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Better Together: Pressure Injury Prevalence and Nursing Professional Development

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Purpose
Hospital-acquired pressure injuries (HAPIs) are a nurse sensitive indicator (NSI), measuring the causative relationship between nursing care provided to patient outcomes. Adverse events, like pressure injuries (PIs), are subject to the non-payment rule by the Centers for Medicare & Medicaid Services (CMS), making HAPI prevention a high priority. Monthly PI prevalence studies, combined with focused education for unit-based Skin Team (ST) members’ [registered nurses (RNs) and patient care technicians (PCTs)] is essential in the reduction of HAPIs among hospitalized children. Didactic education, augmented with hands on application requires a realistically structured approach, to include: early identification of at-risk patients, PI prevention strategies, and treatment optimization.

With increasing attention towards development of HAPIs in the pediatric population, there is a recent increase in literature reporting HAPI incidence and prevalence rates among this specific patient population range from 0.25% to 27%, and upwards of 73% in patients admitted to intensive care units (ICUs) or who have spina bifida. 13% to 50% of those HAPIs were attributed to medical devices. Potential detrimental effects of PI development include: increased risk of infection, altered thermoregulation, and residual psychosocial effects.

Education and skill development for unit-based Skin Team (ST) experts, in addition to active PI surveillance, is essential to mitigate adverse patient outcomes.

Relevance/Significance
Incidence of hospital acquired pressure injury (HAPI) is considered a nurse sensitive indicator of care quality. Therefore prevention of pressure injuries (PI) in hospitalized patients is a high priority. The early identification and prevention of pressure injuries in hospitalized patients is an important nurse- sensitive indicator of patient care quality.

Despite a downward trending HAPI prevalence rate, our institution faced increased medical device related injuries (MDRIs), unstageable (UTS) PIs, and incomplete PI preventative bundle compliance, leaving us vulnerable. Adhering to national benchmarks set by the National Database of Nursing Quality Indicators (NDNQI) and recommendations from Solutions for Patient Safety (SPS), a robust Skin Team (ST) program, emphasizing highly reliable collective competence, became crucial to protect a vulnerable population of hospitalized children.

Professional development and education is achieved through integration of topic specific education combined with skill competencies for clinical nursing staff. The active educational strategy employed during monthly PI prevalence activities is aligned with adult learning.
principles wherein didactic content is paired with an opportunity for application in real-time by way of return demonstration, oral response, and patient assessments.

**Strategy/Intervention**

Regulatory requirements for HAPI reporting, as well as quality improvement (QI) documentation standards, are used to structure the monthly PI prevalence data collection and education. Quarterly topics guide inter-rater reliability exercises, SPS prevention bundle compliance, interactive continuing educational activities, and unit-delivered case study presentations. Skin 101 lectures are brief educational sessions designed to highlight a specific area of skin health, reviewing the pathophysiology of the related topic, compounding on learning from month to month. These lectures are completed prior to each prevalence study and aim to advance the knowledge base of ST members and promote an evidence based approach to problem solving and treatment recommendations by understanding the basics of how skin functions. Inter-rater reliability exercises immediately prior to data collection reinforce ST members knowledge related to accurate assessment, staging, prevention strategies, and evidence based treatment options.

Ongoing active surveillance and prevention of HAPIs for all hospitalized children is achieved through monthly (4-8 hours) prevalence studies which include all inpatient and non-inpatient units, perioperative services, and a handful of ambulatory clinics. These monthly prevalence studies are augmented with education to members of the Skin Team (ST), covering skin and wound management competence, unit-based case presentations on disease specific pathophysiology as it relates to alterations in skin integrity, treatment optimization, and didactic presentations by content experts.

Monthly didactic and hands-on learning sessions by content experts, are awarded continuing nursing education (CNE) hours; objectives are guided by quarterly topics and issues related to skin and wound management for hospitalized pediatric patients. Evaluation levels I-IV are incorporated for monthly prevalence activities: level I- self-reported satisfaction and achievement of objectives; level II- return- demonstration of skills; level III- real-time audience response and prevalence data collection audits and level IV- monthly PI prevalence rates and nursing professional development.

**Outcomes**

This novel approach to HAPI prevalence has provided for more rigorous assessments of our HAPI preventive efforts, and created a cadre of unit-based skin and wound care experts across all clinical and ambulatory settings. Monthly HAPI prevalence studies, combined with 4 to 8 hour educational days have yielded an aggregated yearly prevalence rates decline of 49% over the last three years. The structured approach to HAPI prevalence surveillance provides regular opportunities for enculturation of QI for clinical staff as well as patients and families. Environments where there is collaboration between patients, families and care providers with clear communication about goals and risks have improved patient outcomes; the monthly HAPI prevalence studies provide such an opportunity as evidenced by the multiple impromptu consultations and just-in time education Skin Team members provide while on the clinical units collecting prevalence data.

ST members’ abilities to apply knowledge related to accurate assessment, staging and management of alterations in skin integrity is re-enforced monthly with inter-rater reliability activities immediately prior to prevalence data collection. The 4-hour introduction course has been held quarterly, and provided continued nursing education hours for more than 40 new ST members over 24 months. Prevalence days have provided 1.5 to 3.5 CNE hours each month for
participants. Self-report level one evaluations of monthly prevalence education days reported scores of 4 or 5 on a 5-point Likert scale for satisfaction and achievement of objectives in > 94% of surveys received from an average of 30+ ST members monthly.

**Implications for Practice**
Continued declines in HAPI prevalence rates demonstrate the effectiveness of an organized prevention program. ST members are self-identified clinical nursing staff members who have committed to their individual professional development by working collaboratively to maintain quality care standards for the patients on their units.

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**Title:**
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**Keywords:**
Hospital-Acquired Pressure Injury Prevention, Nurse Sensitive Indicators and Skin & Wound Care

**References:**


**Abstract Summary:**
Monthly prevalence education and screening is performed to address the necessity for active surveillance and identification of patients at-risk for pressure injuries (PI) among hospitalized children. Development of knowledge and clinical skills of unit-based Skin Team (ST) members on management of alterations in skin integrity, demands dedicated monthly focus.

**Content Outline:**

- **Introduction**
  1. The early identification and prevention of pressure injuries in hospitalized patients is an important nurse-sensitive indicator of patient care quality.
  2. Professional development via education is achieved through integration of continuing education with skill competencies for clinical staff.

- **Body**
  1. Pressure Injury (PI) Prevalence
     1. Monthly screening for PI
     2. Ongoing surveillance and prevention of PI for hospitalized children
     3. Regulatory reporting and QI documentation standards
  1. NDNQI; SPS & US News & World Report
  1. Unit based PI Experts
     1. Monthly opportunity to apply skills and practice related to skin assessment, PI prevention, staging and treatment
     1. Inter-rater Reliability
     2. “Skin 101” educational sessions used to highlight skin pathophysiology and integrate evidence based practices
  1. Skin & Wound CNE
     1. Introduction Course
  1. Quarterly education sessions for new Skin Team members paired with hands on demonstrations
  2. Unit Based Case Studies
     1. Unit based skin team presentations of skin management issues pertinent to specific patient populations
  3. Skin/ Wound Learning Sessions
     1. Content experts provide didactic education sessions on skin/ wound topics
     2. Hands-On learning activities to augment didactic education on skin/ wound topics

- **Conclusion**
  1. Monthly PI prevalence and continuing education are effective methods for enhancing the knowledge, skills and awareness of clinical nursing staff related to the pathophysiology, treatment and prevention strategies for hospital acquired pressure injuries.
  2. Evaluation levels I-IV are incorporated for monthly prevalence activities: level I- self-reported satisfaction and achievement of objectives; level II- return- demonstration of skills; level III- real-time audience response and prevalence data collection audits and level IV- monthly PI prevalence rates and nursing professional development.
  1. Evaluation of learning is achieved via electronic evaluations of didactic sessions as well as review of prevalence data documentation forms
2. Nursing professional development has been fostered with CNE hours as well as skin team members' use of the clinical advancement program (CAP)

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