The Problem
According to a 2006 study published in Nursing Management, 60,000 U.S. hospital patients die each year from complications related to hospital-acquired pressure ulcers. Pressure ulcers, if not properly treated, can lead to blood and bone infections, infectious arthritis and scar carcinoma, among other complications. Buena Vista Regional Medical Center’s services include Hope Harbor, a 10-bed geriatric psychiatric unit offering comprehensive medical and psychiatric evaluations, counseling services and physical therapy. Because the unit’s elderly patients are often cognitively impaired and must be regularly encouraged to be physically active, the entire population at any given time is at increased risk for pressure ulcers, according to Michele Kelly, RN, director of quality and control.

An internal analysis revealed that the skin care treatment regimens critical to preventing pressure ulcers were not being applied comprehensively, and also found there were no consistent methods for tracking compliance.

The Solution
In 2007, Buena Vista decided to implement the Institute for Healthcare Improvement’s bundle for pressure ulcer prevention, consisting of six elements:
» Assessment and reassessment;  
» Daily skin inspection;  
» Management of moisture;  
» Optimizing nutrition; and  
» Hydration and minimizing pressure.

The hospital created a multi-disciplinary work group, Prevent Ulcer Development Specialists (PUDS), to analyze problems with compliance, develop new evidence-based guidelines and spread best practices to frontline nurses.

Results
The pressure ulcer incidence rate at Hope Harbor dropped from .978 percent in 2006 to .298 percent in 2007 to .297 percent in 2008, with no pressure ulcers in 2009 through August. There has not been a pressure ulcer in the unit since February 2008.

Background
Health care-acquired pressure ulcers have gained national attention in recent years as a persistent problem for nursing homes and inpatient hospitals. Pressure ulcers were included in the initial Centers for Medicare & Medicaid Services (CMS) list of 10 hospital-acquired conditions it ceased to reimburse for in 2008, and CMS also requires hospitals to document whether patients have pressure ulcers at the time of admission.

After watching an IHI webinar devoted to pressure ulcer prevention in February, 2007, Buena Vista’s executive leadership determined that the hospital needed to adopt a comprehensive solution. Because Buena Vista works closely with the IHI as a rural mentor, the group’s bundle for pressure ulcers was determined to be a good institutional fit, according to CEO Todd Hudspeth.
The Hope Harbor unit was selected for the pilot program because its pressure ulcer incidence rate, while lower than the national average of 7 to 10 percent for inpatient hospitals, exceeded the incidence rate in Buena Vista’s medical surgical units.

Led by Amy Mikos, RN, a wound, ostomy and continence (WOC) nurse, the PUDS team began meeting regularly following the webinar to identify potential problems and develop new best practices and protocols aimed at preventing pressure ulcers. The multi-disciplinary group enlisted WOC nurses, frontline staff, mental health technicians and pharmacists to determine facility-appropriate solutions for effective and permanent adoption of the IHI bundle.

“We really strategically chose people who had good track records and were good on the unit,” Kelly says. “They developed the implementation steps.”

Early on, the PUDS team emphasized the importance of the WOC nurses, who are specifically trained to treat patients at risk of developing pressure ulcers, in adoption and compliance. The hospital paid for a group of WOC nurses to take education classes around current best practices for pressure ulcer prevention. When the group was finished, they began making regular rounds within Hope Harbor to assess patients for risk factors.

“WOC nurses can really be a resource,” says Dawn Bach, RN, the hospital’s chief clinical officer. “They can put things into place that can lead to huge improvements, because nurses or other care providers can’t specialize in everything.”

Leah Fineran, RN, director of Hope Harbor, says the WOC nurses helped disseminate best practices, teaching Hope Harbor’s nurses the importance of skin integrity. The emphasis on nurses teaching their peers lent the effort credibility that a more top-down initiative might not have received, Fineran says. “The WOC nurses got buy-in from my staff.”

The hospital’s leadership also decided that the sustained success of the effort would be aided by visible institutional support. The new IHI bundle was promoted internally with a series of “celebrations” by the PUDS team as compliance increased and incidence rates dropped, including a root beer float party dubbed “Suds for PUDS” and “Spuds for PUDS,” featuring a baked potato bar. “I was really impressed by the administration’s support,” Mikos says.

**Principles of Performance Excellence**

**Reducing Process Variation**

In the past, Kelly says, Hope Harbor inconsistently applied best practices linked to pressure ulcer reduction. So the PUDS team emphasized the integration of the IHI bundle into the unit’s daily practice, starting with a new directive to photograph the skin condition of every patient upon admission. In addition, staff dieticians evaluate each new admission for pressure ulcer risk factors, and check each patient during daily rounds to document their weight and appetite, which are key indicators for pressure ulcer occurrences.

Kelly also asked the pharmacy department to include a reminder for wound care dressing in the hospital’s medication administration record, so that an electronically generated report would be triggered...
for each patient. Despite some resistance from the pharmacy department, which pointed out that the MAR is usually utilized only to distribute medication, Kelly was able to persuade them to add a wound care alert. “If it’s on the MAR, you can’t ignore it,” Kelly says.

In addition, the Braden Scale for Reducing Pressure Sore Risk, an analytic tool that allows clinicians to gauge risk for pressure ulcers based on six key indicators, is now part of the automatic electronic protocol used by clinicians during daily rounds.

**Managing Organizational Variability**
Dawn Bach, RN, director of nursing, conducts a weekly audit to assure that skin care assessments and documentation for each Hope Harbor patient have been successfully completed. Bach also assesses the use of protective devices that help prevent pressure ulcers, including waffle cushions and elbow protectors.

**Continual Improvement**
The PUDS unit met regularly in 2007 to determine best practices and assess compliance with the new initiative. The group continues to report on the initiative with updates that are disseminated at the hospital’s quarterly quality meetings. The Hope Harbor unit also continues to discuss the issue at staff in-service meetings, according to Bach, who credits the continued vigilance of frontline staff in implementing the IHI bundle. “Day to day, with every admission, it’s the staff that’s looking at the skin,” Bach says.