



Choosing Wisely Australia National Meeting

2018 ABSTRACT BOOK

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Speaker abstracts



Working with students and educators to include Choosing Wisely in medical culture

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Dr Derek Sherwood will outline how Choosing Wisely in New Zealand is working with medical students to spread the Choosing Wisely message and has more recently started work with medical educators to embed Choosing Wisely concepts into medical education.

Students from the NZ Medical Students Association have developed a list of Choosing Wisely recommendations students can apply and they also have developed "Wise" advice for their fellow students to help promote Choosing Wisely and help students remember these key concepts.

To do this the students came up with the acronym "WISE":

- **Why?** What will this test, treatment or procedure change?
- **Is there an alternative?** Less invasive, less resource intensive?
- **Seek clarification.** Clarify why the doctor ordered this test
- **Explore/explain.** Be the patient's advocate. Explore concerns, take time to explain why a test, treatment or procedure is/isn't necessary.

Choosing Wisely recommendations and the Wise advice has been distributed to all students on a card to act as a quick ready reference with a Choose Wisely lanyard so it is readily available.

Choosing Wisely has also worked with one of the Medical Schools and two health services to sponsor two summer studentships which have looked at implementation of a Choosing Wisely recommendation relating to the removal of urine dipsticks in a hospital and aged care facility.

Choosing Wisely is now working with medical educators to promote Choosing Wisely concepts in graduate and vocational training programmes noting that not only does Choosing Wisely promote the best use of scarce medical resources, it is of considerable value in avoiding patient harm from investigations and procedures that have minimal diagnostic or therapeutic value.



Implementing Choosing Wisely – role of educational outreach visiting (EOV) in general practice

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Background

Imaging is not routinely required for acute ankle and knee injuries (AKI). X-ray, ultrasound and MRI use for diagnosis of AKI has increased, despite no Australian guideline recommendations.

EOV is an effective intervention to change health professionals' practice (O'Brien et al. Cochrane Database Syst Rev 2007).

Aim

NPS MedicineWise developed a multifaceted program, including EOV as a key intervention, to reduce unnecessary imaging associated with AKI management in general practice.

Method

The program focused on changing general practitioner (GP) awareness and practice regarding history taking and physical examination to diagnose acute AKI without routine imaging and using the Ottawa Ankle Rules (OAR) to rule out fracture in patients with acute AKI - a Choosing Wisely Australia recommendation.

Evaluation of EOV was conducted using an online survey following visits and a paper-based retrospective pre-post (RPT) survey. The RPT survey was distributed seven months after program launch to GPs who participated in EOV (n=1200) and to a control group (n=800).

Results

A total of 7129 general practitioners participated in EOV. The response rates for the surveys were 9% (online) and 20% (both RPT and control).

GPs who participated in EOV reported being more aware of the OAR (+51%) and increased knowledge about the utility of x-ray (+15%), MRI (+24%) and ultrasound (+10%). GPs were more confident in using physical examination to diagnose acute knee pain (+17%) and communicating to patients that imaging won't change management (+17%). GPs reported increased application of the Ottawa ankle rules (+26%) and decreased imaging referrals (ankle -59% and knee -62%).

Conclusion

GPs reported reduced imaging associated with AKI following EOV. EOV could be used to implement Choosing Wisely recommendations.



Physiotherapists' beliefs regarding their Association's Choosing Wisely recommendations

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The issue

Choosing Wisely recommendations have the potential to increase awareness of low-value practices and improve guideline adherence in physiotherapy. However, there remain barriers to reducing low-value physiotherapy care that warrant further investigation. For example, 73% of physiotherapists are willing to perform an unnecessary test if requested by a patient.

Objective: To identify physiotherapists' attitudes, views, and barriers or facilitators towards adopting the Australian Physiotherapy Association Choosing Wisely recommendations.

Design: Qualitative study with in-depth semi-structured interviews.

Sample: Physiotherapists working in a variety of clinical settings will be recruited until data saturation is achieved.

Data collection: An interview guide will be developed and piloted following a content analysis of ~300 written responses from physiotherapists regarding their beliefs on the six initial Australian Physiotherapy Association Choosing Wisely recommendations.

Content analysis: After the assessment of 20 responses, a checklist will be developed to code the following: (i) reasons for agreement or disagreement with recommendations; (ii) barriers or facilitators to adoption (e.g. patient preference); and (iii) other important themes that arise. Two independent researchers will be trained to use the checklist and will apply it to code all responses. Disagreements in coding will be resolved by discussion.

Semi-structured interviews: Interviews will be conducted face-to-face or via video-call and last ~30 minutes. Open-ended questions will be used to explore the participant's views, attitudes, and barriers or facilitators to adopting these recommendations.

Analysis: Interviews will be audio-taped and transcribed verbatim so data can be verified and analysed using a thematic-framework by two trained researchers independently. The Consolidated Criteria for Reporting Qualitative Research checklist will guide the reporting of our findings.

Outcome: Understanding physiotherapists' beliefs regarding recommendations to reduce low-value care will be used to refine future recommendations and is the first step in designing effective strategies to reduce low-value physiotherapy care.



Medico-legal drivers of low value care: It's more complicated than fear of litigation

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Issue

Doctors' fear of negligence lawsuits and defensive medical practices are commonly cited as drivers of low value care. Defensive practices involve ordering tests and procedures, making referrals, and prescribing drugs to reduce perceived legal risks, rather than to advance patient care. Survey data reports that defensive medicine is prevalent in Australia and other countries. Research on medico-legal drivers has mostly focused on negligence litigation as a problem and changes to laws are identified as a macro-level solution. However, behavioural theory and an emerging body of research from Choosing Wisely initiatives suggest a more complex set of drivers and possible solutions to the medico-legal aspects of low value care.

Objectives

This presentation will highlight key findings from a state-of-the art literature review that analyses the medico-legal drivers of low value care beyond negligence lawsuits. It will focus on factors that influence how legal duties and risks are understood and acted on at the meso (profession, organisation) and micro (practitioner, consumer) levels. It will explore connections between the fear of legal and professional reputation risks, intolerance of uncertainty, and beliefs that more testing and treatment is better. The impact of healthcare complaints on defensive practice will also be considered.

Approach and outcomes

This presentation will argue that the medico-legal drivers of low value care are more complex than fear of negligence lawsuits. It will highlight key areas for research to fill gaps in evidence in relation to practitioner and consumer attitudes and beliefs, practice environments and the culture of medicine. Possible interventions to address these problems will be briefly canvassed, including education and training. Such interventions must include strategies to engage consumers in shared initiatives with medical professionals to reduce low value care.



Optimising communication with general practitioners to sustain deprescribing decisions in hospital

A/Prof Melissa Baysari¹, **Ms Mai Duong**², Dr Amy Nguyen¹, Dr Wu Yi Zheng¹, Dr Brendan Ng^{2,3}, Miss Sarita Lo², Prof David Le Couteur^{3,4}, Prof Andrew McLachlan^{3,4}, Dr Alexandra Bennett⁵, Prof Fiona Blyth^{3,4}, Prof Rosalie Viney⁶, Ms Cynthia Stanton⁷, Prof Sarah Hilmer^{2,3}

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Polypharmacy is increasing, especially in older adults, and one in five medicines taken by older adults is harmful or unnecessary (inappropriate). Approximately 90% of older adults would like to have a medicine withdrawn. Supervised withdrawal of inappropriate medicines (deprescribing) is safe and may improve quality-of-life in older people. Inappropriate medicines are a major burden to older adults and the health system and represent low value care.

Reviewing and reducing inappropriate polypharmacy is highlighted in several RACP EVOLVE lists, including those from ASCEPT, ANZSGM, IMSANZ and ANZSPM. Communication of decisions made in hospitals to withdraw medicines with general practitioners (GPs) and consumers is essential for continuity of care.

Objective

To design communication pathways that facilitate (in-hospital) medication review and deprescribing in high risk polypharmacy patients. This is part of a larger study to design clinical decision support tools to reduce inappropriate polypharmacy in older inpatients. GPs were recruited through the Northern Sydney Primary Health Care Network. Semi-structured interviews and focus groups were conducted with GPs to explore views of medicine review processes, polypharmacy, deprescribing, and future decision support.

Analysis

General inductive approach was used to identify themes.

Outcomes

Findings showed GPs were receptive to hospital clinicians contacting them about complex older patients, who were frail, on many medicines, or had multiple comorbidities. GPs preferred communication by phone during hospitalisation, and in writing at discharge. They wanted discharge instructions to be written in clear, concise, relevant, and simple language, to support discussion between consumers and GPs, and their preferred phrasing was elicited. GPs emphasised the importance of providing rationales for changes made to medicines in the discharge letter. They described a number of perceived enablers and barriers to sustain deprescribing initiated in hospital such GP autonomy and strong patient-GP relationships, and communication between hospital pharmacists and GPs, and patient agency.



A collaborative approach in using casemix to identify variation in clinical pathology services

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¹*Department of Health, Australia*

Executives of Hospital and Health Services often will receive reports on the volume and cost of pathology testing. These reports often provide some insight as to whether the volume of tests increased or whether costs increased over different time periods. However, how do the executives and most importantly clinical leaders gain an appreciation as to whether the changes in the volume of tests or costs were associated with a change in the type, complexity and volume of patients seeking care? Also, how do the executives and leading clinicians gain insights, know whether the cost of their testing is unusually varied to a peer or whether the frequency of testing is unusually varied to their peers?

To help explore and support insights to these questions the Healthcare Purchasing and System Performance Division collaborated with Pathology Queensland. This collaboration saw the integration and presentation of casemix and pathology testing data in the same view.

The outcome of this collaborative is that there is now an enhanced shared understanding of why the volume of tests and costs may be varied across facilities. Further, it provides an informed position to begin to engage with clinical leaders to understand why rates of testing for some conditions and procedures may be remarkably different. These insights are particularly valuable in supporting a high functioning organisation to ensure that resources are made available equitably to areas of most need. Further, these insights may help identify clinical variation that may warrant further exploration.

This collaborative demonstrates the value of various parts of the healthcare system working together to unpack opportunities within the system to deliver better care to patients. Further, it demonstrates how insights to support the Choosing Wisely program are being made available to all parts of our health system in a consistent and equitable way – particularly for those facilities which may not have the resource or capacity to identify such insights.

Poster abstracts

Spreading the Choosing Wisely message: Cutting through the “noise” to engage consumers and health professionals



101. Patients’ perspectives of primary care treatment for low back pain

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Low back pain (LBP) is the highest cause of years lived with a disability, globally. A better understanding of patients’ experiences of treatment in primary care could help in designing more person-centred and effective interventions. The aim of this study was to investigate the experiences of people who have received treatment for LBP with a primary health care provider.

Australian adults (N=426) who had experienced at least one episode of LBP in the past year and sought primary care treatment completed a cross sectional online survey. The majority (71%) reported their last episode of LBP was < 12 weeks duration, with 67% experiencing recurrent episodes. Moderate to high interference of pain was reported for work (70% of participants), activity (69%), enjoyment of life (67%), mood (65%) and sleep (60%). The majority (79%) of participants consulted multiple health care providers. Only 54% of participants reported they received education and very low proportions received guideline-based advice about avoiding prolonged bed rest (12%); resuming normal activity (35%); and that imaging is unlikely to be helpful (15%).

The level of satisfaction with primary care treatment for LBP was below moderate for 42% of respondents. This study reveals that there are sustained gaps in primary care treatment for LBP and that there is a need for the management of LBP to better meet patients’ expectations and needs and align with clinical guidelines.



102. Better health decisions for consumers searching for health information and advice online

Dr Michael Araco¹

¹*Healthdirect Australia, Sydney*

Choosing Wisely Australia aims to start an important conversation about eliminating the use of unnecessary and harmful tests, treatments and procedures. The recommendations generated by this initiative must be disseminated widely to achieve its potential. A key part of this is to ensure Australians searching for health information online receive these messages. This presentation will explore four ways Healthdirect Australia is helping the consumer online audience to make better decisions.

In 2018, Australians are increasingly relying on the internet to answer health questions. Google is now the starting point for the health consumer questions with 175 million of the world's 3.5 billion daily Google searches now health related. Worryingly, according to a recent NPS Medicine Wise survey, six out of ten Australians admit to using Google as a substitute for arranging a visit to a health care professional. It is therefore important that Australians receive health information online that empowers them to make better decisions.

Healthdirect Australia adopt strategies to encourage consumers to take greater control of their healthcare decision making and to disseminate the Choosing Wisely messages.

Four methods will be explored in this presentation:

1. Providing actionable content for all Australians of all health literacy levels with relevant links to Choosing Wisely messages.
2. Encouraging consumers to ask questions of their health care providers through the use of our Question Builder
3. Linking consumers to trusted Australian health partners
4. Empowering consumers to make better decisions when they are unwell and experiencing symptoms by providing them with our Symptom Checker decision support.

By attending this presentation, the audience will learn from the challenges of creating online content and tools for consumers of all health literacy levels and the methods Healthdirect Australia adopts to overcome these.



103. Choosing Wisely at Royal Perth Bentley Group: first year in review

Mr Russell Tonkin¹, **Dr Lesley Bennett**¹, Dr Deepan Krishnasivam¹, Mrs Sarah Byrne¹

¹Royal Perth Bentley Group, Perth, Australia

Background: In 2017, Royal Perth Bentley Group (RPBG) joined the 'Choosing Wisely Australia' initiative which aligned well with our Hospitals' priorities.

Aim

1. Subjective review of compliance to 150 national recommendations;
2. Identify opportunities for audit/change of practice
3. Drive culture change through education and engagement in principles of high value healthcare and promotion of the patient's role in this.

Methods

1. *Consultant Survey:* Clinical Head of Department's completed a survey identifying national recommendations that were opportunities for audit /improvement, as well as highlighting other low value tests or procedures.
2. *Real-time Online Dashboard:* Placed on our Choosing Wisely intranet page, this displays the current RPBG Choosing Wisely projects, including their current stage, the aims, methods, results and conclusions of each project (Appendix 1).
3. *Take 5 – Choosing Wisely series:* Take 5 is an award winning RPBG education concept that provides key information to staff in a manageable 5 slide presentation. It has been adopted state-wide and is a key education tool for our Choosing Wisely Initiatives.

Results: Within the last 12 months, RPBG has achieved the following project outcomes:

- 84% of the 158 national recommendations reviewed by Head of Departments
- 40% of the recommendations highlighted as areas to monitor and introduce strategies
- 17 projects, 6 completed and 11 progressing.
- 27 members of a multidisciplinary steering committee with senior clinical representation

In addition, through the above processes, currently we have achieved:

- 24% reduction in blood transfusions > 80g/l
- 33% reduction in double unit transfusions
- 30% reduction in FOBT

Conclusion: RPBG has demonstrated a successful first year of the Choosing Wisely initiative. Although outcomes are modest at present, we have high levels of engagement and are embedding Choosing Wisely conversations in the education of our clinical staff and patients.



104. Choosing wees wisely: a collaborative multidisciplinary initiative with smart messaging and data analytics

Dr Rowan Ellis², Mr Jason Janetzky², Ms Hazel Inglis², Ms Kaye Liro², Dr Greg Sweetman^{2,4}, Adjunct Professor Simon Towler², Dr Vanessa Clayden², Dr Vida Wardhana², Dr Alexandra McClughan², **Associate Professor Susan M Benson^{1,3}**

¹PathWest Laboratory Medicine, Perth, Australia, ²Fiona Stanley Hospital, Murdoch, Australia, ³University of Western Australia, Nedlands, Australia, ⁴Notre Dame University School of Medicine, Fremantle, Australia

Midstream urine cultures (MSU) are the most common test performed by the microbiology laboratory. Improving the use of these tests has been nominated in Australian and International Choosing Wisely recommendations. In Australia, more than 6 million MSUs are performed each year at a fee of greater than \$80 million. As much as these tests are critical to the accurate diagnosis of urinary tract infections and sepsis, MSUs are also overused and misused.

A novel initiative at Fiona Stanley Hospital is tackling the problem by the use of short animated videos combined with a system to feedback information to front line clinical staff on overall rates of use and more specifically contamination and repeat test use. The goal is improved patient care by a combination of simple messages – selective use for the right indication, attention to the quality of collection to minimise contamination and the need for repeat testing.

The education materials have been produced in a collaboration between front line clinical staff, junior medical officers, pathology, clinical education and illustration departments. The design and messages have been informed by a survey of clinical staff on their gaps in knowledge and preferred format of delivery. The four-minute video is incorporated into medical and nursing orientation programs and is available online for on demand access. The focus is on simple key messages with memorable take home points.

The feedback has been positive and a system is in place to track improvements and support the implementation. The video has been supplemented by matching posters and patient guides for self-collected samples. Similar videos have been produced for wounds swabs and blood cultures. Because at Fiona Stanley Hospital We Do It Right! Choose Wisely.



105. Is it safe to reduce blood cultures in the emergency department?

Samuel Kang¹, A/Prof Debbie Leach^{1,2}, **Dr Paul Buntine**^{1,2}

¹Monash University, Melbourne, ²Eastern Health, Melbourne,

Background

Many guidelines around ordering blood cultures (BC) attempt to guide appropriate ordering within an ED setting.

Aim

To examine and assess the sensitivity and specificity of several guidelines and rules for the appropriate ordering of BCs when used as decision-making tools in the ED.

Methods

A retrospective quantitative study on BCs ordered at Box Hill Hospital ED for presentations during May/June 2017. Pathology results were used to categorise patients as truly bacteraemic (true-positive), unlikely bacteraemic (false-positive) and not bacteraemic (negative).

49 true-positive BCs were identified and matched with a randomised negative sample set. Using data from patient records, five decision-making rules were applied:

1. Australasian College of Emergency Medicine Choosing Wisely BC Guidelines (ACEM)
2. ACEM guidelines modified with our Eastern Health sepsis criteria (ACEM-Sepsis)
3. Shapiro rule
4. qSOFA rule
5. Modified qSOFA (Mod-qSOFA) rule with our own criteria added

Results

From 524 BCs, 49 were true-positive (9.4%), 447 negative (85.3%) and 28 as likely false-positives (5.3%). The experimental group comprised the 49 true-positive results and 52 randomised negative results.

Both Shapiro and Mod-qSOFA rules correctly identified 46/49 true-positive BCs (93.9% sensitivity). This was followed by qSOFA (73.5%, 36/49), ACEM (59.2%, 29/49) and ACEM-Sepsis (38.8%, 19/49).

Specificities were ordered inversely. ACEM-Sepsis produced the highest specificity (73.1%, 38/52), followed by ACEM (67.3%, 35/52), qSOFA (40.4%, 21/52), Mod-qSOFA (30.8%, 16/52) and Shapiro (26.9%, 14/52).

Conclusion

All five decision aids demonstrated a clear trade-off between sensitivity and specificity. In this small study, only Shapiro and Mod-qSOFA had a sensitivity sufficient for consideration in clinical practice. In particular, retrospective application of ACEM guidelines resulted in over 40% positive BCs being missed. Our findings show potential usefulness for a more practical based rule (Mod-qSOFA) within a clinical setting, especially given its use of clinically derived markers.



106. Frailty, intervention and clinical uncertainty – improving communication and shared decision making

Dr Timothy Frendin¹, Dr Blaithin Page², Mr Benjamin Duffus¹

¹Hawke's Bay District Health Board, Hastings, New Zealand, ²Lakes District Health Board, Rotorua, New Zealand

Background

Frailty results from loss of physiologic reserve. Affected individuals are at greater risk of adverse health outcomes in both surgical and non surgical settings. Furthermore, potential to benefit from intervention likely diminishes with increasing frailty, though threshold of “effectiveness” will be intervention specific.

Despite the need to individualise decisions in context of clinical uncertainty, no method of quantifying frailty, particularly in the peri-operative period, has yet been incorporated into routine clinical practice.

To improve communication and insight for decision making we developed a novel assessment tool (ARIA – Assessment of Robustness in Ageing), a graphically displayed distillation of the Comprehensive Geriatric Assessment, designed to be readily administered.

Objectives

To determine usability and effectiveness in portraying clinical impression of frailty, and whether this may improve insight for shared decision making.

Methods

Sixty assessments undertaken in potentially frail, community-dwelling older people.

Results

Mean age 84.4y, 66.6% female. Median time for assessment was 30 minutes. 85% of participants agreed or strongly agreed that the assessment was a good representation of their level of health and that undertaking this was a good use of time. 74% agreed or strongly agreed that the assessment helped clarify what might lie ahead in terms of future health and decisions that may need to be made. For assessors, 88% of assessments were seen as a good use of time and provided a good or very good representation of the individual's frailty. Results in 75% of assessments were found to be easy to discuss with participants.

Conclusion

ARIA is readily administered. Participants and clinicians identify strongly with this portrayal which appears to promote insight and may facilitate shared decision making.



107. Abdominal X-ray for the investigation of abdominal pain and constipation – current practice at a tertiary paediatric hospital

Dr Emma Weisz¹, Dr Sarah McNab^{1,2}, Ms Rachel O'Loughlin^{1,2}, **Prof Harriet Hiscock^{1,2}**

¹The Royal Children's Hospital, Melbourne, Parkville, Australia, ²Murdoch Children's Research Institute, Parkville, Australia

Background

The Royal Australasian College of Physicians (RACP) Paediatrics and Child Health Division have identified a top five list of 'do-not-do' procedures (the EVOLVE initiative). This includes 'Do not routinely order abdominal x-ray for the diagnosis of non-specific abdominal pain in children', as abdominal x-ray has poor sensitivity and specificity for diagnosis and exposes children to unnecessary radiation, which could have long term detrimental effects.

Objectives

To conduct an audit at The Royal Children's Hospital, a major paediatric tertiary centre, to determine current rates of unnecessary abdominal x-ray requests for abdominal pain and constipation and associated child, family and health system factors.

Methods

Audit conducted from 1 July 2017 to 1 November 2017. All patients over the age of 1 month who presented to the emergency department and/or were admitted to non-intensive care wards with a presenting complaint or hospital problem of abdominal pain or constipation were identified using the hospital's electronic medical record system (EPIC). We calculated the number and proportion of these visits in which an abdominal x-ray was requested. X-ray orders were then further analysed to determine whether the investigation was clinically indicated.

Results

X-rays were ordered in 4.7% of presentations or admissions for abdominal pain or constipation. Analysis is underway to determine the percentage of these x-rays ordered which were indicated vs. unnecessary, as well as the child, family and system factors associated with unnecessary x-ray orders.

Conclusions

There is a low rate of use of abdominal x-rays in this single tertiary centre, contrasting with international literature which reports rates of up to 90%. Future research should compare rates across mixed adult and paediatric hospitals as well as in primary care in order to determine where intervention to reduce rates is warranted.



108. Urine cultures – let’s have a wee think

Mrs Asmara Jammali-Blasi¹, Dr Simon Judkins¹, Ronald Ma¹, Dr Andrew Huang¹, Dr Michael Yeoh¹, Dr Belinda Yeo¹, Dr Chris Leung¹

¹*Austin Health, Melbourne, Australia*

Background

Urine cultures are a commonly ordered test in the hospital setting particularly in the emergency department despite a low diagnostic yield for patients with undifferentiated abdominal pain. A number of Choosing Wisely recommendations are related to the appropriate testing and management of bacteriuria with a key concern being unnecessary treatment contributing to antimicrobial resistance.

Aim

To reduce the inappropriate ordering of urine cultures across the whole hospital and reduce to the volume of contaminated samples.

Methods

A multifaceted behaviour change strategy was developed to address the inappropriate ordering of urine cultures across the hospital. Pre- and post-urine culture volume data were collected as assessed for statistically significant difference. In addition, education around correct collection techniques was delivered to emergency department staff and patients. Patients were surveyed on the utility of this education.

Results

Prior to the implementation of the multifaceted behaviour change strategy, an average of 341 urine cultures were ordered each week across the hospital with 143 of these being ordered by the emergency department. After 5 months of strategy implementation, a statistically significant drop was observed both across the hospital and in ED with the weekly average volume of tests being 250 and 88 respectively. Contamination rates were also observed to have decreased. From the consumer survey, 26% were able to recall seeing the poster, 86% felt the instructions were clear and would use the poster if required.

Conclusion

Preliminary analyses over a short time period have indicated that targeted strategies in addition to hospital wide interventions have been successful in reducing the volume of urine cultures. Further data will be analysed in the following months to assess the sustainability of these changes with reflections on lessons learnt and strategies for the next steps.



109. Choosing where rehabilitation takes place after hip or knee arthroplasty – in hospital or at home?

Amy Kimber¹, Mr Ning Ma¹, Dr Tom Vreugdenburg¹, Dr Alun Cameron¹, Associate Professor Graham Mercer², Dr Lawrence Malisano¹, Professor David Fletcher¹, Dr Catherine Ferguson¹, Prof David Watters¹, Dr David Rankin³, Dr Stephen Bunker³, Associate Professor Anna Barker³, Associated Professor Wendy Babidge¹, Mr John Biviano¹, Prof Guy Maddern¹, **Mr John Batten**¹

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Background

Post-operative rehabilitation services form a core component of the care pathway for total hip and knee arthroplasty (THA, TKA). Although inpatient rehabilitation is often recommended to improve recovery, recent analyses have shown a large variation in the decision to refer patients to this service. The aim of this review was to evaluate 1) factors that influence the choice of inpatient versus outpatient rehabilitation after TKA and THA, and 2) the relative effectiveness of rehabilitation across these settings.

Methods

A systematic literature search of three biomedical databases (PubMed, Embase and the Cochrane Library) was conducted up to 29 May 2017. Relevant studies were identified using pre-defined inclusion criteria. The included studies were appraised and synthesized by two independent authors. Meta-analysis was not performed given the substantial heterogeneity across different studies.

Results

A total of 14 studies including 164,857 patients investigated factors that influence the choice of setting for rehabilitation. Independent predictors of inpatient rehabilitation included older age, female gender, limited family and community support, poor pre- and post-operative functional status, strong patient expectations and existing comorbidities ($p < 0.05$), although the quality of evidence was low.

Four randomised controlled trials (RCTs) including 586 patients evaluated the effectiveness of inpatient versus home-based rehabilitation. For patients that were not predisposed to needing inpatient services, home-based services did not result in significantly better or worse clinical outcomes ($p > 0.05$). In addition, eight non-randomised comparative studies reported that outcomes of rehabilitation were associated not only with choice of settings but were also influenced by patient factors such as clinical and sociodemographic status.

Conclusion

The choice of setting for rehabilitation services after joint arthroplasty is multifaceted, and can be strongly influenced by varying patient factors. For patients without clear indications for inpatient rehabilitation, home-based rehabilitation services offer equivalent clinical outcomes.



110. Consumers as leaders in choosing wisely: a case study

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When consumers are faced with pressure to accept a treatment that is suspected of being low value and known anecdotally to cause harm, how might they engage with the scientific and clinical communities to influence change? People around the world with the disabling neuroimmune condition ME/CFS (Myalgic Encephalomyelitis, also known as Chronic Fatigue Syndrome) have done just that.

This case study will outline the roles and projects that patients have chosen to undertake in their aim to reduce the widespread prescription of Graded Exercise Therapy that follows the protocols from one very influential and controversial trial, the PACE study. The focus will be on Australian consumers.

Stakeholders will be identified, including the institutional and clinical drivers toward use of the therapy in Australia. Examples will be given of specific actions taken by consumers in order to investigate and address the unfounded claims of supporting evidence and to provide evidence of harms. This includes Freedom of Information processes, collecting new evidence and authoring published papers addressed to academic and clinical audiences. Consumer collaborations with clinicians and researchers will also be noted. Success to date will be identified alongside a summary of remaining obstacles.

In considering work still remaining, the question arises: what role might Choosing Wisely take in supporting consumer led investigations into disputed therapies or promulgating the findings?



111. “Managing our resources wisely program”: driving strategic performance, accountability and sustainability in a complex, multi-site Australian health service

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Issue

Managing Our Resources Wisely Program seeks to achieve value-based care by initiating executive led-operational level projects with multi-level engagement across the organisation. This work will be implemented within a complex, multi-site health service and include innovative processes that prioritises and implements disinvestment opportunities, and maintain excellent clinical safety.

Objectives

This program aims to develop a sustainable innovative model with an integrative approach of executive governance, clinical engagement, patient voice, resource management, and transparent data monitoring.

Scope

The program will drive sustained organisational value-based care, local engagement, accountability as well as service impact analysis and key clinical outcomes of high quality care. It involves dissemination, integration of clinical leadership and engagement with innovative change and redesign initiatives to achieve quality improvement, practice change and to empower patient decision-making.

Approach

Managing Our Resources Wisely Program activities include:

- Dissemination of Choosing Wisely Australia recommendations
- Prioritisation of opportunities to address value-based care and enhancing patient decision-making.
- Embedding practice change care into the health service systems to sustain value-based care.

Implementation of initiatives focus on: (a) reducing unnecessary tests, treatments and resource use; specifically focusing on reducing use of computed tomography imaging, reducing Vitamin D tests and reducing unnecessary testing and management of asymptomatic bacteriuria; and (b) Developing resources to facilitate implementation of Choosing Wisely’s “5 Questions to ask your doctor”

Outcomes

The Managing Our Resources Wisely Program outcome categories include patient outcomes and experience, and process impacts. Initiative outcomes include reducing computed tomography for detecting kidney stone by 20%; reducing Vitamin D tests by 20%; and, reducing unnecessary testing and management of asymptomatic bacteriuria by 50%. Governance, engagement, implementation and data collection have been achieved. Details about process and outcomes will be presented.



112. Experiences of health economists translating evidence from economic evaluation into healthcare policy and practice

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Intro

Economic evaluations are used to determine the value of healthcare interventions—including identifying low value interventions that should be disinvested. The objective of this study was to learn from the experiences of health economists translating evidence from economic evaluation into healthcare policy and practice—to understand how they try to “cut through the noise” and engage with healthcare professionals and consumers.

Method

In-depth interviews were conducted in person, with a purposive sample of nine health economists recruited from Australia and the UK, about their experiences translating evidence from economic evaluation into healthcare policy and practice. The health economists were chosen based on their high level of expertise and experience, as well as to reflect a variety of decision-making settings and economic evaluation types. Deductive thematic analysis was conducted, identifying elements relating to the translation of evidence from economic evaluation into healthcare policy and practice.

Results

Three factors were consistently emphasised by the health economists as being crucial for the translation of evidence from economic evaluation:

1. early and consistent engagement with stakeholders to ensure appropriate methods of evaluation and stakeholder sense of ownership;
2. training of health professionals in evaluation methods to improve understanding and encourage health-professional led evaluations; and
3. adapting the communication of findings to specific contexts, audiences, and modes of communication.

Conclusion

The health economist perspective provides essential insight into the factors relevant to translation. There are times where the health economists needed to become an advocate for change and engage with consumers and health professionals. They needed to, as one health economist said, “go over the parapet” and argue the case themselves.



113. What shall we choose? Choosing Wisely at Northern Health

Dr Kristen Pearson¹, Dr Alison Dwyer¹

¹*Northern Health, Epping, Australia*

Aim

To develop an approach, at health service level, to the Choosing Wisely Australia program.

Method

A “heat-map” approach was used to rate relevance of each Choosing Wisely recommendation to our health service, based on volume, cost and risk of each procedure/investigation.

Results

At the time of the project, 158 individual recommendations were available from the Choosing Wisely Australia. Some of these recommendations were considered to be similar or essentially the same (duplicates), leaving a list of 129 unique recommendations.

For each of these 129 recommendations, a rating (low; medium; high) was applied to estimate the:

- relevance and/or volume of the treatment/procedure/investigation at the health service
- financial cost for the treatment/procedure/investigation per patient
- inherent risk of each treatment/procedure/investigation.

From these ratings a heat map matrix was developed and presented to the clinical leadership of the health service to facilitate identification of priority areas for further investigation (ie. data collection and review against best practice). A sample of the heat map matrix will be presented.

Conclusion

The list of Choosing Wisely Australia recommendations is long and can appear overwhelming. Applying a heat map model can assist clinicians, managers and health services to “cut through the noise” and identify recommendations to prioritise.



114. A state of flux – non-indicated acid-suppression prescribing in a tertiary paediatric hospital: an audit and costing study

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Issues

- Infants who present with unsettled behaviour, feeding difficulty or frequent regurgitation, but are otherwise healthy and thriving, should not routinely receive anti-reflux medications.
- Anti-reflux medication prescribing for infants and children has increased worldwide in recent decades.
- Inappropriate anti-reflux medication use may lead to unwarranted side effects and healthcare costs.

Objectives

To (i) quantify indicated versus non-indicated prescribing of anti-reflux medications in a tertiary paediatric hospital; (ii) determine patient, provider and hospital factors associated with non-indicated prescribing and (iii) establish relative costs to the healthcare system.

Methods

Prospective, electronic medical audit conducted at The Royal Children's Hospital (RCH) Melbourne, across August-September 2016. Proton pump inhibitor (PPI) and histamine 2-receptor antagonist (H2RA) scripts were extracted, with relevant patient, provider and hospital data. Bivariate factor and logistic regression analyses of variables associated with indicated and non-indicated prescribing were undertaken. Cost-analysis involved linking RCH 'unit' and PBS costs to Inpatient and Outpatient/Emergency Department scripts respectively, summed to estimate indicated, non-indicated and total costs.

Results

Across settings, there were more non-indicated than indicated prescriptions. In logistic regression analysis, adjusting for bivariate factors associated with non-indicated prescribing at $p < 0.1$, Consultant provider (OR 2.69 [1.23 - 5.87, $p=0.01$]; gastrostomy (PEG/PEJ) presence (OR 5.51 [1.96 – 15.46], $p=0.001$) and Inpatient setting (OR 2.35 [1.16 – 4.77], $p=0.02$) were significantly associated with non-indicated prescriptions. Predisposing diagnoses were significantly associated with indicated prescribing (OR 0.41, [0.21- 0.80], $p=0.009$). Seventy-five percent total spending (\$15,493 annually) was for non-indicated prescriptions.

Conclusion

Non-indicated prescribing of anti-reflux medications appears common in a tertiary paediatric hospital and is associated with Inpatient status, Consultant providers, and PEG/PEJ presence. To reduce non-indicated prescribing, future research must engage parents and clinicians – particularly consultants and those working in inpatient settings - to understand their perspectives on why they use anti-reflux medications in children.



115. NPS MedicineWise Facebook Pharmacist Hour: increasing consumer access to quality information about medicines through social media

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¹NPSMedicineWise, Surry Hills, Australia

Issue

Social media has changed how health information is accessed by consumers. However, the quantity of information available online can be overwhelming, and the quality can vary widely.

The Medicines Line phone based service is staffed by NPS MedicineWise pharmacists. In late 2013, Pharmacist Hour was launched on the NPS MedicineWise Facebook page, to expand delivery channels for medicines information to our social media audience while still answering individual enquiries. Additionally, Pharmacist Hour promotes NPS MedicineWise online, partners with other health organisations and links users to quality health information web resources.

Objectives

This study aimed to analyse and evaluate the effectiveness of expanding the Medicines Line service on to Facebook as Pharmacist Hour.

Outcomes and impact

Pharmacist Hour enquiry data from November 2013 to December 2017 were analysed. The majority of online enquirers were female (>69%). The most common enquiry types were: side effects (25%), how to treat a specific medical condition (17%), medicines interaction (10%), vaccination (10%), costs (10%), mode of action (9%), and administration or dose (9%). This is similar to Medicines Line call data for the same period.

During the 188 Pharmacist Hour sessions, a total of 699 questions were answered, with an average of four enquiries per session.

Each enquiry engaged a minimum of 58 Facebook users (those who liked, shared or commented on the post) and had a reach of 10,280 Facebook users (those to whom the post appeared on their Facebook feed). Pharmacist Hour posts had a total reach of 3,675,558 users in 2017, an increase of 171% from 2014.

When compared to the one-to-one Medicines Line telephone service, Facebook Pharmacist Hour has expanded reach, and the potential to continue delivering important evidence based medicines information and quality use of medicines messages into a space where they are clearly needed.



116. Evaluating interdisciplinary 'finger pointing' in Choosing Wisely

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The issue

Choosing Wisely recommendations have the potential to raise awareness of low-value tests and treatments across numerous health disciplines; but many societies are 'finger pointing' by making recommendations to avoid procedures outside their scope of practice.

Objective

To identify (i) the number of Choosing Wisely recommendations that refer to low-value tests and treatments relevant to members of other societies ('finger pointing'); and (ii) factors associated with 'finger pointing'.

Design

Content analysis of all Choosing Wisely recommendations worldwide.

Data collection

Two researchers will independently extract the following information from Choosing Wisely lists, verify the data, and resolve disagreements by discussion: professional society/speciality responsible for the list (surgeons, physiotherapists, etc.), number of recommendations, year recommendations were published, type of recommendation (test or treatment), action of recommendation ('do' or 'don't'), and the society targeted by the recommendation.

Analysis

Descriptive statistics will identify the number of recommendations that refer to low-value tests and treatments relevant to members of other societies. Logistic regression models will identify factors associated with 'finger pointing'.

Results

The complete findings from these analyses will be presented at the conference. A preliminary review of Choosing Wisely lists from 27 surgical societies (n=155 recommendations) showed that 13/27 lists (48%) made no recommendations directly related to surgery, while only 25 recommendations (16%) advised considerations about whether to have a surgical procedure. However, this doesn't appear to be isolated to surgical societies as only 1/5 (20%) recommendations from the Australian Rheumatology Association and 3/6 (50%) recommendations from the Australian Physiotherapy Association concerned procedures their members perform.

Outcome

A preliminary review of Choosing Wisely lists highlighted that many professional societies are publishing recommendations against test and treatments relevant to members of other societies. An analysis of all Choosing Wisely lists will reveal the extent of this issue and identify factors associated with 'finger pointing'.



117. Strategies to increase adoption of the Ottawa ankle rules

Mr Joshua Zadro¹, Prof Christopher Maher¹

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The issue

Ankle injuries are the most common lower limb injury, with one in ten people suffering an ankle injury in their life. Plain radiographs are ordered in 70-95% of ankle injuries, although less than 20% will identify a fracture. In the absence of a fracture, radiology will not inform management and exposes patients to unnecessary/potentially harmful radiation. As a result, three health disciplines who have partnered with Choosing Wisely Australia (physiotherapists, radiologists, and nurses) recommend against ankle/foot imaging unless indicated by the Ottawa Ankle Rules (OARs); a validated clinical decision tool with nearly 100% sensitivity for ruling out an ankle/foot fracture. Successful implementation of the OARs could reduce ankle/foot imaging by almost 40%, but appropriate use of the OARs is uncommon. Therefore, a better understanding of strategies to increase adoption of the OARs is needed.

Objective: Investigate the effectiveness of interventions to increase adoption of the OARs and reduce ankle/foot imaging.

Design: Cochrane systematic review.

Search strategy

A comprehensive keyword search will be performed in relevant electronic databases, as well as citation tracking and hand searching references lists of included studies.

Selection criteria

Controlled and uncontrolled trials investigating strategies to increase adoption of the OARs will be included. The primary outcome will be documented adherence to the OARs. The proportion of unnecessary ankle/foot imaging requests and the total number of ankle/foot imaging requests will be secondary outcomes.

Data collection and analysis

The review will be conducted and reported according to the Methodological Expectations of Cochrane Intervention Reviews (MECIR) standards, within the Cochrane Musculoskeletal Group.

Results: To be presented at the meeting.

Outcome

Identifying effective strategies to increase adoption of the OARs could reduce unnecessary ankle/foot imaging amongst numerous healthcare professionals and inform the design of strategies to increase adoption of other Choosing Wisely recommendations across health disciplines.



118. Choosing Wisely for doctors: a survey on attitudes, perceived barriers and enablers

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Background

Choosing Wisely is a program that requires successful change implementation, clinician engagement and targeted education. It is important to understand what factors doctors perceive could facilitate or impede this change.

Objectives

- Primary outcome measure: To identify what factors doctors perceive as important enablers and barriers in implementing Choosing Wisely.
- Secondary outcome measure: To identify if there are any differences in the attitudes and perception based on their postgraduate years as a doctor.

Methods

This was a cross sectional voluntary web/paper based survey of doctors in a single tertiary referral hospital in Melbourne enlisted as a partner hospital of Choosing Wisely.

Results

Responses were received from 180 doctors. 95% of the respondents were familiar with the Choosing Wisely program. With regards to ordering unnecessary tests, the majority agreed the reasons were standard department practice (88%), fear of missing diagnosis (87%), other unit requests (78%), insufficient education (66%) and patient expectations (63%). With regards to shared decision making, the majority agreed the key enablers were more time (91%), better patient information (81%), decision aids and communication training (74%).

Junior doctors (PGY1-3) and senior doctors (PGY4 and above) felt that the program was a worthwhile investment (85.7% vs 86.2%, $p=0.93$). Compared to their junior colleagues, senior doctors perceived they had sufficient skills and training in test ordering (71.4% vs 91.1%, $p=0.003$), as well as skills and competence to engage patients in shared decision making (71.4% vs 86.3%, $p=0.04$).

Conclusions

The findings of this survey could be used to help improve the implementation of Choosing Wisely by targeting the key enablers and barriers to low value test ordering and shared decision making. There is an opportunity to invest in more education in skills for junior doctors.



119. Are we Choosing Wisely at Northern Health for inguinal hernia repair?

Mr Edward Chmiel¹, Dr Kristen Pearson², Mr Krinal Mori^{1,2}, Dr Joshua Geraghty²

¹University of Melbourne, Parkville, Australia, ²Northern Health, Epping, Australia

Aim

To determine Northern Health's adherence to the following Choosing Wisely recommendations with respect to inguinal hernia repairs:

1. Avoid routinely performing preoperative blood investigations, chest X-ray or spirometry prior to surgery, but instead order in response to patient factors, symptoms and signs, disease or planned surgery.
2. Do not use ultrasound for further investigation of clinically apparent hernias. Ultrasound should not be used as a justification for repair of hernias that are not clinically apparent.
3. Do not perform repair of minimally symptomatic or asymptomatic inguinal hernias without careful consideration, particularly in patients who have significant co-morbidities.

Method

Clinical records of approximately 300 patients who underwent elective inguinal hernia repair at Northern Health in 2016 will be reviewed. Currently 80 patient records have been analysed.

Results

Preliminary results indicate poor adherence to Choosing Wisely recommendations for ultrasound and preoperative coagulation studies in this population of inguinal hernia repair patients. For the first 80 patients audited, 70% received an ultrasound (the majority of which were for clinically apparent hernias) and 21% received preoperative coagulation studies (82% of which were non-indicated).

There is better adherence to Choosing Wisely guidelines for other preoperative investigations: 26% of patients received a Full Blood examination (40% non-indicated), 29% received Urea, Electrolytes, Creatinine (14% non-indicated), 29% received an ECG (9% non-indicated) and 5% received HbA1c (all of which were indicated). Complete audit data will be presented.

Conclusion

Preliminary audit results indicate that ultrasound is over-ordered by referring clinicians to Northern Health in the assessment of inguinal hernias, and the majority of preoperative coagulation studies are not indicated. These findings identify that there is opportunity to educate staff and referrers about the indications for investigations prior to inguinal hernia repair.



120. The SWAPNet, Pre-Anaesthetic Evaluation Framework

Dr Owain Evans¹, Ms Karen Hamilton¹, Ms Corrina Green¹

¹Clinical Excellence Division, Australia

In 2017 the Clinical Excellence Division, Healthcare Improvement Unit (Queensland Health) sponsored a project to develop a Pre-anaesthetic Evaluation Framework through the State-wide Anaesthetic and Perioperative Nurses Network (SWAPNet).

The Framework was developed and led by Dr Owain Evans, Director of Anaesthetics and Ms Corrina Green, Quality Improvement Facilitator, Sunshine Coast Hospital and Health Service.

The Framework aims to deliver safe, high quality healthcare and improve the efficiency of service delivery and patient outcomes through the utilisation of a suite of resources to support the appropriate and effective triage and assessment of patients undergoing procedures requiring anaesthetic. The framework aims to educate staff working in preadmission and assist in decision making.

The modules developed include specific guidelines on referral, triage, investigation and modes of delivery to assist pre aesthetic evaluation. Hospital attendance is minimised whilst maintaining optimal patient outcomes by streamlining processes and reducing duplication, investigation, assessment, unplanned cancellations and unexpected post-operative complications.

The Triage guideline provides guidance on the selection of appropriate assessment methods for patients undergoing elective surgery in Queensland public hospitals. It includes assessment using surgical grades (Minor/Intermediate/Major/complex) and suggests methods of assessment accordingly. The guidelines encourage the use of alternate methods of assessment such as telephone or telehealth for low complexity patients undergoing minor or moderate surgical procedures.

The Investigations guideline covers routine preoperative tests for adults who are having elective surgery. It aims to reduce unnecessary testing by providing guidance on which tests to offer before minor, intermediate and major or complex surgery.

The Framework has been endorsed by the SWAPNet steering committee and is published on the below Clinical Excellence Division Website <https://clinicalexcellence.qld.gov.au/resources/pre-anaesthetic-evaluation-framework>

In 2018 the framework is being trialled in eight Queensland Health Facilities across the state with support from the project team. An implementation guide has also been developed with a suite of measures and tools to assist sites to show improvement.



121. A joint ANZCA/Faculty of Pain Medicine endeavour to improve opioid prescribing and patient safety in acute pain

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The harm that can result from opioids initiated in hospital is evident from increasing reports of adverse events. The use of slow-release (SR) opioids in the management of acute pain has become commonplace despite overseas guidelines warning against the practice. However, an Australian/NZ opinion has been lacking, with many prescribers unaware that they are often prescribing contrary to product licencing and warnings.

Review of Coroners' cases highlight the fact that using regularly administered SR opioids added to a PCA or PRN opioid regimen can carry the same risk as adding an intravenous background infusion to a PCA, that is increased risk of respiratory depression, better described as opioid-induced ventilatory impairment (OIVI). In these cases, sedation was often not recognised as an early sign of OIVI, especially when respiratory rate was within the 'normal' range.

Other pitfalls include failure to realise that pain not responding to immediate-release (IR) opioids does not make SR opioids more likely to work, as not all acute pain is opioid responsive.

The most appropriate initial treatment of acute pain using oral opioids is by titration of immediate-release opioids on a PRN basis. Most immediate-release opioids will reach peak effect within one hour. The peak effect of slow-release opioids will not be seen for some hours.

The Faculty of Pain Medicine and ANZCA Safety and Quality Committee recognised that a joint statement was needed to start to effect change in the hospital setting. "Statement on the Use of Slow-Release Opioid Preparations in the Treatment of Acute Pain" is due for release in March 2018. This document does not constitute a guideline, but a statement of opinion designed to inform and recommend.



122. Peripheral intravenous cannula insertion and use in the Emergency Department CREDIT – Cannulation Rates in the Emergency Department Intervention Trial

Ms Tracey Hawkins^{1,6}, Dr Jaimi H Greenslade^{1,3}, Prof Claire M Rickard^{2,5}, Prof Diana Egerton-Warburton⁵, Prof Louise Cullen^{1,2}

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Background

Peripherally inserted intravenous catheters (PIVC) are commonly used in Emergency Departments (ED) for the provision of fluid, medication, blood or contrast.

Problem

Recent literature suggests that emergency care providers may insert many PIVCs that are not used.

Objectives

This study assessed the effect of an education campaign (CREDIT) on reducing the number of PIVCs placed in the ED.

Method

A single-centre interventional study assessing PIVC usage before and after an educational campaign. The campaign, termed CREDIT, occurred over a three-mon

th period and included education for all ED clinical staff. CREDIT encouraged staff to insert a PIVC only if they believed it was 80% likely to be used. Observational data on PIVC placement was collected 24 hours a day for a period of two weeks before and after CREDIT. Patients were included if they presented to the ED and were aged ≥ 18 years. Patients were excluded if they were triage category one, had a PIVC inserted by Ambulance Services or were transferred from another facility. The primary outcome was PIVC placement and usage.

Results

869/2063 (42.1%) patients in the pre-CREDIT group and 682/2110 (32.4%) in the post-CREDIT group had a PIVC inserted in the ED; a reduction of 9.8% (95%CI: 8.8% to 17.0%). PIVC usage within 24 hours was increased 12.86% (95% CI: 8.71-17.01%) post intervention. Sixty-six patients were observed in the ED for cost analysis. The mean time per PIVC insertion was 15.3 (95%CI = 12.6 to 17.9) minutes. PIVC insertion cost, including staff time and consumables per participant, was A\$22.79 (95% CI = A\$19.35 to A\$26.23). If the intervention was rolled out across Australia, it could potentially save \$13.7 million dollars annually.

Conclusion

The campaign successfully reduced PIVC insertion and increased PIVC use. This may result in reduced pain and infection risk for patients and reduced healthcare costs.



124. Implementation of a model of care for low back pain in emergency departments: Sydney Health Partners Emergency Department (SHaPED) trial

Dr Gustavo Machado¹, Dr Bethan Richards², Dr Chris Needs², Prof Rachele Buchbinder³, Prof Ian Harris⁴, Prof Kirsten Howard¹, Prof Kirsten McCaffery¹, A/Prof Laurent Billot⁵, Dr Matt Oliver⁶, Dr Eileen Rogan⁷, Dr Rochelle Facer⁸, Dr David Lord Cowell⁹, Prof Chris Maher¹

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Background

Patients with low back pain often seek care in emergency departments, but the problem is that many patients receive unnecessary or ineffective interventions, and at the same time miss out on the basics of care, such as advice on self-management.

Objectives

A multi-faceted intervention will be used to implement, and a stepped-wedge cluster randomised trial will be conducted to evaluate the Agency for Clinical Innovation (ACI) model of care for acute low back pain at four emergency departments in New South Wales, Australia.

Methods

Clinician participants will be emergency physicians, nurses and physiotherapists. The intervention, targeting emergency clinicians, will comprise educational materials and seminars, and an audit and feedback approach. A random sub-sample of 200 patient participants from each trial period will be included to evaluate patient-related outcomes. Codes from the Systematised Nomenclature of Medicine, Clinical Terms, Australian version (SNOMED CT-AU) will be used to identify low back pain presentations. The effectiveness of the intervention will be assessed by comparing the post-intervention period with the retrospective baseline control period.

Outcomes

Emergency service delivery outcomes are routinely collected measures of imaging (primary outcome), opioid use, and inpatient admission, which will be collected using the STARS Back Pain app. Patient-reported outcome measures include pain intensity, physical function, quality of life, and experience with emergency service, and will be collected one week after emergency presentation through an online survey. The SHaPED trial received ethical approval from the RPAH HREC (reference: X17-0043). The trial is registered with the Australia New Zealand Clinical Trials Registry: ACTRN 12617001160325.

Conclusions

We hypothesised that active implementation of an evidence-based model of care for low back pain will improve emergency care by reducing inappropriate overuse of tests and treatments (i.e. imaging, opioids, admission to hospital) and improving patient outcomes.



125. Radiation Protection of The Patient - ARPANSA's free online radiation safety training for medical imaging referrers

Mr Alan Mason¹

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The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) is the Government's primary authority on radiation protection. ARPANSA's aim is to protect people and the environment from the harmful effects of radiation. ARPANSA's mandate includes "Promoting the effective use of ionising radiation in medicine".

Medical radiation involves the controlled, intentional irradiation of people. Ionising radiation at elevated levels can cause health effects and its low-level effects are still being determined. Australia's system of radiation protection assures that procedures involving radiation are both justified and optimised, so that patients receive full benefits from procedures with the lowest practicable radiation risk. Australia's annual background radiation dose is around 1.5 mSv. At around 1.7 mSv, the annual medical radiation population dose is now greater, with X-rays/CT scans contributing more than 50 percent. Some research has indicated that 20-40 per cent of imaging referrals may be unjustified. Further, 20-40 percent of GPs, despite being key referrers, are ill informed on the radiation differences between CT and MRI.

ARPANSA, collaborating with the Australian Commission on Safety and Quality in Health Care and others, developed its Radiation Protection of the Patient (RPOP) free online training module and supporting material. RPOP targets medical imaging referrers - General Practitioners in particular - although it's also widely used by broader audiences, including government regulators and the public. ARPANSA's intention via RPOP is to provide clear, relevant information to support and promote the informed justification of medical imaging referrals. ARPANSA engaged with the main GP Colleges including developing clinical case study modules for professional development. RPOP's approach was user centric, incorporating ARPANSA and other material and refining it by qualitative and quantitative research.

This presentation outlines RPOP's preparation, content, dissemination and uptake, together with its current review and redevelopment.



126. Is pregabalin effective in reducing leg pain associated with sciatica?

Dr Stephanie Mathieson¹, Professor Chris Maher¹, Professor Andrew McLachlan², Professor Jane Latimer¹, Professor Bart Koes³, Associate Professor Mark Hancock⁴, Professor Ian Harris⁵, Professor Ric Day⁶, Associate Professor Laurent Billot⁷, Dr Justin Pik⁸, Professor Stephen Jan⁷, Associate Professor Christine Lin¹

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Sciatica is characterised by radiating leg pain and evidence regarding medical treatments is limited. Pregabalin is effective in treating some neuropathic pain conditions (e.g. post-herpetic neuralgia), but robust evidence is lacking for its use in reducing the neuropathic pain component associated with sciatica.

We examined the efficacy and safety of pregabalin in reducing leg pain intensity in patients with sciatica by conducting a randomised, double-blind, placebo-controlled trial. Participants received either pregabalin at 150mg/day, adjusted to ≤ 600 mg/day or matching placebo for up to 8 weeks depending on tolerability. The primary outcome was the leg-pain intensity, scored from zero (no pain) to 10 (worst possible pain). Secondary outcomes included extent of disability, back-pain intensity and quality-of-life measures.

Outcomes were measured at pre-specified time points over one year, with week 8 as the primary time-point. A total of 209 patients underwent randomisation; 108 received pregabalin and 101 received placebo. At week 8, the mean unadjusted leg-pain intensity score was 3.7 in the pregabalin group and 3.1 in the placebo group (adjusted mean difference [MD], 0.5; 95% confidence interval [CI], -0.2 to 1.2; $P = 0.19$). At week 52, the mean unadjusted leg-pain intensity score was 3.4 in the pregabalin group and 3.0 in the placebo group (adjusted MD, 0.3; 95% CI, -0.5 to 1.0; $P = 0.46$). No significant between-group differences were observed in any secondary outcome. More adverse events were reported in the pregabalin group (nevents=227) versus the placebo group (nevents=124), with dizziness the most common adverse event reported in both groups.

In conclusion, pregabalin did not significantly reduce the intensity of leg pain associated with sciatica nor significantly improve any other outcomes compared with placebo at week 8 or at one year. However, the incidence of adverse events was significantly higher in the pregabalin group than in the placebo group.



127. Increasing prescription of opioid analgesics and neuropathic pain medicines for spinal pain in Australia

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Background

Limited evidence exists on secular trends of analgesic medicines for spinal pain.

Aim

We investigated general practitioners' (GP) recommendations of analgesic medicines for spinal pain and investigated characteristics associated with their recommendation.

Methods

We accessed data on spinal pain consultations from the Bettering the Evaluation and Care of Health (BEACH) database, a nationally representative database on GP activity in Australia. Data extracted included consultation details and management provided. Medicines recommended were grouped as simple analgesics, non-steroidal anti-inflammatory drugs (NSAIDs), opioid analgesics or neuropathic pain medicines. Multivariate logistic regression determined if patient characteristics and GP characteristics were associated with medication recommendations.

Results

We analysed BEACH data for 9100 GPs who managed 39,303 patients with spinal pain between 2004 and 2014. Over the decade, analgesic recommendations increased. After accounting for patient and GP characteristics, there was a significant increase in the rate of single-ingredient opioid analgesics (e.g. oxycodone) [annual relative increase of 6% (Rate Ratio (RR) 1.06 (95% CI 1.05–1.07))] and neuropathic pain medicines (e.g. pregabalin) [annual relative increase of 19% (RR 1.19 (95% CI 1.16 to 1.22))] were recommended; and a significant decrease in the rate NSAIDs were recommended [annual relative decrease of 4% (RR 0.96 (95% CI 0.95 to 0.97))]. Logistic regression identified several patient and GP characteristics associated with medicine recommendations, e.g. stronger opioids were less likely recommended for Indigenous patients [Odds Ratio 0.15 (95% CI 0.04 to 0.56)].

Conclusion

GP's analgesic recommendations for spinal pain have become increasingly divergent from guideline recommendations over time.



128. Combination drug therapy for the management of low back pain and sciatica; systematic review and meta-analysis

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Background

Pharmacological recommendations for the management of low back pain and sciatica are often based on single-ingredient medicines with few recommendations for combination drug therapy. However, combining two or more drugs may be advantageous, but previous reviews had restrictive searches, considered only chronic low back pain, and had industry funding.

Aim

We investigated if combination drug therapy in patients with low back pain with or without sciatica provided greater pain and disability reduction and was tolerable by conducting a systematic review. Methods: Databases and trial registers were searched from inception to 27th July 2017 for randomised trials of (sub)acute or chronic back pain and/or sciatica participants that were administered combination drug therapy compared to monotherapy, placebo or no/minimal treatment. Risk of bias was assessed using the Cochrane Collaboration risk of bias tool. A Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach was used to provide an overall summary of evidence.

Results

Of the 27 studies included, most combinations (21 of 23) consisted of single trials. Most combinations had no or small effect on pain and disability. A clinically important difference was found in one combination, buprenorphine plus pregabalin versus buprenorphine for chronic back pain at immediate (Mean Difference (MD) -23.30; 95%CI -27.68 to -18.92) and short-term term (MD -27.60; 95% CI -31.70 to -23.50), however, the quality of evidence was low. There was no significant increased risk of serious adverse events. When the risk of adverse events was significant, they favoured monotherapy or placebo.

Conclusion

The small number of studies and limited overall quality of evidence highlights the limited evidence to support any combination drug therapy for the management of low back pain and sciatica.



129. Awareness and self-efficacy of deprescribing and inappropriate polypharmacy in hospital clinicians' post-completion of an online HETI module

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Inappropriate polypharmacy is associated with significant harms in the older adult, yet is rarely addressed in routine inpatient care. Deprescribing is the supervised process of withdrawal of inappropriate medications. Identified barriers and enablers to deprescribing are: awareness, self-efficacy, clinical inertia and feasibility. The effect of education through online learning modules to address inappropriate polypharmacy remains unclear. Recently developed deprescribing-specific measures of self-efficacy may assist in understanding this problem and improve this clinical competency.

This project is part of a multi-factorial intervention aiming to reduce inappropriate polypharmacy in older inpatients and is a RACP Evolve Advanced Trainee Demonstration Project. It fits within:

- ANZSGM Evolve Guideline 2: Do not prescribe benzodiazepines or other sedative-hypnotics to older adults as first choice for insomnia, agitation or delirium
- ANZSGM Evolve Guideline 4: Do not prescribe medication without conducting a drug regimen review

Aim & Objectives

1. Develop an online Health, Education and Training Institute (HETI) module to educate multi-disciplinary clinical staff who care for older adults in hospital on deprescribing.
2. Describe awareness and self-efficacy of deprescribing in hospital clinicians and medical students after completion of the polypharmacy module.

A case-based online educational module on polypharmacy and deprescribing has been developed with NSW Health HETI using a subject matter expert group and is in final production. An online questionnaire incorporating questions regarding awareness of inappropriate polypharmacy and deprescribing and deprescribing-specific measures of self-efficacy is currently under ethical review and will be piloted. Following HETI-approval of the pilot study, the module and questionnaire will be offered to a convenience sample of multi-disciplinary clinicians involved in the care of older inpatients from six study hospitals. The utility of this module to improve awareness and self-efficacy of deprescribing will be evaluated by performing a pre-post-questionnaire on a convenience sample of senior medical students.



130. Antidepressants: addressing gaps in consumer information

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Issue

Mental health continues to be an area of concern to Australian consumers. Taking the time to answer consumers' questions about their antidepressant at the start of treatment may help consumers feel better informed, thereby preventing poor adherence to their antidepressant medicine.

Objectives

Since 1 July 2010, NPS MedicineWise has been delivering a national in-house telephone service (Medicines Line) staffed by pharmacists to Australian consumers. Calls received by Medicines Line about antidepressants were analysed with emphasis on information not readily found in the Consumer Medicine Information (CMI).

Outcome and impact

From July 2010 to December 2017, 4493 enquires (8.6% of total calls) to the Medicines Line were about an antidepressant medicine. The most common enquiry types were: drug interactions (72.3%), side effects (58.3%), dose (21.6%) and mechanism/profile (10.4%). (Note: As callers will often have enquiries that overlap these categories these figures add to greater than 100%).

We further analysed 467 calls that were categorised as 'Mechanism/Profile' to identify issues that consumers are concerned about that are not addressed in a CMI. The most common inquiry that consumers sought in this category was the onset of effect and time to reduction of side effects (25.5%), information on withdrawing or ceasing an antidepressant (13.3%), pharmacokinetics (12.6%), mode of action (12.1%), comparisons with other antidepressant medicines (11.1%), and switching between antidepressant medicines (6.6%).

As the only nationwide medicines information service, Medicines Line is uniquely placed to identify possible gaps in counselling by the prescribing doctor, dispensing pharmacist or the CMI. If these issues identified can be addressed at the initiation of an antidepressant medicine, this may lead to better treatment outcomes. The information gained from this analysis can be shared with educators and policy makers to enhance education and training of health professionals in regards to counselling patients on initiating antidepressant medicines.



131. Helping patients make informed decisions – an open access e-learning module for health professionals

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Issue

Health decisions often have no single 'best choice' and require choosing from multiple options. For patients (and carers) to understand risks and have the opportunity to actively be involved in sharing decisions, clinicians need to communicate relevant and clear information about treatment options, and the potential benefits, risks, and uncertainties of each.

Objectives

The Australian Commission on Safety and Quality in Health Care (Commission) aims to support and promote shared decision making and risk communication in practice.

Approach

One approach taken by the Commission is the development of a 2-hour online learning module - Helping Patients Make Informed Decisions: Communicating benefits and risks. The module was developed in collaboration with five specialist colleges (including the Royal College of General Practitioners and the Royal College of Physicians), education experts and medical writers. It has also been user-tested by clinicians.

Outcomes

The module is designed to help clinicians develop and refine their skills in communicating effectively about the benefits and risks of treatment options with patients, including complex statistical information, so that their patient can participate more fully in decision making about their health care. The module goes through the principles of shared decision making and risk communication, and has case scenarios in which clinician can work through. The module is open access and available to all clinicians.



132. Rational coagulation profile ordering in the Intensive Care Unit: an audit of current practice

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Coagulation profiles are commonly requested to measure the pathology of haemostasis. Patients in critical care are at an increased risk of coagulation disorders secondary to deranged physiology, such as blood loss, impaired synthesis, inhibition or consumption of factors. While early diagnosis of these problems can allow therapeutic intervention, over-ordering of such tests can have adverse effects on both patient and the hospital. Unnecessary phlebotomy impacts patients by causing pain, increasing risk of infection, and decreased haematocrit, and avoidable testing affects hospitals by wasting the time of clinicians, the costs of equipment and the cost of the tests themselves.

This audit aims to determine the number and appropriateness of coagulation requests, and the effectiveness of a subsequent educational intervention. The population was a three-month sample of all patients admitted to the Rockingham General Hospital (RGH) Intensive Care Unit (ICU), with no exclusion criteria. Data was collected retrospectively and entered into a database, collated and analysed. A coagulation profile order was classified as 'unnecessary' if there was a normal result, and also a normal result recorded in the preceding 72 hours.

A total of 142 ICU admissions was assessed, and 167 coagulation profile requests recorded. Of these requests, 40% (n=66) were categorised as 'unnecessary', with a notable correlation with length of stay (LOS) in ICU. For those with LOS greater than two days, 52% of all coagulation profiles ordered were deemed 'unnecessary', compared to 16% in the shorter ICU stays. We suggest there is the potential for significant patient and system benefit in ICU through reducing the number of tests, especially for those with longer stays. We propose a follow-up audit so as to assess the benefit of an educational intervention.



133. State wide collaboration changes the script

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1. The Codeine rescheduling decision necessitated the need to prepare our healthcare system to provide better care for people that experience pain or opioid addiction problems. The Therapeutic Goods Administration (TGA) decision had implications in Tasmania for consumers, pharmacists, GPs, other medical specialists, hospital EDs, specialist alcohol and other drug services and persistent pain services.
2. To support pharmacists and GPs to provide safe and effective care to most people who had been accessing over-the-counter codeine.
3. In Tasmania, the Codeine Rescheduling Implementation Group (CRIG), comprising representatives from across the entire healthcare system, was created to ensure the local transition was as smooth as possible. Membership included DHHS, Tasmanian Health Service, Primary Health Tasmania, consumer groups, professional bodies and national and state medicine regulators.

The project presented a great opportunity to collaborate and strengthen relationships with the major health and professional organisations to achieve the best outcomes from this decision.

Key tasks of the group were to identify the implications (challenges and benefits) of codeine rescheduling for individuals and the healthcare system, and to develop actions to maximise the short, medium and long term public health benefits.

Key activities included:

- Development of a Codeine Use and Deprescribing HealthPathway on the Tasmanian HealthPathways site providing a local care map for people with chronic pain;
- Joint education events across the state for pharmacists and GPs;
- Codeine website for Tasmanian Health Professionals, including key resources and information about the local response;
- Increase in use of online systems that allow real-time monitoring of the dispensing of certain prescription medicines.

The collaboration not only built an understanding about the many problems relating to over-the-counter codeine, but also involved understanding much of the broader issues related to opioid prescribing in Tasmania. It presents a good blue print for further collaborations in Tasmania.



134. How to simplify the management of high cholesterol for patients and their families - implementing CVD guidelines

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Issue

Dealing with high cholesterol levels in our general population and managing CVD (Cardiovascular disease) risk.

- How often do GP's detect high cholesterol levels on routine fasting bloods?
- Do we as GP's actually see many "low-risk" patients having normal cholesterol levels?

Despite having Australian Guidelines for cholesterol levels - why do the pathology lab reference ranges vary to these national guidelines? How should we approach this - for discussion with conference participants/expert panel members.

Objectives

To educate all health professionals, especially GP's in counselling their patients adequately regarding their cholesterol levels - this could potentially be done via a NPS MedicineWise educational campaign and publication. To follow guidelines developed by the National Vascular Disease Prevention Alliance (NVDPA), an alliance of four leading stakeholders: Diabetes Australia, the National Heart Foundation of Australia, Kidney Health Australia and the National Stroke Foundation.

Approach

- To prospectively compare de-identified results from my GP practice's database from Jan-April 2018 for low to medium risk patients
- To determine the CVD risks according to lab reference ranges and the recommended NVDPA guidelines. Factors assessed: patient's age, sex, blood pressure, smoking status, fasting bloods [HDL and LDL (high-density and low-density lipoprotein) cholesterol and glucose].
- To populate results in tabular and graph format to invoke a discussion at the Choosing Wisely National meeting of how best to reach a general consensus to help reduce CVD morbidity and mortality.

Outcomes: Preliminary results to be summarised shortly and updated on Abstract submission,

For discussion

- Do we think patients with a fasting total cholesterol level of 5.6 mmol/L should be counselled for high cholesterol, and should this differ to a level of 4.2mmol/L?
- Maybe we should start educating patients over the age of 45 regarding non-pharmacological measures to reduce cholesterol earlier?
- Hopefully NPS MedicineWise could have some valuable input in this important public health matter.



135. Accounting's role in ethical control: budgeting and patient mix choices in public hospitals

Dr Gillian Vesty¹

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1. The aim of this project is to build a digital gamified training simulation help improve patient mix management in government-owned hospitals.
2. While efficiency and quality are of utmost importance for administrators and clinicians respectively, the patient access trade-off is a growing concern in the public healthcare system. The simulated model is designed to engage accountants and clinicians in debate. Detailed financial budgets and balanced scorecard performance metrics are routinely prepared and used to monitor hospital performance. However, they tend to measure efficiency and clinical effectiveness in segregated ways.

The extensive volume of hospital data tends to be used by clinicians in health economics or by accountants in hospital audits or review of past performance. Less of this big data is used in day-to-day operational hospital management decision. There is also a noted lack of big data management expertise by hospital accountants and/or clinicians. Gaps in information flows between hospital professionals inhibit the important ethical conversations over patient access to care. Cost and quality trade-offs are also challenged by the complex setting and the desire to offer world-class healthcare.

3. To date, field interviews have enabled us to build a repertoire of everyday dilemmas faced by different public hospital managers when making decisions about patient mix and access to public hospital care. A simulated training environment in which clinicians and accountants/administrators can engage in debate is to be developed and underpinned by a comprehensive set of algorithms that will test clinical and accounting leader's knowledge (empathy) and communication. Large datasets are used as a platform to test a student's technical capabilities around evaluating performance.

The overall goal is to optimise efficient and effective use of government funds for improved social outcomes through better connecting costing/caring expertise.



136. Open effective communication in cancer care: the difference between life and death

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¹boob buddies Inc., Paradise Point, Australia

Choosing Wisely recommends that patients ask five questions to ensure that they 'end up with the right amount of care'. This is crucial. However, unless the responses are communicated openly and effectively, there is little benefit to the patient.

Unfortunately, consultations are often just a meeting where physicians gather information, impart results, and make choices for the patient. Sadly, little or no attention is given to developing and maintaining relationships, or negotiating plans. Patient wellbeing dictates that this must change.

Physicians must learn open effective communication to:

- respond empathically to the patient's needs, rather than exhibit a cold professional detachment;
- respond to powerful reactions, such as those encountered when delivering bad news or having disagreements with angry patients and families;
- provide knowledge rather than articulate orders; and -
- alleviate their own levels of stress which may arise during consultations.

Open effective communication is crucial to cancer patients' wellbeing, as it can either alleviate or activate a stress response. If stress is activated, it can impact tumour growth, progression, and metastasis.

According to a patient, ineffective communication attributed to her diagnosis of stage IV breast cancer. Upon completion of her treatment, she requested a scan as she was experiencing bone pain. Her request was repeatedly denied for nine months. When she eventually had the scan, the results showed bone metastasis.

As Hippocrates said, 'Cure sometimes, treat often and comfort always'. These ancient words remain true for modern medicine. A doctor's ability to provide comfort through their presence and their words is a fundamental component for good medical care. Developing effective communication skills is an art to be fostered and refined over time. Focusing on, and practicing open effective communication transforms the clinical consultation, taking no more time but bringing benefits for the patient and doctor.



137. Logan Hospital Melatonin usage in paediatrics

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²Pharmacy student-The University of Queensland

Background

Paediatric use of melatonin is off-label and there is limited high quality evidence governing use. Despite this, melatonin has a blanket approval for use at Logan Hospital and is flagged as a high cost item.

Aims

To review the literature surrounding melatonin use in paediatrics and retrospectively audit prescribing practices at Logan Hospital to determine cost and appropriateness of prescribing restrictions.

Method

A retrospective review was conducted following ethics exemption. Paediatric patients (<16 years) dispensed melatonin preparations from 1st July 2014 to 30th June 2016 at Logan Hospital were included. Patient records were accessed using ERIC® (patient hospital electronic record) and iPharmacy® (dispensing software). Demographic and clinical data (age, gender, dose/dosing instructions, indication, duration of therapy, other interventions trialled, prescriber qualifications, origin of prescription) were collated. Clinical appropriateness was evaluated based upon current literature and costs were extracted from dispensing software.

Results

Seventy-two paediatric patients were included and 71% were male (mean age: 9.75 years). Sleep disorder in Attention Deficit Hyperactive Disorder was the most common indication (19%). Prescribed dose for melatonin solution ranged from 1mg to 12mg nocte, with 3mg being the most frequently prescribed (40%). Non-pharmacological strategies were rarely recorded and 47.2% of patients were prescribed melatonin therapy for at least 12 months. Current literature suggests an initial dose of 0.5mg, with diminishing benefit exceeding 6mg, and a treatment duration of 3 months. The total cost of melatonin incurred for the study period was \$23,520.63.

Conclusion

Prescribed doses and duration of melatonin use are frequently in excess of current evidence-based recommendations. There is need for review of melatonin restrictions and prescribing frameworks to increase clinical appropriateness.

Evidence of practice change: Achievements and lessons learned from primary to tertiary care



138. The impact of a change in electronic medical record on the number of tests ordered in the emergency department

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The 'No Unnecessary Tests' (NUTs) program began in 2012 with an overall aim to reduce harm to patients, improve patient experience, increase efficiency and reduce costs. Various initiatives via the NUTs program have implemented across Eastern Health and have successfully reduced the number of unnecessary tests ordered, particularly in the emergency department. Many of these initiatives were via the addition of in-built decision support processes into the electronic medical record system used in the emergency department. In late October 2017, Eastern Health began a rollout of a newer electronic medical record and this resulted in a loss of the major decision support systems that were previously in-built.

The objective of this study was to determine the short-term effect of a change in electronic medical record on the sustainability of our existing test reductions. This was conducted in the emergency department of Box Hill Hospital as this was the first Eastern Health site to introduce the new electronic medical record software.

Data for the most common pathological and radiological tests was retrospectively extracted from the hospital databases for periods both before and after the change in electronic medical record. This data was then analysed and appropriately adjusted for comparison between Eastern Health sites. The outcome we focused on was the percentage increase in order numbers for the tests in focus. It was found that 3 of 5 pathology tests and all 3 radiology tests that had targeted NUTs interventions significantly increased in number of tests ordered following the electronic medical record change. Further longitudinal data is currently being analysed but initial results suggest the spike in ordering that accompanied the change to the electronic medical record lasted for approximately 6 weeks before reverting to baseline values. Possible causes will also be discussed.



139. No unnecessary urine tests

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The Eastern Health 'No Unnecessary Tests' (NUTs) program uses a clinician-led approach to identify areas of inappropriate investigations, and to develop and implement guidelines to reduce unnecessary testing.

Urine cultures were identified as an over-ordered test and targeted in a campaign of education on when to order urine cultures. A key part of the education campaign was integrating the guidelines into the electronic hospital computer ordering systems across three Eastern Health Emergency Departments (EDs). This ensured that clinicians reviewed the guidelines and sought senior advice prior to ordering a urine culture to confirm it was an appropriate investigation.

The study examined whether the NUTs urine guidelines led to a decrease in overall ordering of urine cultures over time, and to an increase in the percentage of positive culture results. In addition, local rates of resistance to antibiotics utilized to treat urinary tract infections were evaluated to ensure these guidelines remain appropriate for Eastern Health's patient cohort.

The data suggested that this program reduced the number of unnecessary urine cultures ordered across Eastern Health's EDs. This is demonstrated by a relative reduction in ordering rates and increased positive yield across all three EDs.

In addition, we demonstrated that local rates of resistance to antibiotics for urinary tract infections were relatively stable over time, suggesting that this guideline remains appropriate for Eastern Health's patient population.



141. Duration of antipsychotic medication use in aged care facility residents with dementia

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¹*Australian Institute of Health Innovation, Macquarie University, Macquarie University, Australia*

Background

Choosing Wisely recommends that antipsychotic medications only be used on a short-term basis (< 3 months) for behavioural and psychological symptoms of dementia. A high prevalence of antipsychotic medication utilisation among people with dementia in Australian residential aged care facilities (RACFs) has been reported, but duration of use has not been evaluated.

Objectives

To describe duration of antipsychotic medication use in people with dementia living in RACFs and to estimate the proportion of residents with antipsychotic medication duration >3 months stratified by those with comorbid schizophrenia or bipolar disorder (SBD).

Approach and Outcomes

Using electronic medication administration data from 66 RACFs across NSW/ACT, we identified antipsychotic medications and calculated the number of consecutive days of administration for those medications. Residents who had dementia reported it as a condition on their Aged Care Funding Instrument (ACFI) and had received at least one antipsychotic medication during the study period were included.

We calculated the proportion of antipsychotic medication administration episodes that exceeded 90 days. We stratified results by residents with SBD. 1718 residents with dementia had at least one episode of antipsychotic medication use between 2014–2017. Residents had between 0-6 episodes of long-term antipsychotic use each. 66% of residents with comorbid SBD (n=148/222) had at least one episode >3 months, compared to 48% (715/1493) of residents without these comorbidities. The median number of administration episodes was seven for residents with comorbid SBD, and five for those without. Median time between administration episodes was 1 day (IQR:1-2), regardless of comorbidity status. Although comorbid SBD explained some degree of long-term anti-psychotic medication use, residents without these comorbidities had high rates of long-term use with very short times between administration episodes, indicating that adherence to the recommendation for short-term use of these medications can be improved.



142. Long-term NSAID use in residential aged care facilities

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Background

Non-steroidal anti-inflammatory (NSAID) medications carry serious risks for older people, especially those with certain comorbidities, and are not recommended for long-term use.

Objectives

To describe the prevalence of long-term NSAID use (episodes >2 weeks) among residents of aged care facilities, stratified by comorbid high-risk conditions including hypertension, heart failure, kidney disease and peptic ulcer disease and to determine if the prevalence of long-term NSAID use is lower for residents with high-risk comorbidities.

Approach and outcomes

Using electronic medication administration data from 66 residential aged care facilities (RACFs) in NSW/ACT, we identified NSAIDs and calculated the number of consecutive days of administration for each episode of administration during 2014 – 2017.

We calculated the proportion of NSAID medication administration episodes that exceeded 2 weeks stratified by hypertension, heart failure, kidney disease and peptic ulcer disease. We used generalized estimating equations regression to evaluate the association between high risk comorbidities and the outcome of any long-term NSAID use, while controlling for age and sex, and accounting for correlation within facilities. 10,908 residents were included in the analysis; 60% of residents had hypertension, 16% had kidney disease 13% had heart failure and 32% had peptic ulcer disease. 9% of residents used NSAIDs for over two weeks. Residents with high-risk comorbidities had similar long-term NSAID use prevalence, ranging from 7-10% across the high-risk comorbidities. Long-term NSAID use was significantly lower by 2.1% ($p < 0.01$) for residents with kidney disease and significantly higher for peptic ulcer disease by 1.6% ($p < 0.01$), but did not differ significantly for hypertension or heart failure.

Although long-term NSAID use is relatively low in RACFs, residents with peptic ulcer disease, hypertension and heart failure have similar or higher long-term NSAID use relative to the overall RACF population, highlighting the need for improved compliance with Choosing Wisely recommendations within these high-risk groups.



143. “To bleed or not to bleed”: improving pathology ordering in the Emergency Department

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Issue

Considerable “just in case” pathology ordering was identified in the Royal Brisbane and Women’s Hospital ED. Several initiatives to reduce low value pathology ordering were proposed, including beta HCG (bHCG) and Group and Hold (G&H) requests.

In the case of bHCG, many female patients with low risk of pregnancy as their clinical presentation, received serum quantitative bHCG tests. These tests contribute to a delay in results that can delay treatment or further investigations. Furthermore, duplicate point of care (POC) qualitative tests are often performed on these patients, resulting in unnecessary costs. A serum quantitative test costs \$15.84, whereas a qualitative POC test is \$0.64.

Additionally, unnecessary G&H requests were identified. A large number of G&H tests are requested and never needed to generate a transfusion for patients.

Objectives

- Reduce unnecessary pathology including duplicate tests
- Reduce delays in determining pregnancy status
- Reduce the number of G&Hs that do not initiate a transfusion request in 72h

Approach

As a forcing function, the ED pathology request form was updated so that serum quantitative bHCG and G&H could only be ordered as an add-on. This forces the clinician to consider the rationale for ordering these tests and the value of care. Additional steps were taken to encourage POC bHCG testing. Access to POC cartridges and ability to record POC results were improved.

Outcomes

The intervention has led to a 78% reduction in the number of quantitative bHCG tests ordered, a saving of \$88,000/year. The proportion of quantitative bHCG tests returning a negative result suggests a reduction in “just in case” ordering, falling from 75% to 24%. There has also been a 45% reduction in the number of G&H requests. The percentage of G&Hs which are cross-matched has increased from 17% to 33%, illustrating a reduction in “just in case” ordering.



144. Choosing the correct antibiotic dose and duration for prophylaxis in orthopaedic surgery

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Background

Infection post orthopaedic surgery is associated with prolonged morbidity, disability and increased mortality and can be minimised by antibiotics surgical prophylaxis. There is evidence that surgical site infection can be reduced if the correct agent, at the correct dose and correct timing, is used. However, a clear consensus has not been reached with regard to the correct approach to prophylaxis. The lack of consensus regarding duration can lead to prolonged use, which in turn increases the patients' risks of adverse events as a result of decreased mobility and increased intravenous (IV) line use such as healthcare-associated bloodstream infection. RBWH did not have orthopaedic antibiotic prophylaxis guidelines. Previous audits had highlighted antibiotics continuing for inappropriately prolonged periods post-surgery.

Aim

To determine antibiotic prophylaxis in orthopaedic surgery, develop and implement guidelines and assess uptake.

Method

A retrospective medication chart audit was done for patients identified as having undergone orthopaedic surgery and received IV antibiotics. The audits assumed the correct decision was made in terms of choice of the agent. A convenience random sample included 93 patients for the pre-intervention and 100 patients the post-intervention periods. Consensus based guidelines were developed and implemented. Implementation included education and posters summarising the guidelines in Orthopaedics Operating Theatres.

Results

Eighty-three patients in both pre-intervention (83/93) and post intervention (83/100) received cephazolin and was included in the analysis. Improvements in the following areas was observed in the pre and post implementation periods:

- A dose of cephazolin (2g) was given to 90% vs100% (p=0.15)
- The timing (60 minutes prior to surgical incision) (93% vs. 100% p=0.03)
- Cephazolin only administered intraoperatively (42% vs. 55%p=0.09)
- Discontinued within 24 hours (60%vs 95% p<0.001)

Conclusion

The guidelines have resulted in improvement of surgical prophylaxis with the most significant change practice is the early discontinuation of IV antibiotics. An area to improve is in limiting use of cephazolin to the intraoperative setting.



145. Attitudes towards deprescribing among older people receiving home nursing support with medication management: a cross-sectional survey

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Background

Polypharmacy and potentially inappropriate medications are common in home nursing (HN) clients. Deprescribing may help address this, but little is known about attitudes of older HN clients towards deprescribing.

Objective

To explore HN clients' attitudes towards deprescribing.

Method

This study was conducted as part of an implementation program that integrated clinical pharmacists into a HN service to support medication management for older people. The pharmacists' role included visiting clients to review medicines, reconcile medication lists, and liaise with GPs and community pharmacies to optimise medication regimens. Clients' beliefs about deprescribing were assessed using the revised Patients' Attitudes Towards Deprescribing (rPATD) questionnaire (Reeve et al., 2016) which has 20 items with five-point Likert scales in 4 domains: (a) involvement/knowledge of medication, (b) burden of medication, (c) appropriateness of medication, and (d) concerns about stopping medication.

Results

To date, the rPATD has been completed with 51 clients. The most common reason for non-completion was language barriers. In domain (a), most clients indicated they liked being involved in decisions about their medicines, but almost 50% reported they did not know what they were taking. In domain (b), most clients did not believe taking their medicines was inconvenient, possibly because they were receiving HN assistance. However nearly 50% thought they might be taking too many medicines. In domain (c), one in four clients felt one of their medicines may be causing side effects, and more than one-third said they would like to try stopping one of their medicines. In domain (d), most clients were comfortable with stopping medicines, although 52% said they would be worried about stopping a medicine they had been taking for a long time.

Discussion

This study provides a snapshot of HN clients' beliefs about deprescribing; which can help inform the design of interventions to facilitate deprescribing for HN clients.



146. Breaking down silos to deliver truly patient centered care

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It is widely recognised that the delivery of patient centered care requires a holistic multi-disciplined approach. There is, however, a commonly held view that there are few operational and funding models which support this model of care. The WellNet Integrated Care program, run by Sonic Clinical Services (SCS) through their IPN medical centers (IPN), hopes to break perceptions around multi-disciplinary approaches to clinical care. The SCS and Ward Medication Management (WMM) partnership under this program creates an innovative and collaborative relationship across two key functions in clinical care: general practice and clinical pharmacy.

WMM will discuss the benefits of integrating a clinical pharmacist into the care coordination team within a busy GP clinic. Through their collaborative partnership within the WellNet program, WMM and SCS have designed a model which is already demonstrating interim positive results for both patients and clinicians.

The model, which will be discussed in detail, has improved the uptake of life saving Home Medicine Reviews, significantly increased collaboration between clinical pharmacists and GPs in a holistic care plan for their patient and has ensured optimum reimbursement for all parties.

Under this model, a team of WMM clinical pharmacists have been placed in part time Care Coordinator positions within the WellNet trial sites in the IPN network. These pharmacists work as integral members of the patient's care team, providing end to end support to the patient. From the moment the patient is admitted to the program, through to care plan creation, medication review, self-management support, care navigation and finally care plan follow up. The WMM Clinical Pharmacist facilitates the entire process. This model is underpinned by the notion that all care interactions are relationship based but also ensures that the processes essential to creating a continuum of care are implemented and followed.

The WellNet program is currently being funded as a pilot program however it aims to demonstrate the value of the model – both clinically and financially.



147. Choosing testing wisely in the setting of blood donation

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“Choosing Wisely” promotes discussions on which medical tests and procedures are needed. The concept of “lean manufacturing” has been embraced in blood processing and may be considered a related philosophy with an emphasis on the elimination of futility, uselessness and wastefulness. For blood donors these philosophies can encompass removing unnecessary testing, whilst maintaining donor and product safety.

Aim

This study showed how the cessation of routine annual donor Haematology testing and full blood count (FBC) point of care testing were implemented with success, whilst maintaining donor and product safety.

Method

A total of 313,360 FBC tests from 47,592 blood donors were used to determine that annual FBC testing could be removed. Secondly, an analysis addressed whether Haematology analysers could be decommissioned from donor centres and replaced with the donors historical platelet counts for programming apheresis platelet donation.

Results

The review of the FBC datasets showed infrequent abnormal FBC findings which provided scant medically useful data when detected. Regulatory review by the Therapeutic Goods Administration with oversight by the National Blood Authority confirmed annual FBC testing could be discontinued. Data from the Blood Service confirmed the robust performance of historical mean platelet counts for programming platelet donation. Following the removal of Haematology analysers, national quality control data confirmed the maintenance of platelet yields within components.

Conclusion

The lack of utility of the FBC as a screening test meant the cessation of routine annual testing of plasma donors avoids unnecessary subsequent medical reviews. Significant costs and productivity improvements occurred without compromising donor safety. Decommissioning of the Haematology analysers combined with the centralisation of donor testing also maintained regulatory requirements and component quality. Removal of analysers from donor centres eliminated maintenance and simplified regulatory requirements for staff improving work flow and efficiencies.



148. Reducing the waste - Medibank's experience in reducing low value care

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Medibank is committed to the triple aim of enhancing patient outcomes, improving member experience and raising the affordability of private health insurance. Leveraging off the Choosing Wisely Australia initiative, Medibank has identified five focus areas of low value healthcare: Inpatient injection into the eye, arthroscopy in older patients with osteoarthritis, inpatient hernia repair where patients stay in hospital overnight, inpatient rehabilitation following arthroplasty and separating the stent admission from the angiogram episode.

This presentation will outline the various mechanisms that Medibank has evoked to reduce waste. These include:

- Engaging with the sector to confirm the evidence
- Supplying providers with personalised information on their performance
- Highlighting each hospital's comparative performance
- Educating health insurance members of best practice
- Promoting case studies that highlight high performers
- Monitoring and reporting changes in provider behaviour
- Implementing value based purchasing that rewards the reduction of Low Value care

The presentation will highlight the risks and barriers to reducing low value care. These include intangibles such as: patient expectations, regional delivery patterns, practitioner perceptions of their role and expectations, developing an understanding of shared responsibility, practitioner perceived risks of change, altered revenue streams and a lack of robust outcome measurement.

While there is no quick fix to eliminating low value healthcare, Medibank has been able to demonstrate that, provided the sector makes a long-term commitment, it is possible to make substantial changes to the way healthcare is delivered. Leveraging off Choosing Wisely, Medibank is making progress in improving the affordability of private health insurance for Australians.



149. Evaluation of urinalysis for the exclusion of bacteriuria

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Background

Urinary tract infections (UTI) present a dilemma in Geriatric Medicine due to high rates of asymptomatic bacteriuria (ASB). Unnecessary urine culture requests and inappropriate treatment of ASB with antibiotics has economic and health effects. The routine use of urinalysis (UA) in cases of suspected UTI represents a potential strategy for reducing the number of inappropriate urine culture requests in hospitalised elderly patients.

Objectives

To evaluate the accuracy of UA in excluding bacteriuria in elderly patients.

Approach

A retrospective review of medical records was conducted for all patients admitted under the Aged Care service at The Sutherland Hospital over a one-month period. Urine culture results were compared to UA results. The prevalence of specific and non-specific symptoms was also recorded.

Results/Outcomes

Two-hundred cultures were performed on urine specimens collected from 133 patients during the study period. UA results were available for 128 of those specimens. The sensitivity of a UA positive for leucocyte esterase, nitrites, protein or blood in detecting bacteriuria was 94% with negative predictive (NPV) value 88%. Defining a positive UA as the presence of leucocyte esterase and/or nitrites gave a sensitivity of 84% and NPV 90%. Restricting urine culture requests to such specimens would have resulted in a 47% reduction in the number of cultures ordered among this sample, with six false negative results. 37% of specimens were collected in the absence of any of fever, genitourinary symptoms, fall or delirium.

Conclusion

These findings are consistent with previous reports that UA has high sensitivity and NPV for bacteriuria. Limiting culture requests to specimens positive for leucocyte esterase and/or nitrites would result in a substantial reduction in the number of urine culture requests. The relationship between nonspecific symptoms and urinary tract infection (UTI) remains unclear and clinicians should consider whether treatment is warranted in such cases.



150. Rationalising chest x-rays in the ICU

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Performing daily chest x-rays in Intensive Care Unit patients is a common practice. Physicians tend to order them based on a concern regarding the severity of illness of ICU patients as well as to detect the range of complications associated with these patients' indwelling devices. There are several advantages to this approach such as early detection and treatment of clinically undetectable complications as well as tracking progression of disease.

However, this approach is not without its drawbacks. Daily routine CXRs for all ICU patients is labour intensive, costly, leaves potential for harm via detection and treatment of insignificant findings/false positives, and leads to additional unwarranted radiation to staff and patients. In 2015, the American College of Radiology published a recommendation into the appropriateness of CXR's in ICU (Suh R.D et.al). Essentially the recommendation suggested that in the absence of clinical change in an ICU patient, a routine CXR is unlikely to be appropriate.

The aim of our intervention was to rationalise CXR ordering in the ICU. Following review of current evidence, a decision support tool was developed with input from Intensivists from across Eastern Health Intensive Care Services. This was largely based on the American College of Radiology CXR appropriateness criteria. This new guideline was then published as an accessible hospital decision support tool and an easy to reference poster was developed and displayed around the ICU. Junior medical staff working in Eastern Health Intensive Care Units also underwent education sessions regarding the new tool.

Our intervention saw a significant decrease in total chest x-ray imaging in the Eastern Health Intensive Care units by 31% over our intervention period when compared to the previous three years. The number of chest x-rays performed per patient was reduced by 40% at the largest Eastern Health ICU.



151. Appropriateness of proton pump inhibitor use in General Medicine inpatients

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Evidence suggests that proton pump inhibitors (PPIs) are over-prescribed and inappropriately continued long-term in many patients. Before strategies can be implemented to reduce inappropriate PPI use, it is important that the scope of the problem is defined and understood.

Objectives

To determine the proportion of General Medical Unit (GMU) inpatients taking a PPI on admission and to evaluate the appropriateness of these PPI prescriptions.

Design

Prospective observational study conducted between 6th June to 11th July 2016. Appropriateness of PPI use was evaluated by: (1) reviewing for concordance with the Australian Therapeutic Guidelines and National Prescribing Service (NPS) Guidelines on PPI use in gastro-oesophageal reflux disease; (2) assessment of indication, dose and treatment duration by an expert panel consisting of two general physicians and one senior pharmacist.

Setting: A major tertiary referral hospital in Melbourne, Australia.

Participants

Consecutive patients were screened and all taking a PPI prior to admission were included; those not taking a PPI formed the control cohort. Recruitment continued until approximately 200 patients taking a PPI were identified.

Results

Among 440 consecutive GMU patients, 198 (45.0%) were taking a PPI on admission. Of these, 66.2% had an inappropriate indication, dose or treatment duration. The largest category of inappropriate PPI use was excessive treatment duration (43.4%), followed by inappropriate indication (15.2%). In terms of co-morbid conditions, PPI users had higher prevalence of osteoporosis and/or history of fracture (42.9% vs 27.2%, $p < 0.001$) and hypomagnesaemia (10.6% vs 3.4%, $p = 0.003$).

Conclusion

Inappropriate PPI use is highly prevalent among GMU inpatients; inpatient admission presents clinicians with the opportunity to intervene and de-escalate or discontinue PPI use. Given the potential for adverse effects, unnecessary health expenditure and pill burden, new strategies are being developed at this institution to aid clinicians to consider the utility of continuing long-term PPI prescriptions in each patient's situation.



152. Rescheduling of codeine: campaigning for practice change and preparing the pharmacy workforce

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Background

In 2016, the Society of Hospital Pharmacists of Australia (SHPA) was proud to become the first pharmacy organisation to join the Choosing Wisely Australia movement. One of our five recommendations was “Don’t recommend the use of medicines with sub-therapeutic doses of codeine (<30mg for adults) for mild to moderate pain”.

Influence on health policy and practice change

In line with SHPA’s recommendations, the TGA decided in late 2016 to upschedule all medicine products containing sub-therapeutic, low-dose codeine to Schedule 4 with effect from February 2018, becoming prescription only medicines. A major reason for this upscheduling was the demonstrated harms to patients, including abuse and dependency.

SHPA was often a lone voice in support of the TGA’s decision, despite this being evidence-based practice and aligned with OECD countries. Other pharmacy stakeholders provided fierce opposition and were actively lobbying state and territory health ministers to back away from national uniform medicines regulation.

In late 2017, debate was fervent as ever as implementation of rescheduling was imminent. SHPA banded together with medical and consumer stakeholders, such as PainAustralia, CHF, RACP, ANZCA Faculty of Pain Medicine and Rural Doctors Association to continue to support the upscheduling of codeine, and made repeated representations to parliamentarians, the Department of Health and the TGA.

To prepare the profession for significant practice change, SHPA was represented on the TGA’s Nationally Coordinated Codeine Implementation Working Group and awarded a contract by the Department of Health to develop:

- A webinar and national tour of branch seminars educating pharmacists on codeine rescheduling and the implications on pharmacy practice
- A hospital pharmacy practice update resource to be distributed to all hospitals in Australia
- Pain Management Standards of Practice

The new scheduling policy for codeine to change practice and reduce harms to patients, was successfully implemented on 1 February 2018.

Innovative ideas to reduce low value care



153. Using ANZICS registry data to support Choosing Wisely in Intensive Care

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In March 2016 a working group from the Australian and New Zealand Intensive Care Society (ANZICS) and the College of Intensive Care Medicine (CICM) published five recommendations to reduce the number of unnecessary tests and interventions performed in intensive care as part of the Choosing Wisely Australia initiative.

Two years later ANZICS sought to assess if the Choosing Wisely recommendations can be analysed using available data in its Adult Patient Database and Critical Care Resources (CCR) Survey. ANZICS routinely collects data on recommendation number one - patients with limited life expectancy using severity of illness scoring and treatment goals at the time of admission to intensive care. Data related to safety processes in intensive care units for recommendations 2, 4 and 5 are available from the yearly CCR survey. This data demonstrates the number of units who use process-orientated checklists eg FAST HUG, antibiotic stewardship programs, rounds including a pharmacist and infectious diseases specialists/microbiologists and ICU specific antibiograms. The results demonstrate an ongoing commitment by the intensive care community to reduce low value care.

We have been able to show that the ANZICS registry data variables can be used to assess the ICU related Choosing Wisely recommendations. ANZICS is continuing to optimise opportunities to evaluate and report on the Choosing Wisely recommendations using existing data sources through the ICU Registries.



154. Towards optimising hospitalised older adults' medications (TO HOME)

Ms Sarita Lo¹, Dr Danijela Gnjidic², Prof Fiona Blyth³, Ms Leanne Kearney³, Ms Mai Duong¹, Prof Andrew McLachlan², Prof David Le Couteur³, Prof Rosalie Viney⁴, Dr Thomas Longden⁴, A/Prof Patrick Kelly⁵, Ms Rosemary Burke³, A/Prof Ruth Hubbard⁶, Prof Sarah Hilmer¹

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One in five medications taken by older adults is harmful or unnecessary (inappropriate). Inappropriate medication use is a major burden to older adults and the healthcare system and represents low value healthcare.

Deprescribing interventions to reduce inappropriate polypharmacy can alleviate symptoms, improve quality of life and lower the risk of adverse events. Financially, it also decreases patient costs and releases government funds for spending on other high utility interventions.

Hospitalisation provides an opportunity to reduce inappropriate polypharmacy and its associated adverse events. We are conducting a retrospective cohort study to define the prevalence and management of inappropriate polypharmacy in hospitalised older adults. A consecutive sampling strategy will be utilised to collect data on adults aged ≥ 75 years admitted >48 hours under General Medicine, Geriatric Medicine and/or Rehabilitation from six metropolitan hospitals in NSW from July 1st 2016 until sample size is reached ($n=2000$). This project is approved by NSW Population and Health Services Research Ethics Committee (HREC/17/CIPHS/30) and Australian Institute of Health and Welfare Ethics Committee (EO2017/4/373). Data collection began on February 23rd 2018.

Additionally, we will obtain linked hospital readmission, mortality, and PBS and RPBS medication data. Collectively, the TO HOME database derived from routinely collected health data will inform current patterns of care and strategies to reduce inappropriate polypharmacy. We will evaluate the potential impact of deprescribing interventions on hospitalisation and mortality in the 12 months following hospitalisation. Additionally, we will calculate the potential costs of medications and costs associated with managing inappropriate medication use, to estimate the potential savings in the 12 months after hospitalisation. As part of a large NSW Health Translational Research Project, our findings will contribute to scientific understanding of medication management in the hospital setting and support the development of targeted deprescribing interventions and key performance indicators to monitor routine care.



155. The STARS Back Pain App - using real time emergency department data to capture outcomes and drive system change

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Background

Emergency departments (ED) are expected to provide consistent, high-quality care to patients. Unfortunately, it is common for emergency data to be isolated within various databases. Although adoption of electronic medical records may help address some aspects of information fragmentation, improvement of emergency care for low back pain have been hindered by a lack of timely access to and difficulties in analysing and interpreting routinely collected data.

Objectives

An online data analytics and visualisation tool was designed and developed to capture, store, analyse and visually present ED data of patients presenting with low back pain.

Methods

This project was conducted in collaboration with the Performance Monitoring, System Improvement & Innovation Unit of the Sydney Local Health District (SLHD). An online data analytics and visualisation tool was designed and created using Qlik Sense® by a multidisciplinary team of researchers, clinicians, and information technology experts.

Outcomes

The online data analytics and visualisation tool (STARS Back Pain App) was developed within the SLHD Targeted Activity & Reporting System (STARS). It displays the total number of presentations for low back pain at the three SLHD's EDs, as well as subsequent admissions to hospital. Data displayed in the app reflect ED practice for low back pain management, such as proportion of patients receiving: (i) laboratory tests, (ii) imaging, and (iii) pain medications. The app also displays demographics and characteristics of patients, including age, gender, days and hours presenting, mode of arrival, and emergency triage category. The app allows interactive analysis using innovative visualisation techniques.

Conclusions

The STARS Back Pain App will provide emergency clinicians with a summary of their clinical performance. It will also allow us to efficiently measure unwarranted clinical variation and drive practice change using an audit and feedback approach to avoid inappropriate use of tests and treatments for low back pain.



156. MiLife medical record organiser which helps reduce duplication of patients' medical health summaries, reports, results, scans and doctor visits

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1. Low value health care with relation to duplication of tests, time spent chasing reports, health resources spent on finding old results and scans is a big issue needing addressing.
2. We created a phone app called "MiLife" to address this issue.
3. This app safely, securely and efficiently, saves and retrieves medical records via the patient taking images of scans, reports, results, tests, and doctor health summaries. The records are quickly, easily and securely accessible within the app based on date, location, doctor, type of record and can be easily sent by SMS or printed by the doctor or patient. This saves time and health resources on low value health care by reducing duplication of tests, reduces time wasted on chasing reports, results and scans and doctors. It also improves safety and health outcomes by avoiding medical omissions in medical history taking and improves patient health safety in reducing duplication, omissions and complications resulting from patients not having access to health summaries or previous blood results.



157. Promoting the Choosing Wisely recommendations to physiotherapists through social media

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The idea

Healthcare professionals believe social media plays an important role in disseminating research, with evidence-based messages on social media influencing practice. A social media campaign is free and can reach a large audience; making it a potentially effective platform for increasing awareness of Choosing Wisely (CW) recommendations and reducing low-value care.

Objective

To develop and evaluate the effectiveness of a social media campaign for: (i) increasing physiotherapists' awareness, understanding, and intention to follow their Association's CW recommendations; and (ii) reducing physiotherapist referrals for lumbar spine and ankle/foot imaging.

Design: Interrupted time-series with concurrent control.

Sample: Physiotherapists Australia-wide.

Intervention

Information/resources about the six Australian Physiotherapy Association (APA) CW recommendations will be posted on social media and emailed to physiotherapist members of the APA (recommendations campaigned sequentially). Physiotherapy opinion leaders will also endorse the recommendations on social media.

Data collection

Before and after each campaign, two independent samples of 100 APA physiotherapists will be emailed a link to complete an online survey to indicate their awareness, understanding, and intention to follow the campaigned recommendation. Medicare Benefits Schedule data on the number of lumbar spine and ankle/foot imaging referrals from physiotherapists will be obtained before and after the campaign on imaging recommendations (at least 5 data-points before and after). Imaging requests from chiropractors will be the concurrent control. Social media metrics, email metrics, and Google Analytics will track the reach of each campaign.

Analysis

Descriptive statistics and an independent samples t-test will quantify changes in physiotherapists' awareness, understanding, and intention to follow the APA CW recommendations and the number of imaging referrals before and after the campaign.

Outcome

Identifying strategies to increase adoption of CW recommendations and reduce low-value physiotherapy care will have major implications for optimizing the delivery of physiotherapy services and for reducing low-value care in other health disciplines.



158. Exploring the wording of Choosing Wisely recommendations

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The issue

Choosing Wisely recommendations are intended to reduce low-value care by facilitating open patient-therapist communication. However, the wording of these recommendations could either support or prevent adoption. For example, recommendations 'to avoid low-value care' could threaten clinicians and prevent adoption, while recommendations 'to replace low-value care with high-value care' could do the opposite. Globally, over 500 Choosing Wisely recommendations are published across numerous health disciplines, but no one has investigated how the wording of these recommendations could facilitate adoption.

Objective

Explore how changing the wording of the Australian Physiotherapy Association Choosing Wisely recommendations influences physiotherapist's agreement and willingness to follow them.

Design: Discrete choice experiment via online survey.

Sample

To have 400 physiotherapist members of the Australian Physiotherapy Association complete an online survey, previous reports suggest we need to email a random sample of ~800.

Data collection

The initial six Australian Physiotherapy Association Choosing Wisely recommendations will be re-worded in twelve ways according to the following attributes: (i) negative or positive action (2 levels: "don't do...unless..." vs. "do...when..."); (ii) solution (3 levels: high-value care alternative (1) not provided, (2) mentioned first or (3) mentioned last); and (iii) directness of recommendation (2 levels: "don't" or "do" vs. "consider avoiding" or "consider"). Participants will sequentially evaluate 18 randomly selected pairwise comparisons (3 per recommendation) and indicate the recommendations they would be most willing to follow.

Analysis

Recommendations will be displayed through a secure electronic data collection tool (REDCap). Descriptive statistics will identify recommendations clinicians were most willing to follow. Mixed logit models (using Nlogit software) will identify attribute levels important for increasing adoption and the probability a clinician will adopt a recommendation.

Outcome

Understanding how the wording of these recommendations influences the de-adoption of low-value physiotherapy care will have major implications for the 100+ professional societies globally with Choosing Wisely lists.