What’s behind the drop in hospital-acquired conditions?

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Saving lives and saving money are two key themes highlighted in a report issued by the U.S. Department of Health & Human Services (HHS) in December 2015 about the drop in hospital-acquired conditions (HACs). The report, “Saving Lives and Saving Money: Hospital-Acquired Conditions Update,” prepared by HHS’ Agency for Healthcare Research and Quality (AHRQ), reveals that 87,000 fewer patients died in hospitals as a result of the decline in HACs between 2011 and 2014, which led to approximately $19.8 billion dollars in savings over four years—nearly $16 billion of which occurred in 2013 and 2014.

The report also shows that while the number of HACs stayed the same at 121 per 1,000 discharges for 2013 and 2014, that number is down from 145 in 2010. While the report does not pin down the precise cause of the decline, it points to possible drivers such as the Centers for Medicare & Medicaid Services’ (CMS) payment incentives and HHS’s Partnership for Patients (PfP) initiative, a public-private partnership working to improve the quality, safety, and affordability of healthcare.

According to the report:

- 40% of the total reduction in HACs was due to a decline in the number of adverse drug events, which represents 16,760 deaths avoided and approximately $4.2 billion in savings.
- 28% of the total reduction was due to a decline in pressure ulcers, which represents 42,716 deaths avoided and $10 billion in savings.
- 16% of the total reduction was due to a decline in catheter associated urinary tract infections, which represents 7,922 deaths avoided and $340 million in savings.

The three HACs cited above represent about 34%, 27%, and 8%, respectively, of total HACs measured in the 2010 baseline rate, according to the report.

How hospitals drove down HACs
One setting where patient safety can and is being improved, is in the surgery suite, says Jeff Brady, MD, director of AHRQ’s Center for Quality Improvement and Patient Safety. He says his team has found that two of the most important drivers of patient safety are effective communication and the ability to work efficiently.

Every member of the surgical team needs to know his or her role, and everyone needs to communicate in a “higher fidelity way” so that the team members know how to address problems when they arise, he says.

Brady provides the example of a nurse who observes that a patient’s status is deteriorating. Because the hospital wants to increase safety for patients and has put best practices in place, the nurse knows which actions to take to help the patient—whether the patient is experiencing an adverse drug event or a central-line associated bloodstream infection. If the situation escalates, the nurse can communicate with other members of the team so that everyone understands the situation and can do his or her part.

In addition to establishing best practices, hospitals are releasing, using, and tracking more information that can lead to HAC declines, says Leah Binder, chief executive offer at The Leapfrog Group, which works with its employer members to encourage transparency and easy access to healthcare information. She says that one of the initial difficulties with trying to reduce HACs was that “no one really knew all of the right measures to track.” She notes that even when there was increased awareness of these appropriate measures, hospitals weren't willing to report them.

Now that efforts to improve transparency are underway, and now that CMS is releasing claims data that's been de-identified, researchers can analyze health systems and physicians in new ways—and this translates into improving safety when lessons learned are implemented by hospitals, says Binder.

**Noteworthy successes**

The reduction in central line-associated bloodstream infections—by 1% or 4,403 fewer deaths between 2011 and 2014, according to AHRQ—is one that Binder likes to highlight. That decline resulted in an estimated cost savings of $404 million between 2011 and 2014, according to the report.

She points to AHRQ-backed research done by Peter Pronovost, MD, director of the Armstrong Institute for Patient Safety and Quality at Johns Hopkins and senior vice president for patient safety and quality at Johns Hopkins Medicine. His research on reducing central line-associated bloodstream infections found that dozens of hospitals were able to eliminate these infections.

Before Pronovost’s research with Michigan hospitals, it was conventional wisdom in medicine that central line-associated bloodstream infections were inevitable events in the intensive care unit (ICU), she says. That’s because patients in the ICU are very sick and vulnerable, and the complex interventions they receive made it impossible to prevent infections.

“That was an astonishing result in healthcare—few dreamed it was feasible to eliminate an infection altogether. And the declines in rates overall were dramatic, as much as 66%. These are levels of improvement rarely seen in healthcare,” says Binder.

The reduction in adverse drug events is another success Binder celebrates. These are the most common errors made in hospitals, so Binder says they’re a very good indicator of hospital safety. The increased use of
computerized provider order entry (CPOE) for medication orders and barcodes for verifying medications have really helped reduce these errors, she says.

Still, Binder stresses that she would like the data behind adverse drug events to be made publically available. Binder would also like the agency to report not only on the deaths averted but on the adverse drug events that occur but don't lead to deaths. “These are events that do result in harm and sometimes significant harm to the patient,” she says.

McKeeAna McKee, MD, executive vice president and chief medical officer at the Joint Commission, says there’s still a lot of work to be done to reduce the rate of HACs. In fact, she says, healthcare organizations should be focused on eliminating these preventable medical errors. “[The Joint Commission believes] that, with the right leadership and governance, we can get to ‘zero harm,’” she says.

McKee attributes the reductions in HACs to the Affordable Care Act and financial penalties associated with high rates of HACs. “[Both have] helped healthcare organizations to pay attention to these issues,” she says.

Success strategies

While it might sound overly simple, tools such as check lists can help hospitals continue to improve safety practices, says Akin Demehin, senior associate director of policy for the American Hospital Association. He points to efforts such as the Hospital Engagement Network, which identifies and promotes best practices proven to reduce HACs.

DemehinFor example, there’s a list of things to be mindful of when inserting a central line, including instructions on preparing the site for inserting the line and when you need to dress the wound, says Demehin. Giving hospitals access to these tools and obligating them to share their data is really what’s making these efforts successful, he says.

Demehin also points to strategies that can help prevent pressure ulcers and identify them sooner, such as having nurses regularly turn patients—particularly in the intensive care unit. Other efforts to reduce pressure ulcers include using different bed surfaces, such as low air-loss mattresses and pressure-distributing mattresses, says Demehin.
McKee encourages health system executives to hire the right talent and invest in ongoing training for team members who are responsible for improving safety measures. "Typically, someone comes from the nursing ranks, and they have no formal training in safety. While these team members are able to generate some results, they're often not sustainable."

She encourages hospitals to adopt training models similar to the Joint Commission’s virtual academy, which trains the organization’s team on lean methodologies, Six Sigma, and robust process improvement. McKee notes that this training includes classroom time during which participants use the tools created by the Joint Commission to work through solving real-world healthcare safety problems.