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On the Radar

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This week's content

Reports

Best care at lower cost: The path to continuously learning health care in America
Institute of Medicine
Washington, DC: The National Academies Press., 2012.

Notes	From the IoM email: "America's health care system has become far too complex and costly to continue business as usual. Pervasive inefficiencies, an inability to manage a rapidly deepening clinical knowledge base, and a reward system poorly focused on key patient needs, all hinder improvements in the safety and quality of care and threaten the nation's economic stability and global competitiveness. Achieving higher quality care at lower cost will require fundamental commitments to the incentives, culture, and leadership that foster continuous 'learning', as the lessons from research and each care experience are systematically captured, assessed, and translated into reliable care. IOM convened the Committee on the Learning Health Care System in America to explore these central challenges to health care today. The product of the committee's deliberations, *Best Care at Lower Cost*, identifies three major imperatives for change: the rising complexity of modern health care, unsustainable cost increases, and outcomes below the system's potential. But it also points out that emerging tools like computing power, connectivity, team-based care, and systems engineering techniques—tools that were previously unavailable—make the

	envisioned transition possible, and are already being put to successful use in pioneering health care organizations. Applying these new strategies can support the transition to a continuously learning health system, one that aligns science and informatics, patient-clinician partnerships, incentives, and a culture of continuous improvement to produce the best care at lower cost. The report's recommendations speak to the many stakeholders in the health care system and outline the concerted actions necessary across all sectors to achieve the needed transformation."
URL	http://www.iom.edu/Reports/2012/Best-Care-at-Lower-Cost-The-Path-to-Continuously-Learning-Health-Care-in-America.aspx
TRIM	68188

Journal articles

A 10 year (2000-2010) systematic review of interventions to improve quality of care in hospitals
Conry MC, Humphries N, Morgan K, McGowan Y, Montgomery A, Vedhara K, Panagopoulou E, McGee H
BMC Health Services Research 2012, 12:275

Notes	The first ten year (2000–2010) systematic review of interventions which sought to improve quality of care in a hospital setting. The authors reviewed 20 articles which met the inclusion criteria and grouped the studies into two categories — interpersonal or technical. The review found that, despite a large volume of published literature "there is a paucity of hospital based interventions with a theoretically based design or implementation". The authors conclude: "Future interventions to improve quality of care will be most effective when they use a **collaborative approach**, involve **multidisciplinary teams**, utilise available resources, **involve physicians** and recognise the **unique requirements of each patient group**."
DOI	http://dx.doi.org/10.1186/1472-6963-12-275

Early management of acutely ill ward patients
Frost PJ, Wise MP
BMJ 2012;345:e5677

Notes	An educational article targeting junior doctors. It is designed to assist them to **develop a systematic approach to managing patients with acute illness in hospital**. It describes a coordinated approach to assessment using five steps: **1. Immediate assessment** **2. Assessment of airway** **3. Assessment of breathing and circulation** **4. Assessment of disability and exposure** **5. Diagnostic synthesis, investigation, and definitive management.** The recent report from the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) – previously discussed in *On The Radar* – described numerous deficiencies in the care of such patients and identified a need for junior doctors to develop a more systematic approach to their management of acutely deteriorating patients.
DOI	http://dx.doi.org/10.1136/bmj.e5677

For information on the Commission's work on recognition and response to clinical deterioration, see http://www.safetyandquality.gov.au/our-work/recognition-and-response-to-clinical-deterioration/

Simulation to enhance patient safety: why aren't we there yet?
Aggarwal R, Darzi A
Chest 2011;140(4):854-858.

The case for simulation as part of a comprehensive patient safety program
Argani CH, Eichelberger M, Deering S, Satin AJ.
Am J Obstet Gynecol 2012;206(6):451-455.

Design and Evaluation of Simulation Scenarios for a Program Introducing Patient Safety, Teamwork, Safety Leadership, and Simulation to Healthcare Leaders and Managers
Cooper JB, Singer SJ, Hayes J, Sales M, Vogt JW, Raemer D, et al
Simul Healthc 2011;6(4):231-238.

Simulation, safety and surgery
Kneebone R
Quality and Safety in Health Care 2010;19(Suppl 3):i47-i52.

The use of simulation in healthcare: from systems issues, to team building, to task training, to education and high stakes examinations
Orledge J, Phillips WJ, Murray WB, Lerant A
Curr Opin Crit Care 2012 [epub].

A study of innovative patient safety education
Smith SD, Henn P, Gaffney R, Hynes H, McAdoo J, Bradley C
The Clinical Teacher 2012;9(1):37-40.

Simulation based medical education: an opportunity to learn from errors
Ziv A, Ben-David S, Ziv M
Medical Teacher 2005;27(3):193-199.

Patient safety and simulation-based medical education
Ziv A, Small SD, Wolpe PR
Medical Teacher 2000;22(5):489-495.

Notes	The use of simulation in medical education and training is not a particularly new concept. Modern simulation is producing higher fidelity, more realistic environments and there is an apparently growing interest in how simulation can be used in education and training of safety and quality of care. The papers listed here are some of the recent publications in this area.
OI	Aggarwal and Darzi http://dx.doi.org/10.1378/chest.11-0728 Argani et al http://dx.doi.org/10.1016/j.ajog.2011.09.012 Cooper et al. http://dx.doi.org/10.1097/SIH.0b013e31821da9ec Kneebone http://dx.doi.org/10.1136/qshc.2010.042424 Orledge et al http://dx.doi.org/10.1097/MCC.0b013e328353fb49 Smith et al http://dx.doi.org/10.1111/j.1743-498X.2011.00484.x Ziv et al. (2005) http://dx.doi.org/10.1080/01421590500126718 Ziv et al (2000) http://dx.doi.org/10.1080/01421590050110777

Impact of a hospital-wide hand hygiene initiative on healthcare-associated infections: results of an interrupted time series
Kirkland KB, Homa KA, Lasky RA, Ptak JA, Taylor EA, Splaine ME
BMJ Quality & Safety 2012 [epub].

Notes	A further addition to the literature on healthcare associated infection that demonstrates how sustained improvements in hand hygiene and reduction in healthcare associated infections are achievable. This paper reports on a "3-year interrupted time series with multiple sequential interventions and 1-year post-intervention follow-up" in a teaching hospital in rural New Hampshire. The interventions included activities around leadership/accountability; measurement/feedback; hand sanitiser availability; education/training; and marketing/communication. The study measured monthly changes in observed hand hygiene compliance (%) and rates of healthcare-associated infection (including *Staphylococcus aureus* infections, *Clostridium difficile* infections and bloodstream infections) per 1000 inpatient days. The authors report that **hand hygiene compliance** increased significantly from 41% to 87% during the initiative, and improved further to **91%** the following year and that **nurses achieved higher compliance (93%) than physicians** (78%). Similar patterns have been reported elsewhere. There was a **significant, sustained decline in the healthcare-associated infection rate** from 4.8 to 3.3 per 1000 inpatient days. This paper reinforces the message that by implementing strategies that are known to work, healthcare associated infections can be reduced.
DOI	http://dx.doi.org/10.1136/bmjqs-2012-000800

Using psychological theory to inform methods to optimize the implementation of a hand hygiene intervention
Boscart V, Fernie G, Lee J, Jaglal S
Implementation Science 2012, 7:77

Notes	A study aiming to identify **nurses' and administrators' perceived barriers and facilitators to current hand hygiene (HH) practices** and the implementation of a new electronic monitoring technology for HH. Ten semi structured interviews (three administrators and seven nurses) were conducted to explore barriers and facilitators related to HH and the impact of the new technology on outcomes, and the data examined using an inductive qualitative analysis approach to look at the differences between the perceptions of nurses versus administrators. The results showed differences between the responses of nurses and administrators, particularly in motivations for performing HH, evaluation of skills and knowledge, and consequences of poor HH practices. The results highlight the benefits of using a structured approach based on psychological theory to inform an implementation plan for a behavior change intervention.
DOI	http://dx.doi.org/10.1186/1748-5908-7-77

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

Getting the Methods Right — The Foundation of Patient-Centered Outcomes Research
Gabriel SE, Normand S-LT
N Engl J Med 2012; 367:787-790

Notes	A perspective piece by two members of the Methodology Committee of the Patient-Centered Outcomes Research Institute (PCORI), discussing advances in research methods and their relevance to studies examining evidence-based, patient-centered health interventions. They argue that a basic understanding of the methods underlying medical research findings is essential due to the increasingly complex nature of health problems, the number and types of available treatment options for a given condition, changing health care delivery systems, and the promise of individualized medicine.
DOI	http://dx.doi.org/10.1056/NEJMp1207437

For information on the Commission's work on patient and consumer centred care, see
http://www.safetyandquality.gov.au/our-work/patient-and-consumer-centred-care/

Transferring responsibility and accountability in maternity care: clinicians defining their boundaries of practice in relation to clinical handover
Chin GSM, Warren N, Kornman L, Cameron P
BMJ Open 2012;2(5)

Notes	A qualitative study of maternity clinicians' perceptions of transfer of their responsibility and accountability for patients in relation to clinical handover. The study focused on transfers of care in the birth suite and interviewed maternity care midwives, nurses (neonatal, mental health, bed managers) and doctors (obstetric, neontatology, anaesthetics, internal medicine, psychiatry). The primary outcome measures were clinicians' perceptions of current practice, setting, expectations and future improvements pertaining to maternity clinical handover. The researchers found that participants did not spontaneously connect the transfer of responsibility and accountability as a function or role of clinical handover.
DOI	http://dx.doi.org/10.1136/bmjopen-2011-000734

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

Telephone Follow-up as a Primary Care Intervention for Postdischarge Outcomes Improvement: A Systematic Review
Crocker JB, Crocker JT, Greenwald JL
The American Journal of Medicine 2012;125(9):915-921.

Notes	Paper reporting on a systematic review (of 3 studies) seeking to evaluate the evidence regarding the impact of primary care–based telephone follow-up on post-discharge emergency department visits and hospital readmissions. The authors report that "none of the studies demonstrated evidence of reduced admissions or emergency department visits from primary care–based telephone follow-ups", but that all 3 studies reported improved primary care office contact as a result of telephone follow-up intervention. They consider the "positive impact on patient engagement holds potentially meaningful implications".
DOI	http://dx.doi.org/10.1016/j.amjmed.2012.01.035

Differences in outcomes between ICU attending and senior resident physician led medical emergency team responses
Morris DS, Schweickert W, Holena D, Handzel R, Sims C, Pascual JL, et al.
Resuscitation [epub].

Notes	The use of MET teams and other forms of rapid response has become quite widespread. This has involved a fair amount of debate over what forms and composition such response mechanisms should take. This addition to that literature examined whether the team was based upon either intensive care unit (ICU) staff or senior residents led to variation in outcomes. They report no significant differences.
DOI	http://dx.doi.org/10.1016/j.resuscitation.2012.07.017

For information on the Commission's work on recognition and response to clinical deterioration, see http://www.safetyandquality.gov.au/our-work/recognition-and-response-to-clinical-deterioration/

Seen Through Their Eyes: Residents' Reflections on the Cognitive and Contextual Components of Diagnostic Errors in Medicine
Ogdie AR, Reilly JB, Pang WG, Keddem S, Barg FK, Von Feldt JM, et al
Academic Medicine 2012.

Notes	Errors in diagnosis and how to support clinicians in order to address these is an area of growing interest. This papers reports on an educational intervention for internal medicine residents that used of reflective writing and discussions about personal experiences with diagnostic errors. The authors assert that cognitive bias causes are contributors to diagnostic error but are difficult targets. The study involved 41 internal medicine residents at University of Pennsylvania. Their written narratives and discussion were analysed to identify types of cognitive bias and contextual factors present. The authors report that **all residents described a personal experience with a case of diagnostic error that contained at least one cognitive bias and one contextual factor** that may have influenced the outcome. They report that the "most common cognitive biases identified by the residents were anchoring bias (36; 88%), availability bias (31; 76%), and framing effect (23; 56%). Prominent contextual factors included caring for patients on a sub-specialty service (31; 76%), complex illness (26; 63%), and time pressures (22; 54%). Eighty-five percent of residents described at least one strategy to avoid a similar error in the future." The fact that residents could recall diagnostic errors, analyse the errors for cognitive bias, and describe their context by use of reflective writing and discussion is both "an educational strategy to teach recognition, analysis, and cognitive-bias-avoidance strategies for diagnostic error in residency education", but also suggests that these clinicians do have self-awareness and are able to examine and reflect upon their practice.
DOI	http://dx.doi.org/10.1097/ACM.0b013e31826742c9

Healthcare Infection
Vol 17, Issue 3

Notes	A new issue of *Healthcare Infection* has been published, and includes the following articles: • Student health-care workers with cystic fibrosis: a review of recommendations for students on clinical placement (Lyn-Li Lim, Cristina Mateevici and Mary O'Reilly)

	• Cutaneous *Rhizopus* infection at a central venous catheter site in a critically ill renal transplant patient (Zoel A. Quiñónez, John T. Speicher, Christian Sebat and Mark Avdalovic) • Disposable biocidal cubical curtains: can they prevent the transfer of bacterial pathogens? (Despina Kotsanas, Anita Lovegrove, Tracy L. Sloane and Elizabeth E. Gillespie) • The comparative performance of three brands of portable ATP-bioluminometer intended for use in hospital infection control (G. S. Whiteley, C. Derry and T. Glasbey) • The epidemiology of *Staphylococcus aureus* bacteraemia in Tasmania (Brett G. Mitchell, Anne Gardner and Lee Stuart)
URL	http://www.publish.csiro.au/nid/241/issue/6247.htm

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

Australian Health Review
Vol 36, Issue 3

Notes	A new issue of *Australian Health Review* has been published, and includes the following articles: • Is cancer care dependant on informal carers? (Rebecca E. Olson) • A model-based evaluation of collaborative care in management of patients with type 2 diabetes in Australia: an initial report (Hossein Haji Ali Afzali, Jonathan Karnon, Jodi Gray and Justin Beilby) • Incorporating educative environments into the holistic care of paediatric patients (Susan E Wilks, Julie B Green and Tsharni R Zazryn) • Safe timing for an urgent Caesarean section: what is the evidence to guide policy? (Caroline S. E. Homer and Christine Catling-Paull) • Governance, management and clinical risk (Graeme T. Houghton) • A framework to improve evidence-informed decision-making in health service management (Z Liang, P F Howard, S G Leggat and G Murphy) • Effecting change using careplans: experience from two fractured neck of femur pathways (Kylie Baker, Stephen Brierley, G Mitchell and J Roe) • The effect of context on performance of an acute medical unit: experience from an Australian tertiary hospital (Belinda Suthers, Robert Pickles, Michael Boyle, Kichu Nair, Justyn Cook and John Attia) • Access to same day, next day and after-hours appointments: the views of Australian general practitioners (Mark F. Harris, Patrick G. Powell Davies, Mahnaz Fanaian, Nicholas A. Zwar and Siaw-Teng Liaw) • Medical Assessment Units and the older patient: a retrospective case-control study (Bin S. Ong, Huong Van Nguyen, Mohammad Ilyas, Irene Boyatzis and Vincent J. J. Ngian) • Unplanned return visits to emergency in a regional hospital (Sue E. Kirby, Sarah M. Dennis, Upali W. Jayasinghe and Mark F. Harris) • Survival from breast cancer: an analysis of Australian data by surgeon case load, treatment centre location, and health insurance status (D Roder, P de Silva, H M Zorbas, J Kollias, P L Malycha, C M Pyke and I D Campbell)
URL	http://www.publish.csiro.au/nid/270.htm

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