Use of an Absorbent Soft Silicone Self-Adherent Borderered Foam Dressing to Decrease Sacral Pressure Ulcers in the Surgical Trauma ICU

IDENTIFYING THE SICKEST OF THE SICK, CONTROLLING WHAT WE CAN, FIGHTING MOISTURE, FRICTION, AND SHEAR

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PURPOSE:
Current recommendations in pressure ulcer prevention literature, and strategies used in our acute care facility, often failed to prevent skin breakdown in critically ill Surgical Trauma patients. Interventions to decrease these patients’ pressure ulcer rates were sought.

SIGNIFICANCE:
Due to extensive injuries or disease processes, patients cared for in the ICU can remain in the critical care setting for extended periods of time. Critically ill patients manifest co-morbidities which predispose them toward pressure ulcer development1,2,3,4. At VCUHS, the Braden Scale for Predicting Pressure Ulcers was used to identify high-risk ICU patients.4 Patients met criteria for inclusion. (See STICU Study toolkit)

STRATEGY AND IMPLEMENTATION:
Previous pressure ulcer prevalence studies at VCUHS revealed high incidence over the sacrum and heels. The study focused on placing sacral pressure ulcer prevention strategies to reduce heel ulcers which had already been instituted.

FINDINGS: NO SACRAL PRESSURE ULCERS DEVELOPED ON THE 41 HIGH-RISK PATIENTS

THE CWOCN TOOK THE FOLLOWING ACTIONS:

STEP I. During the study period, the entire census of the STICU, 93 patients, was evaluated and followed. The patients ranged in age from 18 to 81 years. A bedside assessment tool was developed to identify high-risk STICU patients. 41 patients met criteria for inclusion. (See STICU Study toolkit)

STEP II. An absorbent soft silicone self-adherent borderered foam dressing6 hypothesized to absorb moisture, reduce friction, and minimize shear over the sacrum was selected for use on identified high-risk pressure ulcer patients.7,8

STEP III. The sacral dressing was applied to the identified patients at admission. Skin checks were completed each shift by lifting the dressing away from the intact skin. The dressing was changed every three days.

STEP IV. All patients were followed by the CWOCN for a two-month period beginning with their admission to the STICU.

STEP V. At two months from admission, the sacral pressure ulcer incidence of the high-risk patients with the sacral dressing was compared to that of the lower-risk patients.

STICU STUDY TOOLKIT

- Procedures for daily care for all STICU patients
- Process for patient assessment for inclusion in Study

RECOMMENDATIONS:
Prevention should drive pressure practice in pressure ulcer care. In this case series of 41 high-risk surgical trauma ICU patients, the outcome of zero incidence of sacral pressure ulcers on those using the soft silicone sacral dressing bore replicating in other critical care environments. As interventions for prevention are tested, the paradigm of prevention will be strengthened. This can only benefit the patient, the healthcare institution, and the science of nursing.

CONCLUSION:
Of the 93 patients studied, 6 pressure ulcers developed; 2 Unstageable7. No pressure ulcers developed on the 41 individuals who used the absorbent soft silicone self-adherent borderered foam dressing to prevent excoriation, friction, and shear. Patients who did develop pressure ulcers were found to have the following characteristics in common:

1. Had not qualified for inclusion in the high-risk group and therefore did NOT receive a soft silicone sacral dressing;

OR

2. Had soft silicone sacral dressing discontinued due to discharge from the STICU to the Nursing Units;

OR

3. Had dressing removed in preparation for an Operating Room procedure.

References: