

Quality Improvement in Trauma ICU through Unit Based Council

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BACKGROUND

Patients in intensive care units (ICU) face numerous risk factors that compromise skin and tissue integrity. The skin, the body's largest organ, regulates temperature, prevents infection, produces Vitamin D, and helps maintain fluid homeostasis (Yeni, 2025). Tissue compromise, such as Pressure Injuries (PIs) and Deep Tissue Injuries (DTIs), can be life-threatening for ICU patients. PIs and DTIs may require additional antibiotic use, limit mobility, inflict pain, and cause psychosomatic challenges (Yeni, 2025). In a cohort study of patients with DTIs, healing occurred in only 10% of cases (Kordasiewicz et al., 2025). Unfortunately, most patients developed septicemia, or experienced mortality attributable to complications of their pressure injuries (Kordasiewicz et al., 2025).

METHODS

Using the Plan, Do, Study, Act (PDSA) methodology, a team consisting of four staff nurses, and a clinical supervisor, implemented a structured quality improvement initiative in the TICU.

P: Developed an education plan to improve skin outcomes within the TICU

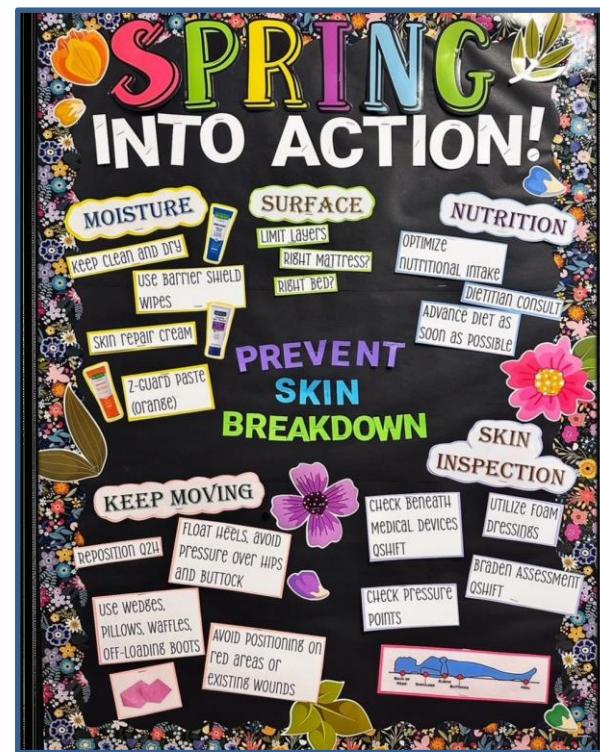
D: Created a bulletin board and provided staff education on skin integrity

S: Collected and compared PI/DTI data before and after education

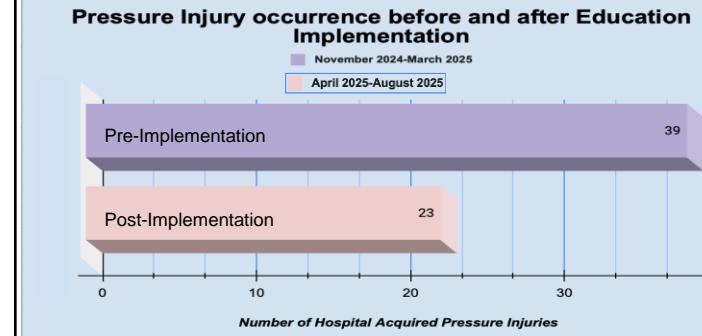
A: Use of buddy system nursing, discontinued use of previous clear foam dressings, promoted early nutrition, and use of wedges when indicated.

PURPOSE

The purpose of this quality improvement initiative is to reduce skin breakdown among Trauma Intensive Care Unit (TICU) patients, who are at heightened risk for pressure injuries due to their critical conditions and complex injuries. Led by the TICU Unit-Based Council (UBC), this project seeks to decrease the incidence of pressure injuries by introducing early nutrition support, enhancing staff education, utilizing preventive dressings, and promoting early recognition of skin failure.



RESULTS



Exclusion criteria: patients in prone position, PIs present on admission, and any wounds obtained on a non-progressive bed.

CONCLUSIONS

TICU UBC led education that improved nursing staff awareness of offloading devices, early nutritional support, preventative dressings, and early recognition of skin failure. Skin Prevalence data showed a 41% decrease in PIs and DTIs in the TICU from pre-education to post-education, demonstrating the effectiveness of the implementation strategies.

REFERENCES



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