

## Leadership Connection 2018 (15-18 September)

### The Relationship Between Evidence-Based Pressure Injury Prevention Strategies and the Incidence of Hospital-Acquired Pressure Injuries

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**Background:** Damage to injured intact skin and open ulcers has traditionally been known as decubitus ulcers, bed sores, pressure sores, or pressure ulcers (PUs). Modern day, the term “pressure injury” (PI) denotes damage to the skin or soft tissue beneath the skin, usually localized, and usually occurring over a bony prominence or related to a medical or other device. This damage can reflect injuries to both intact and ulcerated skin. The PI occurs as a result of intense pressure on the skin, prolonged and constant pressure on the skin, or pressure in combination with shear (National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, & Pan Pacific Pressure Injury Alliance, 2014). Annually, over 2.5 million people in the United States develop PIs (Agency for Healthcare Research and Quality, 2014). Pressure injuries are commonly seen in high-risk populations, such as intensive and critical care patients. Adult patients hospitalized in an intensive care unit are at high risk for development of PI because of hemodynamic instability, the increased use of devices, and the use of vasoactive drugs (The Joint Commission, 2016). In intensive care units, as many as 42% of patients have PIs (Levine, 2016). Should the PI not be present on patient admission but develop while in the care of the facility, it is known as a hospital-acquired condition - specifically, an undesired patient condition the Centers for Medicare and Medicaid Services identifies as reasonably preventable through the application of evidence-based strategies (Centers for Medicare and Medicaid Services, 2016). The clinical concern in practice is although there are policies and procedures already in place to address the prevention of hospital-acquired PIs (HAPIs), assessment of practice showing a spike in HAPI incidence indicates the current practice behaviors are not working as anticipated or as well as they could be, and there is an opportunity for practice improvement.

**Purpose:** Although there is a large body of research espousing techniques and interventions clinicians may implement to help prevent the development of HAPIs, there continues to be incidences of their occurrence. Any occurrence, no matter how small the number, is one too many. Prevention of HAPIs is a problem-focused trigger (i.e., patient outcome clinical problem, risk management issue, benchmark and quality indicator, financial issue) (Titler, 2008). This problem-focused trigger led to the discussion with hospital leadership to query the current nursing practices and whether patient care can be improved through utilization of current evidence-based research. The Joint Commission documents staff educational programs on PI assessment and prevention protocols as an action that can be taken to prevent PIs in high risk residents. The purpose of this quality improvement project was to increase nursing staff knowledge of evidence-based recommendations for the prevention of PIs, and their awareness of their role in affecting patient outcomes. Additionally, determine if a PI prevention educational session with nursing staff focused on evidence-based prevention strategies could contribute to the reduction of HAPIs and facilitate the standardization of care while promoting quality care.

**Conceptual Framework:** The conceptual model framing this project is the Iowa Model of Evidence-Based Practice to Promote Quality Care (Dang et al., 2015). The Iowa Model is appealing because it considers the patient, provider, and healthcare system infrastructure when attempting to apply research to guide practice decisions. It facilitates clinician involvement in the identification of relevant problems and fitting solutions. Nurse clinicians can facilitate evidence-based practice by partnering with organizational quality improvement initiatives and being champions of the evidence-based practice process. Although it is a multiphase change process, the phases of this model are practical.

**Methods:** The project took place in a 14-bed ICU of a 528-bed full service tertiary care hospital in Duval County. The direct project population consisted of all nursing staff working in this ICU. The patient population to affect included adult male and female patients hospitalized in this ICU. A 27-slide PowerPoint was developed and downloaded to four unit computer desktops for staff viewing as time

permits. Printed handouts were left conspicuously on the unit and also given to huddle attendees. Over the course of six different days, the researcher conducted 15 minute Huddle Inservices and was able to conduct the PI prevention educational session with 25 out of 33 nurses working in this ICU.

**Findings:** Throughout the development of this project, knowledge regarding PI prevention strategies was shared by the researcher and interventions enacted by the hospital leadership. Reductions in the incidence of HAPIs were realized, but not consistent. While this project does not establish improved HAPU incidence as a direct consequence of the skin health education program, findings of the project provide insight for hospital leaders in their efforts to reduce HAPU rates. Further research in similar contexts is recommended for future study.

**Implications:** As a clinical problem, the development of a PI has been documented to have deleterious impacts on patients, nursing, and healthcare systems. Hospital-acquired conditions may blemish a hospital's performance on quality indicators. In the context of today's healthcare delivery environments, quality indicators have become associated with positive patient outcomes as well as clinically competent, safe, high-quality, cost-efficient, compassionate care. Results of the project suggest a HAPU prevention program emphasizing development of knowledge and skills as well as the promotion of collaboration between health care team members may be effective in reducing HAPU incidence rates. This project also provides a low cost educational option to reduce healthcare disparities and promote positive social change. The evidence-based recommendations, body of research, and clinical information can inform and are relevant to healthcare providers in clinical settings who aim to prevent HAPIs. Any ongoing research, studies, or projects can only continue to provide evidence of the effectiveness of PI prevention strategies in the ICU. The clinical utility of the evidence informing this project supplies significant evidence that can feasibly be used in nursing practice and is practical to the discipline of nursing and its body of knowledge.

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**Keywords:**

hospital-acquired, pressure injury and pressure ulcers

**References:**

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### **Abstract Summary:**

This presentation serves to increase nursing knowledge of evidence-based recommendations for the prevention of pressure injuries as well as promote awareness of the nurse's role in affecting patient outcomes. The nurse can expect to gain knowledge of evidence-based prevention strategies proven effective in reducing hospital-acquired pressure injuries.

### **Content Outline:**

- I. Introduction
  - A. Definition of pressure injury
  - B. Incidence of pressure injuries
- II. Body
  - A. Main Point #1 Pressure injury classification: The International NPUAP/EPUAP Pressure Ulcer Classification System
  - B. Main Point #2 Clinical issue
    1. Supporting point #1 Hospital-acquired conditions/pressure injuries
    2. Supporting point #2 Impact on patients, nursing, and healthcare systems
  - C. Main Point #3 Review of the evidence
  - D. Main Point #4 Project methods
  - E. Main Point #5 Results
- III. Conclusion

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**Professional Experience:** Dr. Deirdre Shoemake has been immersed in the healthcare field for 30 years, with the last 24 years as a licensed registered professional nurse. Dr. Shoemake is certified as an Adult Health Clinical Nurse Specialist (CNS) and spent 19 years as a staff nurse before becoming faculty at the University of North Florida. Her clinical experience progressed through medical-surgical, intermediate-care, cardiac care, post-anesthesia care, coronary intensive care, surgical and medical intensive care, and emergency department care. Dr. Shoemake's years of clinical practice and training as a CNS have afforded her the opportunity to lend consideration to the patient, clinician, and healthcare system infrastructure when attempting to apply research to guide practice decisions.

**Author Summary:** Dr. Deirdre Shoemake is an Adult Health Clinical Nurse Specialist and has been immersed in healthcare for 30 years. After 19 years as a staff nurse, she assumed a faculty position at the University of North Florida. Her medical-surgical, intensive care, and emergency department clinical experience facilitates her involvement in identifying relevant problems and fitting solutions. With this project, Dr. Shoemake partnered with organizational quality improvement initiatives to champion evidence-based practice guiding practice decisions.