4

# The effects of a decision aid on intentions to undergo shoulder surgery

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Background: Subacromial decompression surgery and rotator cuff repair surgery are often used to treat shoulder pain but evidence suggests these surgeries provide limited clinical benefit and may cause harm.
Purpose: To evaluate whether a patient decision aid for people considering shoulder surgery influences treatment intention, knowledge, attitudes, informed choice and decisional conflict, and whether the display of options in the decision aid influences these outcomes.
Design: Online randomised controlled trial.
Methods: Participants (n=425) with non-traumatic shoulder pain considering shoulder surgery were recruited online and randomised to i) a co-designed patient decision aid outlining the benefits and harms of shoulder surgery and non-surgical options (participants were further randomised to two versions of the decision aid: options side-by-side vs. top-and-bottom); and ii) information about shoulder pain from the National Health Service. Treatment intention (continuous and dichotomous) was the primary outcome. Secondary outcomes included knowledge, attitudes towards surgery, informed choice, and decisional conflict. Multivariate linear and logistic regression models were used to evaluate between-groups differences in outcomes.
Results: 409 participants (96%) had post-intervention data. Mean age was 41.3 years and 44.2% were female. There was no between-group difference in post-intervention treatment intention (mean difference -0.2 out of 100, 95% CI: -3.3 to 2.8) and percentage intending to have shoulder surgery (odds ratio 0.7, 95% CI: 0.3 to 1.5). The decision aid slightly improved knowledge compared to the control (mean difference 4.4 out of 100, 95% CI: 0.2 to 8.6), but not any other secondary outcomes. The display of options did not influence any outcome.
Limitations: Participants, at baseline, may have been already committed to surgery.
Conclusions: In this online trial, a co-designed patient decision aid had no effect on treatment intention, attitudes, informed choice, and decisional conflict, but a small effect on improving knowledge.

5

# The value of lived experience and first-hand consumer input to shape policy

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Painaustralia's Consumer Advisory Group (CAG) has become one of its most valuable assets providing feedback and insights on the challenges of living with pain to all levels of governments, academic partners and our broader network, while at the same time helping to educate and raise awareness of the escalating public health issue of chronic pain.

Painaustralia is the national peak body working to improve the quality of life of the 3.4 million people living with pain and to minimise the social and economic cost of pain.

Established in 2019, the CAG has since expanded and now consists of 18 people with a mix of gender and ages who live with chronic pain through a range of different conditions and are from all states and territories.

Since its formation the CAG has provided feedback to governments and research partners on issues including Real Time Prescription Monitoring programs, guidelines for the management of inflammatory arthritis, research proposals to improve care for low back pain and the Australian Government's consumer opioid campaign.

For many members, the CAG has been the first time to participate in a committee or have the opportunity to use their lived experience to influence and shape chronic pain policy, design, implementation and evaluation.

Now more than ever, as we face the impacts of the Covid-19 pandemic including long-Covid, the challenges for the millions of Australians living with chronic pain are amplified.

The annual cost of chronic pain will rise from $144.1 billion in 2020 to an estimated $215.6 billion in Australia by 2050, impacting 5.2 million Australians. Yet chronic pain is rarely mentioned let alone addressed in national health frameworks or health plans.

Working with the CAG, Painaustralia aims to change this narrative while at the same time improve multidisciplinary care and support for people living with chronic pain.

6

# Syncope - falling for over-imaging

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Background:
A common presentation that often results in unnecessary and low yield imaging, is syncope. Syncope is a transient loss of consciousness due to cerebral hypoperfusion that has rapid spontaneous recovery. It accounts for 1-3% of Emergency Department presentations. Syncope can have multiple causes, but brain structural abnormalities are exceedingly rare. Despite this, many patients continue to undergo various neuroimaging investigations after syncope, even in the absence of neurological features on history or examination. European and North American clinical guidelines advise against the use of neuroimaging for uncomplicated syncope.

Methods:
An audit was performed at an Australian tertiary hospital over a one month period to compare current practices of neuroimaging for syncope against clinical guidelines. Medical and imaging records were reviewed to determine what type of imaging was performed, the indication and any pertinent findings. Neuroimaging was considered indicated according to current guidelines, if there was head injury or focal neurological deficits. Conversely, neuroimaging for uncomplicated syncope in the absence of any of these features was considered not indicated.

Findings and implications:
The total number of patients that presented with syncope in this one month period was 116. A large portion of the patient sample underwent neuroimaging; 38% non-contrast CT head, 2% CT angiography, 3% carotid Doppler ultrasound and 2% MRI head. According to clinical guidelines, a significant portion; 34% of the CT heads, 50% of the CT angiograms, 100% of the carotid Doppler ultrasounds and 50% of the MRI heads were not indicated. None of the studies that were considered non-indicated had any significant findings, therefore were of no benefit. These investigations often expose patients to ionizing radiation, potential overdiagnosis, incur financial cost, contribute to staff workload and can delay other patient's investigations. This highlights the need for Australian specific guidelines and further education initiatives.

7

# Paediatric telehealth -lessons learnt on sustainable practice beyond the pandemic

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The Covid-19 pandemic forced a transition from face-to-face outpatient visits to teleconsultation. At the peak, 70% of RCH consultations were via telehealth. This required a rapid transition for both consumers and clinicians with limited time to develop and deliver appropriate training.

As the pressure from the pandemic lessens, what will the ongoing role of telehealth at RCH be? The benefits for all patients, not just those living rurally, cannot be under-estimated. Telehealth enables healthcare to be bought to the patient wherever they are, meaning less time off school and work, less travel and parking costs and less family disruption. We have heard loudly and clearly from our consumers that they want choice. Consumers want telehealth to remain an option when it is appropriate and safe. This mandates clinicians to embed telehealth within our routine practices and ensure it remains part of ongoing care delivery.

To support clinicians in delivering best practice care via telehealth, we developed a telehealth guide for RCH clinicians. This abstract highlights the key lessons and practice points, specifically:

1. Expectation setting – both clinicians and consumers
2. Translating in person engagement strategies to on-screen
3. Working with interpreters
4. Addressing technical difficulties
5. Re-considering ‘best practice’ and traditional clinical care

In addition, we discuss ongoing barriers to telehealth provision including e-scripts, pathology integration and technological barriers.

8

# Antipsychotic prescribing in people admitted to hospital with dementia or delirium

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Background
The Royal Commission into aged care quality and safety highlighted the inappropriate use of antipsychotics in Residential Aged Care Facilities (RACF). Emerging evidence has suggested that hospitals may be contributing to this problem, as people may receive antipsychotics for the first time here before moving to RACFs. However, there is limited data on antipsychotic prescribing in people who present to Australian hospitals with dementia or delirium, or investigation of non-pharmacological strategies employed before and during antipsychotic use.

Objectives/Method
To evaluate antipsychotic prescribing in people with dementia or delirium admitted to a large regional hospital in Queensland. A retrospective observational study analysing medical records of patients prescribed antipsychotics over 6-months.

Evaluation
We audited a sample of 141 patients, 65 years or over (over 45 years for ATSIG peoples) with dementia or delirium, without severe mental illness, prescribed antipsychotics. Over a third (35%) were prescribed antipsychotics prior to admission; with 73% prescribed a new antipsychotic in hospital. Only 23% received documented review of antipsychotic therapy. Under half (48%) had evidence of non-pharmacological interventions as first-line management. Sixty-eight patients (48%) discharged with antipsychotics; however, only 4% were provided an antipsychotic management plan.

Initiation and continuation of antipsychotics in patients with dementia or delirium in hospital is common, with infrequent review. There is significant potential to reduce prescribing of antipsychotics in people admitted to hospital with dementia or delirium.

9

# The Virtual Bedside: Catalysing digital models of care for rural hospitals

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Background
The COVID-19 pandemic has accelerated the widespread adoption of telehealth services to enable medical care that follows social distancing requirements and reduces the risk of transmission. Telehealth has long been implemented within our rural services to overcome the tyranny of distance. However, with the pandemic restrictions to work from home, we reflected on our traditional inpatient service to expand the medication chart review and include the patient.

Objective/Method
To assess and expand the role of the pharmacist telehealth service provided to rural hospital sites.Traditional telehealth clinical workflows of the rural pharmacists were mapped which included remote medication chart review and collaboration in multidisciplinary team (MDT) meetings. A multidisciplinary virtual bedside consultation service delivered via a mobile videoconferencing system using Queensland Health Telehealth Portal was implemented. In this model, two or three healthcare workers are physically present on the ward while the pharmacist joins remotely via telehealth software from home.

Evaluation
The redesigned model of care uses technology to leverage the multidisciplinary expertise and knowledge at the bedside. This approach creates a digital replica of traditional ward rounds. The ward round now consists of a wireless, mobile video-conferencing unit using the Queensland Health Telehealth Portal being wheeled to the patient's bedside. Following the virtual ward round, a case conference is held with the multidisciplinary team via the video link.

To our knowledge, the model of service delivery described here is unique to our rural facilities. The long-term sustainability of virtual bedside ward rounds at rural hospitals relies on a solid telehealth infrastructure, developing a skilled workforce, increase digital literacy skills and integrating telehealth into daily clinical workflows.

10

# Electronic medication thermostability database for temperature excursions

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Background:
Cold chain breaches occur when medication refrigerator temperatures are outside the recommended range of 2-8°C for 15 minutes or more. Following these temperature excursions, pharmacists source medication thermostability information to determine whether the products are viable for patient administration. Access to a reliable thermostability database following temperature excursions may allow affected medications to be salvaged resulting in cost savings.

Objective/Method
To create an electronic database with comprehensive thermostability data for refrigerated medications.

219 refrigerated medications stocked at large regional hospital pharmacy department in Queensland were investigated. An online database was created with fields for medication, strength, manufacturer recommended storage temperature, pharmaceutical company details and extended thermostability data. A thorough literature search was conducted. Pharmaceutical companies were contacted via phone and email using a standardised template with temperature and time categories; 1 hour at less than 10 degrees, 8 hours at less than 20 degrees, 12 hours at less than 25 degrees, and expiry date implications.

Evaluation:
Of the 35 pharmaceutical companies contacted, only 9 (response rate 26%) provided extended thermostability data for 6% (13/219) of medications. Pharmaceutical companies raised concerns of breaching product licensing conditions and potential for outdated information being stored within a database. Majority of pharmaceutical companies were only prepared to provide verbal in-house stability data on a case-by-case basis.

Temperature excursions outside of 2-8°C occur across Australian hospitals, highlighting the need for more readily available thermostability data to reduce potential wastage and increase cost savings as a direct result of product retention. There is opportunity for hospitals to collaborate to create a secure, reliable, shared database of extended medication thermostability data. Further considerations to collaboration include governance, risk implications to the organisation and ensuring contemporary product information.

11

# Choosing Wisely in the Pharmacy for Health and the Environment

Wong G[1]
[1]*Western Health*

Health care contributes 7% to Australia's total carbon emissions footprint; public hospitals and pharmaceuticals being the main contributors (1). There is limited published literature documenting activism and interventions made by hospital pharmacy departments to reduce their environmental footprint in Australia and internationally. This presentation will describe the work undertaken to initiate and maintain an environmental sustainability program in a large Australian metropolitan health service pharmacy department.

Since 2016, our Pharmacy Department has been on a journey to green our activities and processes. Using Human Centred Design principles, initial focus areas were identified by staff members. The Department's senior management assessed suggested focus areas using SMART goal principles. A final 21 initiatives were committed into a Local Sustainability Action Plan.

Between 2016 to 2021, the Department scoped, initiated and trialled 36 environmental sustainability initiatives. Initiatives were underpinned by reduce, reuse and recycle principles and Choosing Wisely's philosophy of using resources judiciously. The Riskman Quality Register was used to keep initiatives accountable and transparent. Many of these initiatives now continue as part of routine workflows and processes. The journey of greening the pharmacy has challenged the way staff think about health care delivery, what is truly needed and what practices can be amended. It has embedded environmental activism into our Department's ethos and future decision making. Our intention is to share work done so far to inspire other hospital pharmacy departments to commit to environmental sustainability action. Making choices that support a sustainable health system encourages a healthy environment to live and thrive in for generations to come.

(1)Malik, A., M. Lenzen, S. McAlister, F McGain. The carbon footprint of Australian health care. Lancet Planet Health 2018 2:327-35

12

# Adverse Medicines Event Line partnering with consumers in reporting COVID-19 vaccines AE.

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BACKGROUND:
The Adverse Medicines Event (AME) Line is a telephone service through which consumers can seek information about or report an adverse event (AE). Reports are submitted to the Therapeutic Goods Administration (TGA) for analysis and contribute to national pharmacovigilance. The pharmacists on the AME Line are uniquely placed to interact with consumers to help them identify AEs and provide them with evidence-based recommendations and guidance.
The COVID-19 pandemic resulted in the rapid development of COVID-19 vaccines. In February 2021 the AME Line increased its service capacity to operate extended hours 7 days a week, to provide consumers with an avenue for reporting and discussing adverse experiences with COVID-19 vaccines.
OBJECTIVES:
Consumer reports of COVID-19 vaccines AE made to the AME Line from February 2021 to January 2022 were analysed.
FINDINGS:
A total of 10,396 COVID-19 Vaccine AE reports were made to the TGA via the AME Line.
Headache was the most reported AE (32.4% of reports), followed by fatigue/lethargy (26.3%), injection site reactions (22.52%), nausea and vomiting (19.4%), myalgia (13.9%), fever (11.4%) and chest pains (11.1%).
IMPLICATIONS:
AME Line pharmacists partnering with consumers can help them to understand the need to balance risk (possible AE) against the benefit of a medicine (improved health outcomes). This can lead to appropriate referrals to GPs and Emergency Departments as the pharmacists can assess common, mild and uncomplicated COVID-19 vaccine related AEs over the phone and refer patients to a health professional when indicated.
Reports made by consumers to the AME Line have played a significant role in early detection of common and serious AEs. AME line reports submitted to the TGA contributed to an update to the Consumer Medicine Information (CMI) and Product Information (PI) for COVID-19 vaccines to include vomiting, nausea and paraesthesia as possible adverse effects.

13

# Caring for People and Planet by Choosing Wisely at Mercy Health

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Background: Mercy Health's Caring for People and Planet strategy is a comprehensive approach to climate change and social justice action. The ambitious strategy focuses on Sustainable Models of Care, Climate Change and Ethical & Social Responsibility. In its first year, a dedicated Caring for People and Planet team will assist with the rollout of the strategy. A Choosing Wisely Sustainability Officer has been appointed. This role will engage with clinicians across Mercy Health's Health Services, and embed Choosing Wisely as usual business.

Objectives & Methods: A devolved approach to localised implementation in each area of Mercy Health will cascade staff engagement and local ownership throughout the organisation. Each person at Mercy Health has a role in decarbonisation at work. Clinicians will be empowered to nominate Choosing Wisely initiatives for environmental sustainability.

A structured approach to change management via Plan-Do-Study-Act methodology will be supported. Triple bottom line measurement of sustainable value will be developed, and applied to Choosing Wisely initiatives.

Work so far:

- Development of Local Area Sustainability Plans for operational areas
- Clinical areas are also developing Local Area Choosing Wisely Plans, with assistance from the Choosing Wisely Sustainability Officer. Guidance (including research methods advice) will be provided by Mercy Health's long standing Choosing Wisely Committee
- Sustainable Models of Care are being developed across the organisation, and include consideration of less duplication, less waste, least intensive care settings and modifications to current protocols addressing Choosing Wisely opportunities
- At the conclusion of 2022, Mercy Health will evaluate, celebrate and communicate our climate mitigation successes, including those facilitated via investment in a Choosing Wisely Sustainability Officer. The model will be a case study for other health services to investing in resource to embed Choosing Wisely as a key response to the climate emergency.

14

# Lessons learned from the pandemic: towards better care and environmental outcomes.

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[1]*Mercy Hospital for Women (MHW)*

Background:
Prior to the COVID 19 pandemic, staff in the ED at MHW had been concerned that possibly 20% of ED presentations could be better managed in the community. Long waits for women presenting to ED was another ongoing issue. Staff had accepted these problems as inherent to an ED and difficult to change.

The pandemic changed this. Patients with unnecessarily presentations to an ED or having long waits, were now at risk of catching coronavirus and passing it on to others.

Nationally, Item numbers for tele-health were rapidly approved and MHW responded with a tele-health platform. COVID 19 gave us an urgent constraint to address these issues in our care.

In conjunction with a COVID 'wake-up' in our thinking, the MHW new Caring for People and Planet (CPP) Strategy meant that we could apply the specific lenses in the strategy's goals to think what might be possible to better care for women, reduce costs, be more environmentally sustainable and actively help to reduce our carbon footprint.

Objectives:
To problem solve these issues in the short term to reduce the risk of transmission of COVID.
To develop an approach to better deal with unnecessary presentations/low value care/long waiting times.
To devise a broader set of 'choosing wisely' actions for the CPP Strategy's three goals.

Work so far:
An ED CPP Action Plan focussing on better care with better environmental outcomes and reduced costs.
Two new Sustainability Officers who are extending choosing wisely thinking to the areas of energy usage, waste management and models of care.
New governance structures in sustainability and a new ED Green Team.
Education and an improved website is being developed for GPs and patients.
Phone advice for GPs is being considered.
Mercy ED is part of the state group developing a virtual ED model.

15

# Handling Teratogenic and Hazardous Medications

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Background: Patients with enteral tubes or swallowing difficulties may require oral medications to be modified (crushed or dispersed) prior to administration. Quite a large number of nursing staff at Logan Hospital are of childbearing age and the crushing/dispersing of these oral medications can be detrimental if they are teratogenic or harzardous.
Project aims:
1.Retrospectively audit the number of patients at Logan Hospital who received crushed/dispersed teratogenic and hazardous medications in 2020 on general wards of the hospital.
2. Identifying teratogenic and hazardous medications and the warning recommendations stated if pregnant through MIMs 'Don't Rush to Crush' guide.
3.Develop a wall chart poster and work instruction to educate and implement standard safety precautions when staff require handling teratogenic medications
Methods:
1.Completed a list of teratogenic and hazardous medications.
3.After the lists were established, data was collected on crushed and dispersed medications by accessing pharmacist's interventions on the general wards. From the interventions, patients' URN numbers and date of births were used to search for their hospital admissions using the Integrated electronic medical record (ieMR). Patients who received crushed or dispersed medicines were identified using keyword searches 'NGT, PEG, crush, swallow, enteral', that were included in pharmacist's interventions.
4.Scanned and checked the medicines that were administered for each patient during this period to check if they were teratogenic or hazardous, using the medication lists.
5.Detected that a medicine was to be teratogenic or hazardous from each patient's data, was collected and stored as data. After data collection process was completed, the results were analysed.
Outcomes: from the quality use of medicines (QUM) project and research, we were able to develop and publish a work instruction and poster for Logan and Beaudesert Hospitals on the appropriate handing of teratogenic and hazardous medications, applicable to all nursing, midwifery and pharmacy staff.

16

# Patient reported outcomes from Serum Eye Drops (SED) Australian Red Cross Lifeblood

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Background: Australia Red Cross Lifeblood manufactures eyedrops for some patients with severe dry eye disease. Serum eye drops initially were manufactured from autologous whole blood donations donated by the patients. There are numerous challenges with collecting from the patient directly, including poor venous access, low hemoglobin levels, poor mobility and requirement for medically supervised hospital collection.

Recently the option of using serum from allogeneic donors to manufacture eyedrops has become more readily available under compassionate approval. However, detailed data on outcome measures had not been obtained:

Objective: This study partners with patients collecting outcome measures to quantify the size of the treatment effect on dry eye symptoms

A minimum of 120 serum eye drops patients, receiving autologous or allogenic products, identified using a standard protocol will be invited to answer an online questionnaire asking about their current health, their eye symptoms and treatment outcomes. Patients will be followed up at 3 and 6 months for new patients.

Progress and plans: To date 32 autologous patients have consented to be involved in the study

The size of the symptomatic treatment effect of serum eye drops will be quantified in conjunction with qualitative patient experience, allowing comparison between autologous and allogeneic serum eye drops. It is expected that this information can be used by patients to understand the likely impact of this therapy and this data can inform the choice of medical or serum eye drop treatments vs other approaches,- i.e. surgery.

The patients being treated will also provide feedback on the supply process for eyedrops to inform patient relevant process improvements. Lifeblood is looking to assist patients to choose their treatments wisely and choosing process improvements more wisely to help Australian patients.

17

# SurgFit: High-Value Personalised Surgical Care for Improved Health Outcomes and Environmental Sustainability

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Surgfit is a care pathway to engage, educate, and empower patients throughout their surgical journey, while improving workflow efficiency, prioritising high-value care, optimising outcomes, and minimising wastage. In supporting lifestyle behaviour optimisation and patient self-determination, following lean principles, and utilising low-carbon care alternatives, Surgfit also demonstrates the synergies of Choosing Wisely with environmentally sustainable healthcare.

SurgFit aims to improve;
health literacy.
long-term quality of life and wellbeing.
self-management, shared decision making, and open communication.
surgical pathway efficiency, including reduced cancellations and non-attendance (theatre, outpatient clinics).
patient experience.
variations in care, including reduced complications, length of hospital stay, and mortality.

Through a digital 'My Surgical Journey Diary' (Diary) and resources on the LifeFit-SurgFit website, Surgfit supports patients to improve health and wellbeing behaviours. Encouraging patient ownership of their surgical journey, SurgFit also supports patients in discussions around care, including utilisation of the Choosing Wisely questions.

Individualised remote education and the 'Ready for Surgery Tracker application' optimise workflow and reduces wastage. Digital technology reduce printed /mailed resources and remote solutions decrease the need for patient transportation. Further, in both recognising a patient's readiness for surgery and pre-surgical optimisation, Surgfit decreased cancellations, variations in care, and surgical complications.

Pilot cohort results:
94% received pre-surgical tailored education.
psychological preparation for surgery reported on average > 9/10.
86% confirmed the Diary was useful.
the prehab package was associated with a 19% reduction in hospital acquired complications.
successful remote patient completion of a preoperative health survey.

Lessons:
Diary completion is time-consuming for all, but results in personalised healthcare with improved satisfaction and outcomes.
SurgFit follows low-carbon care principles, but standardised calculation methods to measure the impact is required for true calculation.

Outcome:
Surgfit shows promise as an intervention to enhance patient long term well-being, promote high-value healthcare with better patient outcomes, and follows low-carbon healthcare principles.

18

# "The good, the bad and 'what the heck?'"

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[1]*Consumers Health Forum of Australia*

When you give health consumers the opportunity to talk about the issues they face, their wealth of experience can drive fantastic solutions and their contributions can be overwhelming.

A recent roundtable was facilitated by the Consumers Health Forum, their Rural & Remote Special Interest Group and the National Rural Health Alliance.

At the meeting, rural, regional, and remote health consumers spoke about the problems they encounter across six areas that they identified: allied health, dentistry, digital health, mental health, obstetrics and specialists.

But they also came armed with the solutions to those problems.
One of the gaps that was mentioned across all topics was the need for help to navigate the maze that is the Australian health system.

The suggestion was to develop a role specifically for health service coordination, to help individuals navigate the health service, whether in hospitals, specialists, or with GPs and medicines.

A big part of health service navigation for rural, regional and remote people involves travel and planning. A health service coordinator could not only discuss options and provide information about logistical support, but could also have conversations with consumers about procedures, risks, options and costs that may be forgotten or go unanswered in the doctor's surgery.

Would the role be a sustainable solution? We believe it would. It would also be achievable, practical, realistic and it's a consumer-driven solution that fills a need. This was just one of many ideas that demonstrated how consumers can drive the way forward.
They identified real issues and provided real solutions.

Consumers Health Forum Quality Use of Medicines Lead Dr Penelope Bergen, and facilitator of the CHF Rural & Remote Special Interest Group, Linda Beaver, discuss a consumer engagement success story of solutions to health system problems, directly from those sitting in the waiting rooms.

19

# The lack of validity of ultrasound in the investigation of shoulder instability

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Background. The New Zealand Orthopaedic Association (NZOA) and the Accident Compensation Corporation (ACC) are working together to provide useful and valid statements. This paper tests the validity of our proposed statement "Using ultrasound as a screening test for shoulder instability is inappropriate in people under 30 years of age, unless there is clinical suspicion of a rotator cuff tear". This unique collaboration between clinicians and the ACC provides real life examination of current practice, validity and costs.
Method. A retrospective chart review from a specialist shoulder surgeon's practice over a two-year period recorded 124 patients under the age of 30, referred with shoulder instability. 41 of these had already had ultrasound scans preformed prior to specialist review. The scan results and patient files were reviewed to determine the reported findings on the scans and whether these findings were clinically relevant to diagnosis and decision making. Comparison was made with subsequent MRI scan results. Data was obtained from the ACC recording the number of cases and costs incurred for ultrasound scans of the shoulder, in patients under 30 years old, over a 10-year period.
Results. There were no cases where the ultrasound scan was considered useful in decision making. No patient had a full thickness rotator cuff tear. 39 of the 41 patients subsequently had MRI scans. The cost to the ACC for funding ultrasound scans in patients under 30 has increased over the last decade and in 2020/2021 financial year exceeded one million dollars. In addition, patients pay a surcharge for this test.
Conclusion. The proposed Choosing Wisely statement is valid. This unnecessary investigation also incurs costs to the insurer (ACC) and the patient. We recommend x-rays and, if further imaging is indicated, high tech imaging with MRI and sometimes CT scans in these patients.

20

# The QUIT-CA (Questionable In-Training Clinical Activities) Index: associations of low-value care

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Background: Previous studies have found that general practitioners, including general practice registrars perform low-value clinical activities, e.g. inappropriate imaging for low back pain. This study examined multiple low-value clinical activities (selected from the Choosing Wisely recommendations) and their associations using data from the Registrar Clinical Encounters in Training (ReCEnT) study.
Objectives: To develop the QUIT-CA (Questionable In-Training Clinical Activities) index and establish factors associated with QUIT-CA score.
Approach: The QUIT-CA index was developed via expert panel review - determining GP-relevant Choosing Wisely recommendations measurable by ReCEnT data. The ReCEnT project documents in-consultation clinical and educational experiences of GP registrars in 60 consecutive encounters, three times throughout training. Includes data from five states and one territory from 2010-2020 inclusive.
QUIT-CA scores were calculated at the registrar-term level as the number of low-value activities the registrar performed throughout the term offset by the number of times a registrar was at risk of performing a low-value activity (e.g. low back pain presentations).
Negative binomial regression within the generalised estimating equation was used to establish the associations with QUIT-CA score.
Findings: The QUIT-CA index comprised 49 low-value activities.
15,565 QUIT-CAs were performed.
12 registrar, patient, practice and consultation variables were associated with QUIT-CA index.
Of particular interest, Term 2 and Term 3 registrars had a decrease in QUIT-CA scores of 9% and 15% respectively compared to Term 1 registrars (Adjusted incidence rate ratios 0.91, p-value 0.004 and 0.85 p-value <0.0001 respectively). Graduation year was also associated with QUIT-CA scores (Adjusted incidence rate ratio 0.97, p-value <0.0001), with each later year of graduation seeing a 3% decrease in QUIT-CA scores from the previous year.
Discussion: This study successfully created the QUIT-CA index and established numerous factors associated with it. We found that registrars further through their training were less likely to perform low-value clinical activities.

21

# Imaging patterns in general practice for musculoskeletal conditions: A longitudinal database study

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Background: Imaging is not routinely recommended for musculoskeletal complaints.
Objective: To examine imaging requested by GPs for people with low back, neck, shoulder and knee complaints over a five-year period (2014-2018).
Methods: A longitudinal analysis from the POpulation Level Analysis Reporting (POLAR) database in Victoria, Australia. Patients with a face-to-face GP consultation and a diagnosis of atraumatic low back (≥ 18 years), and/or neck, shoulder and/or knee complaints (≥ 45 years) were included. Eligible imaging included X-ray, CT and MRI scans of the lumbar and cervical spine; X-ray, CT, MRI and ultrasounds of the knee; and X-ray, MRI and ultrasounds of the shoulder. We examined number (%) of patients with imaging requested within one year of diagnosis and longitudinal changes over five years by modality and body region.
Results: For patients with low back complaints, 26% (19,631/75,505) had at least one imaging request within one year of diagnosis, predominantly CT scans (n=10,854). For neck complaints, 34% (4,888/14,492) had an imaging request, most commonly X-rays (n=1,923) and/or MRI scans (n=2,012). For shoulder complaints, 53% (13,864/26,335) had an imaging request, most commonly ultrasound (n=10,898) and/or an X-rays (n=7,787). For knee complaints, 43% (14,444/33,438) had an imaging request, predominantly X-rays (n=10,258). There was a 3.0% annual increase (95% CI 2.1 to 3.9) in proportion of cervical MRI and a 3.1% (95% CI -4.0 to -2.2) annual decrease in CT requests. There was a 1.3% annual increase (95% CI 1.0 to 1.6) in lumbar MRI and a 1.3% (95% CI -1.8 to -0.8) annual decrease in CT requests.
Conclusion: GPs commonly request imaging for people with musculoskeletal complaints. A trend towards more sensitive imaging requests for neck and back complaints over time was observed. These data are likely to indicate unnecessary testing for many people. Identification of strategies to reduce unnecessary imaging are needed.

22

# Patient participation in surgical wound care decisions in hospital

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Internationally, up to 25% of surgical patients develop complications within 14 days of hospital discharge, with surgical site infection (SSI) being one of the most common yet avoidable complications. SSI is a major source of morbidity for surgical patients. In the field of wound management, Choosing Wisely initiatives have started emerging to address low-value care and practices based on uncertain or low-quality evidence. Patient-centred care is a high priority for hospitals, and advocates suggest patient participation is central to Choosing Wisely campaigns and can also enhance patients' ability to better manage their surgical wounds once home. It is currently unknown how patients are participating in surgical wound care conversations in hospital.

This study aims to:

Describe surgical patient participation in wound care decisions in-hospital

Measure the relationship between patient participation in wound care decisions and their perceived ability to manage wound care at home.

Across two hospitals, 270 patients completed a telephone survey 2-weeks after discharge. Descriptive and non-parametric bivariate statistics were used for analysis.

Most patients stated they had the opportunity to ask questions about how to care for their surgical wound (83.0%, n=224) and discussed wound pain management options (84.4%, n=227) prior to hospital discharge. Fewer patients perceived they discussed wound care treatment options (61.3%, n=165) and fewer still shared in wound care related decision-making (40.1%, n=107). There was a positive association between shared decision-making in wound care and patients' perceived ability to manage their wound at home (p = 0.0001).

Choosing Wisely campaigns could focus on augmenting shared decision-making for surgical wound care. This ensures frank discussions about the most appropriate practices and may also enhance patients' self-management practices aimed at reducing SSIs.

23

# Haemochromatosis Australia: a consumer-led initiative supporting health literacy in people with iron-overload

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Collectively, the voices of those with lived patient experience have much to offer when considering how to optimise health services. Like many medical condition support groups, Haemochromatosis Australia (HA) is fully led and managed by a team of dedicated volunteer health consumers, with the support of expert Medical Advisors. For over thirty years, the organisation has provided support, education and advocacy. In doing so, HA strives to improve the patient experience, improve health outcomes and increase both individual and environmental health literacy.

The Choosing Wisely '5 Questions' can play an invaluable role in increasing consumer health literacy by encouraging the health consumer to ask important open-ended questions. This provides an opportunity for patient-specific dialogue and sharing of relevant information to improve a patient's understanding of their personal situation, ultimately leading to appropriate shared decision-making and better self-management practices.

Seeking to improve both individual and environmental health literacy on the topic of iron overload disorders, HA has strengthened relationships with various groups including Lifeblood, Primary Health Networks, Australian Primary Health Care Nurses Association, Think GP, Arthritis Australia and others. It has increased its range of co-branded educational resources for health professionals and provides trusted information for health consumers through www.ha.org.au.

The patient experience could be further improved through future research addressing the following questions: How well does a health consumer understand the implications of genetic testing results for them as an individual? Is there unwarranted geographical variation in rates of genetic testing and venesections due to differential individual and environmental health literacy? Unexplored potential exists to reduce low value care and improve patient experience for those Australians with inherited iron overload disorders.

24

# Effectiveness of Telehealth reviews of non-urgent orthopaedic patients during the COVID-19 pandemic

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During the peak stages of the COVID-19 restrictions, the orthopaedics department at Rockhampton Hospital undertook phone reviews of our non-urgent, clinic follow-up patients. These were mainly patients who had already been seen in the hospital or clinic and were due for their progress follow-ups. The aim was to reduce the numbers of people coming into hospital for physical reviews to clinics.

- research questions-

Did patients find the new phone telehealth reviews to be satisfactory?
Were phone consults effective in reducing need for physical follow-ups?
Is there a sub-group of patients who can have routine phone consult follow-ups from now on?

We hypothesized that most patient would prefer TH consults for their follow-up reviews and certain patient sub-groups will benefit from routine TH follow-ups.

A list of orthopaedic patients, who received a consultant led telephone call for follow-up form April-October 2020 was generated and randomized. From the 525 patients in this list, the first 100 were surveyed and underwent a retrospective chart review.

The collated data was categorized according to age, follow-up time, type of illness reviewed, distance from Rockhampton hospital. A statistical regression analysis will now be performed to identify potential correlations of the different factors with patient satisfaction- aiming to identify a subset of patients who will benefit from routine TH follow-up initially.
This is a novel study looking at follow-up in orthopaedic patients via telehealth in Australia.

The study may help the orthopaedics department better organize clinic resources and thereby save time, cost and reduce risk to patient and staff from COVID 19 or other future communicable diseases. The model may also be adopted to other out-patient departments and overall benefit patient care.

25

# Quality project to limit unnecessary preoperative pathology at Sunshine Coast University Hospital(SCUH)

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Background, Objectives & Methods:
Ordering routine preoperative pathology is recommended as one of five practices anaesthetists should avoid(1). To rationalise preoperative pathology performed at SCUH Pre-Anaesthesia Evaluation Unit (PAEU), a one-month retrospective audit was undertaken comparing preoperative pathology performed prior to elective surgeries in February 2021 to both local surgeon-specific guidelines and state-wide evidence-based guidelines(2). A one-month re-audit of patients having urological surgery was carried out after implementation of an updated protocol.

Findings & Implications:
Of 527 elective surgical patients reviewed, 41% had incorrect pathology ordered compared to state-wide evidence-based guidelines(2). Practice also deviated from local protocols in 45% of patients. The vast majority of cases were due to excessive pathology. By speciality, four departments over-ordered blood tests for more than 50% of their patients (Urology, Vascular Surgery, General Surgery and Gynaecology). Of note, 77% of urology patients received blood tests that were not required. After implementation of an updated protocol for Urology, the rate of over-ordering decreased from 77% to 31%, with no increase in surgical delays or cancellations.

The impact of these unnecessary tests extends beyond the dollar value, estimated to be $109,000 over a 12-month period. Other impacts include time lost by patients, the distress of blood collection and the workforce required to order, perform, and follow up pathology results. As a department with a strong sustainability focus, CO2 emissions generated from unnecessary blood tests is also an important consideration and driver for change(3).

To initiate change, formal education was provided to all stakeholders and an evidence based, mutually agreeable protocol was released and implemented. Ultimately, we aim to update all pathology protocols in the preoperative space, with an ongoing schedule for review, education, and support.

1. Choosing Wisely Australia, 2017. https://www.choosingwisely.org.au/recommendations/anzca1>
2. Queensland Health, 2013. https://clinicalexcellence.qld.gov.au/sites/default/files/2018-01/invest-guide.pdf
3. McAlister Et Al. Med J Aust. 2020 May; 21

27

# Collaborative program to optimise the use of biologics and other specialised medicines

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BACKGROUND:
Biological disease-modifying antirheumatic drugs (bDMARDs) are used to treat a range of autoimmune conditions including inflammatory arthritis, inflammatory bowel disease and psoriasis. An increasing number of these high-cost and highly specialised medicines are available on the PBS. The Value in Prescribing bDMARDs Program funded by the Australian Government aims to optimise bDMARD use, supporting PBS sustainability. The Targeted Therapies Alliance was formed to implement this program, recognising that partnership of consumers, clinicians and researchers results in better health program outcomes.

METHODS:
The program was developed and implemented in partnership across a consortium representing consumer and clinical audiences, and experts in program development and implementation. A collaborative model of clinicians partnering with consumer organisations was developed in rheumatology (Australian Rheumatology Association and Arthritis Australia), gastroenterology (Gastroenterological Society of Australia and Crohn's & Colitis Australia) and dermatology (the Australasian College of Dermatologists and Psoriasis Australia). Multidisciplinary input and engagement were applied throughout the entire program lifecycle with shared responsibilities and recognition of links to audiences. Consumers were engaged with clinicians on expert working groups and review panels early on, guiding the selection and scoping of a range of resources for patients and clinicians across the conditions. Feedback and advice from a wide range of consumers and clinicians were incorporated into the resources through co-design, user testing and representation on a stakeholder panel.

FINDINGS and IMPLICATIONS:
Early, authentic and integrated engagement with consumers in the design and development of resources has provided rich insights to better meet consumer needs. Consumers reflected upon the myths and misconceptions regarding methotrexate, as well as the importance of highlighting the lived experience of people through developing consumer videos. The consortium-based approach has provided a collaborative model for developing a multifaceted program, implementing and promoting resources, and addressing multiple perspectives to optimise bDMARDs use.

28

# Too much surveillance colonoscopy? Audit results at six Victorian public hospitals

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Background

Colonoscopies are important for timely detection and treatment of bowel cancer, Australia's third most common cancer. Patients considered at increased risk of bowel cancer should return for a repeat (surveillance) colonoscopy at intervals consistent with the latest Australian NHMRC-endorsed guidelines and Choosing Wisely Australia recommendations. However, multiple barriers to guideline adherence exist, including the complexity of the guidelines. Research investigating concordance of surveillance colonoscopy intervals with earlier national guidelines shows adherence is suboptimal and unnecessary procedures are common. To our knowledge no assessment of concordance of surveillance colonoscopy interval recommendations against the latest guidelines has been conducted.

Aim

To assess the concordance between surveillance colonoscopy interval recommendations at six Victorian public hospitals and the 2018 Australian NHMRC-endorsed guidelines.

Methods

We audited a minimum of 40 consecutive surveillance colonoscopy interval recommendations at six Victorian public hospitals (4 rural/regional; 2 metropolitan) in 2021 and compared these against the 2018 guidelines. Nurses at each hospital audited colonoscopy reports, histopathology results and other relevant patient data for each colonoscopy episode and compared the endoscopist's interval recommendation to the guidelines (regarded as the gold standard) using an online audit tool.

Results

Of 195 surveillance colonoscopy cases audited with complete data, 73% (n=143) had a surveillance colonoscopy interval recommendation that was not consistent with guidelines. Of these, 69% (n=99) of recommended intervals were too early; 22% (n=31) were not indicated according to the guidelines; and 9% (n=13) were too late.

Conclusion

Our findings suggest a targeted implementation strategy is needed to improve appropriate, evidence-based and timely surveillance colonoscopy.

29

# Can modifications to imaging reporting improve quality of care? A systematic review

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Background: Inappropriate or unnecessary imaging is common in many areas of healthcare and can lead to patient harm through overdiagnosis and subsequent overtreatment. Attempts to reduce unnecessary imaging to date have had limited success. A promising alternative may be to modify the radiology report to guide high quality care, however the efficacy of this practice is unknown.
Aim: Synthesise available evidence about the effects of modifications to diagnostic imaging reports that aim to optimise patient care.
Methods: We searched CENTRAL, MEDLINE, Embase and clinical trials registers from inception to 31-3-2021 and used Cochrane methods. Randomised trials of modifications to imaging reports aimed at optimising patient care for any condition were included. Two authors independently selected studies for inclusion, extracted data, assessed risk of bias, and judged certainty of evidence using GRADE. The primary outcome was quality of care (e.g., increased guideline-adherent care, reduced/increased imaging as appropriate).
Results: Five trials met eligibility criteria. One tested information provision about appropriate osteoporosis treatment in bone density reports; two tested provision of criteria and treatment for heart failure in echocardiogram reports; one tested provision of reminders for when routine imaging is not needed in lumbar spine and knee X-ray reports; and one tested inclusion of epidemiological data in lumbar spine imaging reports. All trials were judged as high potential for bias, and four did not blind all participants. Low certainty evidence from two trials found adding information about appropriate care may increase care quality compared to a standard report (RR 1.20 (95% CI 0.96 to 1.50), 2 trials, 1548 participants, I2=49). This was supported by outcomes of two additional trials that also provided explicit clinical guidance.
Conclusions: Our review suggests that providing explicit guidance on appropriate clinical intervention in imaging reports may improve patient care. Further high-quality trials are needed to confirm these findings.

30

# Too Much of a Bad Thing: Pharmacological Management of Delirium

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Background
Delirium is the acute deterioration of mental state, and is associated with poor outcomes such as institutionalisation, and even death. First line treatment of delirium is non-pharmacological management, reserving medication intervention for patients who are a danger to themselves or others.

Aim
To assess current prescribing trends in delirious patients at a tertiary referral facility and evaluate this against the hospital's delirium management procedure.

Methods
This Drug Use Evaluation (DUE) was a retrospective audit of inpatient episodes in which delirium occurred, between December 2019 and March 2020. A total of 100 inpatient episodes were audited, after the exclusion of 69 charts due to chart unavailability and conflicting diagnoses. A variety of demographic and clinical data was collected for analysis and comparison, including patients' medical backgrounds, prescribed medications, and use of the Delirium Assessment and Behaviour Management Tool (DABMT). Data was analysed quantitatively, using mean value comparison between the assessed groups.

Results
Of the 100 admissions reviewed, the majority were from internal medicine and surgical programs (54% and 28%, respectively). Overall, 69% compliance with the delirium guideline was achieved. Of the 32 patients who received pharmacological
intervention for delirium, only one was treated in concordance with guidelines. The most prevalent reasons for non-compliance with guidelines included insufficient medical reviews, inappropriate doses of antipsychotics, and inappropriate use of benzodiazepines.

Conclusion
A significant proportion of the studied population received pharmacological intervention, and this use of medication was consistently outside of guideline recommendations. It would be judicious to initiate delirium management in-services across all clinical areas, and re-direct medical teams to the appropriate guidelines when applicable. The development of an online education package for junior doctors, pharmacists, and nursing staff would also be a useful initiative to improve medication safety with regards to delirium management.

31

# Choose every drop wisely: Top-5 recommendations to reduce low-value transfusion practices

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The COVID-19 pandemic has impacted every aspect of healthcare including the availability of blood and blood components for transfusion. Since 2020, Australia and New Zealand has faced an unprecedented threat to their blood supply due to an increasing number of COVID-19 related donor deferrals.

The Australian and New Zealand Society of Blood Transfusion (ANZSBT) partnered with Evolve to develop evidence-based guidance to minimise low-value transfusion practices.

ANZBST members were invited to participate in an on-line to identify the leading low-value transfusion practices across Australia and New Zealand. The ANZSBT Clinical Practice Improvement Committee (CPIC) and Education Standing Committee (ESC) undertook a comprehensive literature review and created evidence-based recommendations to ensure the safe and appropriate transfusion of blood and blood components.

The Top 5 Recommendations to reduce low-value transfusion practices are:
1. Do not use peri-operative transfusion for otherwise reversible anaemia prior to elective surgery
2. Do not transfuse red blood cells for iron deficiency where there is no haemodynamic instability
3. Do not transfuse more units of blood than necessary
4. Do not order a group and crossmatch when a group and antibody screen would be appropriate
5 Do not transfuse standard doses of fresh frozen plasma (FFP) to correct a mildly elevated (<1.8) international normalised ratio prior to a procedure

ANZSBT and Evolve released these recommendations along with a suite of educational resources in February 2022 to support the sustainability of blood and blood components for transfusion during ongoing times of critical shortages.

32

# Fasting Metabolic Bone Study order set utilisation in a tertiary hospital

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Background: The Fasting Metabolic Bone Study (FMBS) is a Western Australian-specific order set of blood and urine tests (including bone turnover markers) used to evaluate metabolic bone diseases (such as osteoporosis), parathyroid and calcium metabolism disorders, and monitor their treatment. There are no formal guidelines for FMBS use, so it is unclear whether all its component tests are necessary for its utility in various clinical contexts. We aimed to determine whether utilisation in a tertiary hospital aligns with the current evidence in the literature, and to what extent use of this order set results in duplicate or unnecessary testing.

Methods: We conducted a retrospective review of all Royal Perth Hospital (RPH) inpatients and outpatients who had a FMBS between October 2018 and September 2019. We assessed clinical utility of the FMBS with respect to the indication for testing, whether the results influenced management, and whether duplicate or potentially unnecessary testing occurred.

Results: There were 156 patients (36 inpatients, 120 outpatients) who had a FMBS during the study period. A clinical indication for the FMBS was determined for nearly all patients (81 (52%) from request form, 68 (44%) from medical records), except for seven patients (4%) where this could not be established. Despite meeting the broad indication for testing, most (62%) of the outpatients with osteoporosis did not require the complete FMBS, and the test results did not influence management in most of the inpatients, with 42% having duplicate tests and 6% undergoing potentially unnecessary testing.

Conclusion: Despite the absence of formal guidelines, most FMBS requests were for a recognised clinical indication, but there was often test duplication and unnecessary testing, with limited impact on management. Rationalising and streamlining the use of the component tests of the FMBS for different clinical contexts may help to curtail costs and resource waste.