Hospital-acquired pressure injuries (HAPIs) can lead to substantial harm to patients and staggering financial expense. These harms can range from pain and discomfort, to prolonged hospital stays, to premature death. Each year more than 2.5 million patients suffer from pressure injuries and roughly 60,000 patients die from complications. One single pressure injury can cost upwards of $70,000, while the yearly estimate for the United States is $11 billion. The term “pressure injury” replaces “pressure ulcer” in the National Pressure Ulcer Advisory Panel (NPUAP) Pressure Injury Staging System. The change in terminology more accurately describes a localized injury to the skin and underlying tissue over a bony prominence, as a result in combination with shear and friction.

HAPIs continue to be a significant problem in hospitals across the nation, especially for critically ill patients over 70 years of age. In addition, the number of pressure injuries related to medical devices now account for more than 30% of all HAPIs.

Known patient-related factors impacting HAPI development include: nutritional status, pressure, and shearing forces due to immobility from operative procedures and generalized immobility, and factors such as moisture control that impact skin condition. Clinical environment factors contributing to HAPI development include registered nurse workload and clinician experience or expertise with HAPI prevention factors.

Engaging Patients and Families

Integral to the prevention of pressure injury is working across the continuum of care with patients and family members.

Education Points:

- Address patient/family understanding how pressure injuries form and emphasize the relationship between nutritional status, mobility, pressure/shearing, and skin care moisture control for HAPI prevention.
- Once a HAPI develops, partner with patient and family in care/treatment plan to improve reliability to treatment plans, speed healing, and prevent worsening of the HAPI.
- Address the patient-specific individual risk factors for developing a HAPI, and steps to prevent or keep a HAPI from getting worse. For example, the patient may be taught to reposition themselves at regular intervals while in bed and in a chair.
- Address how to conduct routine skin inspections and report anything concerning that is noticed.
- Partner with patient/family in encouraging self-care and mobility as able when completing activities of daily living (ADLs) while hospitalized.
- Use Teach-Back methods for all elements of HAPI-related education plans.

Patient/Family Engagement Strategies:

- Partner with patient/family in routine skin checks (ask them to lead checks, if possible).
- Standardize the education offered for at-risk patients and families at all venues of care (outpatient episodes of care, pre/post hospitalization, inpatient).
• Recruit patient and family advisors to HAPI Committee or Patient Education/Communications committee to provide feedback on their patient experience and review resources and tools provided by the facility.

Hospital Improvement Strategies

Standardized improvement efforts aimed at identification of high-risk patients (with Braden or Norton Scale), early prevention strategies, and increasing patient mobility have the greatest impact on reducing HAPIs (see resources section for further detail).

Successful strategies in the work toward reducing HAPI rates include:

• Identify patients at high risk and implement potential HAPI early interventions to prevent worsening HAPI development:
  – Conduct thorough standardized skin and risk assessments (a head-to-toe skin inspection) on all patients upon presentation to emergency departments, admission, and at regular intervals with appropriate documentation.
  – Include special attention to bony prominences, especially the coccygeal/sacral skin, heels, and skin adjacent to external devices.
  – Best practice assessments are confirmed by two people (four eyes), completed each shift, and at regular intervals. For example, in situations in which the patient is off the unit for greater than a four-hour period.
  – Develop and implement a risk-based prevention plan for individuals identified as being at risk of developing pressure injuries (e.g., use of prophylactic sacral dressings or silicone multilayered foam dressing on the sacrum for high-risk patients in intensive care units).

• Limit/manage patient’s skin exposure to moisture. Have supplies to assist in moisture management easily accessible (e.g., skin-care cart, standardize topical agents, encourage use of “wick away” supplies).

• Optimize nutrition: Implement an automatic dietician consult for high-risk patients and consider high-protein/high-calorie supplements and/or vitamins A, C, and E (using nutrition supplements may accelerate healing but do not replace a meal).
  – Consider nutritional consult/counseling to improve underlying tissue and skin integrity.

• Optimize mobility: Address known periods of immobility, such as during operative procedures, conditions requiring bedrest with pressure-release devices and mobility/turning plans.
  – Minimize pressure, shear, and friction. Include an emphasis on positioning, auditory cues for routine turning schedules, such as repositioning of patient every 1 to 2 hours, checking skin proximal to devices for pressure. Use of breathable glide sheets for transferring of patients, proactive padding, limit head-of-bed elevation to 30 degrees, and promote early mobility.

HAPI Prevention and Care Program best practices include:

• Standardized staff-member education and routine HAPI prevention/care competencies validation.
• Form multidisciplinary HAPI team consisting of nursing-unit champions, wound-care clinicians, physical therapists, hospitalists, respiratory therapists, others to streamline processes, develop education, conduct prevalence studies, and address performance.
• Add a patient representative to review education materials and provide input regarding patient/family partnering and enhance care strategies from patient perspective.
• Use evidence-based guidelines of HAPI prevention/care from professional associations.

Measurement

The Hospital Improvement Innovation Network (HIIN) commitment to reducing pressure injuries in hospitals is to achieve a 20 percent reduction from baseline rate. In the HIIN, there are two methods used to measure pressure injuries:

**Pressure Injury Rate Stage 3+** (Agency for Healthcare Research and Quality [AHRQ] Patient Safety Indicator [PSI]-03) is measured as a rate of discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary diagnosis codes for pressure injury stage III or IV (or unstageable) over the surgical or medical discharges, for patients ages 18 years and older multiplied by 1,000 patient days. Surgical and medical discharges are defined by specific diagnosis-related group (DRG) or Medicare severity Diagnostic Related Group (DRG) codes.

**Pressure Injury Prevalence Hospital-Acquired Stage 2+** (National Quality Forum [NQF] 0201) is measured as patients who have at least one category/stage II or greater HAPI on the day of the prevalence measurement period over all patients, 18 years of age or greater, surveyed for the measurement period multiplied by 1,000 patient days.

Resources and Guides for Hospitals

• AHRQ—Preventing Pressure Ulcers: A Patient’s Guide. (Note: This information was adapted from the AHRQ Clinical Practice Guidelines). Available at: [www.cdss.ca.gov/agedblinddisabled/res/VPTC2/8%20Paramedical%20Services/Preventing_Pressure_Ulcers_Patient_Guide.pdf](http://www.cdss.ca.gov/agedblinddisabled/res/VPTC2/8%20Paramedical%20Services/Preventing_Pressure_Ulcers_Patient_Guide.pdf).

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