



On the Radar

Issue 358

19 February 2018

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On the Radar

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Reports

The Future of Precision Medicine in Australia

Williamson R, Anderson W, Duckett SJ, Frazer IH, Hillyard C, Kowal E, et al.

Melbourne: Australian Council of Learned Academies; 2018.

URL	https://acola.org.au/wp/pmed/
Notes	<p>This report released by the Australian Council of Learned Academies suggests that precision medicine has the potential to transform Australia's health care system. Precision medicine combines knowledge of a person's unique genetic makeup along with a range of other information, including the patient's environment, so as tailor care for the individual's specific needs. This report argues that 'precision medicine' is positioned to move beyond current areas, such as cancer and single-gene disorders, and could help improve health outcomes for complex disorders, such as diabetes and cardiovascular disease.</p> <p>However, some voices temper the enthusiasm. As a piece in the <i>New England of Medicine</i> a while ago put it, 'Precision Medicine – Personalized, Problematic and Promising'. Some of the concerns are not only about cost, access and equity but also around increased unwarranted diagnoses and/or overdiagnosis and unnecessary, possibly even harmful, treatment</p>

Journal articles

Australia urgently needs a quality improvement approach to emergency laparotomy

Broughton KJ, Aitken RJ

Medical Journal of Australia 2018;208:58-9.

DOI	https://dx.doi.org/10.5694/mja17.00793
Notes	The authors argue for a national quality improvement registry for acute abdomen due to its high predictive mortality (8–15%), the time-critical nature of early antibiotic intervention, and the risks associated with emergency laparotomy. They quote the success of international quality improvement initiatives which reduced 30 day mortality following emergency laparotomy from 15.6% in the UK to 9.6%, and from 21.8% to 15.5% in Denmark, following the introduction of care bundles, as well as reductions in ICU length of stay. They report specialty support from the councils of the Royal Australasian College of Surgeons and the Australian and New Zealand College of Anaesthetists to take this work further.

Abnormal uterine bleeding: managing endometrial dysfunction and leiomyomas

Brennan A, Hickey M

Medical Journal of Australia 2018;208:90-5.

DOI	https://dx.doi.org/10.5694/mja17.00726
Notes	A narrative summary of current systematic reviews and current recommendations for the management of abnormal uterine bleeding, including heavy menstrual bleeding and leiomyomas (uterine fibroids). The review concludes that further research is needed on the cost-effectiveness of treatments, the effectiveness of minimally invasive treatments for uterine fibroids and quality of life comparisons between management options using patient reported outcome measures.

The Australian Commission on Safety and Quality in Health Care recently released a *Heavy Menstrual Bleeding Clinical Care Standard* which supports the consideration of alternatives to hysterectomy whenever clinically appropriate. The standard was developed in response to data from the *Australia Atlas of Healthcare Variation*, which demonstrated widespread variation in rates of hysterectomy and endometrial ablation.

For more information on the *Heavy Menstrual Bleeding Clinical Care Standard*, see

<https://www.safetyandquality.gov.au/our-work/clinical-care-standards/heavy-menstrual-bleeding/>

For more information on the *Australia Atlas of Healthcare Variation*, see

<https://www.safetyandquality.gov.au/atlas/>

The link between clinically validated patient safety indicators and clinical outcomes

Gray DM, II, Hefner JL, Nguyen MC, Eiferman D, Moffatt-Bruce SD

American Journal of Medical Quality. 2017;32(6):583-90.

DOI	https://doi.org/10.1177/1062860616683014
Notes	One of the criticisms of some data or indicator collection and use is the apparent lack of clinical validity and utility. This retrospective study of patient discharges from a US academic medical centre (comprising 6 hospitals) sought to examine the association between clinically validated Patient Safety Indicators (PSIs) and inpatient length of stay, mortality, and 30-day unplanned readmission. From their analyses, the authors report that ‘Cases flagged with a clinically validated PSI are associated with a statistically greater length of stay, 30-day unplanned readmission, and mortality as compared to cases without a PSI. This study demonstrates a strong association between clinically validated PSIs and patient outcomes’.

Tracking progress in improving diagnosis: a framework for defining undesirable diagnostic events
 Olson APJ, Graber ML, Singh H
 Journal of General Internal Medicine. 2018 [epub].

Implementation of diagnostic pauses in the ambulatory setting
 Huang GC, Kriegel G, Wheaton C, Sternberg S, Sands K, Richards J, et al
 BMJ Quality & Safety. 2018 [epub].

DOI	Olson et al https://doi.org/10.1007/s11606-018-4304-2 Huang et al http://dx.doi.org/10.1136/bmjqs-2017-007192
Notes	<p>A pair of papers looking at the issue of diagnostic error. Olson et al comment on the some of the research and theoretical work being undertaken. The authors note ‘the lack of standardized, reliable methods for measuring diagnostic safety’ and suggest a framework for identifying “undesirable diagnostic events” (UDEs) that could be developed to ‘enable standardized measurement and reporting related to diagnostic safety.’ They go on to propose an outline for UDEs that identifies both conditions prone to diagnostic error and the contexts of care in which these errors are likely to occur.</p> <p>As a more immediate level, Huang et al focus on an intervention that sought to enhance diagnosis and thus reduce the likelihood of error. The paper reports on the insertion of a ‘diagnostic pause’ into the workflow of a small group of clinicians (physicians and nurse practitioners) in an academic primary care setting. The diagnostic pause used was a type of checklist and the project used an electronic health record–based automated trigger to identify patients at risk for missed diagnosis, in this cases patients presenting for an urgent care visit who had a previous urgent care visit within 2 weeks. At the second visit, the clinician received the diagnostic pause alert. Analysis of pre–post-intervention surveys, focus groups and chart audits 6 months after the urgent care visits found that 61% of the 135 diagnostic pause alerts were heeded and 13% of these ‘resulted in clinicians reporting new actions as a result of the diagnostic pauses’. The clinicians ‘reported that the diagnostic pauses were brief and fairly well integrated into the overall workflow for evaluation but would have benefited as a real-time application for patients at higher risk for diagnostic error.’</p>

Higher accuracy of complex medication reconciliation through improved design of electronic tools
 Horsky J, Drucker EA, Ramelson HZ
 Journal of the American Medical Informatics Association. 2017 [epub].

DOI	https://doi.org/10.1093/jamia/ocx127
Notes	<p>In recent issues we have had items on enhancing medication reconciliation. This paper adds to that literature with a focus on better tool design. The paper reports on a direct comparison of two different medication reconciliation tools integrated into electronic health record systems that aimed at determining the accuracy of the two different tools. The authors found that clinicians using one platform made significantly fewer errors. The better performing tool presented lists in a side-by-side view, automatically grouped medications by therapeutic class and more effectively identified duplicates. The authors advocate rigorous user testing: ‘Accurate assessment of the safety and effectiveness of electronic reconciliation tools requires rigorous testing and should prioritize complex rather than simpler tasks that are currently used for EHR certification and product demonstration. Higher accuracy of reconciliation is likely when tools are designed to better support cognitively demanding tasks.’</p>

For information about the Commission’s work on medication safety, including medication reconciliation, see, <https://www.safetyandquality.gov.au/our-work/medication-safety/>

BMJ *Quality and Safety* online first articles

URL	https://qualitysafety.bmj.com/content/early/recent
Notes	<p>BMJ <i>Quality and Safety</i> has published a number of ‘online first’ articles, including:</p> <ul style="list-style-type: none"> • Interprofessional Teamwork Innovation Model (ITIM) to promote communication and patient-centred, coordinated care (Jing Li, Preetham Talari, Andrew Kelly, Barbara Latham, Sherri Dotson, Kim Manning, Lisa Thornsberry, Colleen Swartz, Mark V Williams) • Editorial: Rigorous evaluations of evolving interventions: can we have our cake and eat it too? (Robert E Burke, Kaveh G Shojania) • Successfully implementing Safety WalkRounds: secret sauce more than a magic bullet (Sara J Singer) • Prospective evaluation of medication-related clinical decision support over-rides in the intensive care unit (Adrian Wong, Mary G Amato, Diane L Seger, Christine Rehr, Adam Wright, Sarah P Slight, Patrick E Beeler, E. John Orav, David W Bates)

International Journal for Quality in Health Care online first articles

URL	https://academic.oup.com/intqhc/advance-access?papetoc
Notes	<p><i>International Journal for Quality in Health Care</i> has published a number of ‘online first’ articles, including:</p> <ul style="list-style-type: none"> • Unpacking the black box of improvement (Rohit Ramaswamy; Julie Reed; Nigel Livesley; Victor Boguslavsky; Ezequiel Garcia Ellorio; Sylvia Sax; Diarra Houleymata; Leighann Kimble; Gareth Parry) • Practical recommendations for the evaluation of improvement initiatives (Gareth Parry; Astou Coly; Don Goldmann; Alex Rowe; Vijay Chattu; Dencil Logiudice; Mihajlo Rabrenovic; Bejoy Nambiar) • Salzburg Global Seminar Session 565—‘Better Health Care: how do we learn about improvement?’ (M Rashad Massoud; Leighann E Kimble; Don Goldmann; John Ovretveit; Nancy Dixon) • Research versus practice in quality improvement? Understanding how we can bridge the gap (Lisa R Hirschhorn; Rohit Ramaswamy; Mahesh Devnani; Abraham Wandersman; Lisa A Simpson; Ezequiel Garcia-Elorrio) • Improvement of emergency department patient flow using lean thinking (Miquel Sánchez; Montse Suárez, María Asenjo; Ernest Bragulat) • The representation of vulnerable populations in quality improvement studies (Asaph Rolnitsky; Maksim Kirtsman; Hanna R Goldberg; Michael Dunn; Chaim M Bell) • EQ-5D-Y for the assessment of health-related quality of life among Taiwanese youth with mild-to-moderate chronic kidney disease (Chien-Ning Hsu; Hsiang-Wen Lin; A Simon Pickard; You-Lin Tain) • Association of strategic management with vaccination in the terms of globalization (Mihaljo Rabrenovic, Marija Cukanovic Karavidic, Ivana Stosic) • Editorial: Improvements scale-up and rapid response systems in the hospitals (Usman Iqbal; Yu-Chuan (Jack) Li) • Potentially inappropriate medication and hospitalization/emergency department visits among the elderly in Korea (Ha-Lim Jeon; Juhee Park; Euna Han; Dong-Sook Kim)

Online resources

Evidence-based Clinical Practice Guideline for Deprescribing Cholinesterase Inhibitors and Memantine
<https://www.clinicalguidelines.gov.au/portal/2588/evidence-based-clinical-practice-guideline-deprescribing-cholinesterase-inhibitors-and>
<http://sydney.edu.au/medicine/cdpc/resources/deprescribing-guidelines.php>

The National Health and Medical Research Council (NHMRC) has approved the recommendations made in the *Evidence-based clinical practice guideline for deprescribing cholinesterase inhibitors and memantine* developed by the University of Sydney in partnership with the NHMRC Cognitive Decline Partnership Centre and the Bruyère Research Institute in Canada.

Cholinesterase inhibitors and memantine are two classes of drugs prescribed to reduce the symptoms of dementia. This guideline provides advice on when and how to withdraw these medications when the potential harms outweigh the benefits.

Future Leaders Communiqué
http://www.vifmcommuniques.org/?page_id=4296

Victorian Institute of Forensic Medicine
Volume 3 Issue 1 January 2018

This issue of the *Future Leaders Communiqué* examines the multiple clinical challenges that can arise in managing patients over a long period of time with multiple different individuals and teams, including why and how teams may make poor decisions and lessons on improving teamwork and decision-making skills at the bedside. This issue includes a case study of an older patient who had past medical history of diabetes mellitus, coronary artery disease, hypertension, and visual impairment whose in-hospital care was not ideal.

The issue includes expert commentaries from an addiction specialist (who explores the principles of Quality Use of Medicines), a psychologist and Human Factors expert (who writes about ‘groupthink’); and a clinical pharmacist (who looks at pain management in the older person).

[UK] *NICE Guidelines and Quality Standards*
<https://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 reviews or updates are:

- Quality Standard QS163 **Mental health of adults in contact with the criminal justice system**
<https://www.nice.org.uk/guidance/qs163>
- Quality Standard QS164 **Parkinson's disease** <https://www.nice.org.uk/guidance/qs164>

[USA] *Effective Health Care Program reports*
<https://effectivehealthcare.ahrq.gov/>

The US Agency for Healthcare Research and Quality (AHRQ) has an Effective Health Care (EHC) Program. The EHC has released the following final reports and updates:

- *Effectiveness of Indoor Allergen Reduction in Management of Asthma* (Systematic Review)
<https://effectivehealthcare.ahrq.gov/topics/asthma-nonpharmacologic-treatment/final-report-indoor-allergen-reduction>

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