On the Radar

Issue 322
22 May 2017

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On the Radar
Editor: Dr Niall Johnson niall.johnson@safetyandquality.gov.au
Contributors: Niall Johnson

Osteoarthritis of the Knee Clinical Care Standard
Australian Commission on Safety and Quality in Health Care

The Australian Commission on Safety and Quality in Health Care, in collaboration with consumers, clinicians, researchers and health organisations, has developed the Osteoarthritis of the Knee Clinical Care Standard and resources to guide and support its implementation. The Osteoarthritis of the Knee Clinical Care aims to improve the clinical assessment, diagnosis and management of people with knee osteoarthritis. It covers the care that patients should be offered from presentation at primary care through to referral to a specialist, such as a rheumatologist or a surgeon, if this is required. The clinical care standard offers guidance on patient education, self-management and review, conservative treatment options, including analgesic medicines, weight loss and exercise, and specialist referral for this common chronic condition. The clinical care standard emphasises the importance of patient-centred multidisciplinary care and the role of primary and allied health care in managing this disease.

Additional resources include an Indicator Specification (a set of suggested indicators to assist with local implementation of the Osteoarthritis of the Knee Clinical Care Standard. Clinicians and health services can use the indicators to monitor the implementation of quality statements, and support improvement as needed) and fact sheets for clinicians and consumers.
Osteoarthritis of the Knee

Osteoarthritis is one of the most common chronic joint conditions in Australia. It can cause pain, loss of mobility and reduced quality of life.

Knee osteoarthritis is a major form of the condition and the main reason for knee replacement surgery, with excess weight being a key risk factor.

About 2.1 million Australians are estimated to have osteoarthritis

It is the fourth most common reason people visit GPs

30% of people aged 65 or older report some joint symptoms

$1.6 billion spent on treating osteoarthritis per year

Effective management in primary care can reduce the burden of knee osteoarthritis on patients and the healthcare system

Provide a comprehensive clinical assessment

Educate the patient and develop a self-management plan

Include non-surgical treatments: weight loss, exercise, pain management

Monitor the patient through planned clinical reviews

Refer the patient to a surgeon or rheumatologist if conservative management no longer works

For more information on the Osteoarthritis of the Knee Clinical Care Standard go to www.safetyandquality.gov.au/ccs
### Reports

**Integrating care for people with multimorbidity: what does the evidence tell us?**

Copenhagen: European Observatory on Health Systems and Policies; 2016.

| URL |  
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The European Observatory on Health Systems and Policies has released this series of policy briefs looking at the issue of people living with multiple health conditions (multimorbidity). Many of these people have complex health problems that need continuing and integrated care. The European Commission funded research, including the ICARE4EU project which looked at new approaches to integrated care. The five policy briefs share the project findings:

- **How to improve care for people with multimorbidity in Europe?**
  - overarching policy brief examines how to support patient-centred integrated care provision by changing clinical practice and reforming the health and social care system

- **How to strengthen patient-centredness in caring for people with multimorbidity in Europe?**
  - identifies the key elements and potential benefits of patient-centred care for people with multimorbidity and flags up the strategies, which can help to strengthen patient-centred care

- **How to strengthen financing mechanisms to promote care for people with multimorbidity in Europe?**
  - examines the steps policy makers must take if they are to adapt financing systems to support people with multimorbidity better

- **How can eHealth improve care for people with multimorbidity in Europe?**
  - identifies: the eHealth solutions available; their potential benefits; and the current policies around the adoption of eHealth in care for people with multimorbidity

- **How to support integration to promote care for people with multimorbidity in Europe?**
  - identifies the most promising service arrangements for integrated care and examines how to support coordination and promote collaboration between care professionals and, strengthen professional competencies.

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**Surgical Variance Report 2017: General Surgery**

Royal Australasian College of Surgeons and Medibank
Melbourne: Royal Australasian College of Surgeons and Medibank; 2017. p. 69.

| URL |  
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The Royal Australasian College of Surgeons and Medibank have released their latest report of variance in surgery. In April 2016 they published five reports on variance in various surgical domains, including urology, otolaryngology, head and neck surgery, vascular surgery and orthopaedic surgery. The purpose of developing and publishing these reports was to address a gap in the information available to surgeons on clinical and other indicators, for different procedures in their specialty, particularly within the private sector. These reports highlighted variation between surgeons in clinical and other indicators for a number of high volume procedures. In shining a light on this variation, the reports identified opportunities to provide guidance on best practice. This latest report (and others to follow) is based on analysis of de-identified Medibank claims data from the two most recent financial years (years 2015 and 2016).

### Journal articles

*Arthroscopic surgery for degenerative knee arthritis and meniscal tears: a clinical practice guideline*

Siemieniuk RAC, Harris IA, Agoritsas T, Poolman RW, Brignardello-Petersen R, Van de Velde S, et al

*BMJ*. 2017;357:j1982

**DOI** [https://doi.org/10.1136/bmj.j1982](https://doi.org/10.1136/bmj.j1982)

As something of a happy coincidence, just as the Australian Commission on Safety and Quality in Health Care released their new Clinical Care Standard on osteoarthritis of the knee, the *BMJ* has published this item on a clinical practice guideline on arthroscopic surgery for degenerative knee arthritis and meniscal tears. This guideline makes a **strong recommendation against the use of arthroscopy** in nearly all patients with degenerative knee disease.

**Notes**

The concept of monitoring and reporting as mechanisms for improving the performance, safety and quality of care is not particularly novel. However, it has rarely been implemented at scale and there has been much debate about the value and impact of such reporting. This commentary piece discusses the rate of fatal adverse events in the USA, existing measurements of patient harm, a proposed national standard and considerations such as accountability and implications for tort reform.

The authors “propose a federally mandated, nonpunitive national system that relies on accurate measurement as a driver of performance.”
### The Effects of Bar-coding Technology on Medication Errors: A Systematic Literature Review

Hutton K, Ding Q, Wellman G


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<tr>
<th>DOI</th>
<th><a href="https://dx.doi.org/10.1097/PTS.0000000000000366">https://dx.doi.org/10.1097/PTS.0000000000000366</a></th>
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<tr>
<td>Notes</td>
<td>The correct identification of medications (and whom they are for) is seen as important to ensuring correct medication usage and avoiding medication errors. This review looked at the evidence around bar coding technology on preventing medication errors and what types of medication errors may be prevented in the hospital setting. Based on detailed review of 10 studies (which used prospective before-and-after study design) that all showed overall positive effects associated with bar-coding implementation, the authors concluded “bar-coding technology may reduce medication errors in hospital settings, particularly on preventing targeted wrong dose, wrong drug, wrong patient, unauthorized drug, and wrong route errors.”</td>
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For information on the Commission’s work on medication safety, see https://www.safetyandquality.gov.au/our-work/medication-safety/

### Who is responsible for the safe introduction of new surgical technology? An important legal precedent from the da Vinci surgical system trials

Pradarelli JC, Thornton JP, Dimick JB

JAMA Surgery. 2017 [epub].

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<th>DOI</th>
<th><a href="https://dx.doi.org/10.1001/jamasurg.2017.0841">https://dx.doi.org/10.1001/jamasurg.2017.0841</a></th>
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<td>Notes</td>
<td>Innovation is an important part of medicine but a challenge arises in ensuring that innovation is undertaken and implemented safely and does not create new risks to patients. This commentary, looking at surgical robotics, considers the roles and responsibilities of organisations, regulators, device manufacturers, and clinicians (in the US setting) for ensuring appropriate technical expertise of surgeons. A number of the issues identified apply to other forms of innovation and in other settings.</td>
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### Realising the potential of health needs assessments

Anstey M, Burgess P, Angus L

Australian Health Review. 2017 [epub].

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<th>DOI</th>
<th><a href="https://doi.org/10.1071/AH16262">https://doi.org/10.1071/AH16262</a></th>
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<tr>
<td>Notes</td>
<td>The authors of this paper suggest that Primary Health Networks (PHNs) can become “nimble organisations capable of identifying and addressing local health needs via integrated health and social services” but identify several factors that they consider crucial for the success of PHNs in assessing and meeting the health needs of the people living in their areas. The factors discussed are:</td>
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<td>• PHN funding schedules must be more flexible</td>
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<td>• Commonwealth health department must maintain an open dialogue with PHNs, permit waivers in funding schedules to suit local conditions and be prepared to back innovations</td>
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<td>• health data exchange and linkage must be accelerated to better inform community needs assessments and commissioning</td>
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<td></td>
<td>• PHNs must be encouraged and supported to develop collaborations both within and outside the health sector in order to identify and address a broad set of health issues and determinants.</td>
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Notes
The potential of technological solutions to assist with the identification and treatment of patients whose conditions deteriorate while in hospital has been expected and sought for some time. This paper describes a before-and-after study in a UK hospital of an electronic automated vital signs (respiratory rate, blood pressure, heart rate, pulse oximetry and temperature) monitoring and notification system using wireless sensors and devices. The system automatically relays abnormal vital signs to a rapid response team (RRT). The before and after arms covered 2139 and 2263 patients respectively. The number of notifications went from 405 to 524. Results noted included mortality decreasing from 173 to 147 patients, cardiac arrests decreased from 14 to 2 events and the severity of illness in patients admitted to the ICU was reduced (mean Acute Physiology and Chronic Health Evaluation II score: 26 vs. 18), as was their mortality (from 45% to 24%). From these results the authors concluded “Deployment of an electronic automated advisory vital signs monitoring and notification system to signal clinical deterioration in ward patients was associated with significant improvements in key patient-centered clinical outcomes.”


Notes
Burnout is a recognised risk factor for clinicians and the safety and quality of the care they provide. These two items are recent additions to the literature. Johnson and colleagues looked at the relationships between depressive symptoms, burnout and perceptions of patient safety by surveying 323 nurses at 3 acute NHS Trusts in the UK. The results led the authors to conclude “symptoms of depression and burnout in hospital nurses may have implications for patient safety. However, interventions to improve patient safety may be best targeted at improving burnout in particular, with burnout interventions known to be most effective when focused at both the individual and the organisational level.”

Salyers and colleagues undertook a meta-analysis of 82 studies to examine relationships between provider burnout (emotional exhaustion, depersonalization, and reduced personal accomplishment) and the quality (perceived quality, patient satisfaction) and safety of healthcare. Their conclusion was along similar lines: “Provider burnout shows consistent negative relationships with perceived quality (including patient satisfaction), quality indicators, and perceptions of safety. Though the effects are small to medium, the findings highlight the importance of effective burnout interventions for healthcare providers.”
An organizational framework to reduce professional burnout and bring back joy in practice
Swensen SJ, Shanafelt T

DOI [http://dx.doi.org/10.1016/j.jcjq.2017.01.007](http://dx.doi.org/10.1016/j.jcjq.2017.01.007)

Notes
In this piece, the authors seek to address burnout by suggesting strategies that health system leaders can use at organisational and individual scales. The suggested actions in their ‘Joy in Practice’ framework include:

- Design organisational systems to address human needs
- Develop leaders with participative management competency
- Build social community
- Remove sources of frustration and inefficiency
- Reduce preventable patient harm and support second victims
- Bolster individual wellness.

One does wonder how some of the language/jargon used in this piece would be received in some settings.

BMJ Quality and Safety
June 2017, Vol. 26, Issue 6

URL [http://qualitysafety.bmj.com/content/26/6](http://qualitysafety.bmj.com/content/26/6)

Notes
A new issue of BMJ Quality and Safety has been published. Many of the papers in this issue have been referred to in previous editions of On the Radar (when they were released online). Articles in this issue of BMJ Quality and Safety include:

- Editorial: The evolution of morbidity and mortality conferences (Darlene Tad-y, Heidi L Wald)
- Editorial: Calibrating how doctors think and seek information to minimise errors in diagnosis (Ashley N D Meyer, Hardeep Singh)
- Implementation of a structured hospital-wide morbidity and mortality rounds model (Edmund S H Kwok, Lisa A Calder, Emily Barlow-Krelina, Craig Mackie, Andrew J E Seely, A Adam Cwinn, J R Worthington, J R Frank)
- Bed utilisation and increased risk of *Clostridium difficile* infections in acute hospitals in England in 2013/2014 (Venanzio Vella, Paul P Aylin, Luke Moore, Alice King, Nichola R Naylor, G J C Birgand, H Lishman, A Holmes)
- A work observation study of nuclear medicine technologists: interruptions, resilience and implications for patient safety (George Larcos, Mirela Prgomet, Andrew Georgiou, Johanna Westbrook)
- The global burden of diagnostic errors in primary care (Hardeep Singh, Gordon D Schiff, Mark L Graber, Igho Onakpoya, Matthew J Thompson)
- Implementation and de-implementation: two sides of the same coin? (Leti van Bodegom-Vos, Frank Davidoff, Perla J Marang-van de Mheen)
- Can we use patient-reported feedback to drive change? The challenges of using patient-reported feedback and how they might be addressed (Kelsey Margaret Flott, Chris Graham, Ara Darzi, Erik Mayer)
**Patient and family empowerment** as agents of ambulatory care safety and quality (Debra L Roter, Jennifer Wolff, Albert Wu, Annegret F Hannawa)

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**Clinical Infections Diseases**
Volume 64, Issue Suppl 2, 15 May 2017

A supplement to *Clinical Infections Diseases* focuses on infection prevention and control in the Asia-Pacific region, including antimicrobial resistance and stewardship. The supplement examines three key themes of infection prevention and control in healthcare settings across the Asia-Pacific region: (1) epidemiology and evidence to support prevention and control interventions, (2) enhancements to infection prevention and control in healthcare settings, and (3) practices associated with the containment of emerging infectious diseases and outbreaks. Articles in this supplement include:

- **Infection Prevention and Control** in Asia: Current Evidence and Future Milestones (Anucha Apisarnthanarak; Linda M. Mundy; Terapong Tantawichien; Amorn Leelarasamee)
- Prevention and Control of **Multidrug-Resistant Gram-Negative Bacteria** in Adult Intensive Care Units: A Systematic Review and Network Meta-analysis (Nattawat Teerawattanapong; Kirati Kengkla; Pyameth Dilokthornsakul; Surasak Saokaew; Anucha Apisarnthanarak; Nathorn Chaiyakunapruk)
- Prevalence of **Healthcare-Associated Infections** and Antimicrobial Use Among Adult Inpatients in Singapore: Results From the First National Point Prevalence Survey (Yiying Cai; Indumathi Venkatchalam; Nancy W. Tee; Thean Yen Tan; Asok Kurup; et al)
- Clinical and Molecular Epidemiology of **Carbapenem-Resistant Enterobacteriaceae** Among Adult Inpatients in Singapore (Kalisvar Marimuthu; Indumathi Venkatchalam; Wei Xin Khong; Tse Hsien Koh; Benjamin Pei Zhi Chern, et al)
- **MRSA Transmission** Dynamics Among Interconnected Acute, Intermediate-Term, and Long-Term Healthcare Facilities in Singapore (Angela Chow; Vanessa W Lim; Ateeb Khan; Kerry Pettigrew; David C. B. Lye, et al)
- Infection Prevention Strategy in Hospitals in the Era of Community-Associated **Methicillin-Resistant Staphylococcus aureus** in the Asia-Pacific Region: A Review (Sun Young Cho; Doo Ryeon Chung)
- Seasonal Outbreak of **Bacillus Bacteremia** Associated With Contaminated Linen in Hong Kong (Vincent C. C. Cheng; Jonathan H. K. Chen; Sally S. M. Leung; Simon Y. C. So; Shuk-Ching Wong, et al)
- From **SARS to Avian Influenza Preparedness** in Hong Kong (Andrew T. Y. Wong; Hong Chen; Shao-haei Liu; Enoch K. Hsu; Kristine S. Luk, et al)
- **Infection Prevention Practices** in Japan, Thailand, and the United States: Results From National Surveys (Sarah L. Krein; M. Todd Greene; Anucha Apisarnthanarak; Fumie Sakamoto; Yasuharu Tokuda, et al)
- **Antimicrobial Stewardship in Surgery:** Challenges and Opportunities (Giorgio Tarchini; Kui Hin Liau; Joseph S. Solomkin)
- Inappropriate Empirical Treatment of Uncomplicated **Cystitis** in Thai Women: Lessons Learned (Nattapol Pruetpongpun; Thana Khawcharoenporn; Pansachee Damronglerd; Nuntra Suwantarat; Anucha Apisarnthanarak, et al)
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<th>Title</th>
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<tr>
<td>Antimicrobial Stewardship in Inpatient Settings</td>
<td>Hitoshi Honda; Norio Ohmagari; Yasuharu Tokuda; Caline Mattar; David K. Warren</td>
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<td>Prevalence and Appropriateness of Urinary Catheters in Japanese Intensive Care Units: Results From a Multicenter Point Prevalence Study</td>
<td>Akira Kuriyama; Tadaaki Takada; Hiromasa Irie; Masaaki Sakuraya; Kohta Katayama, et al</td>
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<td>Comparative Efficacy of Antimicrobial Central Venous Catheters in Reducing Catheter-Related Bloodstream Infections in Adults: Abridged Cochrane Systematic Review and Network Meta-Analysis</td>
<td>Huey Yi Chong; Nai Ming Lai; Anucha Apisarnthanarak; Nathorn Chaiyakunapruk</td>
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<td>Community-Acquired Pneumonia Case Validation in an Anonymized Electronic Medical Record–Linked Expert System</td>
<td>Amartya Mukhopadhyay; Mahendran Maliapen; Venetia Ong; Rupert W. Jakes; Linda M. Mundy, et al</td>
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<td>2015 Epidemic of Severe Streptococcus agalactiae Sequence Type 283 Infections in Singapore Associated With the Consumption of Raw Freshwater Fish: A Detailed Analysis of Clinical, Epidemiological, and Bacterial Sequencing Data</td>
<td>Shirin Kalimuddin; Swaine L. Chen; Cindy T. K. Lim; Tse Hsien Koh; Thean Yen Tan, et al</td>
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<td>Effectiveness of Probiotic, Prebiotic, and Synbiotic Therapies in Reducing Postoperative Complications: A Systematic Review and Network Meta-analysis</td>
<td>Nongyao Kasatpibal; JoAnne D. Whitney; Surasak Saokaew; Kirati Kengkla; Margaret M. Heitkemper, et al</td>
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<td>National Survey of Practices to Prevent Methicillin-Resistant Staphyloccocus aureus and Multidrug-Resistant Acinetobacter baumannii in Thailand</td>
<td>Anucha Apisarnthanarak; David Ratz; Thana Khawcharoenporn; Payal K. Patel; David J. Weber, et al</td>
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<td>Zero Transmission of Middle East Respiratory Syndrome: Lessons Learned From Thailand</td>
<td>Surasak Wiboonchutikul; Weerawat Manosuthi; Chariya Sangsajja</td>
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International Journal for Quality in Health Care online first articles

**URL**

https://academic.oup.com/intqhc/advance-access?papetoc

**Notes**

International Journal for Quality in Health Care has published a number of ‘online first’ articles, including:

- A diabetes pay-for-performance program and the competing causes of death among cancer survivors with type 2 diabetes in Taiwan (Hui-Min Hsieh; Herrng-Chia Chiu; Yi-Ting Lin; Shyi-Jang Shin)
- Factors associated with compliance to AHA/ACC performance measures in a myocardial infarction system of care in Brazil (Maria Letícia I. Lana; Andrea Z. Beaton; Luisa C C Brant; Isadora C R S Bozzi; Osias de Magalhães; Luiz Ricardo de A Castro; Francisco César T da Silva Júnior; José Luiz P da Silva; Antonio Luiz P Ribeiro; Bruno R. Nascimento)
Online resources

[UK] NICE Guidelines and Quality Standards
http://www.nice.org.uk
The UK’s National Institute for Health and Care Excellence (NICE) has published new (or updated) guidelines and quality standards. The latest updates are:

- Quality Standard QS16 *Hip fracture in adults* https://www.nice.org.uk/guidance/qs16

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