Quality Improvement Initiative Results in Sustained Decrease in Hospital-Acquired Pressure Ulcers

Tessa Mullinax-Baker MSN, RN, CNL • Phyllis Dyar RN, BSN • Jeremiah Moore RN, BSN, CCRN

Hospital-acquired pressure ulcers (HAPUs) are associated with negative patient outcomes and increased economic expenditures, and are often preventable.1-4 Nursing-focused quality improvement interventions must consider multiple factors for effective HAPU prevention, driving best practices to the patient’s bedside through nursing and interdisciplinary team education, and ensuring caregiver accountability and compliance with best practices.4 A recent systematic literature review of nursing-focused quality improvement initiatives for HAPU prevention revealed that prevention efforts can be successful, and highlighted the importance of preventing a “disconnect” between performance monitoring and appropriate feedback to nursing management and staff.5

A quality improvement initiative was undertaken in an acute care clinical setting to analyze the prevalence of HAPU and determine whether increasing caregiver compliance with the skin care protocol, combined with ongoing communication of results, would improve patient outcomes.

METHODS

Ethical Review: Institutional Review Board approval was obtained prior to collecting or analyzing data.

Clinical Setting: Two Intensive Care Units (ICU)
• 21 bed Trauma Step-Down Unit (IMCU)*
• 12-bed (MICU)*

Study Objectives: To assess the effectiveness of an intervention designed to increase caregiver compliance with the Skin Care Protocol on HAPU prevention.

Metrics: Prevalence Audits: Three point prevalence audits were conducted on all patients in both units.
• 01/24/12 n=28
• 03/20/12 n=26
• 05/01/12 n=31

Questionnaires: Anonymous pre- and post-test questionnaires were provided to nursing staff.

Compliance Monitoring: Designated nurse researchers, who utilized a Pressure Ulcer Compliance Scoring Form to monitor caregiver compliance with HAPU prevention efforts, conducted weekly surveillance audits.

Education: Mandatory nursing education was provided to all nursing staff in 02/2012 on the Skin Care Policy, including appropriate skin care and assessment.

Timeline of Interventions:
• June 2012 - Mandatory education for all ICUs on appropriate skin assessment, proper use of the bed, and skin care policy.
• June 2012 - implemented seat cushions** house wide for all patients at risk for skin breakdown, with Braden score of 18 or below.

* Stryker InTouch® Critical Care Bed with XPRT® a powered, advanced pulmonary and skin care support surface. Stryker Corporation, Kalamazoo, MI.
** Stryker SofCare Chair Cushion
Between January 2012 and April 2013, there was a gradual decrease in HAPU prevalence on audits, with an overall 63% decrease in HAPU prevalence (Figure 1). Pre/post questionnaire responses are shown in Figure 2.

**RESULTS**

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**METHODS CONTINUED**

- September 2012 - New employees began 4-hour shadowing with the Wound Care team with focused rounding.
- October 2012 - Developed customized PU staging pocket-card which included highlights from facility policy.
- October 2012 - Initiated Wound Care Wednesdays, a time when Education Team and Wound Care Team address a wound care topic of interest (round to all nursing floors and provided to nurses, PCTs, and the Emergency Department).
- December 2012 - Hired first certified wound care nurse.
- May 2013 - PU prevention and treatment algorithms posted on all units - gives nurse autonomy to change dressings without a necessary call the Wound Care Team (posted on Intranet, part of policy, and focus of Wound Care Wednesday).
- June 2013 - Focus education provided on PU prevention, assessment, and documentation in the ED.
- July 2013 - Individual ICUs developing Performance Improvement Plans for ongoing continuous quality improvement.

**PU Prevention Workshop Timeline:** Stryker PU prevention workshops were provided in collaboration with educational personnel from the facility and Stryker Clinical Team Specialists, focusing on facility skin care policy and best practices in HAPU prevention.
- September 25-26, 2012
- October 16-17, 2012
- November 14, 2012
- January 23, 2013

**Communications of Outcomes:** The results of the study were communicated to staff and nursing managers through verbal and written communications on a regular and ongoing basis.
The nurse-driven quality improvement pilot was determined to be successful. The success of this pilot study resulted in expansion to 6 additional ICUs, with plans for adoption house-wide.

**RESULTS CONTINUED**

**CONCLUSION**

The nurse-driven quality improvement pilot was determined to be successful. The success of this pilot study resulted in expansion to 6 additional ICUs, with plans for adoption house-wide.

**CLINICAL IMPLICATIONS**

- Multiple evidence-based interventions were used to decrease pressure ulcer prevalence.

- Continuous ongoing education must be a priority and focus of the quality improvement initiative, with education being provided to nursing staff and managers/leaders.

- Weekly compliance audits brought awareness to the importance of this initiative and allowed project leaders to engage staff, while also allowing team leaders to provide real time education.

- This ongoing continuous quality improvement approach to HAPU prevention allowed for identification of gaps in documentation, workflow and process which were able to be addressed in a timely manner.
ACKNOWLEDGEMENTS

We would like to acknowledge the dedicated commitment of the IMCU staff and MICU staff in continuous quality improvement and ensuring patient safety and quality of care.

REFERENCES


