AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

On the Radar

Issue 89
23 July 2012

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 whether 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 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, please email us at
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.

This week's content

Reports

An Interactive Preventive Care Record: A Handbook for Using Patient-Centered Personal Health Records to Promote Prevention
ARHQ. Rockville MD.

Notes	A new handbook from the US Agency for Healthcare Research and Quality (AHRQ) offers practical guidance on the implementation of interactive preventive health records (IPHRs). Based on the lessons learned from implementation using EHRs from 3 different vendors at 14 different practices, the handbook provides practical steps for healthcare professionals to follow when integrating IPHRs as components of electronic health records.
URL	http://healthit.ahrq.gov/KRIST-IPHR-Guide-0612.pdf

How Can Health Care Organizations Become More Health Literate?: Workshop Summary
Institute of Medicine
Washington D.C.: The National Academies Press, 2012.

Notes	The IOM Roundtable on Health Literacy commissioned a paper that defined a health literate health care organization as "an organization that makes it easier for people to navigate, understand, and use information and services to take care of their health." In November 2011, the roundtable held a workshop to discuss the growing recognition that health literacy depends not only on individual skills and abilities but also on the demands and complexities of the health care system. This report summarises that workshop.

URL	http://www.iom.edu/Reports/2012/How-Can-Health-Care-Organizations-Become-More-Health-Literate.aspx

Journal articles

CareTrack: assessing the appropriateness of health care delivery in Australia
Runciman WB, Hunt TD, Hannaford NA, Hibbert PD, Westbrook JI, Coiera EW, et al.
Medical Journal of Australia 2012;197(2):100-105.

Notes	The CareTrack Australia study aimed to determine "the percentage of health care encounters at which a sample of Australians received appropriate care". To do this, researchers developed and ratified indicators for 22 selected conditions, conducted computer-assisted telephone interviews to recruit 1154 participants, and reviewed participants' medical records. They found that **adult Australians received appropriate care at 57% of eligible health encounters** (95% CI, 54%-60%). There was a large variation in appropriate care received based on condition, with alcohol dependence and obesity displaying poor compliance with indicators for appropriate use, while coronary artery disease showed high rates of compliance. The inconsistency of the delivery of appropriate care is concerning, and warrants attention.
DOI	http://dx.doi.org/10.5694/mja12.10510
TRIM	65663

Towards the delivery of appropriate health care in Australia
Runciman WB, Coiera EW, Day RO, Hannaford NA, Hibbert PD, Hunt TD, et al.
Medical Journal of Australia 2012;197(2):78-81.

Notes	In this perspective piece by authors of the CareTrack research, the 'operational lessons' of the study are discussed to inform an argument for making the measurement of appropriateness of care "routine and prospective". Researchers had to navigate a complicated and crowded environment of guidelines and indicators in order to develop a set that they could use for the study. This situation makes it hard to identify guidelines and promote appropriate care. In addition, the difficulties faced by the researchers to access medical records accounted for significant attrition of participants, high administrative costs, and ultimately limited the study. The authors propose incorporating tools (in the form of checklists, reminders, decision or action algorithms, or bundles of care) into guidelines and electronic health records. They argue that these would improve both the consistency of appropriate care delivery and the monitoring of such care.
DOI	http://dx.doi.org/10.5694/mja12.10799
TRIM	65664

Beyond reporting: the MJA takes an active role in improving health care
Katelaris A
Medical Journal of Australia 2012;197(2):65.

A dog walking on its hind legs? Implications of the CareTrack study
Scott IA, Del Mar CB
Medical Journal of Australia 2012;197(2):67-68.

Barriers to "appropriate care" in general practice
Ackermann E
Medical Journal of Australia 2012;197(2):76-77.

"Tick box" medicine concerns
Saunders C
MJA InSight 16 July 2012 [epub]

Measuring appropriate care
Katelaris A
MJA InSight 16 July 2012 [epub]

A call for action
Buchan H, Picone D
MJA InSight 16 July 2012 [epub]

Notes	A large proportion of the current issues of the *Medical Journal of Australia* and *MJA InSight* is given over to discussion of a study in the appropriateness of care. This study, and its related paper and commentaries, have also been much reported in mainstream and medical media. The key item that has been most reported is that only **57% of care was deemed appropriate**. This is in line with previous studies of appropriateness of care. The MJA's editor, Katelaris, sees a gap in the knowledge and a role for the MJA in the dissemination of knowledge in plugging that gap. Ackerman and Scott and Del Mar reiterate some of the limitations of the study in their two items while also suggesting where some possible solutions may lie, including a possible role for the Commission. Saunders presents some of the concerns around measuring process over outcomes. Buchan and Picone outline the work of the Commission to tackle variations in appropriate care using the National Safety and Quality Health Care Goals and clinical care standards.
DOI	Katelaris http://dx.doi.org/10.5694/mja12.c0716 Scott and Del Mar http://dx.doi.org/10.5694/mja12.10957 Ackermann http://dx.doi.org/10.5694/mja12.10958
URL	Saunders http://www.mjainsight.com.au/view?post=%E2%80%9CTick+box%E2%80%9D+medicine+concerns&post_id=9940&cat=news-and-research Katelaris http://www.mjainsight.com.au/view?post=Annette+Katelaris%3A+Measuring+appropriate+care&post_id=9962&cat=comment Buchan and Picone http://www.mjainsight.com.au/view?post=Heather+Buchan+%26+Debora+Picone%3A+A+call+for+action&post_id=9945&cat=comment

TRIM	65665–65667

Reduction in Clostridium difficile *Infection Rates after Mandatory Hospital Public Reporting: Findings from a Longitudinal Cohort Study in Canada*
Daneman N, Stukel TA, Ma X, Vermeulen M, Guttmann A
PLoS Med 2012;9(7):e1001268.

Notes	Public reporting of *Clostridium difficile* hospital infections in Ontario was associated with a drop in cases by one-fourth, according to this study. Canadian researchers analysed data on all patients 1 year old or older admitted to 180 provincial acute-care hospitals from 1 April 2002 to 31 March 2010. They also developed a model to predict hospital- and age-specific monthly rates of *C difficile* cases based on Poisson regression. They then compared rates before and after public reporting of the disease was instituted. The researchers found that pre-intervention rates increased from 7.01 per 10,000 patient-days in 2002 to 10.79 in 2007. In the first year after public reporting began, the case rate per 10,000 patient-days dropped to 8.92, compared with a predicted rate of 12.16. The team determined that **public reporting** of *C difficile* infection over this period was associated with a **26.7% reduction in cases**. They conclude, 'Future research will be required to discern the direct mechanism by which *C difficile* infection rates may have been reduced in response to public reporting.'
DOI	http://dx.doi.org/10.1371/journal.pmed.1001268
TRIM	65831

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

A vignette study to examine health care professionals' attitudes towards patient involvement in error prevention
Schwappach DL, Frank O, Davis RE
Journal of Evaluation in Clinical Practice 2012 [epub].

Notes	Patient-centred care is widely seen as a way to enhance the quality and safety of care. How far to integrate and include the patient is, however, not always agreed upon. This study sought to examine health care professionals' (HCPs) attitudes towards patients' involvement in safety-related behaviours by undertaking 'cross-sectional fractional factorial survey with seven factors embedded in two error scenarios (missed hand hygiene, medication error)' that used vignettes that described the potential error, a patient's reaction to that error and the HCP response to the patient. 1141 HCPs from 12 Swiss hospitals were surveyed. HCPs expressed more favourable attitudes towards patients intervening about a medication error than about hand hygiene The HCPs generally supported engaging patients in safety efforts, but expressed concerns about potential negative effects on the provider–patient relationship if patients needed to actively intervene.
DOI	http://dx.doi.org/10.1111/j.1365-2753.2012.01861.x

Tenfold Medication Errors: 5 Years' Experience at a University-Affiliated Pediatric Hospital
Doherty C, Mc Donnell C
Pediatrics 2012;129(5):916-924.

Notes	The first of a number of papers on medication errors looks at a particularly vulnerable population – children. Many paediatric medications need to dosed individually according to weight. Tenfold dosing errors – where a child receives a dose an order of magnitude different than appropriate– have resulted in (serious) patient harm. This study found that more than 250 such errors had occurred over a 5-year period at a tertiary care children's hospital. Although pharmacists intercepted nearly half the errors, more than one-third occurred at the time of medication administration and therefore would not have been prevented either by pharmacists or by computerized provider order entry. The authors offer recommendations of vigilance for specific drugs and standardised order sets for opioids and antibiotics, and identify the administering phase of the medication process as a high-risk practice.
DOI	http://dx.doi.org/10.1542/peds.2011-2526

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

Effect of a Pharmacist Intervention on Clinically Important Medication Errors After Hospital Discharge: A Randomized Trial
Kripalani S, Roumie CL, Dalal AK, Cawthon C, Businger A, Eden SK, et al
Annals of Internal Medicine 2012;157(1):1-10.

Notes	Clinically important medication errors are common after hospital discharge. They include preventable or ameliorable adverse drug events (ADEs), as well as medication discrepancies or non-adherence with high potential for future harm (potential ADEs). This study sought to determine the effect of a tailored intervention on the occurrence of clinically important medication errors after hospital discharge. This randomised, controlled trial involved 851 participants from two tertiary care academic hospitals. The authors report that approximately 50% of adult patients who received a robust pharmacist-driven intervention still experienced a clinically important medication error within one month following discharge for an episode of acute coronary syndrome or acute decompensated heart failure. The four-component intervention included pharmacist-assisted medication reconciliation, inpatient pharmacist counselling, low-literacy adherence aids, and individualised telephone follow-up after discharge. The authors concluded that 'Clinically important medication errors were present among one half of patients after hospital discharge and were not significantly reduced by a health-literacy-sensitive, pharmacist-delivered intervention.' While there was an apparent reduction in the number of potential ADEs, the reasons for lack of reduction in actual ADEs is clearly an area to examine.
DOIs	http://annals.org/article.aspx?articleid=1206684 http://annals.org/article.aspx?articleid=1206683

Understanding and preventing wrong-patient electronic orders: a randomized controlled trial
Adelman JS, Kalkut GE, Schechter CB, Weiss JM, Berger MA, Reissman SH, et al
Journal of the American Medical Informatics Association 2012 [epub].

Notes	A previous issue of *On the Radar* has reported on a study that had attempted to augment computerised medication ordering by including a patient's photograph. This study reports on a other enhancements by evaluating systems for estimating and preventing wrong-patient electronic orders in computerised physician order entry (CPOE) systems with a two-phase study. In phase 1 (May to August 2010), the effectiveness of a 'retract-and-reorder' measurement tool was assessed that identified orders placed on a patient, promptly retracted, and then reordered by the same provider on a different patient as a marker for wrong-patient electronic orders. This tool was then used to estimate the frequency of wrong-patient electronic orders in four hospitals in 2009. In phase 2 (December 2010 to June 2011), a three-armed randomised controlled trial was conducted to evaluate the efficacy of two distinct interventions aimed at preventing these errors by re-verifying patient identification: an 'ID-verify alert', and an 'ID-re-entry function'. The retract-and-reorder measurement tool effectively identified 170 of 223 events as wrong-patient electronic orders, resulting in a positive predictive value of 76.2%. In phase 2, 901,776 ordering sessions among 4028 providers were examined. Compared with control, the ID-verify alert reduced the odds of a retract-and-reorder event, but the ID-re-entry function reduced the odds by a larger magnitude. The authors assert that 'Wrong-patient electronic orders occur frequently with computerized provider order entry systems, and electronic interventions can reduce the risk of these errors occurring.'
DOI	http://dx.doi.org/10.1136/amiajnl-2012-001055

Effect of clinical decision-support systems: a systematic review
Bright TJ, Wong A, Dhurjati R, Bristow E, Bastian L, Coeytaux RR, et al.
Annals of Internal Medicine 2012;157(1):29-43.

Notes	Report of a systematic review of 148 reports of randomised trials published in English of electronic clinical decision support systems were implemented in clinical settings; used by providers to aid decision making at the point of care; and reported clinical, health care process, workload, relationship-centred, economic, or provider use outcomes. The review found that **clinical decision support systems were generally effective at improving processes of care**, such as adherence to recommended treatments for specific conditions. However, as is often the case with such reviews, the authors report that there's insufficient evidence to draw concrete conclusions, such as whether such systems positively affect clinical outcomes or cost efficiency.
URLs	http://annals.org/article.aspx?articleid=1206700 http://annals.org/data/Journals/AIM/24329/0000605-201207030-00006.pdf

Safety in culture
Gallego B, Braithwaite J
MJA InSight 16 July 2012 [epub]

Notes	A discussion of a survey conducted in 2009 in South Australia into safety cultures in health organisations. The survey received 16, 619 responses (52% of the SA public health workforce) and showed variation in patient safety culture across services. The study contributes to the growing body of research into safety culture, and provides a greater opportunity to explore the relationship between patient safety attitudes and better outcomes for patients.
URL	http://www.mjainsight.com.au/view?post=Blanca+Gallego+%26+Jeffrey+Braithwaite%3A+Safety+in+culture+&post_id=9951&cat=comment

BMJ Quality and Safety

Notes	*BMJ Quality and Safety* has published a number of 'online first' articles, including: • **Improving primary care** in Australia through the Australian Primary Care Collaboratives Program: a quality improvement report (Andrew W Knight, Claire Caesar, Dale Ford, Alison Coughlin, Colin Frick) • **Interruption handling strategies** during paediatric medication administration (Lacey Colligan, Ellen J Bass) • Developing capable quality **improvement leaders** (Geraldine M Kaminski, Maria T Britto, Pamela J Schoettker, S L Farber, S Muething, U R Kotagal) • Adverse drug events caused by **serious medication administration errors** (Abhivyakti Kale, Carol A Keohane, Saverio Maviglia, Tejal K Gandhi, Eric G Poon) • Improving **communication of critical laboratory results**: know your process (Brian M Wong, Edward E Etchells) • Impact of a hospital-wide **hand hygiene initiative on healthcare-associated infections**: results of an interrupted time series (Kathryn B Kirkland, Karen A Homa, R A Lasky, J A Ptak, E A Taylor, M E Splaine) • Self-reported uptake of recommendations after dissemination of **medication incident alerts** (Ka-Chun Cheung, Michel Wensing, Marcel L Bouvy, Peter A G M De Smet, Patricia M L A van den Bemt) • **Removal of doctors from practice** for professional misconduct in Australia and New Zealand (K Elkin, M J Spittal, D Elkin, D M Studdert) • **Diagnostic errors** in the intensive care unit: a systematic review of autopsy studies (Bradford Winters, Jason Custer, Samuel M Galvagno, Jr, Elizabeth Colantuoni, Shruti G Kapoor, HeeWon Lee, Victoria Goode, Karen Robinson, Atul Nakhasi, Peter Pronovost, David Newman-Toker) • Editorial: **Quality improvement collaboratives** in the age of health informatics—new wine in new wineskins (Patrick O'Connor)
URL	http://qualitysafety.bmj.com/onlinefirst.dtl

International Journal for Quality in Health Care online first articles

Notes	*International Journal for Quality in Health Care* has published a number of 'online first' articles, including: • Women's perception of antenatal care services in public and private clinics in the Gambia (Isatou K Jallow, Yiing-Jenq Chou, Tsai-Ling Liu, and Nicole Huang) http://intqhc.oxfordjournals.org/cgi/content/abstract/mzs033v1?papetoc

	• Is the **length of stay** in hospital correlated with patient **satisfaction**? (Ine Borghans, Sophia M Kleefstra, Rudolf B Kool, and Gert P. Westert) http://intqhc.oxfordjournals.org/cgi/content/abstract/mzs037v1?papetoc • An empirical test of **accreditation patient journey surveys**: randomized trial (D Greenfield, R Hinchcliff, M Westbrook, D Jones, L Low, B Johnston, M Banks, M Pawsey, M Moldovan, J Westbrook, and J Braithwaite) http://intqhc.oxfordjournals.org/cgi/content/abstract/mzs035v1?papetoc • **Complaints** as indicators of health care shortcomings: which groups of patients are affected? (Susanne Schnitzer, Adelheid Kuhlmey, Holger Adolph, Julie Holzhausen, and Liane Schenk) http://intqhc.oxfordjournals.org/cgi/content/abstract/mzs036v1?papetoc

Online resources

[US] The Final Check Toolkit
http://www.thefinalcheck.org/
The College of American Pathologists estimates that 1 in 1,000 blood specimens ends up being labelled with the wrong patient identifiers. That type of error can potentially harm two patients—the patient whose blood was mislabelled as well as the patient who was incorrectly linked to that specimen. Both patients may end up with incorrect diagnoses, missed treatment, or treatment that they do not need.
A collaboration between Palmetto Health Richland Hospital, the South Carolina Hospital Association, and Outcome Engenuity, LLC, has resulted in a simple intervention that hospitals can use to dramatically reduce the rate of mislabelled blood specimens. Called The Final Check, the intervention was used for the first time at Palmetto Health in 2011, resulting in a 90 percent decrease in mislabelled specimens in the first month it was used. Those results have since been validated at five other hospitals in South Carolina and sustained for five consecutive months to date. Outcome Engenuity offers The Final Check Toolkit free of charge via the website, www.thefinalcheck.org.