

Abstract

Background and Purpose: Critically ill patients are at high risk for hospital-acquired pressure injury (HAPI) development due to multiple factors. The purpose of this quality improvement project was to decrease the prevalence of HAPIs in the intensive care unit (ICU) after implementing a HAPI prevention bundled skincare algorithm along with staff education.

Methods: This project utilized a pre-post design over an 8-month period within a 24-bed adult intensive care unit in the mid-Atlantic, U.S.A. Two samples were explored: staff ICU registered nurses (RNs) and adult ICU patients present with a Braden risk score of less than 15. Demographic and characteristic data were collected on both samples. RNs were educated on the bundled algorithm, which included appropriate skin assessment, PI identification and classification, risk assessment, and implementation of PI prevention strategies. Compliance with bundle components was measured through auditing during monthly prevalence rounds pre- and post-intervention. HAPI prevalence rates and compliance were measured utilizing a HAPI audit tool and described utilizing descriptive statistics. Nurses' knowledge was measured with the adapted Pressure Injury Questionnaire and analyzed with the Wilcoxon signed-rank test.

Results: A total of 46 RNs and 57 patients were recruited. Majority of RNs were female (73.9%) with greater than 10 years of RN experience (56.5%). Majority of patients were male (61.4%) with mean age of 65.1 (16.6) years. After implementation, average HAPI prevalence decreased from 22.1% to 11.4%. Nurses' knowledge increased significantly from pre to post-test ($p=0.003$). 22 of 46 RNs (47.8%) strongly agreed that the algorithm was useful and made them more aware of PI prevention. Compliance score means increased from 84.1% to 85.1%, pre- to post-intervention.

Conclusions: A bundled skincare algorithm with an educational session may increase nurses' knowledge of PI prevention and help reduce HAPIs.

Implications: Displaying PI prevention in a bundled algorithm format could impact nursing compliance and utilization of PI prevention strategies.

Key words: *“Intensive Care Unit”, “Critical Care”, “Pressure Ulcer”, “Bundle”, “Patient Care Bundle”*