

Under Pressure

Keeping an eye on pressure ulcer prevention

Pressure sores, or decubitus ulcers, are increasingly common in U.S. hospitalization. In 2003, there were 455,000 hospital stays during which pressure sores were noted — a 63 percent increase from 1993 when there were about 280,000 hospital stays with noted pressure sores. During this same period, the number of hospitalizations increased by only 11 percent and the number of stays for patients 65 and older increased by only 14 percent (Russo & Elixhauser, *Hospitalizations Relating to Pressure Sores*, April 2006).

With growing pressure for quicker hospital discharges and increasing patient acuity, pressure ulcer assessment and management are essential to the quality of care.

Definition & Mechanics

What exactly is a pressure ulcer? A pressure ulcer is mechanical stress (pressure, shear, friction) that causes ischemic necrosis of at-risk soft tissue. Candidates for pressure ulcers are predominately people who are nutritionally impaired and immobile.

To understand the relationship between soft-tissue injury and support surfaces, we must realize support surfaces deliver a gradient pressure and/or shear mechanical stresses, which can lead to distortion of the soft tissue. This distortion causes endothelial damage and can result in ischemia and possible infarction of the soft tissue at risk.

Prevention

Many methods prevent pressure ulcers, including support surface protection, such as a pressure-reducing device. In many cases, the number of pressure ulcers acquired during a hospital stay is decreased from 10 to one with the use of a pressure-reducing mattress.

It's important to note all support surfaces should:

- redistribute weight equally in a 3-D manner;
- minimize pressure, shear and friction injury;
- offer moisture and temperature control for patient comfort;
- be easy to clean;
- aid in patient transferring and mobilization;
- be compatible with multiple surfaces;
- fulfill regulatory requirements (i.e., flame-retardant, biocompatibility, antimicrobial, FDA regulations); and
- be cost-effective.

Addressing the Problem

While the simple and low-cost intervention of overlays reduces pressure ulcer occurrences, establishing protocols and increasing staff education help elevate nurses' awareness of skin integrity changes, providing them with the tools to diminish the incidence of pressure ulcers.

Other prevention methods primarily rely on action from nurses, ranging from increased patient mobility to close attention to the

skin condition. Educating nurses on the severity of pressure ulcers will reduce the frequency of pressure ulcers among patients. While static air has proved to be the most effective method, other techniques include proper skin care, turning the body every few hours, helping with nutrition and fluid intake, and frequent documentation of care.

Nurses are encouraged to work with physicians and other healthcare professionals to assess patients for their risk of developing pressure ulcers, and then create an appropriate care plan. A standardized protocol should be individualized so a care plan can be developed and followed for each individual patient. Clinical protocols for pressure ulcers should address:

- cognition;
- mobilization and ambulation;
- nutrition and hydration;
- moisture and incontinence;
- general medical co-morbidities;
- existing pressure ulcers (i.e., deep tissue injury); and
- previous pressure ulcers (i.e., closed stage III, IV and unstageable).

CMS Regulations

Recent changes by the Centers for Medicare & Medicaid Services for reimbursement in the acute care setting related to hospital-acquired conditions require appropriate medical practice guidelines for preventing and treating pressure ulcers, as well as addressing government regulations, legal responsibilities and financial implications.

To accomplish this goal, pressure ulcer management must occur not only from hospital admission through discharge, but continue to the next level of care by all medical facilities and home care agencies involved in each patient's care. Additionally, pressure ulcer assessment and management are important areas for education and quality improvement at all levels of care, especially now with a decrease in patient length of stay and an increase in patient acuity. ■

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