develop a ICU outcome prediction system for TBI patients.

#### Methods:

Twenty-four hours ECG data were collected from 26 TBI patients. A feature extraction strategy was applied to measure the HRV fluctuation during time. Logistic regression in combination with genetic algorithm for feature selection was used to develop a prediction model.

#### **Result:**

The prediction model that utilised only HRV based parameters produced comparable result with the earlier models that were adopted in some clinical applications.

# **Conclusions:**

With the application of computational data analytics techniques, HRV based parameters alone may predict the brain injury patient outcome better than the previously adopted illness severity scores. It is encouraged to test the method on a larger patient cohort and to develop a practical model that improves prediction of ICU brain injury patient outcome. Tuesday 30 November Session 7 Lightning Presentations Group 3

# Abstract No: 6

# Trainee feedback: Not just a matter for individuals

# Mrs Joanne Hilder (1)

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#### Introduction:

Trainees rely on feedback to guide their learning, yet feedback processes are far from perfect. How feedback unfolds is influenced by the individuals involved and by the context and professional culture they find themselves in. While the impact of professional culture on feedback processes is the subject of increasing scrutiny, the influence of different cultures within medicine remains largely unexplored. In this study, therefore we are investigating the differences and similarities between intensive care and surgical feedback cultures.

#### Methods:

Our interdisciplinary team is conducting a focussed ethnography study at GCUH and Robina Hospital. So far, 21 in-depth observations have been conducted with four ICU registrars and three Surgery registrars participating in the study. Seventeen interviews with trainees and 1 interview with consultants have also been recorded and audio transcribed. Data collection has focussed on conversations about performance in a range of clinical contexts.

# **Results:**

Conversations about trainee performance are influenced by: (1) how trainee and consultants are

co-located; (2) multiple disciplinary perspectives; and (3) the role of the patient and family in conversations. These features vary between specialties and shape who is involved in the conversations, as well as when and how they occur.

# Discussion:

Different specialty cultures accommodate certain types of feedback conversations while constraining others. Our work offers an opportunity for specialties to reflect on their feedback ,Äoblind spots'and to strategise about how to create space for deliberate and fruitful feedback conversations.

# Abstract No: 14

# Tailoring Research Evidence and Theory (TREAT) into Allied Health Journal Clubs: A Mixed Methods Hybrid Implementation Study

# Dr Rachel Wenke (1)

Dr Jodie Wiseman (2), Dr Caitlin Brandenburg (1), Dr Paulina Stehlik (2), Dr Ian Hughes (1), Mrs Katherine Richards (1), Dr Sharon Mickan (2)

Gold Coast Health (1), Bond University (2),

# Introduction:

Journal clubs (JCs) are commonly used by Allied Health Professionals (AHPs) to support Evidence-Based Practice (EBP). There is little research about how AHPs should best implement JCs in the long term, and their impact on EBP use and skills. This study investigated which implementation strategies are most effective for AHPs in implementing a structured JC format, (TREAT,Äù) and its impact on EBP skills, confidence, use and clinical practice.

# Methods:

A mixed methods hybrid-effectiveness implementation design was employed. EBP skills, confidence, use, and attitudes (Adapted Fresno Test, EBPQ, tailored journal club culture questionnaire) were assessed at baseline, and after 10 and 16-monthly JC sessions. Satisfaction, impact on clinical practice, and usefulness of implementation strategies were explored using questionnaires and focus groups.

# **Results:**

Six JCs (total of 132 unique participants) participated. EBP skills significantly improved on the Adapted Fresno Test after 10-monthly (mean increase of 6.6 points: 95% CI, 0.43 to 12.7) and 16-monthly sessions (7.8 points, 95% CI, 0.85 to 14.7), and on EBPQ confidence ratings at 10months (4.9 points: 95% CI, 2.2 to 7.5) and 16months (5.7 points: 95% CI 2.7 to 8.7). Across sessions, 88 AHPs reported adopting new treatments/resources and 64 AHPs reported updating clinical procedures. Qualitative results revealed strategies helpful for implementation including prioritisation and development of PICOs as a group, and EBP training.

# Discussion:

TREAT JCs can be sustained for up to 16-monthly sessions and may help AHP's EBP skills and confidence and influence clinical practice. Implementation strategies should be responsive to barriers/context of each journal club.

# Abstract No: 19

Evaluation of enhanced recovery after surgery protocols in day case total laparoscopic hysterectomy: a pilot study.

# Dr Rhys Harris (1)

Dr Courtney Clarke (1), Dr Maleeha Mushfiq (1), Ms Paula Baldan (1), Dr Graeme Walker (1)

Gold Coast Health (1),

# Introduction:

Enhanced recovery after surgery (ERAS) refers to evidence-based protocols surrounding preoperative, perioperative, and postoperative factors aiming to optimise patient outcomes. In 2019, Gold Coast University Hospital (GCUH) begun performing total laparoscopic hysterectomy (TLH) with same-day discharge. To facilitate safe and effective same-day discharge, updated and evidenced based ERAS protocols are vital. This retrospective descriptive pilot study aimed to describe current practice and outcomes from the day-case TLH cohort, and to identify areas where evidence-based improvement in current ERAS protocols could be implemented to improve care.

# Methods:

The medical records of patients in whom day-case TLH was performed (n=24) between December 2019 and July 2020 were retrospectively reviewed. Data pertaining to preoperative, perioperative, and postoperative care was collected and analysed with simple descriptive statistics. The study took place with ethics approval.

# **Results:**

All patients were discharged the same day, with a mean time from end of surgery to discharge of 6.6 hours. No patients were readmitted following surgery.

# Discussion:

This pilot study suggests TLH with same-day discharge is effective with minimal complications reported. While many aspects of current practice are in keeping with evidence-based ERAS recommendations, there are several areas for improvement. This includes investigation of iron deficiency and correction of anaemia, preoperative bacterial vaginosis testing and treatment, pre-operative carbohydrate loading and chlorhexidine shower, pharmacological intraoperative VTE prophylaxis, and optimisation of intraoperative and discharge analgesia. Future studies could focus on evaluating the implementation of changes to ERAS protocols, and further exploring outcomes of day case TLH including patient satisfaction and health economic analysis.

# Abstract No: 23

Are we on the same page? Nurses'and patients'perceptions of the feasibility and acceptability of implementing a patient education pressure injury prevention care bundle in acute care units

# Dr Sharon Latimer (10)

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Menzies Health Institute Queensland | Griffith University (10), Gold Coast Health (1)

#### Introduction:

Hospital-acquired pressure injuries prolong hospitalisation and influence patients'care experience. Educating patients in participating in their pressure injury prevention care can reduce their risk. Prior to implementing an evidencebased patient education pressure injury prevention resource at Gold Coast Hospital, we determined patients'and nurses'perceptions of its feasibility and acceptability.

# Methods:

Semi-structured patient interviews and nurse focus groups were conducted in three medical units. Participants'experiences of pressure injury prevention education on admission and resource acceptability were explored. Uploaded onto the Patient Entertainment System (PES), the education resource, available in nine languages, has three components: a 6-minute video, poster and brochure outlining three patient strategies , keep moving, eat a healthy diet, and look after your skin. Qualitative data were analysed using inductive content analysis, with categories comparatively analysed and themes defined.

#### **Results:**

Nine patients and 20 nurses participated. Two themes emerged: contrasting experiences of pressure injury prevention education on admission and, increasing information sharing between nurses and patients on admission through well designed and accessible PIP education resources

#### Discussion:

Patients perceived they received limited pressure injury prevention information on admission while nurses reported educating patients. Patients wanted more education on admission, adding their fear of graphic wound images reduced their engagement so nurse reassurance was needed. Nurses play a key role in patient education on admission and wanted more time and welldesigned engaging resources. The new pressure injury prevention education resource was considered useful in facilitating information sharing at mutually agreeable times and individual pace.

### Abstract No: 35

Exploring end-of-life decision-making in the Emergency Department and Intensive Care Unit: What do clinicians know about the law and how is it applied?

# Dr Jayne Hewitt (5)

Professor Andrea Marshall (1), Dr Nemat Alsaba (1), Dr Katya May (1), Dr Gregory Comadira (1),

Griffith University (5), Gold Coast Health (1)

# Introduction:

All healthcare, including care provided at the end of life, is underpinned by legal obligations. The content of these obligations can be complex and perceived as a barrier to optimal end-of-life care. This study aims to describe ED and ICU clinicians'knowledge of the law and factors that affect its application to end-of-life decisionmaking.

# Methods:

Informed by a review of the international literature, this is a multi-site, three-phase descriptive mixed-methods study. Phase 1 is a cross-sectional descriptive survey that explores Queensland ED and ICU medical practitioners,Äô, nurses'and social workers'understanding of the law that applies to end-of-life decision-making. In Phase 2 a retrospective medical chart audit will examine how end-of-life decisions made in ED and ICU are documented. The final phase involves semi-structured interviews with clinicians who have experience making, enacting, or supporting end-of-life decisions.

#### **Results and study progress:**

Data collection is underway for phases 1 and 2. Here, we present the results of our literature review, which shows that end-of-life decisionmaking is multifactorial, and knowledge of the law is just one factor among many.

# Discussion:

Previous studies show that there are gaps in clinicians'knowledge and understanding of the law that applies to end-of-life decision-making. However, there is limited research that explores factors that affect the application of the law when these decisions are made. The findings from our study will verify if there is a legal knowledge gap, or if other factors affect how these decisions are made in ED and ICU.

# Abstract No: 58

Analysis of user experience and interaction with SMART infusion pumps.

### Mrs Catherine Edmunds (1)

Mrs Nallini McCleery (1), Ms Brittany Twohill (1), Ms Anna Davey (1), Ms Emily Streeter (1), Miss Sharon Yao (20)

> Gold Coast Health (1), University of Queensland (20)

# Introduction:

SMART infusion pumps provide medication safety support for medicine infusions using Dose Error Reduction Software (DERS). DERS aim to reduce administration errors by providing medicine profiles with pre-defined safe infusion limits. The success of DERS relies on the accuracy of the profile and on users selecting the correct medicine and concentration within the pump. Exploring user interaction with, and user perceptions of infusion pump technology is essential in guiding strategies to improve DERS compliance.

# Methods:

A multidisciplinary team conducted a survey of nursing and anaesthetic staff over a 2-week period in September 2020. Survey questions were developed using the Technology Acceptance Model 2 framework, utilising multiple choice and Likert scale questions. Participation was anonymous and voluntary. Data was collated and analysed using Microsoft Excel-Æ.

#### **Results:**

A total of 217 survey responses were received, with, 77% of clinical areas reporting satisfaction with pump usability; however, both oncology/haematology and anaesthetics departments had significantly poorer perceptions and reported DERS compliance. The main barriers to DERS use were complex programming and incorrect/missing medication profiles.

Peer support was the most utilised support tool (68.6%); however, users identified that quick

reference guides and online training modules would also be valuable. Users also supported regular updates of DERS to ensure clinical appropriateness (49%).

# Conclusion:

Results demonstrate that clinical area is an important determinant of compliance; and optimisation of the DERS library is needed to ensure requirements of each area are met. Future education and training initiatives are planned to support users, improve compliance and patient safety.

# Abstract No: 168

# **Requesting CTPAs Wisely: An Update**

# Dr Kang Xiang Tan (1)

Dr Maninder Singh (1), Dr Pathmanathan Sivakumaran (1), Dr Mahmood Bekheet (1), Dr Ibrahim Mansour (1)

Gold Coast Health (1),

# Introduction/Aim:

Computerised tomography pulmonary angiography (CTPA) is the gold standard imaging modality for diagnosis of pulmonary embolism (PE). A previous audit of CTPAs performed in July 2020 (totalling 251 scans) at the Gold Coast Health Service demonstrated diagnostic yield for PE of 11% & alternative pathology of 39%. Since then, CTPA numbers continue to spiral upwards, with a peak of 287 scans performed in January 2021 alone. The Emergency department introduced a diagnosis pathway for suspected PEs in late 2020. We sought to reevaluate the indications, origin & outcomes of CTPAs performed within the first guarter of 2021, and retrospectively determine clinical appropriateness of each scan, in accordance with the Choosing Wisely, Äù campaign.

# Methods:

We conducted a retrospective audit evaluating CTPAs performed at the Gold Coast Health Service from 1st January to 31st March 2021. We reviewed the clinical history, imaging & outcomes of each case individually, and recorded the relevant data within an excel spreadsheet for further analysis.

# **Results:**

791 CTPAs were performed within the study timeframe. For January 2021, PEs were detected on 50 scans. Of these, 41 (15%) comprised new or breakthrough PEs. 39 commenced anticoagulation, including 3 requiring systemic &/or catheterguided thrombolysis initially. 111 CTPAs had preceding D-dimers, with 12 negative by ageadjusted criteria & proceeding to negative CTPAs. CTPAs yielded new diagnoses of PE &/or other pathology in 137 cases (47.7%), & impacted management strategy in 95 (33%). In retrospect, 80.5% of CTPA requests were clinically appropriate.

# Conclusion:

Interestingly, the CTPA-led diagnostic yield for PEs has significantly improved, suggesting overall improvement in clinical decision-making. If we omit inappropriate CTPAs, the same parameter would improve to 17.7%, suggesting room for improvement. Further analyses of data from February & March is underway. Validated criteria such as Modified Wells & PESI scores remain underutilised.

# Abstract No: 172

Comparison of the characteristics of patients treated with sublingual vs. long-acting injectable buprenorphine formulations for treatment of opioid use disorder: a retrospective cohort study.

# Dr Carmen Nayer (1)

Dr Jerneja Sveticic (1), Dr Hesitha Abeysundera (1)

Gold Coast Health (1),

# Introduction:

Opioid use disorder (OUD) is a chronic, relapsing condition that contributes to significant mental, physical, and social adverse consequences. Longacting injectable buprenorphine (LAI-BPN) has recently been introduced as a new treatment for OUD.

# **Objective:**

To assess whether the characteristics of patients transitioned to LAI-BPN are different to those who remain on sublingual buprenorphine (SL-BPN) for treatment of OUD.

# Methods:

We undertook an observational, descriptive, retrospective cohort study of the medical records of patients of the local Alcohol and Other Drug Service diagnosed with OUD and treated with either SL-BPN or LAI-BPN. Data was collected on 33 sociodemographic and clinical variables.

# **Results:**

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A total of 187 individuals were prescribed buprenorphine for OUD; 129 on SL-BPN and 58 on LAI-BPN. A descriptive analysis of the study variables was undertaken, and group difference

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were analysed using a chi square test or Mann-Whitney U test. Significant group differences were found for relationship status, psychiatric comorbidity, active HCV infection, pre-treatment duration of unsanctioned opioid use, appointment attendance, and urine drug screen results.

# Discussion:

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There were significant differences found in several sociodemographic and clinical variables comparing the SL-BPN and LAI-BPN cohorts. The results of this descriptive study contribute to the available literature on a novel treatment option in an Australian context.

This study was important to better understand the patient's characteristics in treating future patients who present to AODS with Opioid Use Disorder

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# **Poster Abstracts**

# Abstract No: 1

An evaluation of personality disorder services by consumers, carers and peer workers: A qualitative study

# Dr Sarah Walker (1)

Dr Candice Bowman (1), Karlen Barr (31), Professor Brin Grenyer (1), Michelle Edwards (1), Angela Davies (1), Dr Kathryn Turner (26), Professor Chris Stapelberg (1)

Gold Coast Health (1), University of Wollongong (31), Metro North Health (26),

# Introduction:

Previous research shows that consumers with personality disorder and their carers do not always receive evidence-based, compassionate care through health services. Although there has been a limited number of studies examining the views of consumers and carers from other mental health disorders, there is an absence of studies that have been undertaken in regard to consumers with a personality disorder and their families and carers. This study aimed to evaluate experiences of the emergency department, inpatient and outpatient services at a specific health facility from the perspectives of consumers with personality disorder, carers, and peer workers.

# Methods:

Consumers with personality disorder (n = 6), carers supporting a person with personality disorder (n = 3) and peer workers who work with people with personality disorder (n = 12) participated in separate focus groups regarding their experiences of services for personality disorder at Gold Coast Health. Focus group discussions were guided by an interview guide that was co-designed by the researchers. Focus group questions were slightly different for the consumer, carer, and peer worker participants.

Results: Participant responses were analysed using thematic analysis with a constructivist orientation. Familiarisation with the data occurred by repeatedly reading the focus group transcripts. Themes are presented according to the unique perspectives of consumers, carers, and peer workers.

Discussion: This study will help inform development and changes of personality disorder services to better suit the needs of consumers and carers.

# Abstract No: 7

The Cancer Urgent Assessment Clinic (CUAC) evaluation of a new model of care in response to the COVID-19 pandemic

# Miss Corrine Haugstetter (1)

Dr Laetitia Hattingh (1), Dr Rob Mason (1), Dr Jasotha Sanmugarajah (1)

Gold Coast Health (1),

# Introduction:

The Cancer Urgent Assessment Clinic (CUAC) was an emergency department (ED) avoidance/unscheduled model of care implemented at Gold Coast University Hospital (GCUH) in response to the COVID-19 pandemic. The aim was to reduce the risk of COVID-19 exposure and infection by providing an alternative to ED for cancer patients whilst undergoing anticancer treatments.

# Methods:

The clinic incorporated a telephone triage process and face-to-face appointments 8am to 8pm, 7 days per week. CUAC operated between 23/3/20 to 31/7/20, led by a nurse practitioner candidate, oncology registrars, cancer nurse specialists, and overseen by oncology consultants. Evaluation followed a mixed-methods approach through 1) analysis of CUAC patient data, 2) comparison of ED cancer patient presentation data from a previous period (23/03/2019-31/07/2019) and 3) a patient survey.

# **Results:**

In total, 400 patients were telephone triaged via CUAC, with 166 recorded as having avoided ED. There was a reduction in the number of cancer patient admissions to the ED short stay unit during the clinic period compared with the same time period in 2019: 130 vs. 234, associated with 615 less hours. Patient satisfaction was positive particularly regarding ease of access, time to treatment, confidence in assessment and treatment of cancer related concerns, and likelihood of presenting to hospital when unwell during the pandemic.

# Discussion:

Whilst initially being implemented to reduce the risk of COVID-19 exposure, this evaluation demonstrates the CUAC model was an efficient, safe and potentially cost-saving model of care for the management of mild to moderate severity disease and treatment-related concerns.

#### Abstract No: 9

Indications and efficacy of Ketamine use in the Gold Coast Hospital and Health Services'Palliative Care Service , a retrospective audit

#### Miss Heleni Georgiou (1)

Dr Gauri Gogna (1

Gold Coast Health (1),

# Introduction:

Ketamine, a NMDA-receptor antagonist, can be used for refractory pain management. A randomised controlled trial (RCT) demonstrated no benefit for ketamine over placebo in the management of refractory cancer pain, with high rates of adverse events.

Despite this trial, ketamine is still used in the clinical setting. The following is an audit on the use of ketamine within the Gold Coast Hospital and Health Services, Äô, Specialist Palliative Care Service (SPCS).

#### Method:

A retrospective chart audit was undertaken, including all patients who used ketamine within the SPCS from October 2018 to February 2021. Data was from the ketamine register kept by pharmacy

# **Results:**

18 patients were prescribed ketamine, with 16 having a malignant diagnosis. Length of time and dose of ketamine was inconsistent, with doses from 20mg to 500mg, and a range of

1-25 days of use. The indication for use was refractory pain in all patients. 11 patients found ketamine effective with a reduction in opiate use in five of the 11 patients.

Five patients had adverse events with cessation of ketamine due to same. Eight patients died whilst on ketamine, two ceased as it was ineffective, and the others ceased for other reasons not related.

#### Conclusion:

Ketamine is used within this health service for refractory cancer pain. Despite data suggesting ketamine is ineffective the current experience seems to suggest otherwise. More evidence is needed to support the ongoing use or cessation of ketamine, before practice will change.

#### Abstract No: 12

# Evaluation of the role of an Emergency Cardiology Coordinator Nurse within the Emergency Department

# Mr Mark Weaver (1)

Dr Laetitia Hattingh (1), Dr Desmond Mok (1), Dr Ian Hughes (1

# Gold Coast Health (1),

# Introduction:

A need was identified to streamline and expedite assessment of cardiac patients presenting to GCUH Emergency Department (ED). The Emergency Cardiology Coordinator (ECC), a senior nursing role, was implemented 14 April - 15 September 2020. Evaluation of the ECC role focussed on patients'presenting problems, the impact on patients'time spent in ED and time from triage to cardiology consult (TTCC).

### Methods:

ED and cardiology data were extracted from electronic medical records for the period 2/9/2019 - 1/3/2021. Proportions meeting National Emergency Access Target (NEAT) and seen in time, criteria, and TTCC were compared between ECC days and non-ECC days by interrupted time series analysis.

# **Results:**

The ECC saw 378 patients. The NEAT proportion increased immediately following ECC (incidence rate ratio (IRR)=1.4, P=0.0003) but decreased with time (IRR=0.9, P=0.002). Proportion seen in time increased and was maintained during the ECC (IRR=1.1, P=0.05). The net ECC effect on TTCC was a decrease of 0.14h (P=0.5) on ECC days. The largest net effect was seen for presentations with respiratory distress (-2.3h, P=0.03).

#### **Discussion:**

The ECC role resulted in an overall increase of patients achieving NEAT and seen in time. TTCC was marginally decreased on ECC days but was most apparent for presentations of respiratory distress. Instigation of the role coincided with the emergence of COVID-19. Despite this, analyses showed the ECC had a positive impact on decreasing the time cardiology patients spent in ED. Further analyses involving patients'risk factors and presenting problems will clarify the optimal strategy for the ECC role.

#### Abstract No: 16

Improving opportunistic COVID-19 Vaccination Rate In a Geriatric Inpatient Unit

# Dr Farah Mohamad Najib (1)

Dr Jessamine Liu (1)

Gold Coast Health (1)

# Introduction:

Coronavirus (COVID-19) infection can lead to significant mortality and morbidity in older patients. COVID-19 vaccine is vital to reduce the complications associated with the infection. Inpatient vaccination service would be of particular benefit to older patients who often has difficulty accessing vaccine service.

This study evaluated the uptake of COVID-19 vaccination in inpatients admitted to the geriatric ward.

# Methods:

Medical charts were reviewed of inpatients on the geriatric ward between August to October 2021. Opportunistic COVID vaccination rate was assessed

pre- and post- having a designated medical officer assigned to facilitate the vaccination process. This included identifying eligibility, obtaining informed consent and coordinating with the vaccination service.

# **Results:**

Sixty-six patients (mean age 85-±2) and 67 patients (mean age 83-±6) were identified in the pre-intervention and post-intervention group respectively. The demographics including age, gender, length of stay, place of residence, and comorbidity index were similar between the two groups. In the pre-intervention group, 19 (29%) patients were fully vaccinated. Of those who are eligible, majority reported lack of opportunity as reason for not completing the vaccination. One patient received vaccination as inpatient. The opportunity for vaccination was potentially missed in 25 (83%) patients.

In the post-intervention group, 36 (53%) were not fully vaccinated, 19 (53%) reported lack of opportunity for vaccination. Nine (43%) patients subsequently received their COVID vaccination as inpatient. Four were consented but discharged prior to vaccine administration.

#### Discussion:

A proactive approach improved opportunistic uptake of COVID vaccination in the geriatric inpatient population. Streamlining consent process and increased vaccination frequency can further increase uptake of vaccination.

#### Abstract No: 24

Complications of Radiotherapy for Non-Melanoma Skin Cancers in Lower Limbs with Vascular Compromise: A Case Series

#### Mr Omar Wood (2)

Dr Mark Jackson (1), Dr James Jackson (1), Ms Nicola Morley (1

Bond University (2), Gold Coast Health (1)

# Introduction:

The use of radiotherapy as definitive treatment for Non-Melanoma Skin Cancers (NMSCs) is becoming an increasingly popular alternative to surgery. However, the implications of vascular disease on cutaneous response to radiation therapy for NMSCs is poorly understood, and there are no clearly defined radiotherapy indications or contraindications for patients with NMSCs of the lower limb. This case series illustrates the severity of radiotherapy complications on the lower limb and provides a summary of the literature and clinical guidelines regarding patient risk factors for these complications.

# Methods:

The five cases in this series presented with chronic, non-healing ulceration of the lower limb following radiotherapy for NMSCs. The ulcers and their chronicity in all patients were characteristic of radiation induced damage. A multidisciplinary wound care team including a vascular surgeon was involved in each case. This case series provides a complete description of the dimensions of the ulcers, the underlying medical comorbidities, the vascular status of the affected limbs, and details the wound management and clinical progression with photographic evidence.

# **Results**:

Ulcer duration ranged from six to sixty months. On average, all patients received intensive wound care twice weekly. Only two cases have healed, with one requiring salvage surgery.

# **Conclusion:**

Our experience suggests that the lower limb requires special consideration prior to commencing radiotherapy. The consequences of radiation induced skin damage are resource intensive, with poor quality of life outcomes for patients. We recommend a multidisciplinary approach, encompassing vascular surgery, to guide appropriate treatment, thereby optimising patient outcomes and reducing complications.

# Abstract No: 25

# THE UTILITY OF 3D PRINTING FOR PRE-OPERATIVE CREATION OF PATIENT-SPECIFIC IMPLANTS FOR SHOULDER ARTHRODESIS

# Dr Justin Sun (1)

Dr Ezekiel SL Tan (1), Dr Joshua Sevao (28)

# Gold Coast Health (1), North Shore Hospital, Auckland NZ (28)

# Introduction:

Anatomically specific fixation devices have become mainstream, yet there are anatomical regions and clinical conditions where no pre-contoured plates are available, such as for glenohumeral arthrodesis. In a case series of 3 glenohumeral arthrodesis patients, a consultant orthopaedic surgeon at GCUH implemented 3D printing technology to create reconstructions of each patient's shoulder girdle to pre-contour arthrodesis plates.

# Aim:

To quantify the cost-benefit & intra-operative time savings of this technique in glenohumeral arthrodesis.

# Hypothesis:

The use of 3D printing for creating patient specific implants through pre-operative contouring of plates will lead to intra-operative time and cost savings by minimising time spent bending plates during surgery.

# Methods:

This study analysed 3 patients who underwent shoulder arthrodesis by a single consultant orthopaedic surgeon at GCUH. A CT-based life-size model of each patient's shoulder girdle was 3D printed using freely available computer software programs: 3D Slicer, Blender, Mesh Mixer & Cura.

Once the patient's 3D model was created, plate benders were used to contour the plate pre-op, which was then sterilised prior to surgery. Arthrodesis was performed according to AO principles of fixation. The time spent pre-bending the plate using the 3D model was calculated to analyse the intra-op time and cost-saving benefits.

# **Results:**

For the 3 cases, the plate pre-bending times were 45, 40 & 45 minutes (average 43.3 mins). The intra-op correction time to make small adjustments to the plate was 1 min/ case. 2 plates needed minor (3 degree) adjustment to fine-tune scapula spine contouring. 1 plate needed a 5 degree correction to fine-tune hand position. On average, the pre-bending of the plate saved approximately 43.3 mins intra-op/ case. These shorter anaesthetic and operating times equate to approximately \$2800 saving/ case, given an estimate of \$4000/hour of theatre costs.

# Conclusion:

Pre-bending plates around 3D-printed life-size models of an individual's shoulder girdle prior to surgery results in approximately 43.3 mins time saving intra-op when used in shoulder arthrodesis. This is a viable and effective technique that will ultimately result in significant operative time and financial savings.

# Abstract No: 26

Use of Cannabis in Parkinson's Disease Patients in Australia - Pilot Study

# Miss Maryann Adams (7)

Dr Andrea Bugarcic (7), Dr Janet Schloss (7)

Southern Cross University (7),

Parkinson's Disease (PD) is a progressive neurodegenerative disorder, resulting in motor and non-motor dysfunction. Cannabinoids are used in the treatment of many diseases due to their beneficial effects. The use of cannabis in PD patients has been studied in countries across the world, however, not so much in Australia.

A cross-sectional pilot study using a survey design was conducted to investigate the attitudes towards, and use of, cannabis in PD patients in Australia. Adapting a questionnaire used by the Michael J Fox foundation a survey was built using Qualtrics online survey platform. Participants were recruited via survey distribution through PD health professionals and organisations and multimedia advertisement in Australia. Data was collected over five-months in 2021. 19 of the 33 included responses agreed to participate in the cannabis use part of the survey.

Barriers identified to completing the cannabis section of the survey included not currently using cannabis, with the cost of cannabis identified as a barrier to cannabis treatment. Results showed all symptoms of PD investigated were reported to improve with the use of cannabis. Participants reported decreasing medication for some symptoms, while one participant reported stopping medication for pain with the use of cannabis. Sleepiness in the day and dry mouth had the most reported negative effect, while tremor and thinking or memory were most reported to improve with the use of cannabis. Further investigations with larger samples on the use and effects of cannabis on PD symptoms might be useful in treatments for PD patients in Australia.

# Abstract No: 28

CT Head in ED patients with mild head injury, ordering rationale and impact on management: a descriptive study

# Dr Peter Fawzy (1)

Dr John Shenoda (1), Dr Laetitia Hattingh (1), Professor Gerben Keijzers (8)

Gold Coast Health (1), Bond University (8)

# Introduction:

The utility of CT Head in patients with mild traumatic brain injury (TBI) poses concerns related to resource utilisation and radiation exposure. The literature reports excessive ordering of CTs in this patient cohort. Several validated clinical decision aids (CDAs) have been developed to guide clinicians in the decision to order a scan, including the Canadian CT Head Rule (CCTHR), New Orleans Criteria, and National Emergency X-Radiography Utilization Study (NEXUS) II. We aimed to describe the ordering of CT Head in mild TBI in a busy tertiary emergency department.

# Methods:

We captured data of all adult trauma patients who underwent CT Head over 8-month period in the Gold Coast University Hospital. Patients < 18 years, GCS <13 and high impact trauma were excluded. A total of 1,542 patients were included and decision to order a CT Head was reassessed by two assessors for concordance with the CCHR, New Orleans Criteria, and NEXUS II.

# **Results:**

Over one in ten (10.3%) of CT Head orders did not meet the criteria for CT Head based on all three CDAs, whilst 22.6% were deemed unnecessary based on the CCTHR alone. All positive scans met imaging criteria for all 3 CDAs. All positive scans received a neurosurgical consult, 95.7% were managed conservatively.

# Discussion:

Over one in 10 CT Heads ordered in mild TBI did not meet the criteria of all three existing CDAs, suggesting ordering can be rationalised and improved. This prompts consideration of strategies to implement evidence-based tools, such as incorporation of CDAs in electronic medical record systems.

# Abstract No: 32

A qualitative study exploring the tensions in clinician decision-making when a patient records a clinical encounter.

## Mrs Laura Ryan (1)

Dr Robyne Le Brocque (20), Dr Kelly Weir (1), Dr Jessica Maskell (1)

> Gold Coast Health (1), University of Queensland (20),

#### Introduction:

Technology is changing the way patients engage with health services. Patients are using their smartphones a to record their clinical encounters, yet little is known about the clinician viewpoint. Understanding clinician decision making when a patient initiates a recording is an important step in the protection of patient and clinician interests.

#### Methods:

Semi-structured interviews were conducted with 20 hospital clinicians (doctors, nurses, midwives and allied health). Participants were recruited using a combination of purposive and snowball sampling. Interviews were digitally recorded and transcribed. Transcripts were analysed using thematic analysis.

### **Results:**

Most participants had experienced a patient recording. Recordings were viewed as both benefiting and impeding patient safety and care. Consenting to recordings involved considering multiple factors often in pressurised situations. Decision making factors included relationship, personal factors and power dynamics. Hospital policy was not used to inform decision making.

#### Discussion:

Whilst patient recordings were viewed as beneficial, clinician welfare and patient safety may be at risk when a patient records a clinical encounter. Current safeguards, such as hospital policies, are not utilised and may not meet the needs of clinicians when decision-making is complicated by power dynamics. More research is needed to better understand how clinicians can be supported in this critical domain.

#### Abstract No: 34

Requesting CTPAs Wisely: A Retrospective Clinical Audit

# Dr Kang Xiang Tan (1)

Dr Pathmanathan Sivakumaran (1)

Gold Coast Health (1)

# Introduction/Aim:

Computerised tomography pulmonary angiography (CTPA) is widely regarded as the gold standard test for diagnosing pulmonary embolism (PE). Globally, in recent years, CTPAs are increasingly available, however the proportion of PE-positive scans has paradoxically plummeted. Unnecessary CTPAs expose patients to potentially harmful radiation and impose additional economic costs on our health system. In accordance with the choosing wisely campaign, this study aims to evaluate CTPAs performed to determine the associated indications for and outcomes including diagnostic yield and impact.

# Methods:

We conducted a retrospective audit assessing CTPAs performed at the Gold Coast Health Service from 1st to 31st July 2020. We perused electronic medical records and imaging, and utilised data analysis to obtain outcomes of interest.

# **Results:**

251 CTPAs were performed within the study period, with 28 (11%) positive for PE. Dyspnoea and/or chest pain were present in 75% of patients. Haemoptysis (5.5%) and syncope (5%) were uncommon. 139 CTPAs (55%) were requested by ED, compared to 15 (6%) by respiratory, 71 (28%) by other medical specialties, and 26 (10%) by surgery, ICU, after hours and O&G combined. Only 81 patients (32%) had a D-dimer prior to CTPA. Of these, 15 patients had a negative age-adjusted result (age x ng/mL), and all proceeded to negative CTPAs. Only 19 patients had a modified Well's score. Alternative diagnoses were detected in 99 patients (39%). 8 patients had concomitant PE & other pathology. In total, 92 CTPAs (36.7%) directly resulted in change in management (e.g. anticoagulation, antibiotics).

# Conclusion:

This study suggests scope for improving the clinical decision-making behind CTPA requests. Meticulous pretest risk assessment with D-Dimer may reduce avoidable CTPAs. The versatility of CTPAs is evident given significant proportion of alternative diagnoses. We are planning a prospective ED-centric study to assess the impact of the new suspected PE diagnostic pathway on CTPA requests & outcomes.

#### Abstract No: 39

# Hospital allied health staff experiences of collaborative student research projects: A qualitative study

# Dr Rebecca Angus (1)

Dr Laetitia Hattingh (1), Dr Kelly Weir (1)

Gold Coast Health (1)

# Introduction:

Allied health staff sometimes co-supervise students conducting clinical research projects as part of students'qualifying degrees. These collaborations with academic institutions may present research capacity building opportunities for staff. However, little is known about the health service staff perspective of these. The aim was to explore staff experiences and identify beneficial outcomes for supervisors and health services.

# Methods:

An exploratory qualitative study of GCHHS allied health staff who had supervised research students. Semi-structured interviews were audio recorded, transcribed and inductive thematic analysis used to identify themes of experience and categorise project outcomes from the health service perspective.

# **Results:**

Participants (11 clinicians, 3 research fellows) from six allied health disciplines described supervising 24 students from four universities across 18 projects. Length of placement, supervisory arrangement and study designs varied widely. Three themes captured experiences: 1)Professional growth; 2)Mismatch with expectations; 3)Focus on the student. All clinician participants experienced project outcomes across at least three of four categories: a)health service research capacity gains; b)clinical practice applications; c)contribution to wider-evidence based practice and institutional reputation; d)other clinician-centred outcomes. Formal and informal involvement of research fellows assisted in design, conduct and completion of studies and navigation of research relationships.

#### Discussion:

Supervision of allied health research placement students can provide research capacity building opportunities and other benefits for health services. Clinicians should identify target outcomes prior to involvement, consult health service research fellows during planning for role delineation and managing expectations, and consider inclusion of research fellows in the research team to optimise collaborations.

# Abstract No: 47

# VTE prophylaxis in pregnancy: lessons to be learnt

#### Dr Kay Rui Choy (1)

Dr Audris Wong (1)

Gold Coast Health (1)

#### Introduction:

Pregnancy is a well-known risk factor of Venous Thrombus Embolism (VTE) events. Via thorough risk assessment, early detection of risk factors and timely prophylaxis prescription, the incidence of VTE in pregnancy can be reduced. This study aims to identify how effective our department was in VTE prevention in the pregnant ladies who received care in our hospital.

# Methods:

We investigated the records of 82 pregnant women who developed some symptoms of venous pathology, from thrombophlebitis, Deep Vein Thrombosis (DVT) to Pulmonary Embolus (PE) from 2013 to 2019. Data of key parameters such as the age, parity, ante and post-natal VTE risk assessment scores, ante, peri and post-natal VTE prevention and management plan were collected from the electronic medical records of all pregnant women who developed some form of venous pathology.

# **Results:**

Only 4.3% had their antenatal risk factors appropriately documented and none had postpartum risk assessments documented. Only 33% of patients who developed PE antepartum had their risk assessment documented appropriately and only 16.5% of them received antepartum VTE prophylaxis. None of those who developed DVT antepartum had their risk assessment documented appropriately or received antepartum VTE prophylaxis. 45.5% of patients received no postpartum VTE prophylaxis when they had 1.4 risk factors on average.

Discussion: We found that risk identification, documentation and management during pregnancy care were inaccurate and incomplete. Many confirmed VTE cases had no thromboprophylaxis prior to diagnosis. We recommend the use of a structured performa by all clinicians to facillitate accurate identification of risk factors to ensure proper risk management.

#### Abstract No: 62

Frameworks, Terminology and definitions used for the Classification of Voice Disorders: a scoping review.

#### Christopher Payten (11)

Mr Greg Chiapello (1), Dr Kelly Weir (4), Associate professor Catherine Madill (30)

Gold Coast Health | University of Sydney (11), Gold Coast Health (1), Gold Coast Health |Menzies Health Institute of Queensland (4), University of Sydney (30)

#### Introduction:

A challenge for clinicians and researchers in the field of voice disorders is the diverse range of terminology used to classify groups of conditions with similar features. This review aimed to examine, appraise, and discuss key concepts in the current literature on voice disorder classification frameworks.

## Methods:

A literature search was conducted across databases (MEDLINE, Embase, CINAHL, PsychInfo, Scopus, Cochrane Database of Systematic Reviews and Web of Science) and grey literature sources. Eligibility criteria included studies published between 1940 and October 2021, where a classification framework for voice disorders was described. Two reviewers independently screened, extracted, and analysed data from eligible sources. Quality assessment was completed using Joanna Briggs Institute critical appraisal assessments and a published risk-of-bias tool for classification systems.

# **Results:**

Twenty sources (frameworks) were selected for inclusion. Thirty-five classification groups and over 150 sub-groups were described across three broad domains (psychosocial, hyperfunction-muscle tension and organic). Overall, methodological quality of the studies was low. Terminology used across all sources was not consistent. Fewer than 50% of sources had well-defined criteria for all classifications described, and many frameworks did not include all aetiological domains.

# Discussion:

No single framework provided well-defined terminology and criteria to aid classification of voice disorders across all domains. This review has outlined key themes from the literature and recommended a core set of terms and definitions. Continued high quality research, using consensus methodology and inter-rater reliability measures, is recommended to develop a universal framework and determine the inclusion of conditions under the broad classification groups.

# Abstract No: 66

# Does mode of arrival to the emergency department impact clinical outcomes? A retrospective cohort study.

# Miss Rachel Wardrop (10)

Dr Jamie Ranse (10), Professor Wendy Chaboyer (10), Professor Julia Crilly (10)

Menzies Health Institute Queensland | Griffith University (10)

# Introduction:

The aim of this study was to describe and compare demographics, clinical characteristics and health service outcomes of adult ED patient presentations based on mode of arrival: brought in by police (BIBP), / brought in by ambulance (BIBA) / privately arranged transport (PAT). Understanding how people arrive to the emergency department (ED) assists in planning health services'response to fluctuating ED demand.

# Methods:

This was a retrospective cohort study of ED patient presentations from all public hospital EDs across Queensland, Australia made between 1 January 2018 and 31 December 2020. To ascertain presentation characteristics and predictors of health service outcomes, descriptive and inferential analyses were performed.

# **Results:**

From the 4 707 959 ED presentations, 64.0% were PAT, 34.8% were BIBA, and 0.9% were BIBP. Compared to presentations BIBA or PAT, presentations BIBP were younger and comprised a higher proportion of mental health problems and Emergency Examination Authority orders. Presentations BIBA were more likely to be assigned more urgent triage scores, be admitted to hospital, and have a longer ED length of stay (LOS) compared to presentations BIBP or PAT. Presentations arriving by PAT were more likely to be discharged and encounter a shorter ED LOS than those BIBP or BIBA.

# Discussion:

Presentations BIBA and BIBP encountered a longer ED LOS and higher admission rates than PAT, suggesting more complex care needs. Clinical care pathways based on arrival mode that support prehospital providers and are considerate of the throughput and output stages of ED care may be needed.

# Abstract No: 67

Accuracy of allergy and adverse drug reaction documentation between electronic medicines management systems

# Catherine Edmunds (1)

Ms Emmeline Gentle (1), Ms Edith Bentley (20)

Gold Coast Health (1), University of Queensland (20)

# Introduction:

Accurate documentation of patient's allergy and adverse drug reaction (ADR) history reduces the risk of medication related harm and is a core component of the Medication Safety Standard. Pharmacists are required to document ADRs in two electronic medicines management systems (iPharmacy and ieMR). ADR information from both systems independently feeds into the electronic discharge summary (EDS). The literature shows that allergy discrepancy between ADR documentation sources can be as high as 90%.

(1) This study aimed to assess the rate of ADR discrepancy in iPharmacy and ieMR.

(2) evaluate the clinical impact of identified discrepancies.

(3) identify rates of pharmacist review of ADR documentation.

# Method:

This retrospective study evaluated 134 patients admitted to 7 wards across both Gold Coast University Hospital (GCUH) and Robina Hospital (RH) between January and June 2021 who had both a Pharmacist Admission History Note (PAHN) and Discharge Medicines Record (DMR) documented. Data was collected using a Microsoft Forms and analysed in Microsoft Excel.

# **Results:**

At least one ADR discrepancy was identified in 72% of patients'records which almost exclusively arose from incomplete iPharmacy documentation. Potentially significant discrepancies occurred in 20% but did not result in re-exposure through prescribing/dispensing or administration. ADR status was Marked as Reviewed,Äù by a pharmacist in 18% of patients.

# Conclusion:

This study demonstrates that ADR discrepancies between electronic medicines management regularly occurs and leads to conflicting information being disseminated to the primary care providers via EDS. These results will inform future interventions to

reduce ADR documentation discrepancies.

### Abstract No: 86

# Urate and other biochemical markers as prognostic indicators of adverse maternal and fetal outcomes in preeclamptic women: a retrospective cohort study

Miss Clara Dahlenburg (2)

Miss Sivasaaini Sivakumaran

Bond University (2)

# **Objectives:**

To explore if elevated serum urate and other biochemical marker levels (Calcium, AST, ALT) in preeclamptic women in early pregnancy (20 weeks gestation) are useful prognostic indicators of adverse maternal and fetal outcomes.

To establish a predictive threshold value that indicates an increased risk of maternal complications.

# Methods:

A retrospective cohort study performed at Gold Coast University Hospital, Australia involving 105 women who delivered at the hospital between January 2019 to December 2020. Preeclampsia was diagnosed based on local hospital guidelines. Serum levels of urate, calcium, AST and ALT were extracted from the initial blood tests performed at booking visit prior to 20 weeks gestation and were analysed against maternal and fetal outcomes.

#### **Results:**

Serum uric acid at cut off 0.255 mmol/L was found to be a statistically significant predictor of general maternal complications (AUC 0.625, P=0.032) with a 52.3% sensitivity and 72.5% specificity. Women with high urate levels at booking visit are 2.9 times more likely to experience an adverse outcome (OR 2.89, 95% CI 1.24,6.75; P = 0.014). Serum urate at a cut-off of 0.255 mmol/L was found to be a statistically significant predictor of general fetal complications (AUC 0.621) with 50.7% sensitivity and 76.7% specificity however, when compared individually with the adverse fetal outcomes, did not prove to be statistically significant. High serum calcium, AST and ALT at booking did not reveal a significant association with adverse maternal and fetal outcomes in women with preeclampsia (P > 0.05).

# **Conclusions:**

Maternal serum urate at booking is not a reliable predictor of maternal and fetal outcomes in women who develop pre-eclampsia/eclampsia but may play a role in establishing a global increase in risk. A larger cohort study is required to validate the reliability of these biomarkers.

#### **Keywords:**

preeclampsia ; eclampsia; hypertension; pregnancy ; biomarker ; uric acid ; urate; calcium; fetal complications; Maternal complications

### Abstract No: 87

# Novel iminosugars as chaperone mediated therapeutics in Gaucher disease

# Dr Luke Turner (1)

Gold Coast Health (1)

The terms Gaucher disease and iminosugar are almost inseparable from one another today, yet this disease is still largely an unmet problem, reflective of the need for advancements in iminosugar therapeutics. Chaperone mediated therapy (CMT), in which the mutated βglucocerebrosidase (BGC) is stabilised and saved from degradation, has been hailed as the route to success, but poor pharmacokinetics of the otherwise effective drugs for this treatment modality has prevented them from reaching the clinic. In this study, 12 novel analogues of an iminosugar with excellent pharmacokinetics, UV4 (Mon-DNJ), were assessed for their potential as CMT therapeutics. Firstly, the drugs were screened for BGC in vitro inhibition, and the structure function relationships assessed. This was followed up by the in cellulo assessment of the chaperoning ability of one of the lead inhibitors, a weak inhibitor and the parent compound. Therapeutic levels of BGC activation was observed for the best inhibitor, UV29, this being one of the highest documented increases in activity recorded in literature (7.22±4.25). Coupled with favourable pharmacokinetics, this presents UV29 and similar compounds documented in this paper as chaperone mediated therapeutics of highly promising potential, and worthy of further study.

#### Abstract No: 103

In a pandemic that limits contact, can videoconferencing enable interdisciplinary persistent pain services and what are the patient's perspectives?

Mr Jarryd Brown (1)

Gold Coast Health (1)

# Introduction:

Patients' thoughts and satisfaction with using videoconferencing during the COVID-19 pandemic were explored. The current study aimed to gather patient feedback on i) satisfaction with videoconferencing across all health professions as well as divided into a subgroup for each profession, ii) preferences for either videoconference or face-to-face during the pandemic lockdown, and iii) whether patients would consider using videoconferencing once faceto-face appointments were available.

### Methods:

Design: An observational cross-sectional, mixed methods study design.

Setting: Tertiary level persistent pain centre.

Participants: Sixty-five consecutive patients aged 18-85 years with persistent pain lasting > 12 months.

Data was collected using a patient survey. Descriptive statistics were used to report findings from 5-point Likert scales. Qualitative analysis was guided by content analysis to organise and categorise the text.

#### **Results:**

Videoconferencing platform features including audio-visual, usability, and privacy worked well for most patients (,â•90%). Two-thirds of those surveyed reported the videoconferencing sessions as equal to face-to-face attendance (67%), and, in the context of the pandemic, almost as many preferred videoconferencing (65%), while 26% preferred face-to-face attendance and 9% were unsure. Preferences for videoconferencing over face-to-face in context to the pandemic varied depending on the health discipline involved: Pharmacy (83%), Occupational Therapy (78%), Psychology (61%), Pain Specialist Physician (59%), Physiotherapy (53%). Even outside of a pandemic situation, 80% would consider using videoconferencing in the future. Qualitative analysis regarding patients'experience with the videoconference consultation, found three main categories: 1) overall satisfaction with videoconferencing, 2) technology qualities and 3) clinical interaction.

# Discussion:

In the context of a pandemic, videoconferencing for interdisciplinary persistent pain management services was effective, preferred and most patients would continue its use into the future. Alternative or mixed modes of support may be needed for the 26% who currently prefer onsite attendance, when that mode of delivery is not available.

# Abstract No: 112

Implementation of TTNS in practice: an observational study of outcomes, compliance and long-term continuance

# Dr Rebecca Young (1)

A/Prof Malcolm Frazer (1), Leanne Smith (1), Jennifer Nucifora (1)

# Gold Coast Health (1)

# Introduction:

There is a growing body of evidence for the use of transcutaneous tibial nerve stimulation (TTNS) in the management of OAB. This has followed the long-term use and grade A evidence for PTNS. Unlike PTNS, TTNS is less invasive and can be selfadministered at home by the patient, allowing for more frequent use and improved patient control. There is currently minimal data on long term outcomes and cost-effectiveness.

# Methods:

We plan to undertake a multi-site prospective cohort study of patients who initiate use of TTNS for treatment of urinary urgency, with 24-month follow up of outcomes. This will involve recruitment of 100 women across five sites (Gold Coast University, QEII, Logan, Redcliffe and Caboolture Hospitals).

# **Results:**

We will assess the following:

1. Continuation of TTNS treatment during the study period

2. Frequency and duration of use of TTNS, assessed on a 3-monthly basis

3. Treatment efficacy through assessment with the ICIQ-OAB questionnaire and 24-hour sensory related bladder diary every 3 months

4. Additional management for urinary urgency symptoms following initiation of TTNS

5. Side effects of treatment

# Discussion:

This will provide insight into the clinical implementation of TTNS for use in urinary urgency along with long-term outcomes of use.

# Abstract No: 122

Measuring performance of professional role substitution models of care against traditional medical care in healthcare - A Systematic Review

Ms Rumbidzai Mutsekwa (5)

Charlene Wright , Joshua M. Byrnes , Dr Russell Canavan, Rebecca L. Angus , Alan Spencer , Katrina L. Campbell

Griffith University (5)

# Introduction:

To identify outcome measures used to evaluate performance of healthcare professional role substitution against usual medical doctor or specialist medical doctor care to facilitate our understanding of the adequacy of these measures in assessing quality of healthcare delivery.

#### Methods:

Using a systematic approach, we searched Medline, Cochrane Central Register of Controlled Trials (CENTRAL), Embase, CINAHL and Web of Science from database inception until May 2020. Studies that presented original comparative data on at least one outcome measure were included following screening by two authors. Findings were synthesised, and outcome measures classified into six domains which included: effectiveness, safety, appropriateness, access, continuity of care, efficiency and sustainability which were informed by the Institute of Medicine dimensions of healthcare quality, the Australian health performance framework and Levesque and Sutherland's integrated performance measurement framework.

# **Results:**

135 articles met the inclusion criteria, describing 58 separate outcome measures. Safety of role substitution models of care was assessed in 80 studies, effectiveness (n=60), appropriateness (n=40), access (n=36), continuity of care (n=6), efficiency and productivity (n=45). Two-thirds of the studies that assessed productivity and efficiency performed an economic analysis (n=27). The quality and rigor of evaluations varied substantially across studies, with two-thirds of all studies measuring and reporting outcomes from only one or two of these domains.

# Discussion:

There are a growing number of studies measuring the performance of non-medical healthcare professional substitution roles. Few have been subject to robust evaluations, and there is limited evidence on the scientific rigour and adequacy of outcomes measured. A systematic and coordinated approach is required to support healthcare settings in assessing the value of nonmedical role substitution healthcare delivery models.

# Abstract No: 151

How can we effectively prevent suicides in health care if we cannot accurately enumerate them? The challenges of identification of self-harm presentations in emergency departments

Dr Jerneja Sveticic (1)

Prof Chris Stapelberg (8), Dr Kathryn Turner (26)

Gold Coast Health (1), Gold Coast Health | Bond University (8), Metro North Health (26)

# Introduction:

International and Australian literature has demonstrated that hospital administrative data grossly under-enumerate suicidal presentations. The aim of this study was to investigate the accuracy of identifying presentations with suicidal ideation or self-harm to Gold Coast EDs using suicide-related diagnostic codes. Secondary aim was to compare the degree of under-enumeration between the two data systems: EDIS (using ICD-10-AM codes) and iEMR/FirstNet (using SNOMED-CT concepts).

# Method:

Relevant suicidal presentations were identified from EDIS (2018 data) and iEMR/FirstNet (2020 data) using a combination of filters and keywords, followed by a manual investigation. This data collection was considered the gold standard,Äù and for these presentations, allocation of relevant ICD-10-AM codes or SNOMED-CT concepts was investigated.

# **Results:**

In 2018, less than half of presentations with suicidal ideation (45.6%, N=4079), and around a third of cases of self-harm (35.5%, N=2138) were identified through the use of ICD-10-AM codes.

Transitioning to the use of SNOMED-CT codes in 2020 significantly improved identification of self-harm cases (to 48.0%; p<.05) but only marginally for suicidal ideation cases (to 49.2%).

# Discussion:

Accuracy of recording of suicidality in ED patients can have far-reaching implications on the provision of care, policy development and allocation of funding. Data on suicidal and self-harm presentations retrieved from ED datasets should be used with caution until a more standardised approach to their formulation and recording is implemented.

# Abstract No: 152

# Discharge Medication Records: are we wasting our time with an antiquated system?

# Miss Gemma Burns (1)

Miss Helena Gjone (5), Mrs Trudy Teasdale (1), Dr Sohil Khan (5), Mr Ton Pham (1), Miss Nikki Schweitzer (5), Dr Laetitia Hattingh (1)

Gold Coast Health (1), Griffith University (5),

# Introduction:

Discharge Medication Records (DMRs) are detailed medicine lists produced by pharmacists at the time of discharge. Clinical pharmacy assistants have been introduced on inpatient wards to streamline technical tasks and increase pharmacist capacity to perform patient-centred care.

The aim of this project was to quantify the time involved to perform the various tasks involved in discharge medicine information transfer, including generating of DMRs.

# Methods:

Time-and-motion methodology was used to 1) determine the time involved in the various tasks and subtasks to organise patients'discharge medicine handover, 2) explore the time involved and how pharmacists utilise various software programs to prepare DMRs, and 3) compare the time involved in organising discharge medicine handover considering confounding factors. Trained, independent observers shadowed pharmacists and recorded tasks involved in discharge medicine information transfer through aTimeLogger-Æ App. Relevant information about each discharge was collected through a checklist.

# **Results:**

Data from 50 discharge medicine encounters were collected 22 February to 12 March 2021 involving 12 in-patient units across Gold Coast University and Robina Hospitals. Pharmacists shadowed represented a range of practice experiences. The median time to complete discharges was 26.6 mins, with half this time dedicated to technical tasks, including medication reconciliation and producing DMRs. Only 4.1 minutes was spent counselling patients.

# Discussion:

Pharmacists spent most of their time during the discharge medicine information transfer process working on generating DMRs. This study highlights the need to streamline current processes through optimisation of electronic systems and explore delegation of technical tasks to trained pharmacy assistants.

# Abstract No: 153

# Do women with postmenopausal bleeding need hysteroscopy, dilatation and curettage (HDC)?

Dr Jinq Mey Loke (1)

Dr Chinelo Aganhwa (1), Dr Madhu Geddada (1), Dr Harpreet Deo (1), Dr Haniah Patankar (1), Dr Graeme Walker (1)

Gold Coast Health (1),

# Introduction:

Postmenopausal bleeding (PMB) is a common presenting complaint to outpatient gynaecology departments. In-office pipelle biopsy has been shown to be an effective means of biopsy for diagnosis of endometrial abnormalities. The aim of the study is to evaluate the necessity of hysteroscopy, dilation and curettage (HDC) in women with PMB, in the presence of a benign pipelle biopsy histopathology result.

# Methodology:

The clinical audit was conducted retrospectively on a cohort of 142 patients who presented with PMB between January 2019 and January 2020. Of these patients, 119 were included for the study along with results from pipelle biopsy and HDC.

#### **Results:**

About 2/3 of the patients presented belong to the age group of 50-59 years. Despite that 116 patients underwent HDC, only 50 of them had pipelle sampling prior surgery. 93% of patients with a benign result on pipelle biopsy were also found to have benign pathology from their subsequent HDC. One patient had a benign pipelle histopathology, however was found to endometrial hyperplasia with atypia on HDC.

# Discussion:

Pipelle sampling had a similar negative predictive value to HDC for the diagnosis of endometrial carcinoma. Moreover, HDC has procedure-related risks and general anaesthesia risks. Although not all pipelle sampling can be successful due to multiple factors, they can be improved by good pipelle sampling technique and communication with patient prior procedure.

#### Abstract No: 154

# Exploration of the impacts of the COVID-19 response on the GCHHS Allied Health workforce: a qualitative descriptive study

# Dr Rebecca Angus (1)

Dr Rachel Wenke (1), Ms Jill Mahoney (1), Ms Sara Burrett (1), Dr Shelley Roberts (1)

Gold Coast Health (1),

# Introduction:

The swift GCHHS response to the COVID-19 pandemic in early 2020 resulted in abundant change and disruption to allied health service delivery, impacting both patients and staff. This study sought to capture both service changes and staff experiences of this time, with a view to informing future change management processes.

# Methods:

This qualitative descriptive study used semistructured interviews of GCHHS allied health staff to explore impacts of the COVID-19 response on this workforce. Interviews were audio recorded and each transcript coded independently by at least two researchers. An inductive approach was taken for thematic analysis.

# **Results:**

19 clinicians from six professions described their workplace experiences within the wider pandemic context. Changes included transition to outpatient telehealth/telephone services, remote inpatient management, altered patient assessment and management procedures, service cessation, role alteration and changed work locations. Effects of the response on staff were grouped into three themes: 1) Personal impacts on staff; 2) Impact on care provision to patients; and 3) Experience of change management processes. Staff experienced impacts on workloads, job satisfaction and career and research opportunities, and expressed concern for patients as a result of altered care delivery. While some staff experienced significant stress/anxiety during this time, others enjoyed opportunities to innovate and trial improved methods of service delivery.

# Discussion:

Allied health staff encountered numerous service changes with diverse impacts on staff across professions, both personally and professionally. Recommendations from findings regarding how GCHHS may continue to support staff through future change management processes will be discussed.

# Abstract No: 160

Implementing Rehabilitation in Technology - An Interdisciplinary Perspective

Dr Kelly Clanchy (5)

Dr Camila Shirota (21)

Griffith University (5), The Hopkins Centre | Menzies Health Institute of Queensland (21)

# Introduction:

Investment in rehabilitation technology can produce significant breakthroughs for methods of treatment and care, which, if implemented in practice, can yield significant benefits for patients, financial value gains and returns on investment. However, the translation of technological innovations remains limited and inequitable across rehabilitation settings. This is proposed to be, in part, due to the lack of stakeholder engagement in the development and evaluation of the new technology.

### Methods:

Key issues relating to the implementation of technology in rehabilitation were investigated via an online survey and focus group. Survey data was analysed using a descriptive content analysis approach. Key themes from the focus group data were derived through the application of a framework approach.

#### **Results:**

Survey respondents (n=80) and focus group participants (n=43) provided stakeholder input from 7 diverse fields comprised of: medical and allied health practitioners; policy; individuals with SCI and their caregivers; insurance and funding; engineers and design; ICT and computer science; biotechnology and biomedicine; human movement science; and neuroscience. Information relating to the barriers and facilitators for the uptake of technology in rehabilitation will be presented.

#### Discussion:

Ongoing collaboration between research staff and rehabilitation stakeholders is required in order to ensure that the new technologies developed are responsive and acceptable to real rehabilitation challenges including ensuring fit-for-purpose designs, cost of implementation and considerations for implementation at a practice level.

#### Abstract No: 167

Hyperprolactinaemia and Galactorrhea with Combined Oral Contraceptive Pill use: A Refresher

Dr Kay Rui Choy (1)

Dr Audris Wong (1)

Gold Coast Health (1)

Galactorrhea is a milk-like discharge from the nipples when the patient is neither pregnant nor breastfeeding. It happens when abnormally high levels of serum prolactin stimulate the lactotroph cells in the mammillary glands of the breast resulting in galactorrhea. Physiologic causes include pregnancy, stress and nipple stimulation while pathologic causes include pharmacological causes (anti-dopaminergic drugs and combined oral contraceptive pills), pituitary tumors, malignancies and hypothyroidism.

We present the case of a GOPO woman aged 24 presenting with of a nine-month history of bilateral nipple discharge associated with occasional severe headaches without visual disturbance. She has no medical history and only on Norethisterone 500microgram/ Ethinyloestadiol 35microgram, combined oral contraceptive pill (COCP) started six months prior. Her breast examination did not detect any abnormalities while repeated blood tests showed hyperprolactinaemia (1210 and 855mIU/L), NDT macroprolactin, raised TSH level of (13.5mIU/L) but normal T4 levels, raised levels of TPO antibodies but normal levels of TSH-receptor antibodies and normal Brain MRI scan. A trial of lifestyle modifications such as reducing nipple stimulation was ineffective. After switching to a Levonorgestrel 150microgram/ Ethinylestradiol 30microgram COCP the patient's galactorrhea resolved. However, mild hyperprolactinaemia (604mIU/L) persists.

After ruling out the different pathological causes of hyperprolactinaemia and galactorrhea, one should consider COCP induced galactorrhea as a differential diagnosis. It is also important to discuss with the patient that galactorrhea can be a potential adverse effect when prescribing high dose estrogen COCPs. Switching to lower dose COCP or progesterone-only pill are options to be discussed with the patient during shared decision making.

# Abstract No: 169

Antibiotic Prophylaxis use in Orthopaedic Surgeries Audit

#### Dr Kay Rui Choy (1)

Dr David Briggs (1)

Gold Coast Health (1),

Surgical site infections and septicaemia are the most frequent infections occurring in surgical patients. These infections lead to recurrent hospitalizations, prolonged length of stay, increased morbidity, mortality, reduced patient satisfaction, increased hospital costs and resource utilization. Antibiotic prophylaxis can significantly reduce the rate of these infections if given appropriately.

The purpose of this audit was to assess the adherence to the GCHHS adult antibiotic prophylaxis guideline for orthopaedic surgery.

A retrospective review of the Anaesthetic records of 255 patients who underwent Orthopaedic surgery at GCUH and Robina Hospital s between 1st October to 31st October 2019 was carried out. Data on antibiotic type, dose as well as administration and redosing time, tourniquet inflation time and patient's demographics and MRSA status were collected.

We found a significant increase in the proportion of patients receiving inappropriate prophylactic antibiotic administration compared to available national data- inappropriate administration to patients undergoing arthroscopic surgery in which no antibiotic prophylaxis is indicated and antibiotics given after the documented surgery start time. While most patients received antibiotic prophylaxis within the guidelines indicated 60 minutes pre-procedure, only a small proportion had optimal timing of antibiotic dosing of 30 minutes pre-procedure.

Thus, we propose that significant improvements can be made regarding not administering antibiotics for simple arthroscopic procedures, optimizing timing of antibiotic administration and adjusting doses at extremes of weight.

# Acknowledgements

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