

# ICU Admission Day Braden Risk Assessment Score Association with the Development of Pressure Ulcers in Critically Ill Patients

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## ABSTRACT

**Objectives:** This study aims to investigate the association between patient pressure ulcer prevalence and Braden risk assessment scores on the first day of ICU admission.

**Design:** This study was designed as a prospective cohort study. **Settings:** The survey was performed in medical and General ICUs of AlBasheer Hospital in Jordan from December 1, 2023, to January 31, 2024.

**Materials and methods:** The Braden Risk Assessment Scale was used to prospectively analyze data from a cohort of hospitalized acutely sick patients to determine the patient's risk of developing pressure ulcers on the first day of intensive care unit admission. Patients were divided into two groups based on whether they had pressure ulcers. Four risk groups were identified based on their Braden scores: extremely high risk (scores of nine or less), high risk (scores of ten to twelve), moderate risk (scores of thirteen to fourteen), and low risk (scores of fifteen to eighteen). For every patient, the existence or lack of pressure ulcers was noted. The relationship between pressure and Braden risk assessment scores was examined using a cross-tabulation technique.

**Results:** A sample of sixty people participated in this study. A total of 27 individuals experienced at least one pressure ulcer throughout their stay, translating to a 45% incidence of pressure ulcers. According to the univariate analysis, the Braden scale was linked to the emergence of pressure ulcers.

**Conclusion:** The Braden Scale from the initial day of ICU admission is a reliable indicator of the occurrence of pressure ulcers during the inpatient stay. Therefore, management efforts for pressure ulcer risk should focus on early skin examination.

**Keywords:** Pressure ulcers, Braden Scale, acutely ill patients

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