Healthcare-Associated Pressure Injury Prevention in the Intensive Care Unit

Date: July 7, 2022  
Time: 8:00 a.m. to 8:45 a.m.  
Place: 204 SCCB

Abstract

Problem: Healthcare-associated pressure injuries (HAPIs) occur when prolonged pressure is on the sacrum, coccyx, elbows, and heels, during a hospital stay. HAPIs can result in increased morbidity and mortality, and prolonged hospital stays, which consequently requires excess expenditure on treatment. Early specialty mattress placement can prevent HAPI acquirement.

Methods: This quality improvement pilot project aimed to increase specialty prevention mattress usage in the intensive care unit (ICU). A sleep surface decision tree was implemented into the admission process in a 30-bed ICU. A retrospective record review was used to examine demographics, comorbidities, HAPI risk, length of stay, and when patients were placed on specialty prevention mattress. Data collection was from June to August 2021, pre-implementation, and from September to November 2021, post-implementation using a z-score to examine proportional differences. Descriptive statistics identified differences and similarities between patients. Logistic regression correlated comorbidities and HAPI acquirements.

Results: Patients were placed on a specialty prevention mattress within an average of 1.52 days resulting in a 50% reduction in HAPIs post-implementation. Each day there was an 8.38% risk for acquiring a HAPI which is statistically significant ($p=0.006$). The results of this project increased supply of specialty mattresses in the ICU, which increased early intervention and HAPI prevention. A sleep surface decision tree and early interventions can mitigate HAPI events.

Implication to practice: A collective examination of all HAPI preventative methods for higher acuity patients (ventilator, continuous dialysis, and extracorporeal membranous oxygenation). A sleep surface decision tree consideration upon admission to the hospital.

Defense Dissertation Committee  
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