

What's New in the Patient Safety World

December 2015

CAUTI Prevention Tools

The most important interventions in preventing CAUTI's (catheter-associated urinary tract infections) are (1) avoiding catheters in the first place and (2) minimizing their duration of use. In our multiple prior columns on CAUTI prevention (see the list at the end of today's column) we've noted catheter duration can be reduced by questioning daily whether the catheter is still necessary, by using automatic stop orders, or by having protocols that allow nursing to remove catheters when certain criteria are met.

A recent study demonstrates just how powerful the latter intervention can be. Leis et al. at Sunnybrook Health Center in Toronto, Ontario developed consensus among their general medicine colleagues about criteria that would empower nurses to remove urinary catheters ([Leis 2015](#)). Nurses required only about a half hour of training on how to use the algorithm. They then applied it to all patients arriving on their ward with a urinary catheter and every day thereafter on patients with a urinary catheter. They compared catheter usage on wards on which the training and algorithm were implemented to that on wards on which they were not implemented (the "control" wards). Catheter days per patient were similar on the intervention and control wards before the implementation. After implementation of the project, catheter days fell to 8.5% vs. 14.8% on the control wards. The average catheter duration also fell on the intervention wards (2.8 days vs. 3.6 days on the control wards). More importantly, CAUTI's fell from 1.7 per 1000 patient-days before to 0.2 after the intervention (on the control wards CAUTI rates per 1000 patient-days were 1.4 before and 1.5 after).

Importantly, none of the 8 catheter reinsertions were deemed to be due to inappropriate removal of catheters under the protocol.

The protocol applied only to medical patients and excluded patients with conditions like pre-admission permanent indwelling catheters, known bladder outlet obstruction, continuous bladder irrigation for hematuria, incontinent female patients with sacral decubiti, and patients with profound hyponatremia who were on strict I&O monitoring. Also excluded were patients on end-of-life comfort care (but see our June 30, 2015 Patient Safety Tip of the Week "[What Are Appropriate Indications for Urinary Catheters?](#)" regarding whether that is a valid criterion for indwelling catheters). The protocol also called for bladder ultrasound scans as part of the monitoring in patients after catheter removal.

The researchers cited physician consensus and buy-in and engagement of nurse leaders as key success factors.

Meanwhile, AHRQ just released its “Toolkit for Reducing CAUTI in Hospitals” ([AHRQ 2015](#)). The toolkit was developed as part of a multi-hospital project in which CUSP (Comprehensive Unit-based Safety Program) principles were used along with evidence-based CAUTI prevention measures. Preliminary results in those hospitals participating in the 4-year AHRQ project show a 15% reduction in CAUTI’s. The toolkit includes multiple tools, including:

- Ways to assess physicians and executives for leadership/champion roles
- Sample catheter appropriateness policies
- Sample bladder scanning policies
- Posters, pocket cards, algorithms, fact sheets
- Sample nurse-driven protocol for catheter removal
- And many others

It also has links to a host of prior AHRQ webinars on preventing CAUTI’s and using CUSP principles. It also has multiple resources for sustaining change and improvement.

Many of you are aware that AHRQ has recently been a target for elimination or significant budget reductions. It is projects such as this one and dissemination of the lessons learned and tools used that make AHRQ an agency that is very valuable to the health care community. It would be a shame to lose such a valuable asset.

Our other columns on urinary catheter-associated UTI’s:

- May 8, 2007 Tip of the Week “[Doctor, when do I get this red rubber hose removed?](#)”
- January 8, 2008 Tip of the Week “[Urinary Catheter-Associated Infections](#)”
- April 2008 What’s New in the Patient Safety World column “[More on Nosocomial UTI’s](#)”
- June 24, 2008 Tip of the Week “[Urinary Catheter-Related UTI’s: Bladder Bundles](#)”
- April 21, 2009 Tip of the Week “[Still Futzing with Foleys?](#)”
- June 9, 2009 Tip of the Week “[CDC Update to the Guideline for Prevention of CAUTI](#)”
- March 2010 “[IDSA CAUTI Guidelines](#)”
- February 2011 What’s New in the Patient Safety World column “[Catheters Not Needed in C-Sections?](#)”
- January 2012 “[CAUTI’s Still Get No Respect](#)”
- May 2012 “[Foley Catheter Hazards](#)”
- November 2012 “[CAUTI Conundrum](#)”
- December 18, 2012 “[Unintended Consequences of the CAUTI Measure?](#)”
- January 2013 “[Silver-Coated Urinary Catheters Don’t Reduce CAUTI’s](#)”

- June 2013 “[Barriers to CAUTI Prevention](#)”
- November 2013 “[Further Reducing Urinary Catheter Use](#)”
- June 2014 “[Updated HAI Prevention Guidelines from SHEA/IDSA](#)”
- June 30, 2015 “[What Are Appropriate Indications for Urinary Catheters?](#)”

References:

Leis JA, Corpus C, Rahmani A, et al. Medical Directive for Urinary Catheter Removal by Nurses on General Medical Wards. Ann Intern Med 2015; published online first November 19, 2015

<http://archinte.jamanetwork.com/article.aspx?articleid=2470586>

AHRQ (Agency for Healthcare Research and Quality). Toolkit for Reducing CAUTI in Hospitals. 2015

http://www.ahrq.gov/professionals/quality-patient-safety/hais/tools/cauti-hospitals/index.html?utm_source=PressRelease56&utm_medium=PressRelease&utm_term=Toolkit&utm_content=56&utm_campaign=CUSP4CAUTI2015

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