On the Radar

Issue 403
Tuesday 29 January 2019

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On the Radar
Editor: Dr Niall Johnson niall.johnson@safetyandquality.gov.au
Contributors: Niall Johnson

Reports

Developing a patient safety strategy for the NHS. Proposals for consultation
NHS Improvement

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<td>Notes</td>
<td>NHS Improvement in the UK has released this consultation document as it develops a new patient safety for the entire National Health System (NHS). The proposed strategy has three aims for the NHS. These are for the NHS to:  &lt;ul&gt;&lt;li&gt;be world leading at drawing <strong>insight</strong> from multiple sources of patient safety information&lt;/li&gt;&lt;li&gt;give staff at all levels the <strong>skills and support</strong> they need to help improve patient safety, so they can be the <strong>infrastructure</strong> for safety improvement, working with patients and partner organisations&lt;/li&gt;&lt;li&gt;<strong>decrease harm in key areas by 50%</strong> by 2023/24 and beyond through specific patient safety <strong>initiatives</strong>.&lt;/li&gt;&lt;/ul&gt;The document also proposes a focus on three principles that should underpin implementation of the strategy: a <strong>just culture</strong>, <strong>openness and transparency</strong>, and <strong>continuous improvement</strong>.</td>
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The UK government has released two complementary plans aimed at antimicrobial resistance. They are:

- a 5-year national action plan
- a 20-year vision for antimicrobial resistance.

The 5-year national action plan calls for a **10% reduction in the number of antibiotic-resistant infections** in people by 2025, a **15% decrease in human antibiotic use** by 2024, and a **25% decrease in the use of antibiotics in food-producing animals** by 2020. The UK government will also look to develop a new payment model that seeks to encourage development of new therapies by reimbursing pharmaceutical companies based on how valuable their drugs are to the National Health Service, rather than on the quantity used.


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For information on the Centre for Health Economics at the University of York’s work on incorporating concerns for equity into health resource allocation, see [https://www.york.ac.uk/che/news/news-2019/che-research-paper-160/](https://www.york.ac.uk/che/news/news-2019/che-research-paper-160/)

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The Centre for Health Economics at the University of York in England has released this research paper that summaries methods of analysing health equity that policymakers can use when looking at the allocation of health sector resources.
The 4 Es of a Reporting Culture

1. Establish trust
   - Leaders communicate their commitment to building trust and reporting through a safety culture.
   - Governance supports leadership commitment to establishing trust.

2. Encourage reporting
   - The organization’s incident reporting system is accessible by all staff, easy to use, enables data analysis to be done in a timely fashion, and includes reports of close calls and hazardous conditions.
   - The organization’s recognition program includes a feedback loop so staff know that action is being taken to address or fix safety problems they have identified.
   - The organization clearly defines what types of incidents should be reported. Staff may not recognize that a daily annoyance is actually an unsafe event or unsafe condition.

3. Eliminate fear of punishment
   - Those who report human errors and adverse behaviors are NOT punished, so that the organization can learn and make improvements.
   - Those responsible for adverse behaviors are coached, and those committing reckless acts are disciplined fairly and equitably, no matter the outcome of the reckless act.
   - Senior leaders, unit leaders, physicians, nurses, and all other staff are held to the same standards.

4. Examine errors, close calls and hazardous conditions
   - Data is used to identify error-prone situations, the frequency at which they occur, and their potential severity.
   - Data is also used to identify successes of the staff and the system.
   - Learnings are used to help determine what to address, to strengthen the protective processes within the system, and to help staff identify the factors that lead up to a situation and what to look out for in similar situations in the future.

See Sentinel Event Alert Issue 60, “Developing a reporting culture: learning from close calls and hazardous conditions,” for more information, including examples of establishing trust, adopting a just culture to encourage reporting, learning from close call reporting, leadership engagement, and accountability, as well as links to some videos that show leadership communicating commitment to just, reporting, and learning cultures.

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**Journal articles**

Rethinking How Antibiotics Are Prescribed: Incorporating the 4 Moments of Antibiotic Decision Making Into Clinical Practice
Tamma PD, Miller MA, Cosgrove SE

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<th>DOI</th>
<th><a href="https://doi.org/10.1001/jama.2018.19509">https://doi.org/10.1001/jama.2018.19509</a></th>
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| Notes | As part of the drive to ensure that antimicrobials are used appropriately (and to slow antimicrobial resistance), the US Agency for Healthcare Research and Quality (AHRQ) has developed its Safety Program for Improving Antibiotic Use. The authors identify ‘A core feature of the AHRQ safety program is training clinicians to incorporate the 4 moments of antibiotic decision making into their thought process when prescribing antibiotics.’ This framework offers a structured approach to improve antibiotic prescribing that could be used in the acute care setting. The Moments ask:  
1. Does this patient have an infection that requires antibiotics?  
2. Have I ordered appropriate cultures before starting antibiotics? What empirical antibiotic therapy should I initiate?  
3. A day or more has passed. Can I stop antibiotics? Can I narrow therapy? Can I change from intravenous to oral therapy?  
4. What duration of antibiotic therapy is needed for this patient’s diagnosis? |


Deprescribing for older adults in Australia: factors influencing GPs
Gillespie R, Mullan J, Harrison L.

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<th>DOI</th>
<th><a href="https://doi.org/10.1071/PY18056">https://doi.org/10.1071/PY18056</a></th>
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<td>Notes</td>
<td>Older patients with chronic conditions tend to take more medications. The more medications someone takes is associated with a greater risk of medication-related harm. Consequently, there has been a growing focus on polypharmacy and the need to review and, where appropriate, de-prescribe medications. This paper reports on a study that surveyed attitudes and practices with 85 Australian GPs responding. The authors report, that based on the survey responses, ‘GPs suggest that they are willing to explore their older patients’ deprescribing preferences; they believe that they have enough information about the potential harms and benefits of medication to inform their deprescribing decisions and are confident to communicate this information to their patients.’ Factors that the respondents identified as ‘unsupportive’ of deprescribing included ‘Limited time to review medications, poor communication between prescribers and a perception that other prescribers do not respect their role as overall coordinators of their older patients’ medications’. The authors consider that ‘the influence of unsupportive factors appears to remain strong, as deprescribing is not routinely considered in practice.’</td>
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In recent years there have been a number of estimates of wasted or inappropriate care. This study examined administrative claims data for commercially insured individuals with diagnostic imaging claims (MRI and X-ray) for either uncomplicated low back pain, non-traumatic knee pain or non-traumatic shoulder pain in the US state of Massachusetts for 2010 and 2013 in order to quantify the level of adherence to imaging guidelines from American College of Radiology for these three common clinical indications. The authors report finding that:

- >60% of lumbar spine MRIs were deemed inappropriate
- >30% of MRIs for shoulder pain and knee pain were inappropriate
- Inappropriate imaging accounted for >20% of annual imaging costs for the three clinical indications.

These results led to the rather self-evident conclusion that ‘Reducing inappropriate imaging procedures can lead to substantial savings through the elimination of unnecessary and low value procedures’. It would also likely to be useful to disaggregate such data and examine variations by geography, provider, population, funder, etc.

This paper reports on a study that used a literature review and interviews and focus groups to examine “quality systems” in hospitals in one Australian state. Here, they define quality system as encompassing ‘the safety, quality management, improvement system and clinical governance’ or as ‘A systematic, coordinated, organisation-wide program of planning, governance, mindset, behaviours, tools, change, measurement, evaluation and action to achieve and maintain the organisation’s vision of a great experience for each consumer’. For such a broad-ranging system they then identify seven key components: leadership, policy and strategy, staff focus, education and training, patient focus, performance results, and process improvement. Perhaps it is unsurprising that the 350 health service managers, staff and board members that participated in the study were hard-pressed to agree on how successfully such systems had been implemented with ‘a gap in the rhetoric from the top of the organisations, and what middle managers and health professionals were experiencing’.

Burnout of clinicians is recognised as a safety and quality issue. This review and meta-analysis looked at the issue in mental health professionals. Based on 33 studies, the authors report that the ‘overall estimated pooled prevalence for emotional exhaustion was 40% (CI 31%–48%) for depersonalisation was 22% (CI 15%–29%) and for low levels of personal accomplishment was 19% (CI 13%–25%).’ They report that ‘Work-related factors such as workload and relationships at work, are key determinants for burnout, while role clarity, a sense of professional autonomy, a sense of being fairly treated, and access to regular clinical supervision appear to be protective.’
High intensity users: Reducing the burden on Accident & Emergency departments
Analysis of Accident & Emergency attendances in England 2017/18
Dr Foster
London: Dr Foster; 2018. p. 16.

Past Frequent Emergency Department Use Predicts Mortality
Niedzwiecki MJ, Kanzaria HK, Montoy JC, Hsia RY, Raven MC

Two items that look at frequent attendance at emergency departments (ED) or accident and emergency (A&E).
From the UK, is this brief Dr Foster report looking at “frequent flyers” or ‘high intensity users’ (HIU). Using information on more than 13 million A&E attendances and defining an HIU as someone who attended 10 or more times in a one-year period, the authors identified 31,492 HIU patients who accounted for 522,311 attendances. That is, 0.4% of all patients accounted for 4.0% of all attendances.

The report suggests that the HIU tend to be deprived, young adults, attend more at night and have a range of conditions that are more common than the non-HIU patients. The report also notes the role of ‘medically unexplained symptoms’. Strategies to address these issues may include better integrated/coordinated care, triaging that directs patients to more appropriate care, and better support for these patients.

From the USA, Niedzwiecki et al used California hospital data for 2005–2013 linked to vital statistics date. Here they used a threshold of four or more visits to the ED per year to identify frequent ED, and found that while these are only 4.5–8.0 percent of all ED patients they account for 21.0–28.0 percent of ED visits.

Further, they found that frequent ED use in the past year was predictive of mortality among the nonelderly in both the short [within 7 days] and longer terms [2 years]. The authors also report that that did not find strong evidence that “super users” (those with at least 18 visits annually) had lower mortality rates than patients with 4–17 visits.

Quality improvement priorities for safer out-of-hours palliative care: Lessons from a mixed-methods analysis of a national incident-reporting database
Palliative Medicine. 2018 [epub].

All care should be safe and of high quality, including end of life care. This study used a sample of patient safety incident reports from the UK’s National Reporting and Learning System to examine unsafe care delivered to patients receiving palliative care from primary-care services outside normal working hours. The sample “included issues with: medications (n = 613); access to timely care (n = 123); information transfer (n = 102), and/or non-medication-related treatment such as pressure ulcer relief or catheter care (n = 102). Almost two-thirds of reports (n = 695) described harm with outcomes such as increased pain, emotional, and psychological distress featuring highly. Commonly identified contributory factors to these incidents were a failure to follow protocol (n = 282), lack of skills/confidence of staff (n = 156), and patients requiring medication delivered via a syringe driver (n = 80).”

**Association of nurse workload with missed nursing care in the neonatal intensive care unit**

Tubbs-Cooley HL, Mara CA, Carle AC, Mark BA, Pickler RH  

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<th>DOI</th>
<th><a href="https://doi.org/10.1001/jamapediatrics.2018.3619">https://doi.org/10.1001/jamapediatrics.2018.3619</a></th>
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<td>Notes</td>
<td>As was noted in the study above, workload can be a safety issue, and items on workload have been included in the <em>On the Radar</em> previously. This study looked at workload of nurses in a neonatal intensive care unit (NICU) based on the responses on 136 nurses about care of 418 infants during 332 shifts of 12 hours each across a 10-month period at a US teaching hospital. The study authors report ‘increased infant-to-nurse ratio during a shift was associated with increased missed nursing care in about half of the measured missed care items. When a measure of subjective workload was considered, the associations of ratios were mostly attenuated; increased subjective workload was consistently associated with increased missed care.’</td>
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**Impact of the Agency for Healthcare Research and Quality's Safety Program for Perinatal Care**

Kahwati LC, Sorensen AV, Teixeira-Poit S, Jacobs S, Sommerness SA, Miller KK, et al  
*Joint Commission Journal on Quality and Patient Safety*. 2019 [epub].  
DOI https://doi.org/10.1016/j.jcjq.2018.11.002

| Notes | It’s no great secret that the real challenge in making change, making improvements, comes in the implementation, both initially and in sustaining change. This paper reports on an evaluation of the US Agency for Healthcare Research and Quality’s adaptation of its Comprehensive Unit-based Safety Program into a Safety Program for Perinatal Care (SPPC) to improve safety on maternity (labor and delivery) units. The project supported program implementation in 43 units with 26 units implementing all the program’s components.  
The authors of this pre–post evaluation study report while that staff noted a perceived improved safety culture and teamwork and obstetric trauma and primary caesarean delivery rates declined after the intervention, neonatal birth trauma rates increased. The authors discuss the issues of incomplete implementation and lack of sustained program participation that can limit the benefits of such programs. |

**Association of Team-Based Primary Care With Health Care Utilization and Costs Among Chronically Ill Patients**

Meyers DJ, Chien AT, Nguyen KH, Li Z, Singer SJ, Rosenthal MB  

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<th>DOI</th>
<th><a href="https://doi.org/10.1001/jamainternmed.2018.5118">https://doi.org/10.1001/jamainternmed.2018.5118</a></th>
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| Notes | Paper reporting on a US study looking at how a team-based primary care transformation collaborative initiative affected patient health care utilisation and costs. The study involved 18 primary care practices in the Boston, Massachusetts, area and covered 83 953 patients accounting for 138 113 patient-years across 18 intervention practices and 238 455 patients accounting for 401 573 patient-years across 76 comparison practices in the period 2011–2015.  
The authors report that among:  
- chronically ill patients there was an 18% reduction in hospitalisations, a 25% reduction in emergency department visits, and a 36% reduction in ambulatory care–sensitive emergency department visits relative to the comparison practices  
- healthier patients, there was an increase in outpatient visits and hospitalisations.  
The apparent conclusion that team-based (or integrated or coordinated) care may most benefit those with chronic conditions is in fact something of a validation of such approaches. |

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*On the Radar Issue 403*
### BMJ Quality and Safety

**February 2019 - Volume 28 – 1**

**URL.** [https://qualitysafety.bmj.com/content/28/2](https://qualitysafety.bmj.com/content/28/2)

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<td>A new issue of <em>BMJ Quality and Safety</em> has been published. Many of the papers in this issue have been referred to in previous editions of <em>On the Radar</em> (when they were released online). Articles in this issue of <em>BMJ Quality and Safety</em> include:</td>
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<td>- Editorial: <strong>Composite measures of healthcare quality</strong>: sensible in theory, problematic in practice (Rocco Friebel, Adam Steventon)</td>
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<td>- Editorial: <strong>Research paradigm</strong> that tackles the complexity of in situ care: <em>video reflexivity</em> (Rick Iedema)</td>
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<td>- Editorial: <strong>Reducing hospital admissions for adverse drug events</strong> through coordinated pharmacist care: learning from Hawai‘i without a field trip (Michael A Steinman)</td>
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<td>- <strong>Ranking hospitals</strong>: do we gain reliability by using composite rather than individual indicators? (Stefanie N Hofstede, Iris E Ceyisakar, Hester F Lingsma, Dione S Krinong, Perla J Marang-van de Mheen)</td>
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<td>- <strong>Community-acquired and hospital-acquired medication harm</strong> among older inpatients and impact of a state-wide medication management intervention (Karen Pellegrin, Alicia Lozano, Jill Miyamura, Joanne Lynn, Les Krench, Sheena Jolson-Oakes, Anita Ciarleglio, Terry McInnis, Alistair Bairos, Lara Gomez, Mercedes Benitez-McCrary, Alexandra Hanlon)</td>
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<td>- Information management goals and process failures during home visits for middle-aged and older adults receiving skilled home healthcare services after hospital discharge: a multisite, qualitative study (Alicia I Arbaje, Ashley Hughes, Nicole Werner, Kimberly Carl, Dawn Hohl, Kate Jones, Kathryn H Bowles, Kitty Chan, Bruce Leff, Ayse P Gurses)</td>
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<td>- <strong>Public reporting of antipsychotic prescribing in nursing homes</strong>: population-based interrupted time series analyses (Noah M Ivers, Monica Taljaard, Vasily Giannakeas, Catherine Reis, Evelyn Williams, Susan Bronskill)</td>
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<td>- Value of hospital resources for effective <strong>pressure injury prevention</strong>: a cost-effectiveness analysis (William V Padula, Peter J Pronovost, Mary Beth F Makic, Heidi L Wald, Dane Moran, Manish K Mishra, David O Meltzer)</td>
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<td>- Work-life balance behaviours cluster in work settings and relate to <strong>burnout and safety culture</strong>: a cross-sectional survey analysis (Stephanie P Schwartz, Kathryn C Adair, Jonathan Bae, Kyle J Rehder, Tait D Shanafelt, Jochen Profit, J Bryan Sexton)</td>
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<td>- Application of <strong>electronic trigger tools</strong> to identify targets for improving <strong>diagnostic safety</strong>: (Daniel R Murphy, Ashley ND Meyer, Dean F Sittig, Derek W Meeks, Eric J Thomas, Hardeep Singh)</td>
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<td>- Formative evaluation of the <strong>video reflexive ethnography method</strong>, as applied to the physician–nurse dyad (Milisa Manojlovich, Richard M Frankel, Molly Harrod, Alaa Heshmati, Timothy Hofer, Elizabeth Umberfield, Sarah Krein)</td>
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• Editorial: Role of electronic patient reported safety incidents in improving patient safety and care (Mohy Uddin; Shabbir Syed-Abdul)

• The use of the Patient Assessment of Chronic Illness Care (PACIC) instrument in diabetes care: a systematic review and meta-analysis (Chantal Ardit; Katia Iglesias; Isabelle Peytremann-Bridevaux)

• Patient satisfaction and experience of primary care in Saudi Arabia: a systematic review (Mohammed Senitan; Ali Hassan Alhaiti; James Gillespie)

• Application of the Six Sigma concept for quality assessment of different strategies in DBS surgery (Witold H Polanski; K Daniel Martin; Swen Günther; G Schackert; L Klingenhoefeer; M Fauser ;A Storch; S B Sobottka)

• Effectiveness of a WHO Safe Childbirth Checklist Coaching-based intervention on the availability of Essential Birth Supplies in Uttar Pradesh, India (Jenny J Maisonneuve ; Katherine E A Semrau; Pinki Maji; Vinay Pratap Singh; Kate A Miller; Ian Solsky; Neeraj Dixit; Jigyasa Sharma; Janaka Lagoo; Natalie Panariello; B J Neal; T Kalita; N Kara; V Kumar; L R Hirschhorn)

• Patient-reported experiences of patient safety incidents need to be utilized more systematically in promoting safe care (Merja Sahlström; Pirjo Partanan; Hannele Turunen)

• Quality indicators and their regular use in clinical practice: results from a survey among users of two cardiovascular National Registries in Sweden (Beatrix Algurén; Boel Andersson-Gäre; Johan Thor ; A-C Andersson)

• Advancing the health of women and newborns: predictors of patient satisfaction among women attending antenatal and maternity care in rural Rwanda (Christine Mutaganzwa; L Wibecan; H S Iyer; E Nahimana; A Manzi; F Biziyaremye; M Nyishime; F Nkikabahizi; L R Hirschhorn; H Magge)

• Sepsis now a priority: a quality improvement initiative for early sepsis recognition and care (Christine M McDonald; Sarah West; David Dushenski; Stephen E Lapinsky ; Christine Soong; Kate van den Broek; Melanie Ashby; Gillian Wilde-Friel; Carrie Kan; Mark McIntyre; Andrew Morris)

• Leveraging new information technology to monitor medicine use in 71 residential aged care facilities: variation in polypharmacy and antipsychotic use (Lisa G Pont; Magda Z Raban; M L Jorgensen; A Georgiou; J I Westbrook)

• Long-term compliance with a validated intravenous insulin therapy protocol in cardiac surgery patients: a quality improvement project (Guillaume Besch; Andrea Perrotti; Lucie Salomon du Mont ; Raphaelle Tucella; Guillaume Fliscoli; Aline Bondy; Emmanuel Samain; Sidney Chocron; S Pili-Floury)

• The future of health systems to 2030: a roadmap for global progress and sustainability (Jeffrey Braithwaite; Russell Mannion; Yukihiro Matsuyama; Paul G Shkelle ; Stuart Whittaker; Samir Al-Adawi; Kristiana Ludlow; Wendy James; Hsuen P Ting; Jessica Herkes; E McPherson; K Churruca; G Lamprell; L A Ellis; C Boyling; M Warwick; C Pomare; W Nicklin; C F Hughes)

**BMJ Quality and Safety online first articles**

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**Notes**

- Evaluation of an electronic health record structured discharge summary to provide real time adverse event reporting in thoracic surgery (Andrew J Graham, Wrechelle Ocampo, Danielle A Southern, Anthony Falvi, Dina Sotiropoulos, B Wang, K Lonergan, B Vito, W A Ghali, S D P McFadden)
International Journal for Quality in Health Care has published a number of ‘online first’ articles, including:

- Magnitude and financial implications of **inappropriate diagnostic imaging** for three common clinical conditions (Stephen Flaherty; E David Zepeda; Koenraad Mortele; Gary J Young)

### Online resources

**[USA] Trauma-informed care**

https://www.traumainformedcare.chcs.org/

Trauma, including abuse, neglect, systemic discrimination, and violence, can elevate the risk for serious health issues and poor health outcomes throughout life. According to this site, ‘Trauma-informed care shifts the focus from “What’s wrong with you?” to “What happened to you?”’

A trauma-informed approach to care acknowledges that health care organizations and care teams need to have a complete picture of a patient’s life situation — past and present — in order to provide effective health care services with a healing orientation. Adopting trauma-informed practices can potentially improve patient engagement, treatment adherence, and health outcomes, as well as provider and staff wellness. It can also help reduce avoidable care and excess costs for both the health care and social service sectors.

The (US) Center for Health Care Strategies has developed this site with resources from trauma-informed care leaders to help improve patient outcomes, increase patient and staff resilience, and reduce avoidable health care service use and costs.

**[USA] Pediatric Antibiotic Stewardship Program Toolkit**

http://www.pids.org/asp-toolkit.html

The Pediatric Infectious Diseases Society, in collaboration with the American Academy of Pediatrics and Healthcare Without Harm, has developed the Pediatric Antibiotic Stewardship Program Toolkit. The purpose of the Toolkit is to provide helpful resources for improving the use of antibiotics in children cared for in all healthcare settings (e.g., inpatient and outpatient, including emergency/urgent care settings).

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