

# Another look: Best practices for pressure ulcer prevention

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**P**ressure ulcers are a common, serious, and significant healthcare occurrence in older patients, causing pain, disfigurement, and slow recovery, as well as interfering with activities of daily living. They're strongly associated with mortality and lengthy stays in the acute, postacute, and long-term-care settings. Incidence rates vary considerably by clinical setting, from up to 38% in acute care and up to 23.9% in long-term care to up to 17% in home care.<sup>1</sup>

Every year, pressure ulcers affect over 1 million people. Costs associated with pressure ulcer treatment exceed \$11 billion in all settings.<sup>2</sup> Although the financial costs associated with pressure ulcers are high, the human toll of pain, depression, altered self-image, stress, infection, and increased mortality and morbidity is immeasurable. Hospital-acquired pressure ulcers have been associated with a greater risk of death within 1 year of hospitalization. This translates into an estimated 60,000 deaths each year due to hospital-acquired pressure ulcers. Because of this impact, the Centers for Medicare and Medicaid Services (CMS) implemented a nonpayment policy for hospital-acquired Stage III and IV pressure ulcers.

## What can we do?

In 2002, the New Jersey Hospital Association formed the Institute for Quality and Patient Safety with the goal of identifying best practices in healthcare and working with clinicians to implement these practices in a reliable way. A critical issue raised in early 2004 was "What can we do to prevent new pressure ulcers in patients and residents across the healthcare continuum?" The Institute designed a statewide collaborative focused on the prevention of pressure ulcers and engaged Dr. Elizabeth Ayello,

an internationally known expert on pressure ulcers, as the chairperson of this initiative.

Collaborative buttons, posters, and educational materials were developed with the motto: Wanted! No Ulcers! The mnemonic "No Ulcers" stands for: Nutrition and fluid status; Observation of skin; Up and walking or turn and position; Lift, don't drag skin; Clean skin and continence care; Elevate heels; Risk assessment; Support surfaces for pressure redistribution.

An extensive review of medical and nursing literature was completed. By working with Dr. Ayello and other experts, the following key best practices were identified:

- Complete a total skin assessment on admission and more often as needed if the patient's or resident's condition changes.
- Complete a comprehensive risk assessment using a valid and reliable tool on admission and if the patient's or resident's condition changes. (All of our organizations use the Braden Scale for Predicting Pressure Sore Risk.)
- Implement at least three preventive strategies, based on the risk assessment, within 24 hours for any patient or resident with a Braden score of 18 or less.
- Manage moisture, optimize nutrition and hydration, and minimize pressure.

Over the course of 2 years, beginning in the fall of 2005 through the end of 2007, the Institute staff worked with 150 organizations, including hospitals, nursing homes, rehabilitation hospitals, and home health agencies, to implement these best practices in a consistent and highly reliable fashion. After a first learning session of 2 full days, teams attended five more 1-day sessions over the next 2 years. Additional support was provided via coaching and mentoring, monthly conference calls or webinars, a dedicated listserv, and a password

protected website where participants could share data, best practices, and resources. Teams were encouraged to share what worked and what didn't through report-out conference calls. Working with a pilot unit or population first, they utilized the rapid cycle improvement process to test small changes, measure effectiveness, modify as needed, and test again. As systems improved, changes were applied throughout their organization.

Teams submitted data on both process and outcome measures over the course of the initiative. Data collection was the most difficult work for many of the teams. Identifying who was going to be responsible and how the data would be collected using a standard tool was a significant barrier. But after these issues were worked out and progress was noticeable, data collection became a huge satisfier for staff members. They could see the results of their work and know they were making a difference.

Process measures included the percentage of patients with a completed accurate skin assessment on admission, the percentage of patients with a completed accurate risk assessment on admission, and the percentage of at-risk patients with three preventive strategies in place within 24 hours. Incidence rates, defined as the rate at which new pressure ulcers occurred in the population, were also collected.

A secondary goal of the collaborative was to work on improving the teamwork and collaboration of healthcare providers across the continuum of care. Often, nursing staff members in hospitals don't have any idea of what happens in the postacute setting and vice versa, and communication between those providers may be absent. This is problematic because many of our patients and residents move across

the continuum as they become older, requiring increasing and varying levels of care. How many times have we heard that the pressure ulcer must have happened in the ambulance? We wanted to stop sites of care blaming each other for the pressure ulcer so we encouraged cross-setting teams to meet on a regular basis to improve communication, share best practices, and focus on transitions in care for their patients and residents.

#### What did we learn?

Early on, we learned what most of us had expected: For varying reasons, nursing staff members weren't performing a comprehensive skin assessment on admission, defined as taking off all clothes and dressings and examining every square inch of skin. To be able to identify areas of skin breakdown acquired before hospital admission is an especially important aspect of nursing assessment because of the CMS nonpayment policy. We also learned that many nurses were never educated on how to utilize the Braden scale accurately and reliably. This required staff-development and competency testing in most organizations. Finally, we learned that having the resources necessary to be able to implement at least three preventive strategies within 24 hours of admission on a consistent basis was often difficult. Supplies were locked up, specialty mattresses needed administrative approval, and effective incontinence and moisture management products were in limited supply. All teams worked to resolve these issues.

So how did the collaborative organizations do? Overall, across the 150 participating organizations, there was a reduction in pressure ulcer incidence of 70%. When the results were announced at the final learning session in 2007, applause

and cheers spontaneously erupted. Who could have imagined that by identifying and consistently applying these evidence-based practices in pressure ulcer prevention such a decrease in the incidence of new ulcers could be accomplished?

Many organizations, across all clinical settings, saw their incidence drop to 0% or close to it for months at a time. Those teams moved from measuring not just incidence, but also how many months passed before the next patient or resident developed a pressure ulcer and began utilizing root cause analyses to determine what happened with that patient or resident.

#### Success begets success

Since 2007 we've oriented new organizations to the prevention toolkit, and in 2009, we began a 1-year collaborative with another 59 organizations. For the first 6 months we've seen a similar drop in incidence, with 25 of the organizations having no new pressure ulcers develop for 3 months. So we know that by consistently applying these practices, well supported in nursing and medical literature, new pressure ulcers can be reduced significantly; maybe not to 0% all the time, but far more than we expected. Reducing the incidence of pressure ulcers will significantly improve patient care and quality of life and reduce healthcare costs in the system. **NM**

#### REFERENCES

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