AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

On the Radar

Issue 76
2 April 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.

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This week's content

Journal articles

Medical emergency team calls in the radiology department: patient characteristics and outcomes
Ott LK, Pinsky MR, Hoffman LA, Clarke SP, Clark S, Ren D, et al.
BMJ Quality & Safety 2012 [epub].

Notes	The use and efficacy of medical emergency teams (MET) and other recognition and response systems for clinical deterioration is another area of much activity. The *BMJ Quality and Safety* has published a paper and related editorial on MET calls within a medical imaging department. The editorial by Staples and Redelmeier starts by noting that sending patients for imaging is 'tantamount to discharging them from hospital for hours'. They go on to discuss the paper by Ott et al. and how it 'highlights how medical emergencies in medical imaging departments are neither rare nor benign. …. The researchers examined life-threatening changes in patient status occurring in the medical imaging department of one large American hospital over a 2-year period. The overall frequency averaged about one event per week. Forty per cent of patients originated from critical care wards and about half of the events occurred on the patient's first day of admission.' There are a range of possible interpretations or explanations. It is likely that various factors are involved in any given case. However, it is suggested that **patients could – and should – be better monitored will they undergo diagnostic testing**.
DOI	Ott et al.: http://dx.doi.org/10.1136/bmjqs-2011-000423 Related editorial: http://dx.doi.org/10.1136/bmjqs-2012-000817

For information on the Commission's work on recognising and responding to clinical deterioration, see http://www.safetyandquality.gov.au/internet/safety/publishing.nsf/Content/prog-patientsrisk-lp

The ins and outs of change of shift handoffs between nurses: a communication challenge
Carroll JS, Williams M, Gallivan TM
BMJ Quality & Safety 2012 [epub].

Notes	Another area in which the *BMJ Quality and Safety* has published a paper and a related editorial is that of handover (or handoff). Carroll et al. conducted a multi-method study of change of shift handovers between nurses, including interviews, survey, audio taping and direct observation of handovers, post-handover questionnaires, and archival coding of clinical records. They found considerable variability across units, nurses and roles. Apparently, 'incoming and outgoing nurses had different expectations for a good handoff: incoming nurses wanted a conversation with questions and eye contact, whereas outgoing nurses wanted to tell their story without interruptions'. They consider that the results 'suggest that variability across roles as information provider versus receiver and experience level (as well as across individual and organisational contexts) are reasons why improvement efforts directed at standardising and improving handoffs have been challenging in nursing and in other healthcare professions as well.' Wears' editorial adds a further layer of nuance in observing that handover is not just data exchange. As he notes, 'data does not equal information, much less understanding …accurate data transfer alone cannot ensure adequate understanding. He also notes that 'the idea of 'completeness' …is a will-of-the wisp. It is impossible to articulate, much less transfer, all that has been learnt about even a single patient over the past shift. The value of a model is precisely that it is not complete, because completeness is overwhelming.' Further, there is the problem of a belief that 'more items are always better than fewer' and the problem of solutions involving a list of standard data elements that should always be covered as this can be 'a kind of 'scope creep' where things can be progressively added, but nothing is ever taken away'. He concludes with the remark: 'Let us not do to the handoff what the electronic medical record (EMR) has done to the chart—sacrifice salience for 'completeness' and lose the important in a sea of the marginally relevant and questionably trustworthy.'
DOI	Carroll et al: http://dx.doi.org/10.1136/bmjqs-2011-000614 Wear's editorial: http://dx.doi.org/10.1136/bmjqs-2012-000916

For information on the Commission's work on clinical handover, see
http://www.safetyandquality.gov.au/internet/safety/publishing.nsf/Content/PriorityProgram-05

Refocusing quality measurement to best support quality improvement: local ownership of quality measurement by clinicians
Mountford J, Shojania KG
BMJ Quality & Safety 2012 [epub].

Notes	Many suggested quality measures are contested and extensively debated. In this piece Mountford and Shojania provide some background/history before focussing on the **centrality of the clinician to developing, implementing, using and responding to quality measures**. It would seem plausible that some may view such a focus as privileging the clinician perspective above all others and that a more shared approach may be preferable. However, the clinicians have a key role in ensuring care is safe and of high quality and one aspect is that of using and understanding information about their practise to reflect on the care being provided.
DOI	http://dx.doi.org/10.1136/bmjqs-2012-000859

For information on the Commission's work on indicators and information strategy, see http://www.safetyandquality.gov.au/internet/safety/publishing.nsf/Content/PriorityProgram-08

Eliminating Waste in US Health Care
Berwick DM, Hackbarth AD
JAMA: The Journal of the American Medical Association 2012 [epub].

Notes	The questions of whether safety and quality can contribute to saving or cost-reduction, and, if so, for whom, arise now and again. In this article Don Berwick and Andrew Hackbarth assert that large cost savings can be found in health system waste. They claim that 'In just 6 categories of waste—**overtreatment, failures of care coordination, failures in execution of care processes, administrative complexity, pricing failures, and fraud and abuse**—the sum of the lowest available estimates **exceeds 20% of total health care expenditures**'. A number of these are evidently safety and quality issues and could add weight to the claims that improvements in safety and quality can deliver savings. However, whether savings are real or realisable may depend on where one is in the health system and whether such savings are more about providing greater capacity or throughput
DOI	http://dx.doi.org/10.1001/jama.2012.362

Nature and timing of incidents intercepted by the SURPASS checklist in surgical patients
de Vries EN, Prins HA, Bennink MC, Neijenhuis P, van Stijn I, van Helden SH, et al
BMJ Quality & Safety 2012 [epub].

Notes	Perhaps one of the most popular topics in patient safety in recent years has been that of checklists. The *BMJ Quality and Safety* has added another paper and it was a topic at the recent American College of Cardiology's (ACC) annual scientific session. A presentation at the ACC claimed that a one-page checklist of 27 questions used before discharge saw 30-day readmissions decrease from 20 per cent to 2 per cent. The checklist focuses on medications and dosage modification, counselling and monitoring intervention, and follow-up instructions. The paper in the BMJ Quality and Safety was not so much a discipline or area-specific checklist as a patient-specific checklist, the 'Surgical Patient Safety System (SURPASS) checklist, a patient-specific multidisciplinary checklist that covers the entire surgical patient pathway.' This checklist was implemented in two academic hospitals and four teaching hospitals in the Netherlands. In each hospital, the first 1000 completed checklists were entered into an online central database. From the six participating hospitals, 6313 checklists were collected. One or more incidents were intercepted in 2562 checklists (40.6%). In total, 6312 incidents were intercepted. After correction for the number of items and the extent of adherence in each part of the checklist, the number of intercepted incidents was highest in the preoperative and postoperative stages. The authors conclude that this SURPASS checklist 'intercepts many potentially harmful incidents across all stages of the surgical patient pathway'. The degree to which these incidents may have been intercepted by a single checklist in the operating room only, compared with a checklist for the entire surgical pathway, in not within scope.
URL / DOI	ACC press release: http://www.cardiosource.org/News-Media/Media-Center/News-Releases/2012/03/HF-Checklist.aspx de Vries et al. http://dx.doi.org/10.1136/bmjqs-2011-000347

Medicare's Readmissions-Reduction Program — A Positive Alternative
Berenson RA, Paulus RA, Kalman NS
New England Journal of Medicine 2012 [epub]

Thirty-Day Readmissions — Truth and Consequences
Joynt KE, Jha AK
New England Journal of Medicine 2012 [epub]

Notes	One contested measure is readmission. A pair of paper's from the NEJM discuss 30-day readmission from contrasting perspectives, but both arguing the that US Medicare's approach of imposing financial penalties for 'excessive' readmission is not the best. Berenson et al. note that '**readmissions** are receiving increasing attention as a **largely correctable source of poor quality of care** and excessive spending' and cite a 2009 study stating that nearly 20% of Medicare beneficiaries are rehospitalised within 30 days after discharge, at an annual cost of $17 billion. They list some causes of avoidable readmissions as 'hospital-acquired infections and other complications; premature discharge; failure to coordinate and reconcile medications; inadequate communication among hospital personnel, patients, caregivers, and community-based clinicians; and poor planning for care transitions'. The approach they suggest as an alternative to penalising 'excessive' readmissions is to use the Geisinger Health System's ProvenCare program method that 'created a single-episode price for all services associated with a surgical procedure…and all related services for 90 days, including any rehospitalizations — in essence, a warranty'. Joynt and Jha's critique is far more fundamental as they argue that 30-day readmission is not the most important thing that could be measured and payment be adjusted upon. Their concluding paragraph notes: 'The **metrics** that policymakers choose to use in rewarding and penalizing hospitals **have a profound effect not just on what hospitals do but on what they choose not to do**. The financial penalties for high readmission rates dwarf the penalties for poorer care, including those for high mortality rates and unsafe care. The current policy sends a clear signal about where hospitals should focus their efforts. We are asking U.S. hospitals to spend their limited resources on ensuring that patients are not readmitted as many as 4 weeks after discharge — events that are largely outside the hospitals' control. But the most important consequence of this policy is the improvements in quality and safety that hospitals will forgo, and those will be far more difficult to measure.'
DOI	Berenson et al.: http://dx.doi,org/10.1056/NEJMp1201268 Joynt and Jha: http://dx.doi.org/10.1056/NEJMp1201598

Associations between rationing of nursing care and inpatient mortality in Swiss hospitals
Schubert M, Clarke SP, Aiken LH, de Geest S
International Journal for Quality in Health Care 2012 [epub].

Notes	Yet another contentious issue is that of staffing, staffing levels and their relationship to safety and quality of care. This Swiss study examined the relationship between inpatient mortality and implicit rationing of nursing care, the quality of nurse work environments and the patient-to-nurse staffing ratio in Swiss acute care hospitals. The study covered 8 Swiss acute care hospitals involved in the RICH Nursing Study (the Rationing of Nursing Care in Switzerland Study) and 71 Swiss acute care hospitals offering similar services and maintaining comparable

	patient volumes. The source data came from 165 862 discharge abstracts from patients treated in the 8 RICH Nursing Study hospitals and 760 608 discharge abstracts from patients treated in the other 71 acute care hospitals. The authors state that **patients treated in the hospital with the highest rationing level were 51% more likely to die than those in peer institutions** (adjusted OR: 1.51, 95% CI: 1.34–1.70). Patients treated in the study hospitals with higher nurse work environment quality ratings had a significantly lower likelihood of death (adjusted OR: 0.80, 95% CI: 0.67–0.97) and those treated in the hospital with the highest measured patient-to-nurse ratio (10:1) had a 37% higher risk of death (adjusted OR: 1.37, 95% CI: 1.24–1.52) than those in comparison institutions.
DOI	http://dx.doi.org/10.1093/intqhc/mzs009

BMJ Quality and Safety online first articles

Notes	*BMJ Quality and Safety* has published a number of 'online first' articles, including: • Self-reported violations during medication administration in two paediatric hospitals (Samuel J Alper, Richard J Holden, Matthew C Scanlon, Neal Patel, Rainu Kaushal, Kathleen Skibinski, R L Brown, Ben-Tzion Karsh) • Building information for systematic improvement of the prevention of hospital-acquired pressure ulcers with statistical process control charts and regression (W V Padula, M K Mishra, C D Weaver, T Yilmaz, M Splaine) • What gets published: the characteristics of quality improvement research articles from low- and middle-income countries (Zoë K Sifrim, Pierre M Barker, Kedar S Mate) • Failure mode and effects analysis: too little for too much? (Bryony Dean Franklin, Nada Atef Shebl, Nick Barber)
URL	http://qualitysafety.bmj.com/onlinefirst.dtl

International Journal for Quality in Health Care online first articles

Notes	The *International Journal for Quality in Health Care* has published a number of 'online first' articles, including: • Finding the right indicators for assessing quality midwifery care (M de Bruin-Kooistra, M P Amelink-Verburg, S E Buitendijk, and G P Westert) http://intqhc.oxfordjournals.org/cgi/content/abstract/mzs006v1?papetoc

Online resources

[UK] NHS NICE Guidance on smartphones
http://www.nice.org.uk/newsroom/news/GuidanceAtAGlanceOnYourSmartphone.jsp
The UK National Institute for Health and Clinical Excellence (NICE) has created a smartphone app for their recommendations and advice. The free app allows users to browse over 760 pieces of NICE guidance. The Guidance App is the first in a series of apps will eventually cover medicine and prescribing information as well as other NICE products.