MORTALITY RATE IS HIGHER IN EARLY TRAUMA ICU BOUNCE BACK PATIENTS THAN IN LATE ICU BOUNCE BACK PATIENTS

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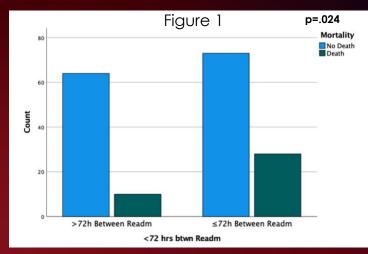
INTRODUCTION

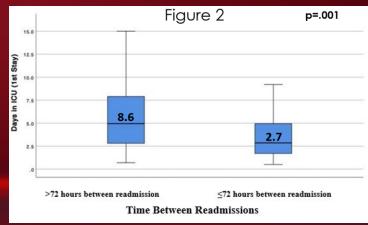
- Unplanned readmission to the ICU, or bounce backs (BBs), are associated with increased patient mortality¹⁻².
- Early readmissions in particular are associated with worse patient outcomes³⁻⁴.
- Our study aimed to identify factors that predispose patients to returning within 72 hours of initial discharge.

MATERIALS AND METHODS

- Retrospective review of patients at a single level 1 trauma center from January 2019 to December 2021 (IRB number 4519).
- Readmission defined as patients admitted to ICU directly from ED, discharged to floor, and then returned to the ICU within the same hospitalization.
- 175 patients met this criteria, ranging in age from 16 to 92 (mean=60.98, sd=20.97). 39 patients expired in the hospital, with traumatic brain injury being the most common cause of mortality.
- Early readmission (patients who returned in less than 72 hours, n=101) and late readmission (patients who returned after 72 hours, n=74).
- Multivariate and bivariate analysis of numerous clinical values conducted using SPSS Version 28 (Armonk, NY: IBM Corp.)

RESULTS





DISCUSSION

- Early readmissions show a statistically higher mortality rate (p=.024).
- Early readmission is associated with shorter initial ICU stays (p=.001), surgery lasting over 2 hours (p=.030), lower hematocrit (p=.010) and paCO2 (p=.047) on ICU discharge, and a history of a psychiatric diagnosis (p=.041); consider enhanced scrutiny before discharging these patients.
- Length of initial ICU stay appears protective against early readmission.
- Study limited by retrospective design. Consider further prospective study.

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