

Strategies for Preventing Pressure Ulcers

Patients with serious medical conditions face the possibility of complications that can result in a much longer recovery. Many of these complications are difficult to predict or prevent; however, pressure ulcers are common complications that are predictable and almost always preventable.

Nonetheless, pressure ulcers, also known as decubitus ulcers or bed sores, afflict more than 2.5 million patients in U.S. acute care facilities each year¹; approximately 60,000 patients die each year due to pressure ulcer complications.² Pressure ulcer incidence rates vary by clinical setting—ranging from 0.4% to 38% in acute care, 2.2% to 23.9% in long term care, and 0% to 17% in home care¹—and these numbers are increasing. The problem has become so prevalent that the Institute for Healthcare Improvement (IHI) has made pressure ulcer prevention one of the goals for its 5 Million Lives Campaign.

For patients who survive, pressure ulcers can result in increased pain, prolonged infections, amputation, longer lengths of stay, and decreased quality of life. In addition, because pressure ulcers are often preventable, some payers (including the Centers for Medicare and Medicaid Services) view them as medical errors and therefore do not pay hospitals for treating them unless they occurred before the patient was admitted. For these reasons, hospitals need to have formal strategies in place to assist in the prevention of pressure ulcers.

How Do Pressure Ulcers Occur?

A pressure ulcer develops when the blood supply to skin and the tissue under it is cut off due to long periods

of pressure on the area. Due to the lack of oxygen and nutrients to the area, the skin and tissue begin to break down, causing a sore that can easily become infected and difficult to treat. The pressure that causes the sores is often due to sitting or lying in the same position for an extended time, so patients who are confined to wheelchairs or beds and are unable to move much on their own are especially at risk; for patients who have paralysis and cannot feel pain in certain areas of the body, the risk is even greater because sores are less likely to be discovered in their early stages.

Sores most frequently occur in areas where there are bony protrusions, such as the heels, hips, tailbone, and sacrum. They can also occur at points where medical equipment is attached to the skin for extended periods. Skin that is moist is more susceptible to breakdown, so sweat, urine, water, and other fluids can increase the likelihood of pressure ulcers occurring.

Prevention of Pressure Ulcers

Health care providers know how to prevent pressure ulcers—susceptible patients must be frequently repositioned, and their skin must be regularly checked and well-cared for. However, incorporating these tasks into a patient's daily care regimen isn't that simple, particularly when so many health care organizations are facing nursing shortages.

"Skin care is one of the purest examples of nursing care that there is," says Deborah Nadzam, Ph.D., R.N., F.A.A.N., practice leader, Patient Safety, Joint Commission Resources. "Nurses and nurse aides are at the bedside and are in the best

position—literally and figuratively—to evaluate the patient's skin. The problem is that the nursing shortage means that nurses and other health care professionals have to work at such a fast pace that it can be difficult to conduct thorough assessments on a regular basis."

While nurses are often most likely to notice the early signs of pressure ulcers, other caregivers must also participate in prevention efforts. "Skin care and ulcer prevention must be a team effort—it's not just a nursing responsibility," says Mary Ann Sammon, B.S.N., C.W.C.N., manager of the Pressure Ulcer Consulting Team and Nursing Quality Management for the Cleveland Clinic. "Nurses, physicians, nurse aides, nutritionists, physical therapists, and others are all vital to preventing pressure ulcers."

To ensure that every appropriate effort is being made to prevent pressure ulcers, organizations should develop a formal ulcer prevention program that includes skin assessments upon admission to identify patients already suffering from ulcers or who will be most susceptible to them while in the hospital; regular skin evaluations, particularly for patients identified as susceptible; and skin maintenance strategies.

Initial Assessments

All patients should be assessed for pressure ulcer risk upon admission. This not only helps identify high-risk patients but also allows existing sores to be detected and treated before they become more severe.

Numerous available structured and tested assessments are suitable for this

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purpose. Each type of assessment measures different types of risk factors; so many factors affect whether a patient will develop a pressure ulcer that a single definitive list cannot be created. Therefore, these assessments all carry the possibility that some at-risk patients might not be identified as such or that patients at a lower risk are identified as high risk, thus incurring costs for unnecessary preventive measures. In addition, many of the risk measures are subjective, and therefore could produce different results depending on the person conducting the assessment. However, overall, these formal assessments can help reduce some of the subjectivity inherent in health care evaluations.

The Braden Scale for Prediction Pressure Sore Risk, which is the most widely used assessment in the United States, can be used to identify patients at risk for developing pressure ulcers. The parameters evaluated with this scale are sensory perception, moisture, activity, mobility, nutrition, and friction and shear. Each parameter is graded from 1 (markedly abnormal) to 4 (normal), except for friction and shear, which is scored from 1 to 3. When the points are totaled, a patient will have a score from 6 (worst prognosis) to 23 (best prognosis). Overall, a patient is considered to be at risk for a pressure ulcer if his or her score is less than or equal to 16, although some studies have found the number to be even lower for certain high-risk populations.

Other commonly used assessments include the Norton Scale, which includes scores for mental status and incontinence; the Waterlow Scale, which incorporates other special risks, such as obesity, vascular disease, and smoking; the Gosnell Scale, which considers diet and medications, and the

Knoll Assessment of Pressure Ulcer Potential, which includes a combination of the above factors.

Regular Skin Evaluations

The IHI recommends that all patients be reassessed every day; other sources suggest that patients in high-risk areas (such as the intensive care unit or geriatrics) be reassessed every day, while lower-risk patients be reassessed when their medical conditions change or when they are moved to new levels of care. A health care organization needs to determine a schedule that works best for its patient population. The same assessment tool should be used in all care areas, so that comparisons can be easily made.

National Patient Safety Goal 14

*Prevent health care–
associated pressure ulcers
(decubitus ulcers).*

*14A: Assess and periodically
reassess each patient's risk for
developing a pressure ulcer
(decubitus ulcer) and take
action to address any
identified risks.*

High-risk patients should also be visually inspected every day, with special attention paid to those areas of the body most likely to develop sores. The organization's ulcer prevention program should include prompts to ensure that these inspections and assessments become part of a patient's daily care procedures.

At the Cleveland Clinic, skin condition is one of the items in the patient reports that nurses create for those on the next shift. "This reminds nurses to do skin checks, even when they're busy," Sammon notes.

Patients who are high risk, either in the initial assessment or in subsequent assessments, should be indicated in a simple, easy-to-identify way. Some organizations use a brightly colored sticker and/or slogan on a patient's door or chart to help remind caregivers to take notice of skin condition whenever care is being provided.

Patient Repositioning

For patients who have limited mobility, a schedule for repositioning the patient should be created that is based on the results of a patient's ulcer risk assessment. Repositioning a bedridden patient every two hours is usually the standard, but for some patients, it may cause more harm or pain; in contrast, every two hours may not be frequent enough for some of the highest-risk patients. The schedule should designate individuals to be responsible for repositioning patients, and those caregivers should receive training to ensure that they do not cause additional harm when moving a patient.

Ongoing Skin Maintenance

Many patients at risk for pressure ulcers are malnourished or undernourished; this condition further increases their risk for ulcers. Clinical dietitians should be consulted to ensure that at-risk patients receive appropriate nutrition to ensure optimal skin health. These patients usually require additional hydration, calories, and protein; if adequate nutrition cannot be provided through diet, then vitamin and mineral supplements should be given.

The bathing schedule should also be considered. Some patients may not require daily baths, and minimizing skin dampness can help prevent pressure ulcers. However, the skin cannot get too dry, either, so a moisturizer that does not contain alcohol should be used daily. For patients who suffer from incontinence, an ointment or

another moisture barrier should be used regularly.

In high-risk patients, it is also valuable to cover bony prominences, such as heels, hips, sacrum, and tailbone, with soft foam or other dressings. These coverings should be light and breathable so that excess moisture does not develop underneath them. Pillows, wedges, and other elevation devices (for example, placed under the calves so that the heels aren't touching the bed) can also help relieve pressure on the extremities.


Nadzam notes that some organizations now have skin care specialists, who can be invaluable in developing an ulcer prevention program. "These indi-

viduals should be involved in evaluating existing care processes, as well as the skin care products being used in the organization," she says. "They can help determine the best way to incorporate ulcer prevention procedures into all the other treatment processes."

Continuing Staff Education

To ensure that ulcer prevention efforts are maintained, regular education for nurses and other caregivers is important. At the Cleveland Clinic, Sammon and her staff conduct quarterly in-services on skin care and pressure ulcer prevention; meetings with clinical directors, physicians, and other high-level caregivers; educational programs for care

technicians, nurse assistants, and other staff with direct patient care responsibilities; and one-on-one education with nurses.

"We've always preached prevention on an organizational level," says Sammon. "But when the IHI announced the goals for its 5 Million Lives Campaign, we decided to bring it to the unit and individual levels. Time will tell, but we believe that these efforts will have the greatest impact." 

References

1. Lyder, C.H.: Pressure ulcer prevention and management. *JAMA* 289:223-226, Jan. 8, 2003.
2. Reddy M., Gill S.S., Rochon P.A.: Preventing pressure ulcers: A systematic review. *JAMA*, 296:974-984, Aug. 23, 2006.

Patient Handoffs: Making the Hospital to Home Care Transition (continued from page 4)

Sidebar. Applicable Joint Commission National Patient Safety Goals

Joint Commission National Patient Safety Goal 2, Requirement E

Implement a standardized approach to "hand off" communications, including an opportunity to ask and respond to questions. (Applicable to ambulatory care, behavioral health care, critical access hospitals, disease-specific care, hospitals, laboratories, long term care, office-based surgery, home care)

Implementation Expectations for Requirement 2E

1. The organization's process for effective "hand off" communication includes: Interactive communications allowing for the opportunity for questioning between the giver and receiver of patient information.
2. The organization's process for effective "hand off" communication

includes: Up-to-date information regarding the patient's care, treatments and services; condition; and any recent or anticipated changes.

3. The organization's process for effective "hand off" communication includes: A process for verification of the received information, including repeat-back or read-back, as appropriate.
4. The organization's process for effective "hand off" communication includes: An opportunity for the receiver of the hand off information to review relevant patient historical data, which may include previous care, treatment, and services.
5. Interruptions during hand offs are limited to minimize the possibility that information will fail to be conveyed or will be forgotten.

Joint Commission National Patient Safety Goal 8, Requirement B

A complete list of the patient's medication is communicated to the

next provider of service when a patient is referred or transferred to another setting, service, practitioner, or level of care within or outside the organization. (applicable to ambulatory care, behavioral health care, critical access hospitals, disease-specific care, home care, hospitals, long term care, office-based surgery)

Implementation Expectations for Requirement 8B

1. The patient's accurate medication reconciliation list (complete with medications prescribed by the first provider of service) is communicated to the next provider of service, whether it be within or outside the organization.
2. The next provider of service should check over the medication reconciliation list again to make sure it is accurate and in concert with any new medications to be ordered/prescribed.
3. The complete list of medications is also provided to the patient on discharge from the facility.