On the Radar

Issue 126
13 May 2013

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On the Radar
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Contributors: Niall Johnson, Justine Marshall

Journal articles

Keeping hand hygiene high on the patient safety agenda
Stone S, Kontowski G, Gallagher R, Storr J, Teare L
BMJ 2013;346:f2699

| Notes | This editorial, written to mark the World Health Organization’s annual global hand hygiene day on 5 May, is a reflection on the importance of the hand hygiene campaign and its history in the UK over the last decade. The WHO’s call to action in hand hygiene for 2013 asks hospitals to “continue to focus on hand hygiene monitoring and feedback” and reminds them that “patients have a voice too.” Despite being the first country to roll out a national Cleanyourhands campaign, coordinated by the National Patient Safety Agency, in December 2004, the UK government closed the campaign in December 2010, stating that “Hand hygiene is now an established part of clinical care.” The authors argue strongly that monitoring, audit, feedback, and improvement of hand hygiene compliance must be a priority. |
|DOI | http://dx.doi.org/10.1136/bmj.f2699 |

For more information on the Commission’s work on hand hygiene, see http://www.safetyandquality.gov.au/our-work/healthcare-associated-infection/hand-hygiene/
Deciding when quality and safety improvement interventions warrant widespread adoption
Scott IA, Wakefield JB

In this article Ian Scott and John Wakefield propose a checklist of evaluative criteria that decision-makers can use with specific quality and safety improvement interventions (QSII) to determine whether they are fit for purpose and whether widespread adoption is justified. The checklist includes the following:

1. Has the problem to be addressed by the QSII been fully characterised?
2. Does a sound change theory underpin the intervention?
3. Has the QSII undergone preliminary testing to confirm proof of concept?
4. Is the QSII standardised and replicable?
5. Have the effects of the QSII been evaluated with a sufficient level of rigour?
6. Have the observed effects been reconciled with the underpinning theoretical framework?
7. Has the potential for adverse and unintended effects been evaluated?
8. Have resource use and costs been assessed?
9. Are QSII effects clinically plausible and consistent?
10. Has sustainability of the intervention been assessed?
11. Have methodological limitations and conflicts of interest been assessed?
12. Is publication bias unlikely?

How can we get high quality routine data to monitor the safety of devices and procedures?
Campbell B, Stainthorpe AC, Longson CM
BMJ 2013;346:f2782

Focusing on recent adverse events involving medical devices and the less stringent standards of evidence required to introduce medical devices and new procedures, this article looks at the reasons for inadequate collection of data and explains what steps might be taken to improve data collection and the safety of new devices and technologies.

The authors set out the obstacles to comprehensive data collection, including the lack of enthusiasm and time among clinicians for data collection activities, the lack of commercial sponsors (for procedures with no device) or several manufacturers of competing devices, the large amount of work required compared with reward for low volume procedures, and complexities of international collaboration in gathering data.

They also present an extensive list of potential solutions to the situation, including: device tracking, coding procedures, the use of registers, data linkage, international collaboration, post-market surveillance, and the use of a standard framework for generating evidence on any new procedure from its first use into the long term.

For more information on the Commission’s work on information strategy, see http://www.safetyandquality.gov.au/our-work/information-strategy/
An observational study of nurse staffing ratios and hospital readmission among children admitted for common conditions
Tubbs-Cooley HL, Cimiotti JP, Silber JH, Sloane DM, Aiken LH
BMJ Quality & Safety 2013 [epub].

What is the appropriate level of provision of nursing and medical staff can be a contentious issue. This observational study sought to examine the relationship between staffing ratios and all-cause readmission (within 14 days, 15–30 days) among children admitted for common medical and surgical conditions across 225 US hospitals by linking nurse surveys, inpatient discharge data and information from the American Hospital Association Annual Survey. 14,194 Registered Nurses providing direct patient care in 225 hospitals (N=225) and 90,459 children hospitalised for common conditions were included.

The authors report that for each one patient increase in a hospital's average paediatric staffing ratio increased a medical child's odds of readmission within 15–30 days by a factor of 1.11, or by 11% and a surgical child's likelihood of readmission within 15–30 days by a factor of 1.48, or by 48%. They also report that children treated in hospitals with paediatric staffing ratios of 1:4 or less were significantly less likely to be readmitted within 15–30 days. However, they also note that there were no significant effects of nurse staffing ratios on readmissions within 14 days.

It is not hard to imagine that arguments about correlation/causation are already being rehearsed.

Notes

DOI http://dx.doi.org/10.1136/bmjqs-2012-001610

Rapid response systems: Should we still question their implementation?
Winters BD, Pronovost PJ

The value and utility of rapid response systems has not always been clear. Winters and Pronovost offer a brief commentary summarises the evidence on rapid response systems as a strategy to improve safety. They recommend further research to enhance their effectiveness.

Notes

DOI http://dx.doi.org/10.1002/jhm.2050

A long-term follow-up evaluation of electronic health record prescribing safety
Journal of the American Medical Informatics Association 2013 [epub].

With the advent of electronic prescribing there has been concern about (and studies of) the danger of medication error stemming from such changes. This study looks at the longer term and suggests that over time prescribing errors consistently decreased as users became more familiar with the new system and as the system was refined. The study was a mixed methods cross-sectional case study of 16 doctors at a US academic-affiliated ambulatory clinic from April to June 2010 that analysed 1905 prescriptions. The overall prescribing error rate was 3.8 per 100 prescriptions. Error rates were significantly lower 2 years after transition. Rates of near misses remained unchanged.

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DOI http://dx.doi.org/10.1136/amiajnl-2012-001328

For more information on the Commission’s work on medication safety, including electronic medication management see http://www.safetyandquality.gov.au/our-work/medication-safety/
Measuring Handoff Quality in Labor and Delivery: Development, Validation, and Application of the Coordination of Handoff Effectiveness Questionnaire (CHEQ)
Block M, Ehrenworth JF, Cuce VM, Ng'ang'a N, Weinbach J, Saber S, et al.

Notes
An addition to the literature on handover/handoff that describes the validation and use of a novel tool designed to assess the effect of standardised labour and delivery handover on safety culture at the unit level. The novel tool, the CHEQ (Coordination of Handoff Effectiveness Questionnaire) incorporates three existing handoff-related scales: teamwork climate, job satisfaction, and burnout. The authors contend that this study shows that the “CHEQ is psychometrically sound for evaluating handoff quality, is practical to administer, achieves high response rates, and is amenable to straightforward statistical analysis. The CHEQ is useful for evaluating handoff quality and gauging the responsiveness to a unit-level intervention in the scope of unit-level climate. The CHEQ may be replicated or adapted for other clinical areas to investigate handoffs and inform the design and evaluation of handoff interventions.”

URL http://www.ingentaconnect.com/content/jcaho/jcjqs/2013/00000039/00000005/art0003

For more information on the Commission’s work on clinical communications, including clinical handover, see http://www.safetyandquality.gov.au/our-work/clinical-communications/

Building high reliability teams: progress and some reflections on teamwork training
Salas E, Rosen MA

Notes
This commentary piece – introducing a special issue of BMJ Quality and Safety focussing on teamwork – summarises the value of teamwork training and high reliability teams. Salas and Rosen note that “[e]vidence continues to emerge and bolster the case that team training is an effective strategy for improving patient safety. Research is also elucidating the conditions under which teamwork training is most likely to have an impact, and what determines whether improvements achieved will be maintained over time. The articles in this special issue are a strong representation of the state of the science, the diversity of applications, and the growing sophistication of teamwork training research and practice in healthcare.” They note the following:

- Team training works
- Team training works, but implementation strategies and organisational conditions matter
- Team training works, but method of delivery matters
- Team training is a cultural intervention and dependent upon leadership support at all levels
- Team training is best paired with other methods of improving teamwork
- Measurement driven feedback drives improvement
- Becoming an expert team player is a career-long journey
- Team training is a solution to patient safety, not the solution
- Sustainability: the next frontier.

DOI http://dx.doi.org/10.1136/bmjqs-2013-002015
Patient safety in orthopedic surgery: prioritizing key areas of iatrogenic harm through an analysis of 48,095 incidents reported to a national database of errors
Panesar SS, Carson-Stevens A, Salvilla SA, Patel B, Mirza SB, Mann B

This study utilised the National Reporting and Learning System (NRLS) in England and Wales. That authors report that “the largest proportion of surgical patient safety incidents reported to the NRLS was from the trauma and orthopaedics specialty, 48,095/163,595 (29.4%). Of those, 14,482/48,095 (30.1%) resulted in iatrogenic harm to the patient and 71/48,095 (0.15%) resulted in death.” The leading types of errors associated with harm involved the implementation of care and on-going monitoring (and failure to rescue); self-harming behaviour of patients in hospitals; and infection control.

DOI http://dx.doi.org/10.2147/DHPS.S40887
Full free text http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3615848/

American Journal of Medical Quality
May 2013; Vol. 28, No. 3

A new issue of American Journal of Medical Quality has been published. Articles in this issue include:

- Data-Driven Interdisciplinary Interventions to Improve Inpatient Pain Management (David L Reich, Carol Porter, M A Levin, H-M Lin, K Patel, R Fallar, S Serban, E Chai, I S Nash, M Vezina, and J H Silverstein)
- Impacts of Organizational Context on Quality Improvement (Justin M Glasgow, Elizabeth M ano, and Peter J Kaboli)
- Delivering Influenza Vaccine to High-Risk Adults: Subspecialty Physician Practices (Amy B Jessop, Harry Dumas, and Charlotte A Moser)
- Integrating Quality Improvement Into Continuing Medical Education Activities Within a Community Hospital System (Arnold R Eiser, William B McNamee Jr, and Jean Yodis Miller)
- Improving Resident Engagement in Quality Improvement and Patient Safety Initiatives at the Bedside: The Advocate for Clinical Education (ACE) (Anneliese M Schleyer, Jennifer A Best, Lisa K McIntyre, Ross Ehrmantraut, Patty Calver, and J Richard Goss)
- Do Ophthalmology Training Programs Affect Corrective Procedure Rates After Cataract Surgery? (Dustin D French, Curtis E Margo, and Robert R Campbell)
- The ERCP Quality Network: A Pilot Study of Benchmarking Practice and Performance (Peter B Cotton, Joseph Romagnuolo, Douglas O Faigel, Giuseppe Aliperti, and Stephen E Deal)
- Decentralizing Quality Improvement (U Shaikh and F Meyers)
- Health Systems Must Strive for Data Maturity (Rocco J. Perla)

URL http://ajm.sagepub.com/content/vol28/issue3/?etoc
**BMJ Quality and Safety** online first articles

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<td>• An observational study of <strong>nurse staffing ratios and hospital readmission</strong> among children admitted for common conditions (Heather L Tubbs-Cooley, Jeannie P Cimiotti, Jeffrey H Silber, Douglas M Sloane, Linda H Aiken)</td>
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<td>• Engaging all <strong>doctors in continuous quality improvement</strong>: a structured, supported programme for first-year doctors across a training deanery in England (Rob Bethune, E Soo, P Woodhead, C Van Hamel, J Watson)</td>
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**International Journal for Quality in Health Care** online first articles

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<td>• <strong>Safety climate</strong> and its association with office type and team involvement in primary care (Katrin Gehring, David L.B. Schwappach, Markus Battaglia, Roman Buff, Felix Huber, Peter Sauter, and Markus Wiese)</td>
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**Online resources**

**World Sepsis Day**

[http://www.world-sepsis-day.org/](http://www.world-sepsis-day.org/)

World Sepsis Day is 13 September 2013. This site provides resources to raise awareness of sepsis, including information about its increasing incidence and causes for its delayed diagnosis.

**Extending the Cure – “Unstoppable Superbugs: Closer Than We Think?”**


The Extending the Cure project, in part funded by the Robert Wood Johnson Foundation, is a research and consultative effort that frames the growing problem of **antibiotic resistance** as a challenge in managing a shared societal resource.

The project has released a **new video**, “**Unstoppable Superbugs: Closer Than We Think?”** From the website: “The 3-minute animated video explains the emergence of antibiotic resistance and gives viewers a broad picture of the issue from a natural resource perspective. It also serves as a call to action for concerned consumers, parents, and patients to limit their use of antibiotics in order to preserve their effectiveness for future generations.”

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