A $330 Million Risk: What Boards Should Know About New Medicare Penalties for Hospital Errors

by Rodney F. Hochman, MD

Hundreds of hospitals are likely to be hit with new Medicare penalties for patient injuries under the Hospital-Acquired Condition (HAC) Reduction Program, according to a preliminary assessment released by the Centers for Medicare & Medicaid Services (CMS) earlier this year.

Starting in October, hospitals with the highest rates of certain complications will face sanctions estimated to total $330 million in fiscal year (FY) 2015 under the new program. The preliminary assessment suggests that on average, each penalized hospital stands to lose nearly $434,000 in Medicare reimbursements. However, large hospital systems and those with a high volume of Medicare payments could face much greater losses if they provide unsafe care.

In this environment, governing boards need to understand how the new penalty program works as well as the drivers of quality, safety and costs in their organizations. Only with such knowledge can trustees play a meaningful role in helping their hospitals make a successful transition from volume-based to value-based care, while reducing the risk of incurring severe financial penalties.

Which Hospitals Are in the Penalty Zone?

In the preliminary assessment, Medicare identified 761 hospitals at risk for reimbursement cuts in FY 2015, based on an important new metric of safety and quality of care trustees need to understand: their facility’s HAC score.

Scores are calculated on a scale of one to 10, according to each hospital’s rates of infections and eight other serious complications, including accidental puncture and collapse of a patient’s lung (iatrogenic pneumothorax) during medical treatment, and central venous catheterization, a procedure performed more than 5 million times a year in U.S. hospitals. (For more information on the safety and quality measures used in penalty assessments, see “At a Glance: Medicare’s New HAC Reduction Program” on page 4.)

In CMS’s preliminary assessment, hospitals with a HAC score above seven will be docked one percent of their Medicare reimbursements across all diagnosis-related groups in FY 2015. However, some facilities may avoid sanctions after an additional year of performance data is factored into the final assessments to be released later this year. (To download a spreadsheet of the 761 hospitals at risk for sanctions, visit http://www.kaiserhealthnews.org/Stories/2014/June/23/patient-injuries-hospitals-most-likely-to-be- Penalized.aspx.)

Certain types of hospitals are at particularly high risk for incurring penalties, Harvard School of Public Health researchers reported in an analysis of CMS’s preliminary penalty assessments prepared for Kaiser Health News. Among the most startling disparities in hospitals’ relative risk for sanctions are the following identified by the research team:

- Compared to non-teaching hospitals, major teaching hospitals are nearly three times more likely to be penalized.
- Large hospitals have more than double the penalty risk of small facilities.
- Urban hospitals are nearly twice as likely to be penalized as their rural counterparts.
- Hospitals serving the highest proportion of low-income patients have a 50 percent higher risk of being penalized, compared to hospitals with the lowest proportion.
- Public hospitals are 40 percent more likely to be sanctioned than for-profit facilities.

(More findings from the Harvard analysis of penalty risk appear in the chart on page 2, “Some Types of Hospitals Hit Harder.”)

Eliminating Million-Dollar Mistakes

While the prevailing belief in medicine has long been that a certain level of errors is unavoidable, the new penalty program challenges hospitals and their boards to make health care as safe as Qantas Airlines, which hasn’t had a fatal crash since 1951, or the U.S. Navy’s nuclear submarine fleet, which has never had
a reactor accident. "We want [hospitals] laser-focused on eliminating patient harm," said Dr. Patrick Conway, Chief Medical Officer of CMS.

If eliminating HACs sounds impossible, consider the following example: In a randomized study of 900 critical care patients, real-time ultrasound-guided central venous catheterization (CVC) of the internal jugular vein reduced rates of pneumothorax to zero, compared to a rate of 2.4 percent when traditional "blind" techniques based on anatomical landmarks were employed.

The study also reported the following outcomes:

- A 100 percent success rate with ultrasound-guided CVC placement, compared to 94.4 percent in the landmark group.
- A 0.6 percent rate of hematoma with ultrasound, versus 8.4 percent without it.
- A 1.1 percent rate of accidental carotid artery puncture with ultrasound, versus 10.6 percent when landmark methods were used.
- Significantly reduced blood-vessel access time and rates of CVC-associated bloodstream infection and increased first-pass success with ultrasound guidance.

Indeed, evidence of ultrasound guidance’s safety benefits from multiple studies is so robust that many leading hospitals now mandate it for all CVCs, based on related guidelines from medical societies, including the American Board of Internal Medicine, American Society of Anesthesiologists, American College of Chest Physicians, National Institute of Health and Clinical Excellence and many others.

Ultrasound visualization also can help hospitals avoid financial risks. A 2011 study published in *Health Affairs* found that of all the medical errors studied, collapsed lung is one of the most expensive, costing the U.S. health care system $580 million in 2008. This potentially life-threatening complication can add four to seven days to the patient’s hospital stay and increase costs by up to $45,000, according to a study by the Agency for Healthcare Research and Quality (AHRQ).

The cost of CVC-associated injuries can soar far higher if the patient sues, however. An analysis of closed malpractice claims found that these HACs “had a higher severity of injury, with an increased proportion of death (47 percent),” compared to other types of claims for patient injuries (29 percent). Payments for all CVC claims—such as blood vessel injuries, pulmonary artery rupture, air embolism and collapsed lung—ranged as high as $6.9 million, the researchers reported.

Understanding the impact of CVC-related injuries played a key role in one system’s efforts to improve patient outcomes and lower costs—with leadership and support from its governing board.

A Success Story of Board Involvement in Safety Improvements

Memorial Hermann Healthcare System comprises 12 hospitals that collectively treat more than 138,000 inpatients and provide emergency department (ED) care to more than 411,000 patients annually. After the system adopted ultrasound-guided CVC as its standard of care as part of its “High Reliability: Journey from Board to Bedside Initiative,” several of its hospitals and EDs achieved an unprecedented rate of zero pneumothorax for one year or longer.

As the name of this safety initiative suggests, it began with support and involvement of Memorial Hermann’s governing board, said the health care system’s chief medical officer, M. Michael Shabot, MD. “Our board members are learning along with us,” he said, adding that trustees attend safety and quality conferences and take courses on how to improve patient safety.

The Board to Bedside Initiative began when its leadership realized the improvement was essential. “To be honest, the high-reliability program grew out of a series of adverse events that occurred in 2006,” Dr. Shabot explained in a paper published in *Infection Control & Clinical Quality*. "There was a need to totally change the approach

### Some Types Of Hospitals Hit Harder

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<thead>
<tr>
<th>Size</th>
<th>Percent of Hospitals With Preliminary Penalty</th>
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<tbody>
<tr>
<td>Large</td>
<td>39%</td>
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<tr>
<td>Medium</td>
<td>22%</td>
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<td>Small</td>
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<td>Northeast</td>
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<td>South</td>
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<th>Teaching Residents</th>
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<tr>
<td>Teaching Hospitals</td>
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<td>Non-Teaching</td>
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<tr>
<td>No</td>
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<table>
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<th>Patient Income Mix</th>
<th>Percent of Hospitals With Preliminary Penalty</th>
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<td>Middle Level of Low Income Patients</td>
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<td>Fewest Low Income Patients</td>
<td>18%</td>
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Footnotes:
(1) Small hospitals <100 beds; medium hospitals between 100 and 399 beds; large hospitals >= 400 beds.
(2) Teaching hospitals are members of the Council of Teaching Hospitals and Health Systems (COTH) of the Association of American Medical Colleges. Non-COTH hospitals with medical school affiliations were omitted from the analysis.
(3) Based on a Medicare index that reflects the prevalence of admitted patients who qualify for Medicaid or Medicare Supplemental Security Income. Hospitals were divided into the top and bottom quartiles and middle 50 percent.

Source: Dr. Ashish K. Jha and Jie Zheng
Harvard School of Public Health

Andrew Villegas/Kaiser Health News
to safety and quality in the health care system,” with measures that included:

- Making patient safety the system’s sole core value.
- Retraining all employees in how to perform their jobs safely, using lessons from leaders in high-reliability industries, such as airline pilots and nuclear engineers.
- Employing root cause analysis of medical errors, using the “Five Whys” technique developed by Sakichi Toyoda, founder of Toyota Industries, to expose system problems. The technique involves asking, “Why?” at least five times to delve into underlying causes of an error.
- Rewarding success with awards presented to hospitals that have gone 12 or more months without such adverse events as pneumothorax, falls with injuries and bloodstream infections.
- Using safety checklists and best practices bundles to guard against HACs.

Best Safety Practices to Prevent Bloodstream Infections

Using a bundle of best practices has helped 353-bed White Memorial Hospital, part of the Adventist Health System in Los Angeles, eliminate two of the serious complications used to determine penalties under Medicare’s HAC Reduction Program: pneumothorax and central line-associated bloodstream infections (CLABSIs). Both conditions are now included on AHRQ’s list of patient safety indicators.

On any given day, about one in 25 hospitalized patients in the U.S. are battling at least one hospital-acquired infection (HAI)—and each year, about 75,000 of these patients die during their hospital stay, according to a recent report by the Centers for Disease Control (CDC). Device-associated and surgical-site infections account for nearly half of all HAIs, with infections stemming from CVCs (also known as central lines) causing death rates ranging from 12 to 25 percent.

CLABSIs are both expensive—increasing length of hospital stay by a mean of seven days with excess costs estimated to be up to $29,000 per bloodstream infection—and dangerous, with mortality rates reported between 12 and 25 percent. However, a 2014 study published in the New England Journal of Medicine reports impressive success in preventing CLABSIs.

For example, the Institute for Healthcare Improvement has designed an evidence-based bundle of five safety practices that collectively result in better outcomes, ranging from hand hygiene to maximum barrier precautions upon central line insertion and daily review of the continued need for CVC.

Now there’s a growing movement to add ultrasound-guided central-line placement as a sixth component of the bundle. Hospitals that have adopted the approach, including Cedars-Sinai Medical Center in Los Angeles, have seen striking reductions in CLABSIs. White Memorial was able to achieve a rate of zero between January 2010 and August 2011.

The lesson learned is that with a true commitment to excellence that includes proven safety practices, the right technology and the involvement of the entire hospital—including its board, leadership and physicians—it really is possible for medical providers to do no harm.
For FY 2015, Medicare is assessing hospitals’ performance in two domains, based on three measures used to calculate HAC scores on a scale of one to 10, according to a hospital’s national percentile ranking. A score of one indicates the best performance and 10, the worst. In FY 2016 and 2017, Medicare will add more measures to this list:

**Domain 1: AHRQ (Agency for Healthcare Quality and Research) Patient Safety Indicators.** This composite measure is based on rates of these major, but potentially preventable complications from in-patient hospital care or medical procedures:

- Pressure ulcers (bed sores)
- Collapsed lung resulting from medical treatment (iatrogenic pneumothorax)
- Broken hip from a fall after surgery
- Blood clot in the lung (pulmonary embolism) or a deep vein (deep vein thrombosis) after surgery
- Bloodstream infection after surgery (postoperative sepsis)
- A wound that splits open after surgery
- Central line-associated bloodstream infection
- Accidental punctures or lacerations.

**Domain 2: CDC Prevention National Healthcare Safety Network (PHSN) Measures.** This domain consists of rates of two types of dangerous infections that can significantly increase both length of stay and hospital cost, compiled by the CDC through the PHSN:

- Central Line-associated Bloodstream Infections (CLABSI)
- Catheter-Associated Urinary Tract Infections (CAUTIs).

**How penalties are determined:** A hospital’s HAC score is ranked with those of other hospitals to identify the lowest performing 25 percent, which will be penalized with a one percent cut in Medicare reimbursements in FY 2015. HAC penalty adjustments are made after payment cuts (if any) have been calculated and made under Medicare’s other two penalty programs: the Value-based Purchasing and Readmission Reduction Programs.