



## On the Radar

Issue 213

9 March 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](mailto:mail@safetyandquality.gov.au). You can also send feedback and comments to [mail@safetyandquality.gov.au](mailto: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](mailto:niall.johnson@safetyandquality.gov.au)

Contributors: Niall Johnson, Alice Bhasale

### Reports

*Building the foundations for improvement: How five UK trusts built quality improvement capability at scale within their organisations.* Learning report

Jones B, Woodhead T

London: The Health Foundation; 2015. p. 40.

URL	<a href="http://www.health.org.uk/publications/building-the-foundations-for-improvement/">http://www.health.org.uk/publications/building-the-foundations-for-improvement/</a>
Notes	<p>A 'Learning Report' from the UK's Health Foundation that examines how five UK health trusts built quality improvement capability at scale in their organisations. The report offers an insight into how and why these trusts undertook these improvement efforts, the impact they achieved and the challenges they encountered.</p> <p>The report also identifies some key lessons from the trusts' improvement journeys which it is hoped will be useful for other organisations that are considering building improvement capability at scale. It also provides a useful checklist of points for organisations to consider before planning, designing and delivering an improvement capability building programme.</p> <p>The key lessons include:</p> <ul style="list-style-type: none"> <li>• Getting early board-level support is essential</li> <li>• Organisations need to think carefully about how they will fund improvement capability programmes</li> </ul>

	<ul style="list-style-type: none"> <li>• Organisations need to find ways of freeing up staff time to take part in training</li> <li>• Commissioners need to do more to support organisations developing improvement capability building programmes</li> <li>• Arm’s length bodies need to give organisations the time and space to develop and embed their quality improvement programmes.</li> </ul> <p>Another key lesson could be that it is important to understand your own setting and context as simply ‘transplanting’ what may have worked elsewhere is usually insufficient for success</p>
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## Journal articles

### *Safety of medication use in primary care*

Olaniyan JO, Ghaleb M, Dhillon S, Robinson P

International Journal of Pharmacy Practice. 2015 Feb;23(1):3-20.

DOI	<a href="http://dx.doi.org/10.1111/ijpp.12120">http://dx.doi.org/10.1111/ijpp.12120</a> <a href="http://onlinelibrary.wiley.com/doi/10.1111/ijpp.12120/full">http://onlinelibrary.wiley.com/doi/10.1111/ijpp.12120/full</a>
Notes	<p>This systematic review sought to establish rates of medication error in primary care and to identify interventions designed to prevent these errors. The review examined 35 studies estimating the incidence of medication errors and 36 evaluating the impact of error-prevention interventions in primary care.</p> <p>The <b>error rates</b> documented ranged markedly, ranging <b>between &lt;1% and &gt;90%</b>, depending, as the authors note “on the part of the system studied, and the definitions and methods used”. The studies found that the <b>prescribing stage</b> is the <b>most susceptible</b>, and that the <b>elderly</b> (over 65 years), and <b>children</b> (under 18 years) are more likely to experience <b>significant errors</b>. On the interventions they report that “Individual interventions demonstrated marginal improvements”</p>

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

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

### *Diagnostic Errors in the Pediatric and Neonatal ICU: A Systematic Review*

Custer JW, Winters BD, Goode V, Robinson KA, Yang T, Pronovost PJ, et al

Pediatric Critical Care Medicine. 2015 Jan;16(1):29-36.

DOI	<a href="http://dx.doi.org/10.1097/PCC.0000000000000274">http://dx.doi.org/10.1097/PCC.0000000000000274</a>
Notes	<p>This systematic review sought to assess diagnostic errors in paediatric intensive care unit (PICU) and neonatal ICU settings. The reviewers focused on 13 observational studies reporting autopsy-confirmed diagnostic errors in PICU or neonatal ICU settings (seven PICU; six neonatal ICU). The PICU studies examined a total of 1,063 deaths and 498 autopsies. Neonatal ICU studies examined a total of 2,124 neonatal deaths and 1,259 autopsies.</p> <p>The most common missed diagnosis found at autopsy was infection. Vascular events and congenital conditions were also prevalent. The authors estimate that <b>6.4% of paediatric ICU deaths and 3.7% of neonatal ICU deaths are attributable to major missed diagnosis.</b></p>

*The impact of a nurse led rapid response system on adverse, major adverse events and activation of the medical emergency team*

Massey D, Aitken LM, Chaboyer W

Intensive and critical care nursing. 2015 [epub].

DOI	<a href="http://dx.doi.org/10.1016/j.iccn.2014.11.005">http://dx.doi.org/10.1016/j.iccn.2014.11.005</a>
Notes	<p>Australian paper adding to literature on medical emergency teams (MET), particularly on the contribution of an after-hours Clinical Team Co-Ordinator (CTC).</p> <p>The study involved a retrospective chart audit of patients' medical records involving an intervention group (150 randomly selected medical patients admitted during three months after the introduction of the CTC after-hours service) and a control group (50 randomly selected medical patients admitted before the introduction of the after-hours CTC service).</p> <p>The authors report that "There were more adverse and major adverse events identified after the introduction of the CTC after-hours service. Changes in heart rate and reduction in Glasgow Coma Scores (GCS) were significant predictors of an adverse event. A low urine output and a drop of two or more in the GCS were significant predictors of a major adverse event."</p>

*Choosing wisely: the message, messenger and method*

O'Callaghan G, Meyer H, Elshaug AG

Medical Journal of Australia. 2015;202(4):175-7.

DOI	<a href="http://dx.doi.org/10.5694/mja14.00673">http://dx.doi.org/10.5694/mja14.00673</a>
Notes	<p>This article describes a South Australian experience with identifying low-value healthcare practices, based on the innovative US <i>Choosing Wisely</i> campaign — and in the spirit of quality improvement, suggests enhancements. Taking quality, safety, appropriateness and cost into account to identify a 'top five' list is a simple premise, but with inherent complexities. Opportunities to improve on the processes used in the US for identifying the top five are suggested – not least, a consistent and transparent process for each participating clinical specialty group. Routine inpatient blood tests, electrocardiograms, medical imaging and preoperative screening investigations; antibiotics; and arthroscopies featured in the South Australian top five.</p>

*Safety through reporting*

Weekes LM.

Medical Journal of Australia 2015; 202 (4): 168.

DOI	<a href="http://dx.doi.org/10.5694/mja15.00192">http://dx.doi.org/10.5694/mja15.00192</a>
Notes	<p>In this piece, the CEO of NPS Medicinewise describes two new online learning modules to support reporting of adverse events associated with medicines and therapeutic products and devices, that have been developed by NPS Medicinewise and the Therapeutic Goods Administration. The modules explain the importance of reporting adverse events, how to build reporting into practice, and what happens to reports once they are submitted to the TGA. (Recognised as a professional development activity by RACGP, ACCRM, APC and RCNA)</p> <p>The modules are available at <a href="http://learn.nps.org.au/mod/page/view.php?id=5551">http://learn.nps.org.au/mod/page/view.php?id=5551</a></p>

URL	<a href="http://content.healthaffairs.org/content/34/3.toc">http://content.healthaffairs.org/content/34/3.toc</a>
Notes	<p>A new issue of <i>Health Affairs</i> has been published. Articles in this issue of <i>Health Affairs</i> include:</p> <ul style="list-style-type: none"> <li>• Medicare’s <b>Bundled Payment Initiative</b>: Most Hospitals Are Focused On A Few High-Volume Conditions (Thomas C Tsai, Karen E Joynt, Robert C Wild, E John Orav, and Ashish K Jha)</li> <li>• English National Health Service’s Savings Plan May Have Helped Reduce The Use Of Three <b>‘Low-Value’ Procedures</b> (Sophie Coronini-Cronberg, Honor Bixby, Anthony A Laverty, Robert M Wachter, and C Millett)</li> <li>• New Analysis Reexamines The <b>Value Of Cancer Care</b> In The United States Compared To Western Europe (Samir Soneji and JaeWon Yang)</li> <li>• Safety-Net Hospitals More Likely Than Other Hospitals To Fare Poorly Under Medicare’s <b>Value-Based Purchasing</b> (Matlin Gilman, E Kathleen Adams, Jason M Hockenberry, A S Milstein, I B Wilson, and E R. Becker)</li> <li>• In Tanzania, The Many <b>Costs Of Pay-For-Performance</b> Leave Open To Debate Whether The Strategy Is Cost-Effective (Josephine Borghi, Richard Little, Peter Binyaruka, Edith Patouillard, and August Kuwawenaruwa)</li> <li>• <b>Reference-Based Benefit Design</b> Changes Consumers’ Choices And Employers’ Payments For Ambulatory Surgery (James C Robinson, Timothy Brown, and Christopher Whaley)</li> <li>• <b>National Hospital Ratings Systems</b> Share Few Common Scores And May Generate Confusion Instead Of Clarity (J Matthew Austin, Ashish K Jha, Patrick S Romano, S J Singer, T J Vogus, R M Wachter, and P J Pronovost)</li> <li>• When <b>Patient Activation</b> Levels Change, Health Outcomes And Costs Change, Too (Jessica Greene, Judith H Hibbard, Rebecca Sacks, Valerie Overton, and Carmen D Parrotta)</li> <li>• US <b>Hospitals</b> Experienced Substantial <b>Productivity</b> Growth During 2002–11 (John A Romley, Dana P. Goldman, and Neeraj Sood)</li> </ul>

URL	<a href="http://www.publish.csiro.au/nid/241/issue/7519.htm">http://www.publish.csiro.au/nid/241/issue/7519.htm</a>
Notes	<p>A new issue of <i>Healthcare Infection</i> has been published, with the theme of <b>‘Infection Control in Non-hospital Settings’</b>. Articles in this issue of <i>Healthcare Infection</i> include:</p> <ul style="list-style-type: none"> <li>• <b>Infection prevention and antimicrobial stewardship</b>: important in all settings (N Deborah Friedman)</li> <li>• A <b>nurse-led antimicrobial stewardship</b> intervention in two <b>residential aged care</b> facilities (Rhonda L Stuart, Elizabeth Orr, Despina Kotsanas and Elizabeth E Gillespie)</li> <li>• Assessment of current <b>antimicrobial stewardship policies and resources</b>: a focus group project (Darren K Pasay, Sheldon J S Chow, Lauren C Bresee, Micheal Guirguis and Jeremy Slobodan)</li> <li>• Evaluation of adenosine triphosphate (ATP) bioluminescence assay to confirm <b>surface disinfection</b> of biological indicators with vaporised hydrogen peroxide (VHP) (Erica M Colbert, Shawn G Gibbs, Kendra K Schmid, Robin High, John J Lowe, Oleg Chaika and Philip W Smith)</li> </ul>

	<ul style="list-style-type: none"> <li>• Knowledge, attitudes and perceptions regarding <b>antibiotic use and self-medication</b>: a cross-sectional study among Australian Chinese migrants (Jie Hu and Zhiqiang Wang)</li> <li>• Roles, responsibilities and scope of practice: describing the ‘state of play’ for <b>infection control professionals</b> in Australia and New Zealand (Lisa Hall, Kate Halton, Deborah Macbeth, Anne Gardner and Brett Mitchell)</li> <li>• What have you heard about tattooing in prison? The clandestine role of hearing aids in the risk of <b>bloodborne virus transmission</b> (Huan Jian Sia and Michael Levy)</li> </ul>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

*BMJ Quality and Safety* online first articles

URL	<a href="http://qualitysafety.bmj.com/content/early/recent">http://qualitysafety.bmj.com/content/early/recent</a>
Notes	<p><i>BMJ Quality and Safety</i> has published a number of ‘online first’ articles, including:</p> <ul style="list-style-type: none"> <li>• <b>Alarm system management</b>: evidence-based guidance encouraging direct measurement of informativeness to improve alarm response (Michael F Rayo, Susan D Moffatt-Bruce)</li> </ul>

**Online resources**

*Medical Devices Safety Update*

Volume 3, Number 2, March 2015

<https://www.tga.gov.au/publication-issue/medical-devices-safety-update-volume-3-number-2-march-2015>

The Therapeutic Goods Administration (TGA) has released the latest edition of its medical device safety bulletin. Topics covered in this issue include:

- Caution advised in choosing intravenous catheters if power injection may be required
- Acanthamoeba keratitis and contact lens users
- Medical device adverse event reports
- Recent safety alerts.

*Risk-Adjusted Mortality as a Safety/Quality Measure*

<http://webmm.ahrq.gov/home.aspx>

This month’s Web M&M (morbidity and mortality round) from the US Agency for Healthcare Research and Quality (AHRQ) includes an [interview](#) with Sir Brian Jarman discussing the development of the hospital standardised mortality ratios (HSMR) and their role in monitoring performance. Accompanying this is a [perspective](#) piece from Ian Scott examining risk-adjusted hospital mortality rates as a measure of hospital safety, including why they’ve become popular, major flaws such as low sensitivity, and alternative ways to use them.

For information on the Commission’s work on indicators, including the *Using hospital mortality indicators to improve patient care: A guide for Boards and Chief Executives report*, see

<http://www.safetyandquality.gov.au/our-work/information-strategy/indicators/core-hospital-based-outcome-indicators/>

**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.