



On the Radar

Issue 145

23 September 2013

On the Radar is a summary of some of the recent publications in the areas of safety and quality in health care. Inclusion in this document is not an endorsement or recommendation of any publication or provider.

Access to particular documents may depend on whether they are Open Access or not, and/or your individual or institutional access to subscription sites/services. Material that may require subscription is included as it is considered relevant.

On the Radar is available online, via email or as a PDF document from <http://www.safetyandquality.gov.au/publications-resources/on-the-radar/>

If you would like to receive *On the Radar* via email, you can subscribe on our website <http://www.safetyandquality.gov.au/> or by emailing us at mail@safetyandquality.gov.au. You can also send feedback and comments to mail@safetyandquality.gov.au.

For information about the Commission and its programs and publications, please visit <http://www.safetyandquality.gov.au>

You can also follow us on Twitter @ACSQHC.

On the Radar

Editor: Dr Niall Johnson niall.johnson@safetyandquality.gov.au

Contributors: Niall Johnson, Jennifer Hill, Justine Marshall

Free public lecture – Shared Decision Making

Shared Decision Making: Building on research to help it happen in practice

Wednesday 16 October 2013-09-12

The Australian Commission on Safety and Quality in Health Care invites you to a public lecture by Professor France Légaré – an international expert in the field of shared decision making in health care.

Shared decision making involves clinicians and patients making decisions together using the best available evidence. In partnership with their clinician, patients are encouraged to consider available screening, treatment, or management options and the likely benefits and harms of each, to communicate their preferences, and help select the course of action that best fits these.

Join us for Professor Légaré's discussion on shared decision making and how public interest in this area is leading to changes in practice.

Time: 5:00pm to 6:30pm

Venue: Mercure Hotel, 818-820 George Street, Haymarket, Sydney

RSVP: By Friday, 4 October 2013 by emailing ACSQHCEvents@safetyandquality.gov.au

For further information see <http://www.safetyandquality.gov.au/our-work/shared-decision-making/>

Books

Quality improvement made simple: What everyone should know about healthcare quality improvement 2nd ed.

The Health Foundation

London: The Health Foundation, 2013.

Notes	<p>The Health Foundation (UK) Has released a second edition of its Quick Guide <i>Quality improvement made simple: What everyone should know about healthcare quality improvement</i>.</p> <p>From the Health Foundation’s website: “This guide focuses on one important element of the quality agenda: quality improvement. It looks in particular at what are known as organisational approaches to quality improvement. These aim to bring about a measurable improvement by applying specific methods within a healthcare setting.</p> <p>This is not a ‘how to’ guide. Instead, it offers a clear explanation of some common approaches used to improve quality, including where they have come from, their underlying principles and their efficacy and applicability within the healthcare arena.”</p>
URL	http://www.health.org.uk/publications/quality-improvement-made-simple/
TRIM	87465

Health literacy: The solid facts

Kickbusch I, Pelikan JM, Apfel F, Tsouros AD, editors

Copenhagen: World Health Organization Regional Office for Europe, 2013.

Notes	<p>The European regional office of the WHO has published this report that uses learnings from the recent European Health Literacy Survey and identifies practical and effective ways public health and other sector authorities and advocates can strengthen health literacy in a variety of settings, including educational settings, workplaces, marketplaces, health systems, new and traditional media and political arenas.</p>
URL	http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/urban-health/publications/2013/health-literacy.-the-solid-facts
TRIM	87684

Reports

Delivering high-quality cancer care: Charting a new course for a system in crisis

Institute of Medicine

Washington, DC: The National Academies Press, 2013.

Notes	<p>The (US) Institute of Medicine (IOM) convened a committee of experts to examine the quality of cancer care in the United States and formulate recommendations for improvement. This work presents the committee’s findings and recommendations. <i>Delivering High-Quality Cancer Care: Charting a New Course for a System in Crisis</i> presents a conceptual framework for improving the quality of cancer care. This study proposes improvements to six interconnected components of care:</p> <ol style="list-style-type: none"> (1) engaged patients; (2) an adequately staffed, trained, and coordinated workforce; (3) evidence-based care;
-------	--

	<p>(4) learning health care information technology (IT);</p> <p>(5) translation of evidence into clinical practice, quality measurement and performance improvement; and</p> <p>(6) accessible and affordable care.</p> <p>The report recommends changes across the board in these areas to improve the quality of care.</p> <p>The report aims to provide information for cancer care teams, patients and their families, researchers, quality metrics developers, funders, and industry to re-evaluate their current roles and responsibilities in cancer care and work together to develop a higher quality care delivery system.</p>
URL	http://iom.edu/Reports/2013/Delivering-High-Quality-Cancer-Care-Charting-a-New-Course-for-a-System-in-Crisis.aspx

Journal articles

Causes of medication administration errors in hospitals: a systematic review of quantitative and qualitative evidence

Keers R, Williams S, Cooke J, Ashcroft D

Drug Safety 2013: [epub].

Notes	<p>Paper reporting on a systematic review of the evidence relating to the causes of medication administration errors in hospital settings. From the scan of literature from 1985 to 2013, 54 studies were included. The authors report that “Slips and lapses were the most commonly reported unsafe acts, followed by knowledge-based mistakes and deliberate violations. Error-provoking conditions influencing administration errors included inadequate written communication (prescriptions, documentation, transcription), problems with medicines supply and storage (pharmacy dispensing errors and ward stock management), high perceived workload, problems with ward-based equipment (access, functionality), patient factors (availability, acuity), staff health status (fatigue, stress) and interruptions/distractions during drug administration.”</p>
DOI	http://dx.doi.org/10.1007/s40264-013-0090-2
TRIM	87681

For information about the Commission’s work on medication safety, see

<http://www.safetyandquality.gov.au/our-work/medication-safety/>

Health care–associated infections: a meta-analysis of costs and financial impact on the US health care system

Zimlichman E, Henderson D, Tamir O, Franz C, Song P, Yamin CK, et al

JAMA Internal Medicine 2013 [epub].

Notes	<p>It is understood that healthcare associated infections (HAIs) are a major source of harm . This US study undertook a systematic review (of US literature only published in 1986–2013) in order to “estimate costs associated with the most significant and targetable HAIs”.</p> <p>From their analysis, the authors suggest that central line–associated bloodstream infections were found to be the most costly HAIs at \$45,814, followed by ventilator-associated pneumonia at \$40,144, surgical site infections at \$20,785, <i>Clostridium difficile</i> infection at \$11,285, and catheter-associated urinary tract infections at \$896.</p>
-------	--

	<p>The report found that the five most common HAIs have an annual cost to the US health care system of nearly \$10 billion. Given that HAIs are considered largely preventable, this suggests that considerable costs savings are possible.</p> <p>Of the total cost, the authors note that surgical site infections contributing the most (33.7%), followed by ventilator-associated pneumonia (31.6%), central line-associated bloodstream infections (18.9%), <i>C difficile</i> infections (15.4%), and catheter-associated urinary tract infections (<1%).</p>
DOI	http://dx.doi.org/10.1001/jamainternmed.2013.9763

For information about the Commission’s work on healthcare associated infection, see <http://www.safetyandquality.gov.au/our-work/healthcare-associated-infection/>

Impact of a national multimodal intervention to prevent catheter-related bloodstream infection in the ICU: the Spanish experience

Palomar M, Alvarez-Lerma F, Riera A, Diaz MT, Torres F, Agra Y, et al
Critical Care Medicine 2013 [epub].

Notes	<p>One the landmark interventions in HAIs has been the Michigan Keystone ICU study. This is the latest addition to the literature documenting how similar interventions have been undertaken elsewhere, in this case in a cohort of 192 ICUs in Spain (68% of the nation’s ICUs) where they undertook the Bacteremia Zero project.</p> <p>The intervention was a multifaceted intervention and included checklists and efforts to improve safety culture. According to the authors, “[e]ngagement, education, execution, and evaluation were key program features. Main components of the intervention included a bundle of evidence-based clinical practices during insertion and maintenance of catheters and a unit-based safety program (including patient safety training and identification and analysis of errors through patient safety rounds) to improve the safety culture.”</p> <p>The authors report that catheter-related bloodstream infection was reduced after 16–18 months of participation (median 3.07 vs. 1.12 episodes per 1,000 catheter-days) and that the adjusted incidence rate of bacteremia showed a 50% risk reduction at the end of the follow-up period compared with baseline. The reduction was independent of hospital size and type.</p> <p>As they conclude, “Results of the Bacteremia Zero project confirmed that the intervention significantly reduced catheter-related bloodstream infection after large-scale implementation”. It also demonstrates that such approaches can be applied in a range of contexts.</p>
DOI	http://dx.doi.org/10.1097/CCM.0b013e3182923622

Characteristics of primary care practices associated with high quality of care

Beaulieu M-D, Haggerty J, Tousignant P, Barnsley J, Hogg W, Geneau R, et al
Canadian Medical Association Journal 2013;185(12):E590-E596.

Notes	<p>Canadian study that sought to identify a common set of characteristics associated with high-quality primary care by undertaking a cross-sectional observational study involving a stratified random sample of 37 primary care practices from 3 regions of Quebec from where 1457 patients who had 1 of 2 chronic care conditions or 1 of 6 episodic care conditions were recruited.</p> <p>The authors report that following characteristics were strongly associated with overall technical quality of care score: physician remuneration method, extent of sharing of administrative resources, presence of allied health professionals</p>
-------	---

	and/or specialist physicians, the presence of mechanisms for maintaining or evaluating competence and average organisational access to the practice. They also noted that number of physicians and the average Team Climate Inventory score were only modestly associated with high-quality care scores.
DOI	http://dx.doi.org/10.1503/cmaj.121802

For information about the Commission’s work on patient safety in primary health care, see <http://www.safetyandquality.gov.au/our-work/patient-safety-in-primary-health-care/>

Financial incentives in primary care practice: The struggle to achieve population health goals
Dolor RJ, Schulman KA
JAMA 2013;310(10):1031-1032

Effects of individual physician-level and practice-level financial incentives on hypertension care: A randomized trial
Petersen LA, Simpson K, Pietz K, Urech TH, Hysong SJ, Profit J, Conrad DA, Dudley RA, Woodard LD
JAMA 2013;310(10):1042-1050

Effect of pay-for-performance incentives on quality of care in small practices with electronic health records: A randomized trial
Bardach NS, Wang JJ, De Leon SF, Shih SC, Boscardin WJ, Goldman LE, Dudley RA
JAMA 2013;310(10):1051-1059

Notes	<p>A pair of cluster randomised trials and an editorial on financial incentives in primary care settings were published in the most recent edition of <i>JAMA</i>. In Petersen et al, researchers tested the effect of physician-level (individual) incentives and practice-level incentives on the provision of guideline-recommended hypertension care in 12 Veterans Affairs outpatient clinics in the US. They found that individual financial incentives, but not practice-level or combined incentives, resulted in greater blood pressure control or appropriate response to uncontrolled blood pressure. However, none of the incentives resulted in greater use of guideline-recommended medications or increased incidence of hypotension compared with controls.</p> <p>Bardach et al looked at both pay-for-performance (P4P) and the role of electronic health records (EHRs) with chronic disease management capabilities to support P4P. They focused on a wider variety of cardiovascular treatment processes and outcomes in 84 small-group primary care clinics in New York City over a 12 month period, looking at differences in performance improvement, from the beginning to the end of the study, between control and intervention clinics for aspirin or antithrombotic prescription, blood pressure control, cholesterol control, and smoking cessation interventions. They found that, among small EHR-enabled clinics, a P4P incentive program compared with usual care resulted in “modest improvements in cardiovascular care processes and outcomes”.</p> <p>Both studies indicate that financial incentives are not a stand-alone solution to the problem of inappropriate variation in health care, but may be one piece of the puzzle. Each paper contains interesting questions of the role of primary care, and those delivering primary health care services, in a population health model.</p>
DOI	Dolor et al http://dx.doi.org/10.1001/jama.2013.277575 Petersen et al http://dx.doi.org/10.1001/jama.2013.276303 Bardach et al http://dx.doi.org/10.1001/jama.2013.277353

The frequency and cost of treatment perceived to be futile in critical care
 Huynh TN, Kleerup EC, Wiley JF, Savitsky TD, Guse D, Garber BJ, Wenger NS
 JAMA Internal Medicine 2013 [epub]

Notes	<p>A US study which looks at the prevalence and costs of care that is deemed by physicians to be futile. The study took place in 4 specialist ICUs in a quaternary hospital and in an academic community hospital mixed ICU.</p> <p>Over a 3 month period physicians were asked to assess each patient in the unit and complete a questionnaire asking if they considered the patient was receiving futile treatment, probably receiving futile treatment, or not receiving futile treatment. If treatment was considered futile then physicians were asked to select or write in the reason(s) for futility.</p> <p>6916 assessments were made of 1136 patients. Of these, 98 patients (8.6%) were perceived as receiving probably futile treatment; 123 (11%) were perceived as receiving futile treatment; and a further 11 (1%) were perceived as receiving futile treatment only on the day they transitioned to palliative care.</p> <p>The patients assessed as receiving futile treatment received 464 days of treatment perceived to be futile in critical care. 84 of these 123 patients died before hospital discharge and a further 20 within 6 months of ICU care.</p> <p>The authors report that survivors remained in a severely compromised health state. The cost of futile treatment in critical care was estimated at \$2.6 million.</p>
DOI	http://dx.doi.org/10.1001/jamainternmed.2013.10261

Offline: Clinical leadership improves health outcomes
 Horton R
 The Lancet 2013;382(9896):925.

Future hospital: caring for medical patients. A report from the Future Hospital Commission to the Royal College of Physicians
 Future Hospital Commission
 London: Royal College of Physicians, 2013.

Notes	<p>The Royal College of Physicians of London established a Future Hospital Commission. In this item in <i>The Lancet</i> it is claimed that the Commission, with its final report, has “produced the most important statement about the future of British medicine for a generation”. The “ten big ideas” include:</p> <ul style="list-style-type: none"> • “Hospitals must offer “seven-day care, delivered where patients need it”. • It's time to build a new movement for generalism, not specialism— ”generalists are the undervalued champions of ...acute hospital service”. • Hospitals need “a single unified Medical Division...[with] clinical, managerial, and budgetary responsibility for all inpatient beds”. • A Chief of Medicine will lead the Division and will be responsible for monitoring performance, safety, and quality improvement. • A Chief Resident, a “designated junior doctor”, will assist and report to the Chief of Medicine, planning service delivery and redesign with a special emphasis on junior medical staff. • Each hospital will have a Director of Medical Education to continuously improve training. • A new Director of Clinical Information will ensure that information, including patient-reported outcome measures, will be used to support care and measure success.
-------	--

	<ul style="list-style-type: none"> • Technology—email, texts, and video conferencing—will be used to communicate between patient and doctor, support self-management for those with long-term conditions, and conduct virtual clinics and ward rounds. • An Executive Director for Research should be responsible for promoting research within each hospital; all NHS Trust Boards should receive regular reports on research activity. • Finally, the hospital must tear down its walls: “the concept of the hospital needs to change radically”, integrating the management of chronic disease with general practice in the community.” <p>In this piece Richard Horton also notes some of the gaps in the report (little on services for children, women, and those requiring surgical expertise; little on healthcare workers other than physicians; no evaluation mechanism. The full report, along with a <i>What this means for patients</i> document, is available from the College http://www.rcplondon.ac.uk/projects/future-hospital-commission</p>
DOI / URL	Lancet piece: http://dx.doi.org/10.1016/S0140-6736(13)61866-8 Report: http://www.rcplondon.ac.uk/projects/future-hospital-commission
TRIM	Report: 87525

Quality Measurement Combined With Peer Review Improved German In-Hospital Mortality Rates For Four Diseases

Nimptsch U, Mansky T.

Health Affairs 2013;32(9):1616-1623.

Notes	<p>Paper reporting on an intervention introduced into 18 German hospitals that sought to reduce variation in mortality rates between the 18 hospitals. In the project, in-hospital mortality for myocardial infarction, heart failure, ischemic stroke, and pneumonia was stratified by initial hospital performance and compared with the German average. Following the intervention, hospitals whose performance was initially subpar had significantly reduced in-hospital mortality for all four diseases. In hospitals that had initially performed well, no significant changes in mortality were observed.</p> <p>The authors suggest that the quality management approach introduced (and described in the paper) was associated with improved outcomes in the initially subpar hospitals and that “disease-specific measures of mortality, combined with peer reviews, can be used to direct actions to areas of potential improvement”.</p>
DOI	http://dx.doi.org/10.1377/hlthaff.2012.0925

Underreporting of robotic surgery complications

Cooper MA, Ibrahim A, Lyu H, Makary MA

Journal for Healthcare Quality 2013 [epub].

Notes	<p>This US study sought to investigate the incidence (and report) on complications involving robot-assisted laproscopic surgery. The study examined the court records, news reports and (US) Food and Drug Administration (FDA) adverse device event database for the period 2000-2012.</p> <p>The authors report that the FDA had 245 events reported to them, including 71 deaths and 174 nonfatal injuries. They found several cases of preventable adverse events in robotic laparoscopic surgery that were not properly reported to the FDA. A checklist has been proposed so to minimise risks in robotic surgery.</p>
DOI	http://dx.doi.org/10.1111/jhq.12036

Notes	<p>A new issue of <i>BMJ Quality and Safety</i> has been published. Many of the papers in this issue have been referred to in previous editions of <i>On the Radar</i> (when they were released online). Articles in this issue of <i>BMJ Quality and Safety</i> include:</p> <ul style="list-style-type: none"> • Editorial: Diagnostic errors: moving beyond ‘no respect’ and getting ready for prime time (Hardeep Singh) • Editorial: Spreading human factors expertise in healthcare: untangling the knots in people and systems (Ken Catchpole) • Editorial: Patient safety without borders: measuring the global burden of adverse events (Neill K J Adhikari) • Viewpoint: The science of human factors: separating fact from fiction (A L Russ, R J Fairbanks, B-T Karsh, L G Militello, J J Saleem, R L Wears) • The global burden of unsafe medical care: analytic modelling of observational studies (Ashish K Jha, Itziar Larizgoitia, Carmen Audera-Lopez, Nittita Prasopa-Plaizier, Hugh Waters, David W Bates) • e-Prescribing: characterisation of patient safety hazards in community pharmacies using a sociotechnical systems approach (Olufunmilola K Odukoya and Michelle A Chui) • Hospital workers’ perceptions of waste: a qualitative study involving photo-elicitation (Sarah L Goff, Reva Kleppel, P K Lindenauer, M B Rothberg) • Involvement of patients with cancer in patient safety: a qualitative study of current practices, potentials and barriers (Helle Max Martin, Laura Emdal Navne, Henriette Lipczak) • Patient safety in healthcare preregistration educational curricula: multiple case study-based investigations of eight medicine, nursing, pharmacy and physiotherapy university courses (Kathrin Cresswell, Amanda Howe, Alison Steven, Pam Smith, Darren Ashcroft, Karen Fairhurst, Fay Bradley, Carin Magnusson, Maggie McArthur, Pauline Pearson, Aziz Sheikh, on behalf of the Patient Safety Education Research Group) • How can clinical practice guidelines be adapted to facilitate shared decision making? A qualitative key-informant study (Trudy van der Weijden, Arwen H Pieterse, Marije S Koelewijn-van Loon, Loes Knaapen, F Légaré, A Boivin, J S Burgers, A M Stiggelbout, M Faber, G Elwyn) • The contribution of prescription chart design and familiarity to prescribing error: a prospective, randomised, cross-over study (Victoria R Tallentire, Rebecca L Hale, Neil G Dewhurst, Simon R J Maxwell) • What is the probability of detecting poorly performing hospitals using funnel plots? (Sarah E Seaton, Lisa Barker, Hester F Lingsma, Ewout W Steyerberg, Bradley N Manktelow)
URL	http://qualitysafety.bmj.com/content/vol22/issue10/

Notes	<p>A Supplement to the <i>BMJ Quality and Safety</i> has been published focusing on diagnostic error in medicine. Many of the papers in this issue have been referred to in previous editions of <i>On the Radar</i> (when they were released online). Articles in this issue of <i>BMJ Quality and Safety supplement</i> include:</p>
-------	---

	<ul style="list-style-type: none"> • The pursuit of better diagnostic performance: a human factors perspective (Kerm Henriksen, Jeff Brady) • When diagnostic testing leads to harm: a new outcomes-based approach for laboratory medicine (Paul L Epner, Janet E Gans, Mark L Graber) • How much diagnostic safety can we afford, and how should we decide? A health economics perspective (David E Newman-Toker, Kathryn M McDonald, David O Meltzer) • The incidence of diagnostic error in medicine (Mark L Graber) • Educational agenda for diagnostic error reduction (Robert L Trowbridge, Gurpreet Dhaliwal, Karen S Cosby) • The patient is in: patient involvement strategies for diagnostic error mitigation (Kathryn M McDonald, Cindy L Bryce, Mark L Graber) • Use of health information technology to reduce diagnostic errors (Robert El-Kareh, Omar Hasan, Gordon D Schiff) • Advancing the research agenda for diagnostic error reduction (Laura Zwaan, Gordon D Schiff, Hardeep Singh) • Cognitive debiasing 1: origins of bias and theory of debiasing (Pat Croskerry, Geeta Singhal, Sílvia Mamede) • Cognitive debiasing 2: impediments to and strategies for change (Pat Croskerry, Geeta Singhal, Sílvia Mamede)
URL	http://qualitysafety.bmj.com/content/vol22/Suppl_2

BMJ Quality and Safety online first articles

Notes	<p>BMJ Quality and Safety has published a number of ‘online first’ articles, including:</p> <ul style="list-style-type: none"> • Unintentional non-adherence: can a spoon full of resilience help the medicine go down? (Dominic Furniss, Nick Barber, Imogen Lyons, Lina Eliasson, Ann Blandford) • Antimicrobial stewardship programmes: the need for wider engagement (Esmita Charani, Alison H Holmes)
URL	http://qualitysafety.bmj.com/onlinefirst.dtl

Online resources

[USA] *Improving Your Office Testing Process: A Toolkit for Rapid-Cycle Patient Safety and Quality Improvement*

<http://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/ambulatory-care/office-testing-toolkit/>

The US Agency for Healthcare Research and Quality (AHRQ) has produced this toolkit to help doctors, nurses, and medical office staff improve their processes for tracking, reporting, and following up with patients after medical laboratory tests.

The toolkit offers step-by-step instructions on how to evaluate an office testing process, identify areas where improvement is needed, and address those areas. The toolkit also includes a template for practices to ensure that laboratory test results are communicated effectively to patients.

[Canada] Virtual Forum on Patient Safety and Quality Improvement

<http://www.patientsafetyinstitute.ca/English/news/CanadasForumPatientSafety/Pages/default.aspx>

The Canadian Patient Safety Institute has organised this free ‘virtual that will include presentations and discussions exploring multidisciplinary insights on best practices and lessons learned about different patient safety themes each day.

28 October–1 November 1, 2013; 12:00–4:00 PM (Eastern). [3:00AM–7:00AM AEDT]

Archives and recordings will be available on the website.

Disclaimer

On the Radar is an information resource of the Australian Commission on Safety and Quality in Health Care. The Commission is not responsible for the content of, nor does it endorse, any articles or sites listed. The Commission accepts no liability for the information or advice provided by these external links. Links are provided on the basis that users make their own decisions about the accuracy, currency and reliability of the information contained therein. Any opinions expressed are not necessarily those of the Australian Commission on Safety and Quality in Health Care.