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On the Radar

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On the Radar
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Consultation on Exploring Healthcare Variation in Australia: Analyses Resulting from an OECD Study
Consultation now open

The Australian results of an Organisation for Economic Co-operation and Development (OECD) study on healthcare variation were published in the *Exploring Healthcare Variation in Australia: Analyses Resulting from an OECD Study* discussion paper authored by the Australian Commission on Safety and Quality in Health Care (the Commission) and the Australian Institute of Health and Welfare. The paper is available at http://www.safetyandquality.gov.au/publications/exploring-healthcare-variation-in-australia/

The paper examines variation in the rates of several common procedures, selected by the OECD, including: knee surgery (knee arthroscopy and knee replacement); cardiac procedures (cardiac catheterisation, percutaneous coronary interventions and coronary artery bypass grafting; caesarean section; and hysterectomy. The procedures measured were undertaken in hospitals and day procedure centres, both public and private, during 2010-11. Variation was measured according to the Medicare Local area where patients lived, but the approach can be applied to any desired geographic scale.

The Commission is inviting comment and feedback on the paper. Consultation is open until **20 July 2014**. Details about how to make a submission are included in the paper.

The contact person for this consultation is Mr Luke Slawomirski, Program Manager, Implementation Support. Mr Slawomirski can be contacted on (02) 9126 3600 or via email at medicalpracticevariation@safetyandquality.gov.au

Reports

2013 Cost Trends Report
Health Policy Commission
Boston, MA: Health Policy Commission; 2014

URL	http://www.mass.gov/anf/docs/hpc/2013-cost-trends-report-full-report.pdf
Notes	In this report from the Massachusetts Health Policy Commission there is a focus on cost and value of care. One of the key aspects described is the identification of three 'cost drivers': hospital operating expenses, wasteful spending and high-cost patients. The report notes that hospital operating expenses display a degree of divergence. The question of waste and inefficiencies has generated much interest. This report estimates that **21 to 39 percent of health care expenditures** in Massachusetts could be considered **wasteful**. These occur in areas such as preventable readmissions, unnecessary emergency department visits, healthcare associated infections, and inappropriate care. The report notes that a small proportion of patients generate a significant proportion of expenditure with "**five percent of patients accounting for nearly half of all spending** among the [US] Medicare and commercial populations".

Navigating the gap between volume and value: Assessing the financial impact of proposed heath care initiatives and reform-related changes
Chicago, IL: Health Research & Educational Trust and Kaufman, Hall & Associates, Inc.; 2014..

URL	http://www.hpoe.org/resources/hpoehretaha-guides/1637
Notes	New report from the US Hospitals in Pursuit of Excellence organisation that offers "step-by-step information on the financial planning process and how it can help an organisation evaluate the impact of repositioning initiatives as it moves towards value-based care and payment". This report is clearly aimed at the US industry but may be useful in other settings, with appropriate contextualisation.

A Framework for Selecting Digital Health Technology. IHI Innovation Report
Andrey O, Deen N, Simon A, Mate K
Cambridge, MA: Institute for Healthcare Improvement; 2014.

URL	http://www.ihi.org/resources/Pages/Publications/AFrameworkforSelectingDigitalHealthTechnology.aspx
Notes	This brief (21 page) report from the US Institute for Healthcare Improvement (IHI) stems from an IHI Innovation Project that sought health technology innovations that could provide the greatest value to health systems working to achieve the IHI Triple Aim: simultaneously improving the patient experience of care, improving the health of populations, and reducing the per capita cost of health care. The authors have developed the Digital Health Selection Framework (DHSF) to guide patients, providers, and payers through the procurement of technology to help them achieve the Triple Aim.

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

Journal articles

Antimicrobial stewardship: another focus for patient safety?
Tamma PD, Holmes A and Dodds Ashley E
Curr Opin Infect Dis. 2014 [epub].

DOI	http://dx.doi.org/10.1097/QCO.0000000000000077
Notes	This review article makes the point that **antibiotic stewardship** is about **patient safety** at least as much as it is about stemming **antibiotic resistance**. The review notes the literature on antimicrobial stewardship and its patient safety implications. The National Safety and Quality Health Standards, Standard 3 Preventing and Controlling Healthcare Associated Infections has an antimicrobial stewardship criterion. This criterion requires that healthcare services: • Have an antimicrobial stewardship program in place • Provide clinicians prescribing antimicrobials access to current endorsed Therapeutic Guidelines on antimicrobial usage • Undertake monitoring of antimicrobial usage and resistance • Take action to improve the effectiveness of antimicrobial stewardship.

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

Control of a two-decade endemic situation with carbapenem-resistant Acinetobacter baumannii*: Electronic dissemination of a bundle of interventions*
Munoz-Price LS, Carling P, Cleary T, et al.
American Journal of Infection Control. 2014; 42: 466-71.

DOI	http://dx.doi.org/10.1016/j.ajic.2013.12.024
Notes	Paper reporting on the experience of a 1,500-bed, public, teaching hospital that continued to endure "a hyperendemic situation with carbapenem-resistant *Acinetobacter baumannii* despite a bundle of interventions" but then implemented electronic dissemination of the weekly findings of a bundle of interventions. Over a 13month period weekly electronic communications were sent to the hospital leadership and intensive care units (ICUs) that sought to describe, interpret, and package the findings of the previous week's active surveillance cultures, environmental cultures, environmental disinfection, and hand cultures, along with . action plans based on these findings. The authors that during 42 months and 1,103,900 patient-days, they detected 438 new acquisitions of carbapenem-resistant *A baumannii*. The **rate of acquisition decreased from 5.13 to 1.93 per 10,000 patient-days**, during the baseline and post-intervention periods, respectively. A decrease was also seen in the medical and trauma ICUs, (from 67.15 to 17.4 and from 55.9 to 14.71 respectively).

Stress on the Ward: Evidence of Safety Tipping Points in Hospitals
Kuntz L, Mennicken R and Scholtes S
Management Science. 2014 [epub]

DOI	http://dx.doi.org/10.1287/mnsc.2014.1917
Notes	Debates about what are appropriate staffing levels and bed occupancy rates are not new. This study undertook a retrospective examination of hospital mortality using the discharge records of 82,280 patients across six high-mortality-risk conditions (acute myocardial infarction, heart failure, gastrointestinal haemorrhage, hip replacement, pneumonia, and stroke) from 256 clinical departments of 83 German hospitals. The authors argue that they detect "**a mortality tipping point at an occupancy level of 92.5%**". They suggest that "safety tipping points occur when managerial escalation policies are exhausted and workload variability buffers are depleted. Front-line clinical staff is forced to ration resources and, at the same time, becomes more error prone." Flexible capacity expansion, with flexible staffing, and poolnig capacity across hospitals are suggested as means of avoiding the mortality tipping point.

Using a validated algorithm to judge the appropriateness of total knee arthroplasty in the United States: A multi-center longitudinal cohort study
Riddle DL, Jiranek WA and Hayes CW
Arthritis & Rheumatology. 2014 [epub]

DOI	http://dx.doi.org/10.1002/art.38685
Notes	One of the key issues in discussions of variation in care is what proportion is unwarranted or inappropriate. This study sought to determine the proportion of total knee arthroplasty (TKA) surgeries that could be deemed as appropriate, inconclusive or inappropriate. From the literature the authors had hypothesised that approximately 20% would be classified as inappropriate. Applying the algorithm to 205 patients the study found 44.0% were classified as appropriate, 21.7% inconclusive classifications and 34.3% inappropriate. The authors concluded that "Approximately **a third of TKA surgeries were judged to be inappropriate**. Variation in the characteristics of persons undergoing TKA was extensive. These data support the need for consensus development of criteria for patient selection among practitioners …treating potential TKA candidates."

Identification and interference of intraoperative distractions and interruptions in operating rooms
Antoniadis S, Passauer-Baierl S, Baschnegger H and Weigl M
Journal of Surgical Research. 2014; 188: 21-9.

DOI	http://dx.doi.org/10.1016/j.jss.2013.12.002
Notes	The issue – and impact – of disruption has been examined in a number of settings. This paper reports on a direct observation study of 65 surgical cases at 2 German surgical clinics that found **surgical teams were distracted or interrupted an average of 9.8 times per hour**, and the authors argue that these disruptions detracted from inter-operative teamwork. The most frequent interruptions/distractions were people entering or exiting the operating theatre and telephone or pager calls. However, equipment failures and environment–related disruptions were rated as the most disruptive. The impact of such disruptions on safety and quality of care is implied but not measured.

Designing a Critical Care Nurse–Led Rapid Response Team Using Only Available Resources: 6 Years Later
Mitchell A, Schatz M and Francis H
Critical Care Nurse. 2014; 34: 41-56.

DOI	http://dx.doi.org/10.4037/ccn2014412
Notes	Paper reporting on a quality improvement initiative that implemented a **nurse-led rapid response team**. The authors suggest that their experience "indicate that a sustainable and effective rapid response team response can be put into practice **without increasing costs or adding positions** and can decrease the percentage of cardiopulmonary arrests occurring outside the intensive care unit." However, the expansion of ICU capacity makes it hard to discern the true impact.

Health Affairs
1 July 2014, Vol. 33 No. 7

URL	http://content.healthaffairs.org/content/33/7?etoc
Notes	The latest issue of *Health Affairs* has the theme 'Using Big Data To Transform Care'. Articles in this include: • **Creating Value In Health Care Through Big Data**: Opportunities And Policy Implications (Joachim Roski, G W Bo-Linn, and T A Andrews) • Big Data In Health Care: Using Analytics To Identify And Manage **High-Risk And High-Cost Patients** (David W Bates, Suchi Saria, Lucila Ohno-Machado, Anand Shah, and Gabriel Escobar) • The Legal And Ethical Concerns That Arise From Using **Complex Predictive Analytics** In Health Care (I Glenn Cohen, Ruben Amarasingham, Anand Shah, Bin Xie, and Bernard Lo) • Implementing **Electronic Health Care Predictive Analytics**: Considerations And Challenges (Ruben Amarasingham, Rachel E. Patzer, Marco Huesch, Nam Q. Nguyen, and Bin Xie) • Big Data And New Knowledge In Medicine: The Thinking, Training, And Tools Needed For A **Learning Health System** (Harlan M. Krumholz) • **Patient-Powered Research Networks** Aim To Improve Patient Care And Health Research (Rachael L Fleurence, Anne C Beal, Susan E Sheridan, Lorraine B Johnson, and Joe V Selby) • Assessing The Value Of Patient-Generated Data To **Comparative Effectiveness Research** (Lynn Howie, Bradford Hirsch, Tracie Locklear, and Amy P Abernethy) • High Levels Of **Bed Occupancy** Associated With Increased Inpatient And Thirty-Day **Hospital Mortality** In Denmark (Flemming Madsen, Steen Ladelund, and Allan Linneberg)

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: • Quantification of the Hawthorne effect in **hand hygiene compliance** monitoring using an electronic monitoring system: a retrospective cohort study (Jocelyn A Srigley, Colin D Furness, G Ross Baker, M Gardam) • Assessing **distractors and teamwork during surgery**: developing an event-based method for direct observation (Julia C Seelandt, Franziska Tschan, S Keller, G Beldi, N Jenni, A Kurmann, D Candinas, N K Semmer)

	• **Deafening silence?** Time to reconsider whether organisations are silent or deaf **when things go wrong** (Aled Jones, Daniel Kelly)

Online resources

New health communication and participation evidence bulletins
http://www.latrobe.edu.au/aipca/about/chcp/health-knowledge-network/bulletins
The Health Knowledge Network of Latrobe University's Centre for Health Communication and Participation has published two new evidence bulletins. These bulletins summarise recent systematic reviews published by the Cochrane Consumers and Communication Review Group and consider the relevance of review findings to the local (Victorian) health care context. The two bulletins are:

- **Cultural competence education for health professionals**
- **Interventions for providers to promote a patient-approach in clinical consultations**
