AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

On the Radar

Issue 247
2 November 2015

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, Catherine Marshall

Books

Health Literacy and Consumer-Facing Technology: Workshop Summary
Institute of Medicine
Alper J, editor.
Washington, DC: The National Academies Press; 2015. 122 p.
ISBN 978-0-309-37690-7

URL	http://www.nap.edu/catalog/21781/health-literacy-and-consumer-facing-technology-workshop-summary
Notes	The proliferation of technology, such as smartphones and tablets, has led to consideration of how such technology can be used to assist patients with issues such as health literacy, self-measurement and self-management. The [US] Institute of Medicine convened a workshop to explore health literate practices in health information technology and then provide and consider the ramifications of this rapidly growing field on the health literacy of users. This report summarises the discussions and presentations from this workshop, highlighting the lessons presented, practical strategies, and the needs and opportunities for improving health literacy in consumer-facing technology.

Reports

The state of health care and adult social care in England 2014/15
Care Quality Commission
Newcastle-upon-Tyne: Her Majesty's Stationery Office; 2015. p. 122.

URL	http://www.cqc.org.uk/content/state-care-201415
Notes	The UK's Care Quality Commission has released its 2015 report (and other resources) on health (and social) care delivery in England. Some of themes discussed include the challenges of **delivering quality under pressure**, including financial pressures, **variation** in quality of care, the need to keep **safety as the greatest concern**, ensuring that there is an **ability to improve** and to support improvement, identifying **what it takes to be outstanding**, and the importance of **data and transparency** to understanding and improving care delivery.

Journal articles

Guideline recommended treatments in complex patients with multimorbidity
Muth C, Glasziou PP
BMJ. 2015;351.

DOI	http://dx.doi.org/10.1136/bmj.h5145
Notes	Guidelines can be very useful and powerful in helping ensure patients receive appropriate care. As the NHMRC recently noted, "Evidence based clinical practice guidelines are key to establishing effective, high quality and safe health care practices and policies." However, there are recognised to be some limitations with some guidelines. One important one is that they tend to address comorbidities or multimorbidity. As the level of comorbidities is increasing in the population this failure raises concerns. As the authors note of this editorial note, the application of multiple guidelines to a patient with multimorbidity can create three problems: 1. As comorbidity is a common reason for exclusion in clinical trials it is not known whether treatment effects in patients with multimorbidity are equivalent to those in patients with single diseases. 2. The application of multiple disease oriented guidelines bears the risks of potentially harmful interactions between diseases and treatments. 3. An uncritical application of multiple guidelines adds to the burden of treatment of patients with multimorbidity, which may exceed patients' willingness or capability to cope. Such issues would seem to demand that guideline development start to address multimorbidity.

Is researching adverse events in hospital deaths a good way to describe patient safety in hospitals: a retrospective patient record review study
Baines RJ, Langelaan M, de Bruijne MC, Wagner C
BMJ Open. 2015 July 1, 2015;5(7).

URL	http://bmjopen.bmj.com/content/5/7/e007380.abstract
Notes	Research article examining whether reviewing patient deaths provides a representative view of the occurrence of adverse events (AEs) in comparison to patients who are discharged while still living. Using a dataset of 11,949 hospital admissions, 50% of which were inpatient deaths; the other half of patients discharged while alive.

	The authors report finding that "**Patients who died in hospital** were on an average **older**, had a **longer length of stay**, were more often **urgently admitted** and were **less often admitted to a surgical unit**. We found twice as many adverse events and preventable adverse events in inpatient deaths than in patients discharged alive. Consistent with the differences in patient characteristics, preventable adverse events in inpatient deaths were proportionally less and were often related to the surgical process" The authors conclude that while "Reviewing patient records of inpatient deaths is more efficient in identifying preventable AEs than reviewing records of those discharged alive." However, "it does not offer a representative view of the number or type of adverse events."

One size fits all? Mixed methods evaluation of the impact of 100% single-room accommodation on staff and patient experience, safety and costs
Maben J, Griffiths P, Penfold C, Simon M, Anderson JE, Robert G, et al
BMJ Quality & Safety. 2015 [epub].

Why evaluate 'common sense' quality and safety interventions?
Ramsay AI, Fulop NJ
BMJ Quality & Safety. 2015 [epub].

DOI	Maben et al http://dx.doi.org/10.1136/bmjqs-2015-004265 Ramsay and Fulop http://dx.doi.org/10.1136/bmjqs-2015-004755
Notes	There are many aspects of care provision that may influence the safety and/or quality of care. This can even include the design and construction of the facility. In hospital design a major question has been whether the provision of single rooms enhances care. This study looked at a hospital before and after moving to being entirely single room accommodation. This was done by not renovating a facility but by building an entirely new facility. Such a change might be expected address issues such as mixed sex wards and healthcare associated infection control, and also offering a care environment more in line with patient preferences. From their mixed methods analysis, the authors report that a majority of patients "expressed a preference for single rooms with comfort and control outweighing any disadvantages (sense of isolation) felt by some. Patients appreciated privacy, confidentiality and flexibility for visitors afforded by single rooms. Staff perceived improvements (patient comfort and confidentiality), but single rooms were worse for visibility, surveillance, teamwork, monitoring and keeping patients safe. Staff walking distances increased significantly post move. A temporary increase of falls and medication errors in one ward was likely to be associated with the need to adjust work patterns rather than associated with single rooms per se. We found no evidence that single rooms reduced infection rates. Building an all single-room hospital can cost 5% more with higher housekeeping and cleaning costs but the difference is marginal over time." The accompanying editorial focuses less on the subject of the paper as on their methods, praising the breadth of their approach to evaluation.

Medication reconciliation at admission and discharge: an analysis of prevalence and associated risk factors
Belda-Rustarazo S, Cantero-Hinojosa J, Salmeron-García A, González-García L, Cabeza-Barrera J, Galvez J
International Journal of Clinical Practice. 2015;69(11):1268-74.

DOI	http://dx.doi.org/10.1111/ijcp.12701
Notes	This paper reports on a prospective observational 2-year study that include 814 patients in order to examine the frequency/type of reconciliation errors at hospital admission and discharge and to report on the drugs involved, associated risk factors and potential to cause harm in a healthcare setting with comprehensive digital health records. Results reported include: • **at least one reconciliation error** was detected in 525 (**64.5%**) **patients at admission**, with a mean of 2.2 ± 1.3 errors per patient and in 235 (**32.4%**) patients **at discharge** • **drug omission** was the most frequent reconciliation error (73.6% at admission and 71.4% at discharge) • **39% of errors at admission** and **51% at discharge** had **potential to cause moderate or severe harm** • The **risk** of error at admission was **higher** with **more** pre-admission **drugs** ($p < 0.001$) and, among patients with reconciliation errors, the number of errors was significantly higher in those receiving more drugs pre-admission or with more **comorbidities**. The risk at discharge was higher in patients with more drugs prescribed at discharge ($p = 0.04$) and in those with a longer hospital stay ($p = 0.03$). These results lend further weight to the argument for routine medication reconciliation. The authors also note that "Integration of patient health records across care levels is necessary but not sufficient to prevent errors."

For information on the Commission's work on medication safety, including medication reconciliation, see http://www.safetyandquality.gov.au/our-work/medication-safety/

Risk Propensity and Safe Medication Administration
Gonzales K
Journal of Patient Safety. 2015 Sep;11(3):166-73.

DOI	http://dx.doi.org/10.1097/PTS.0000000000000065
Notes	Medication safety is a many faceted issue with various types of lapse and error with many types of causes (and therefore requiring a range of responses/solutions). This paper looks at one possible source of lapse, that of the health worker's behaviour. Here the behaviour is not specific to the delivery of medication but more to the apparent propensity for risk-taking. This small study used a small sample of nursing students at a private university in Midwest USA. Fourth-year students completed two surveys: the revised Domain-Specific Risk-Taking and Risk Perception (DOSPERT) Scale to measure risk propensity, and the SAM Scale, measuring knowledge and performance of safe medication administration. Second-year students completed the SAM Scale alone. The authors argue that they "demonstrated a statistically significant relationship between personal risk taking in the area of health/safety and safe medication administration in nursing students." Such a relationship, if real and perpetuated in practice, poses a potential risk of harm to patients.

Breast cancer screening, incidence, and mortality across US counties
Harding C, Pompei F, Burmistrov D, Welch H, Abebe R, Wilson R
JAMA Internal Medicine. 2015;175(9):1483-9.

DOI	http://dx.doi.org/10.1001/jamainternmed.2015.3043
Notes	The utility and value of population screening for a number of conditions, including breast cancer, is quite hotly debated. This US study adds to the debate and, again, raises some doubts. This study was an ecological study of 16 million women 40 years or older in 547 US counties that sought to examine the associations between rates of modern screening mammography and the incidence of breast cancer, mortality from breast cancer, and tumour size. The authors conclude "When analyzed at the county level, the clearest **result of mammography screening** is the **diagnosis** of **additional small cancers**. Furthermore, there is no concomitant decline in the detection of larger cancers, which might explain the **absence of any significant difference in the overall rate of death** from the disease. Together, these findings suggest **widespread overdiagnosis**."

Healthcare Infection
Volume 20(4) 2015

URL	http://www.publish.csiro.au/nid/242/issue/7525.htm
Notes	A new issue of *Healthcare Infection* has been published. Articles in this issue of the *Healthcare Infection* include: • Evaluating **environment cleanliness** using two approaches: a multi-centred Australian study (Brett G. Mitchell, Fiona Wilson and Anne Wells) • Characteristics of a successful **hospital hand hygiene program**: an Australian perspective (Joanne Brocket and Ramon Z. Shaban) • Acute **vancomycin-resistant enterococcal bacteraemia** outbreak analysis in haematology patients: a case-control study (Ian Gassiep, Mark Armstrong, Zoe Van Havre, S Schlebusch, J McCormack and P Griffin) • Cultural dimensions relevant to **antimicrobial stewardship**: the contribution of individualism and power distance to perioperative prescribing practices in European hospitals (Allen C Cheng and Leon J. Worth) • Rising **fluoroquinolone resistance** rates in corneal isolates: implications for the wider use of antibiotics within the community (Chameen Samarawickrama, Elsie Chan and Mark Daniell) • Implementation of an **antimicrobial stewardship** program in an Australian metropolitan private hospital: lessons learned (Jeannine A M Loh, Jonathan D Darby, John R Daffy, Carolyn L Moore, Michelle J Battye, Yves S Poy Lorenzo and Peter A Stanley) • Compliance with international guidelines on **antibiotic prophylaxis** for elective surgeries at a tertiary-level hospital in the Philippines (Maria Isabel P Nabor, Brian S Buckley and Marie Carmela M Lapitan)

American Journal of Medical Quality
November/December 2015; 30 (6)

URL	http://ajm.sagepub.com/content/30/6?etoc
Notes	A new issue of the *American Journal of Medical Quality* has been published. Articles in this issue of the *American Journal of Medical Quality* include: • Editorial: How Meaningful Is **Meaningful Use**? (James M Gill) • The **Meaningful Use of Electronic Health Records** and **Health Care Quality** (Lisa M Kern, Alison Edwards, Rainu Kaushal, and with the HITEC Investigators) • **Governance Practices and Performance** in US Academic Medical Centers (Marilyn Szekendi, Lawrence Prybil, Daniel L Cohen, Beth Godsey, David W Fardo, and Julie Cerese) • **Training in Quality and Safety**: The Current Landscape (Andrew S Karasick and David B Nash) • Adherence to Standard of Care in the Diagnosis and Treatment of Suspected **Bacterial Meningitis** (David Chia, Youness Yavari, Eugeny Kirsanov, Steven I. Aronin, and Majid Sadigh) • SQUIRE 2.0 (**Standards for QUality Improvement Reporting Excellence**): Revised Publication Guidelines From a Detailed Consensus Process (Greg Ogrinc, Louise Davies, Daisy Goodman, Paul Batalden, Frank Davidoff, and David Stevens) • Evaluating the Effect of **Safety Culture** on **Error Reporting**: A Comparison of Managerial and Staff Perspectives (Jason P Richter, Ann Scheck McAlearney, and Michael L Pennell) • **Identifying Severe Sepsis** via Electronic Surveillance (Bristol N Brandt, Amanda B Gartner, Michael Moncure, Chad M Cannon, Elizabeth Carlton, Carol Cleek, Chris Wittkopp, and Steven Q Simpson) • **"Choosing Wisely"** in an Academic Department of Medicine (Jonas Z Hines, Justin L Sewell, Niraj L Sehgal, Christopher Moriates, Claire K Horton, and Alice Hm Chen) • **CT Pulmonary Angiography** Utilization in the Emergency Department: Diagnostic Yield and Adherence to Current Guidelines (Apostolos Perelas, Anastasios Dimou, Augustina Saenz, Ji Hyun Rhee, K Teerapuncharoen, Adam Rowden, and Glenn Eiger) • Improved Perception of Communication and Compliance With a Revised, **Intensive Care Unit-Specific Bedside Communication Sheet** (Linda Aponte-Patel and Anita Sen) • A Novel Means of Assessing Institutional Adherence to **Blood Transfusion Guidelines** (Caitlin W Hicks, Steven M Frank, Jack O Wasey, Jonathan Efron, Susan Gearhart, Sandy Fang, B Safar, M A Makary, and E C Wick) • Relationship Between Time in the Operating Room and **Incident Pressure Ulcers**: A Matched Case–Control Study (Rachel M Hayes, Marcia E Spear, Sheree I Lee, Buffy E Krauser Lupear, Richard A Benoit, Rainy Valerio, and Roger R Dmochowski) • A Continuous Quality Improvement Initiative for **Electronic Prescribing in Ambulatory Care** (Ajit A Dhavle, Michael T Rupp, Max Sow, and Valentina Lengkong) • A Needs Assessment in **Patient Safety Education** for Fourth-Year Medical Students (Paul S Jansson, Yuemi An-Grogan, Susan G Eller, Donna M Woods, Amy V Kontrick, and David H Salzman)

BMJ Quality and Safety online first articles

URL	http://qualitysafety.bmj.com/content/early/recent
Notes	*BMJ Quality and Safety* has published a number of 'online first' articles, including: • Qualitative **complaints** and their relation to overall **hospital rating** using an H-CAHPS-derived instrument (Kyle Kemp, Sarah Warren, Nancy Chan, Brandi McCormack, Maria Santana, Hude Quan) • Development and testing of a text-mining approach to **analyse patients' comments** on their experiences of colorectal cancer care (Richard Wagland, Alejandra Recio-Saucedo, Michael Simon, Michael Bracher, Katherine Hunt, Claire Foster, Amy Downing, Adam Glaser, Jessica Corner) • **Computerised prescribing for safer medication ordering**: still a work in progress (Gordon D Schiff, Thu-Trang T Hickman, Lynn A Volk, David W Bates, Adam Wright)

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:

- NICE Guideline NG16 **Dementia, disability and frailty** in later life – mid-life approaches to delay or prevent onset http://www.nice.org.uk/guidance/ng16

[USA] Effective Health Care Program reports
http://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:

- *Emerging Approaches to Diagnosis and Treatment of Non–Muscle-Invasive Bladder Cancer* http://www.effectivehealthcare.ahrq.gov/search-for-guides-reviews-and-reports/?pageaction=displayproduct&productID=2137