



# Pressure Injury Reduction in Action in the ICU

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ABSTRACT

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**Statement of the Problem:** Pressure injuries are one of the biggest issues in the healthcare field around the world. They negatively affect an individual's physical and psychosocial abilities as well as their quality of life. In the United States, pressure injuries are estimated to cost \$2.2 to \$3.6 billion for treatment, with increased costs for more severe pressure injuries. About six to ten percent of critically ill patients develop pressure injuries in a critical care setting.

**Approach:** A quality improvement study was performed to incorporate a pressure injury bundle to improve the overall standard of patient care from a nursing approach. The project took place in a 14-bed surgical intensive care unit (ICU) and a 12-bed transplant ICU at a quaternary medical center in New York City. This included: 1) use of a "turn clock" to assist in identifying repositioning times and subsequent proper documentation within Epic; 2) classification and staging of wounds; 3) identification of appropriate treatment modalities by a primary nurse with guidance from unit leadership and unit-based Wound Treatment Associates (WTAs); 4) staff education by unit leadership, hospital-based wound, ostomy, and continence nurses, and unit-based WTAs; and 5) preventive skin care measures such as bony prominence dressings and air-assisted technology (Prevalon Turn and Position System). Upon discovery of new pressure injuries, a nutrition consult was placed along with a wound consult for complicated wounds. Collaborative efforts between nursing staff and medical providers helped identify patients in multi-system organ failure. This proactive multidisciplinary approach was implemented from July 1, 2022, to April 20, 2023. We compared the rate of unit acquired pressure injuries (UAPIs) during this period to a pre-intervention period from January 1, 2022, to June 30, 2022.

**Findings:** In the surgical ICU, the repositioning compliance among staff increased from 62% to 92%. The rate of UAPIs decreased from 2.3 per month to 1.1 per month (14 UAPIs during the pre-implementation period and 11 UAPIs after the implementation). In the transplant ICU, the repositioning compliance increased from 72% to 94%. The rate of UAPIs decreased from 0.5 per month to 0 per month (3 UAPIs pre-implementation and no UAPIs post-implementation).

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## TO CITE THIS ARTICLE:

Chung, J., Angielczyk, D., Reyda, D., Puerto, D. D., Mclaurin-Mann, A, Trenard, M., Thomas, F., Asis, K. G. D., Jones, L., Sevillano, M., & Ramos, M. S. (2024). Pressure Injury Reduction in Action in the ICU. *Practical Implementation of Nursing Science*, 3(2), pp. 31–32. DOI: <https://doi.org/10.29024/pins.81>

**Conclusions and Implications:** Repositioning compliance as well as multidisciplinary approaches to pressure injury assessment, identification, and treatment were well received by the unit staff and improved the overall quality of patient care within the surgical ICU and transplant ICU care environments. The engagement of unit staff, unit leadership, WTAs, and designated staff proved to be effective in timely recognition and treatment of worsening pressure injuries. This bundle provided a more organized approach to nursing management of patients once admitted to both ICUs as well as empowered the ancillary staff to assist in enforcing the recommended time for patient repositioning. Such an inclusive approach can be applied to mitigate other patient safety issues such as the analysis of mislabeled specimens.

## COMPETING INTERESTS

The authors have no competing interests to declare.

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Chung, J., Angielczyk, D., Reyda, D., Puerto, D. D., Mclaurin-Mann, A., Trenard, M., Thomas, F., Asis, K. G. D., Jones, L., Sevillano, M., & Ramos, M. S. (2024). Pressure Injury Reduction in Action in the ICU. *Practical Implementation of Nursing Science*, 3(2), pp. 31–32. DOI: <https://doi.org/10.29024/pins.81>

**Submitted:** 10 November 2023

**Accepted:** 01 March 2024

**Published:** 17 May 2024

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