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## PRESSURE ULCER PREVENTION & MANAGEMENT BULLETIN Dec 2015

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## What Factors Are Associated With the Development of Pressure Ulcers in a Medical Intensive Care Unit?

Citation: Dimensions of Critical Care Nursing, Jan 2016, vol. 35, no. 1, p. 37-41, 0730-4625 (January 2016)

Author(s): Smit, Inge, Harrison, Lisa, Letzkus, Lisa, Quatrara, Beth Less

Abstract: STATEMENT OF THE PROBLEM: Instruments used to determine the risk of pressure ulcer development are universally applied to adult patients. These instruments do not differentiate between intensive and acute care patients. BACKGROUND: Pressure ulcers contribute to negative outcomes such as increases in pain and discomfort, risk of infection, hospital length of stay and costs, and a decrease in quality of life. Appropriately identifying risk factors is paramount to implementing a targeted care plan to avoid pressure ulcer development as well as pinpointing appropriate treatments if an ulcer develops. OBJECTIVE: The purpose of this nursing research study was to identify factors associated with pressure ulcer development in a medical intensive care unit. METHODS: A 15-month retrospective chart review of patients with pressure ulcers in a medical intensive care unit was performed. Statistics were computed on demographics and variables of interest including: pressure ulcer stage, vasopressor infusion, oxygen requirement, comorbidities, primary diagnosis, length of stay, mortality, age, gender, weight, Braden scores, and albumin level. RESULTS: The characteristics of 76 patients who developed pressure ulcers were evaluated. An equal number of men (n = 38) and women (n = 38) were included. Forty-seven percent had a stage II pressure ulcer. The presence of hemodynamic support with vasopressor administration (P = .016) and the length of stay (P = .021) were noted as the most significant factors in pressure ulcer development in this study. CONCLUSIONS: Vasopressor use and length of stay are not factors that are accounted for in current pressure ulcer risk assessment instruments. The administration of vasopressor support and patient length of stay are potential contributory factors that need to be considered when assessing patients. Instruments specific to intensive care unit pressure ulcer risk stratification are warranted and should include the unique characteristics of a critically ill patient. [PUBLICATION] 11

Source: BNI

## Two Methods for Turning and Positioning and the Effect on Pressure Ulcer Development: A Comparison Cohort Study

**Citation:** Journal of wound, ostomy, and continence nursing: official publication of The Wound, Ostomy and Continence Nurses Society / WOCN, Jan 2016, vol. 43, no. 1, p. 46-50 (2016 Jan-Feb)

Author(s): Powers, Jan

Abstract: We evaluated 2 methods for patient positioning on the development of pressure ulcers; specifically, standard of care (SOC) using pillows versus a patient positioning system (PPS). The study also compared turning effectiveness as well as nursing resources related to patient positioning and nursing injuries. A nonrandomized comparison design was used for the study. Sixty patients from a trauma/neurointensive care unit were included in the study. Patients were randomly assigned to 1 of 2 teams per standard bed placement practices at the institution. Patients were identified for enrollment in the study if they were immobile and mechanically ventilated with anticipation of 3 days or more on mechanical ventilation. Patients were excluded if they had a preexisting pressure ulcer. Patients were evaluated daily for the presence of pressure ulcers. Data were collected on the number of personnel required to turn patients. Once completed, the angle of the turn was measured. The occupational health database was reviewed to determine nurse injuries. The final sample size was 59 (SOC = 29; PPS = 30); there were no statistical differences between groups for age (P = .10), body mass index (P = .65), gender (P = .43), Braden Scale score (P = .46), or mobility score (P = .10). There was a statistically significantly difference in the number of hospital-acquired pressure ulcers between turning methods (6 in the SOC group vs 1 in the PPS group; P = .042). The number of nurses needed for the SOC method was significantly higher than the PPS (P ≤ 0.001). The average turn angle achieved using the PPS was 31.03°, while the average turn angle achieved using SOC was 22.39°. The difference in turn angle from initial turn to 1 hour after turning in the SOC group was statistically significant (P < .0001). No nurse injuries were reported for either group during the study. Findings suggest that assistive devices such as a PPS can be effective in achieving proper positioning of patients to prevent development of pressure ulcers.

Source: Medline

## Health Behavior Theory for Pressure Ulcer Prevention: Root-Cause Analysis Project in Critical Care Nursing

Citation: Journal of nursing care quality, Jan 2016, vol. 31, no. 1, p. 68-74 (2016 Jan-Mar)

Author(s): Choi, Kristen R, Ragnoni, Jennifer A, Bickmann, Jonathan D, Saarinen, Hannah A, Gosselin, Ann K

**Abstract:** The purpose of this project was to use a behavioral theory to examine pressure ulcer prevention by nurses in a critical care setting. A root-cause analysis approach was used, including an integrative literature review, operationalization of behavioral constructs into a survey, and root-cause analysis application in a cardiovascular intensive care unit. This article highlights an innovative approach to quality improvement in critical care.

Source: Medline



