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On the Radar

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On the Radar
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Journal articles

Safety of the Manchester Triage System to Detect Critically Ill Children at the Emergency Department
Zachariasse JM, Kuiper JW, de Hoog M, Moll HA, van Veen M
The Journal of Pediatrics. 2016.

DOI	http://dx.doi.org/10.1016/j.jpeds.2016.06.068
Notes	Paper reporting on a Dutch study that examined a widely used triaging system in paediatric emergency care. The study sought to determine if the Manchester Triage System appropriately identified children who went on to require admission to the intensive care unit (ICU). Examining more than 50,000 consecutive emergency department visits of children younger than the age of 16 years in the period 2006 to 2013, the authors report that 238 (28.7%) of the 830 children admitted to ICU during the study period were under-triaged. They determine the sensitivity of high Manchester Triage System urgency levels to detect ICU admission to be 71% (95% CI 68%-74%) and specificity 85% (95% CI 85%-85%). The authors concluded that "The Manchester Triage System misclassifies a substantial number of children who require ICU admission. Modifications targeted at young children and children with a comorbid condition could possibly improve safety of the Manchester Triage System in pediatric emergency care."

The global burden of diagnostic errors in primary care
Singh H, Schiff GD, Graber ML, Onakpoya I, Thompson MJ
BMJ Quality & Safety. 2016 August 16, 2016.

DOI	http://dx.doi.org/10.1136/bmjqs-2016-005401
Notes	In this extensively referenced narrative review, Singh and colleagues remind us that "Diagnostic errors are relatively frequent and harmful in primary care" and that a diagnostic error occurs "when a patient's diagnosis is missed altogether, inappropriately delayed and/or wrong…but these categories of missed, delayed and wrong overlap extensively". Noting that the (US) Institute of Medicine's definition of diagnostic error ("failure to establish an accurate and timely explanation of the patient's health problem or communicate that explanation to the patient") is one of a number of definitions, the authors move to look at interventions to reduce diagnostic errors. These include: • Improving diagnostic reasoning • Encouraging government policies that support primary care • Involving patients • Improving information technology • Developing methods to identify and learn from diagnostic errors • Improving access to diagnostics tests • Optimising diagnostic strategies for primary care • Providing systematic feedback to clinicians about their diagnoses. 

Worldwide Thyroid-Cancer Epidemic? The Increasing Impact of Overdiagnosis
Vaccarella S, Franceschi S, Bray F, Wild CP, Plummer M, Dal Maso L
New England Journal of Medicine. 2016;375(7):614-7.

DOI	http://dx.doi.org/10.1056/NEJMp1604412
Notes	Questions of diagnosis revolve around other aspects than diagnostic error. One of these other dimensions is that of overdiagnosis. Overdiagnosis of various forms of cancer has particularly attracted interest and among these thyroid cancer has been

	quite prominent. Recent decades have seen significant increases is diagnoses but no shift in mortality. This paper reports on a study examining thyroid cancer overdiagnosis over the past two decades in selected high-income countries, based on recently developed methods and high-quality cancer-registry data. The authors found that levels of over diagnosis are indeed striking and "estimate that **overdiagnosis in women accounts for 90% of thyroid-cancer cases in South Korea; 70 to 80% in the United States, Italy, France, and Australia; and 50% in Japan, the Nordic countries, and England and Scotland.**"

Nurse workload and inexperienced medical staff members are associated with seasonal peaks in severe adverse events in the adult medical intensive care unit: A seven-year prospective study
Faisy C, Davagnar C, Ladiray D, Djadi-Prat J, Esvan M, Lenain E, et al
International Journal of Nursing Studies. 2016;62:60-70.

DOI	http://dx.doi.org/10.1016/j.ijnurstu.2016.07.013
Notes	Paper reporting a French study that sought to identify organizational factors that contributed to adverse events in an intensive care unit (ICU). This was a prospective, observational, dynamic cohort study conducted from January 2006 to December 2013 in a 20-bed adult medical ICU. The study covered all patients admitted to the ICU and who experienced one or more selected life-threatening adverse events (mainly unexpected cardiac arrest, unplanned extubation, reintubation after planned extubation, and readmission within 48 h of intensive care unit discharge). 638 severe adverse events involving 498 patients were recorded and these events increased seasonally in May, November and December. From the multivariate analysis, the authors identified **bed-to-nurse ratio** and the arrival of **inexperienced residents or senior registrars** as being independently **associated with the rate of adverse events**. The authors suggest that "Limiting fluctuations in bed-to-nurse ratio and providing inexperienced medical staff members with sufficient supervision may decrease severe adverse events in critically ill patients."

Can increased primary care access reduce demand for emergency care? Evidence from England's 7-day GP opening
Dolton P, Pathania V
Journal of Health Economics. 2016. [epub].

DOI	http://dx.doi.org/10.1016/j.jhealeco.2016.05.002
Notes	There has been debate as to how much of the 'traffic' in hospital emergency or (Accident & Emergency (A&E)) departments could be appropriately seen in the primary care/general practice setting. This paper examined the effect piloting 7-day opening of General Practitioner (GP) practices to improve primary care access for patients in London. From their analyses the authors estimate that "7-day GP opening has **reduced A&E attendances** by patients of pilot practices by 9.9% with most of the impact on weekends which see A&E attendances fall by 17.9%. The effect is non-monotonic in case severity with most of the fall occurring in cases of moderate severity. An additional finding is that there is also a **9.9% fall in weekend hospital admissions** (from A&E) which is entirely driven by a fall in admissions of elderly patients. The impact on A&E attendances appears to be bigger among wealthier patients."

Association Between Hospital Performance on Patient Safety and 30-Day Mortality and Unplanned Readmission for Medicare Fee-for-Service Patients With Acute Myocardial Infarction
Wang Y, Eldridge N, Metersky ML, Sonnenfeld N, Fine JM, Pandolfi MM, et al
Journal of the American Heart Association. 2016;5(7).

DOI	http://jaha.ahajournals.org/content/5/7/e003731
Notes	Readmissions tend to attract a deal of attention. Their significance and relationship to aspects of safety and quality are somewhat contentious. This US paper examined the link between rates of adverse events and rates of readmissions and 30-day mortality for patients treated for acute myocardial infarction in 793 US hospitals in the period 2009–2013. From their analyses the authors report that "The occurrence rate of adverse events for which patients were at risk was 3.8%. A 1% point change in the risk-standardized occurrence rate of adverse events was associated with average changes in the same direction of 4.86% points (95% CI, 0.79-8.94) and 3.44% points (95% CI, 0.19-6.68) for the risk-standardized mortality and unplanned readmission rates, respectively." Their conclusion was that "For Medicare fee-for-service patients discharged with AMI, **hospitals with poorer patient safety performance were also more likely to have poorer performance on 30-day all-cause mortality and on unplanned readmissions**."

Potentially Preventable 30-Day Hospital Readmissions at a Children's Hospital
Toomey SL, Peltz A, Loren S, Tracy M, Williams K, Pengeroth L, et al
Pediatrics. 2016;138(2).

DOI	http://dx.doi.org/10.1542/peds.2015-4182
Notes	Also examining the issue of readmission is this paper. In this case, the focus is on readmissions of paediatric patients, specifically potentially preventable readmissions. This was a cross-sectional study covering 305 children readmitted within 30 days to a single US children's hospital between December 2012 and February 2013. From reviews of medical records, interview summaries, and transcripts, the authors estimate that **29.5% of the readmissions were potentially preventable**. They also report that potentially preventable readmissions occurred sooner after discharge than non–potentially preventable readmissions (5 vs 9 median days); patient-related factors (such as parental anxiety) and hospital-related factors (such as hospital-acquired conditions) contribute to preventable readmissions.

Implementing Delivery Room Checklists and Communication Standards in a Multi-Neonatal ICU Quality Improvement Collaborative
Bennett SC, Finer N, Halamek LP, Mickas N, Bennett MV, Nisbet CC, et al
Joint Commission Journal on Quality and Patient Safety. 2016 Aug;42(8):369-76.

DOI	http://www.ingentaconnect.com/content/jcaho/jcjqs/2016/00000042/00000008/art00006
Notes	Paper describing the roll-out of a bundle promoting communications and checklists for neonatal resuscitation that was integrated within a larger change package deployed in the California Perinatal Quality Care Collaborative's 12-month Delivery Room Management Quality Improvement Collaborative. Twenty-four neonatal intensive care units (NICUs) participated in the collaborative. Compliance with the resuscitation bundle improved to a median of 71%. Further, all responding NICUs would recommend the bundle to other NICUs working on improving delivery room management.

BMJ Quality and Safety
September 2016, Vol. 25, Issue 9

URL	http://qualitysafety.bmj.com/content/25/9
Notes	A new issue of *BMJ Quality and Safety* has been published. Many of the papers in this issue have been referred to in previous editions of *On the Radar* (when they were released online). Articles in this issue of *BMJ Quality and Safety* include: • Editorial: The case for **routine goals-of-care documentation** (Christopher Yarnell, Robert Fowler) • Editorial: **Safety climate strength**: a promising construct for safety research and practice (Timothy J Vogus) • Editorial: Should doctors be able to **exclude patients from pay-for-performance schemes**? (Martin Roland) • Associations between exemption and survival outcomes in the UK's **primary care pay-for-performance** programme: a retrospective cohort study (Evangelos Kontopantelis, David A Springate, Darren M Ashcroft, Jose M Valderas, Sabine N van der Veer, D Reeves, B Guthrie, T Doran) • The prevalence of **medical error** related to **end-of-life communication** in Canadian hospitals: results of a multicentre observational study (Daren K Heyland, Roy Ilan, Xuran Jiang, John J You, Peter Dodek) • **Patient safety climate strength**: a concept that requires more attention (Liane Ginsburg, Debra Gilin Oore) • A mixed-methods investigation of health professionals' perceptions of a **physiological track and trigger system** (Sinéad Lydon, Dara Byrne, Gozie Offiah, Louise Gleeson, Paul O'Connor) • Do **patients with gastrointestinal cancer** want to decide where they have tests and surgery? A questionnaire study of provider choice (Ben E Byrne, Omar D Faiz, Charles Vincent) • Underlying risk factors for **prescribing errors in long-term aged care**: a qualitative study (Amina Tariq, Andrew Georgiou, Magdalena Raban, Melissa Therese Baysari, Johanna Westbrook) • Beyond clinical engagement: a pragmatic model for **quality improvement interventions**, aligning clinical and managerial priorities (Samuel Pannick, Nick Sevdalis, Thanos Athanasiou) • The problem with **medication reconciliation** (Joshua M Pevnick, Rita Shane, Jeffrey L Schnipper) • Why 'Universal Precautions' are needed for **medication lists** (Rita Shane)

Seminars in Dialysis
July–August 2016
Volume 29, Issue 4

URL	http://onlinelibrary.wiley.com/doi/10.1111/sdi.2016.29.issue-4/issuetoc
Notes	This special issue of *Seminars in Dialysis* has the theme 'Mistakes We Make in Dialysis'. Articles in this issue include: • **Mistakes We Make in Dialysis**: An Introduction (Roger A Rodby and Mark A Perazella) • We Use **Kt/V Urea as a Measure of Adequacy** of Peritoneal Dialysis (Joanne M Bargman) • We **Use Permcaths** Instead of Peritoneal Catheters for Acute Kidney Injury and Urgent-Start Dialysis (Daniel Dean and Dinna N Cruz)

	• We **Use Bioincompatible Peritoneal Dialysis Solutions** (Laura Troidle, Joni Hansson, Peter Juergensen and Fredric O Finkelstein) • We **Avoid RAAS Inhibitors** in PD Patients with Residual Renal Function (Jeffrey M Turner) • We **Restrict CRRT** to Only the Most Hemodynamically Unstable Patients (Kianoush Kashani and Ravindra L Mehta) • We **Use Heparin** as the Anticoagulant for CRRT (Nithin Karakala and Ashita Tolwani) • We **use Continuous Renal Replacement Therapy** for Overdoses and Intoxications (Valerie Jorge Cabrera and Anushree C Shirali) • We **Underdose Antibiotics** in Patients on CRRT (Alexander R Shaw, Weerachai Chaijamorn and Bruce A Mueller) • We **Underutilize the Leg Graft** (Michael Allon) • We Refuse to Give up on **Nonmaturing Fistulas** (Gerald A Beathard) • We Perform **Surveillance for Arteriovenous Graft Stenosis** (William L Whittier) • We **Avoid Antibiotic Lock Solutions** due to Fear of Antibiotic Resistance (Namrata Krishnan) • We Send **Thrombosed AV Accesses** to the Operating Room (Valerie Jorge Cabrera and Ursula C Brewster) • We **Lower Blood Flow** for Intradialytic Hypotension (Richard A Sherman) • We **Use Impure Water** to Make Dialysate for Hemodialysis (Ashish Upadhyay and Bertrand L Jaber) • We **Use Dialysate Potassium Levels That Are Too Low** in Hemodialysis (Bryan Tucker and Dennis G Moledina) • We **Underdialyze Women** and Smaller Patients (John T Daugirdas) • We **Offer Renal Replacement Therapy** to Patients Who Are Not Benefitted by It (Jean L Holley) • We Give **Too Much Intravenous Iron** (Jamie P Dwyer) • We Do **Too Many Parathyroidectomies** for Calciphylaxis (Sagar U Nigwekar and Stuart M Sprague) • We **Give Aminoglycoside Antibiotics** at the End of Hemodialysis (Rachel Eyler) • We **Wait Too Long** to Refer Patients for Transplantation (Vasil Peev) • We **Use Too Much Vitamin D** in Hemodialysis Patients (Robert F Reilly) • **Hold Antihypertensives** Prior To Dialysis (Namrata Krishnan and Aldo J Peixoto)

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: • The global burden of **diagnostic errors in primary care** (Hardeep Singh, Gordon D Schiff, Mark L Graber, Igho Onakpoya, Matthew J Thompson) • Discerning quality: an analysis of **informed consent** documents for common cardiovascular procedures (Andi Shahu, Jennifer Schwartz, Mallory Perez, Susannah M Bernheim, Harlan M Krumholz, Erica S Spatz)

International Journal for Quality in Health Care online first articles

URL	http://intqhc.oxfordjournals.org/content/early/recent?papetoc
Notes	*International Journal for Quality in Health Care* has published a number of 'online first' articles, including: • A multidisciplinary initiative to standardize **intensive care to acute care transitions** (Stephanie Halvorson, Brian Wheeler, Marge Willis, Jennifer Watters, Jamie Eastman, Randy O'Donnell, Matthias Merkel)

Online resources

[USA] Appropriate Use of Medical Resources Compendium
http://www.ahaphysicianforum.org/resources/appropriate-use/index.shtml
The American Hospital Association's Physician Leadership Forum has released a five-toolkit compendium to help facilities better understand the use of medical resources for the following procedures:

- **blood management**
- **antimicrobial stewardship**
- **ambulatory care sensitive conditions**
- elective **percutaneous coronary intervention**, and
- aligning treatment with patient priorities for use of the **intensive care unit**.

The toolkits are an extension of the AHA white paper, *Appropriate Use of Medical Resources,* that is available at http://www.ahaphysicianforum.org/files/pdf/appropusewhiteppr.pdf.

[UK] NICE Guidelines and Quality Standards
http://www.nice.org.uk
The UK's National Institute for Health and Care Excellence (NICE) has published new (or updated) guidelines and quality standards. The latest updates are:

- NICE Quality Standard QS6 ***Diabetes*** *in adults* https://www.nice.org.uk/guidance/qs6
- NICE Clinical Guideline CG142 ***Autism spectrum disorder*** *in adults: diagnosis and management* https://www.nice.org.uk/guidance/cg142
- NICE Clinical Guideline CG156 ***Fertility*** *problems: assessment and treatment* https://www.nice.org.uk/guidance/cg156

[USA] Effective Health Care Program reports
http://effectivehealthcare.ahrq.gov/
The US Agency for Healthcare Research and Quality (AHRQ) has an Effective Health Care (EHC) Program. The EHC has released the following final reports and updates:

- ***Renal Artery Stenosis*** *Management Strategies* https://www.effectivehealthcare.ahrq.gov/search-for-guides-reviews-and-reports/?pageaction=displayproduct&productID=2276