Introduction & Background

- Hospital-acquired pressure injuries (HAPi) are caused by continuous pressure to soft tissues and impact affecting 22-49% of intensive care unit (ICU) patients.
- HAPi are a significant public health concern that can result in medical complications, poor quality of life, higher length of hospital stay, mortality rate, & healthcare costs.
- About 60,000 patients die as a direct result each year.
- HAPi cost the US healthcare system $11 billion annually.
- Review of the literature supports implementation of a standardized skin documentation template in the electronic medical record (EMR) as it reduces errors and increases efficient, comprehensive documentation and retrieval of data.

Purpose & Aims

- Purpose: to evaluate the impact of implementation of a standardized skin documentation template and nursing education on the incidence rate of HAPi in an adult cardiac ICU.
- Project Aims:
  1) Compare incidence rates of hospital-acquired pressure injuries in the months pre- and post-project implementation.
  2) Provide education for unit nurses and compare their knowledge of pressures injuries before and after education.
  3) Create a standardized, evidence-based skin assessment documentation template and assess nurse adherence rate of implementing the skin assessment template.

Methods

Design: pre- and post-test quality improvement project.
Setting: cardiac ICU in a suburban, tertiary medical center in Virginia.
Inclusion Criteria: all nurses on the unit; all newly admitted patients to the unit.
Exclusion Criteria: travel and float nurses were not assigned the education portion.

Interventions:
- Assigning a pressure injury education module with a pre- and post-test to all nurses.
- Creating & implementing standardized skin assessment template for new patients.

Measures:
- The Pieper-Zukowski Pressure Ulcer Knowledge Test (PZ-PUKT) was utilized to assess changes in nursing knowledge about pressure injuries – validated, standardized instrument with 72 true/false questions in 3 sections (prevention, staging, & wounds).
- Nurse adherence of template implementation was measured through chart audits.
- HAPi incidence rates were tracked pre- and post-intervention.

Results

Figure 1. Background Data of Nurse Participants

- Gender: Female n=50
- Non-Binary n=1

Figure 2. Number of HAPIs During Project Timeline

- Number of admissions: 320
- Total number of admissions excluding travel/float nurses: 263
- Total also excluding end of life/comfort care patients: 252

Conclusions & Dissemination

- Data showed statistically significant improvement in nursing knowledge after providing education.
- Indicates that more frequent education/training schedule may be ideal.
- Aligns with National Pressure Injury Advisory Panel recommendations for continuing professional development.
- Illustrated the potential utility of a skin assessment documentation template in guiding a thorough admission skin screening.
- These interventions could have the potential to increase early identification and implementation of pressure injury prevention strategies, decrease HAPI incidence rates, and decrease overall patient harm and healthcare costs.
- This intervention will be integrated into the standard unit workflow and EMR for streamlined use and dissemination to other units in the facility/system.
- Dissemination will be through presentations at the project site to organization leadership and stakeholders, professional conferences, & future publication.

Nursing Education:
- Of the sample of 54 nurses (2 lost to change in employment, n = 52), 33 completed the full education module and tests (64.46% completion rate).
- Statistically significant increase in nursing knowledge scores after pressure injury education.
  - From pre-test to post-test there was a mean 3.80 percentage point improvement in nursing knowledge about pressure injuries (p-value = 0.022 on a paired t-test).

Table 1. Template Adherence

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See Attached Reference List

Evaluating the Impact of Implementing Nursing Education and an Evidence-Based Skin Documentation Template on Hospital-Acquired Pressure Injuries in an Intensive Care Unit

Khushbu Patel, BSN, RN; Mojgan Azadi, DNP, Ph.D, MSN, RNC, CNE; Carol Swamidoss Douglas PhD, MPH, RNC

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