Medical Xpress

Catheter chaos: Hospitals lag in preventing common infection

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No consistent strategy for dealing with urinary catheters, or ensuring their removal, means patients and families need to speak up

One in four Americans in the hospital right now has a urinary catheter. One percent of them will get a urinary tract infection from that catheter. All of those will require antibiotics. A few may suffer life-threatening complications.

And with every new case, UTIs will retain their title of "most common hospital-acquired infection," responsible for 40 percent of infections related to hospitalization.

But despite all this, a new study finds, American hospitals don't seem to have a consistent strategy for preventing catheter-related UTIs. In fact, the study shows, most hospitals aren't using basic tactics that have been proven to keep patients from getting catheter-related UTIs in the first place.

The study provides the first-ever national snapshot of hospital efforts to prevent urinary catheter-related infections. It's published in the January issue of the journal Clinical Infectious Diseases by a team led by patient safety experts from the University of Michigan Health System and the VA Ann Arbor Healthcare System.

The picture that develops from this snapshot is chaotic, with nearly half of hospitals lacking a system that tells them which patients currently

have a catheter, and three-quarters lacking a system that can tell them how long a patient has had a catheter or whether one has been removed. Nearly one-third of hospitals didn't even track the UTI rates in their patient populations.

Meanwhile, less than 10 percent of hospitals used an approach that has been shown to reduce UTI rates and decrease the time patients spend on catheters: a simple reminder that asks doctors every day whether a patient's catheter is necessary, or even makes catheter removal the default action unless a physician says otherwise.

"Until now, we haven't had national data to tell us what hospitals are doing to prevent this common and costly patient-safety problem," says lead author Sanjay Saint, M.D., MPH, the director of the U-M/VA Patient Safety Enhancement Program, and leader of several other studies on catheter-related issues. "Now that we have these data, it's clear that there's no one dominant practice that's being used, including physician reminders, which have proven benefit and make a lot of common sense."

Continues Saint, who is also a U-M professor of internal medicine and a research scientist at VA Ann Arbor, "The bottom line for hospitalized patients and their families is, if you have a catheter, ask the doctor or nurse every day if you really still need it."

For hospitals, the authors say they hope the study puts needed focus on the opportunities for improvement.

"This issue is especially important now that hospitals will not be reimbursed as part of the Medicare system for the cost of caring for hospital-acquired urinary tract infections," says senior author Sarah Krein, Ph.D., R.N., a research assistant professor of internal medicine and research investigator at the Ann Arbor VA.

The researchers designed a survey that they sent to all 119 VA hospitals in the Unites States, and to a random sample of 600 non-federal hospitals that have an intensive care unit and 50 or more hospital beds. This sample was designed to represent the 2,671 hospitals of that type in the U.S.

The survey asked about a range of practices that can be used to prevent hospital-acquired UTIs, including the use of catheters coated with antimicrobial agents that inhibit bacterial growth, the use of condom-style and suprapubic catheters that reduce the risk of bacteria entering the urethra, the use of antimicrobial agents in the drainage bags that collect urine, and the use of portable ultrasound bladder scanners to see of patients' bladders were truly being emptied without a catheter.

It also asked about system-related measures that can be used, including reminders, stop orders, monitoring systems, feedback on UTIs to patient care providers, and urinary catheter teams to focus on preventing infections.

The survey also collected information about a hospital's location, nurse staffing levels, availability of a hospital epidemiologist and hospitalist physicians who practice solely in the hospital, teaching hospital status, participation in a broader infection-prevention collaborative effort, and overall safety culture.

The surveys were completed by infection control specialists or hospital epidemiologists, and the response rate was excellent – 70 percent for non-VA hospitals and 80 percent for VA hospitals.

In all, the researchers found, less than a third of hospitals used either of the two most common tactics: bladder scanners and antimicrobial catheters. VA hospitals were more likely than non-VA hospitals to use bladder scanners, condom catheters and suprapubic catheters, but less

likely to use the antimicrobial catheters, which cost about $5 more apiece than regular catheters.

The authors note that the VA hospitals were no more likely than non-VA hospitals to use a reminder system to prompt doctors to remove or maintain a patient's catheter – despite the fact that the VA system uses a standard computerized medical-order entry system in all its hospitals, which makes such reminders easier to implement than at hospitals without computerized order-entry.

Interestingly, hospitals that were participating in a collaborative effort to reduce hospital-acquired infections were no more likely to use any of the UTI-preventions strategies than the other hospitals in the study. This finding, the authors say, may be attributed to the fact that at the time they sent the survey out in 2005, UTIs were not a major focus of such collaboratives, which tended to start with bloodstream infections and central venous catheters as a target for infection prevention. But today, efforts such as the Keystone Center for Patient Safety & Quality Initiative in Michigan are including UTI prevention in their efforts.

As this issue continues to gain attention, the authors say, patients should not be afraid to speak up about catheters that might have been put in place when they had surgery or an emergency, were treated for a bladder obstruction, or needed close monitoring of their urine output. Previous studies have shown that up to a third of the days that patients use catheters are medically unnecessary, and that doctors don't know whether their hospitalized patients have catheters about a third of the time.

Source: University of Michigan Health System