

Near-simultaneous admissions may affect mortality and length of stay in the ICU

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A strain in ICU capacity has been linked to adverse patient outcomes. New research to be presented at CHEST Congress 2019 Thailand suggests that near-simultaneous ICU admissions are frequent and may also have an adverse effect on patient outcomes. Researchers conducted an observational study of patients admitted to an academic adult ICU of a tertiary medical center. Over the five-year period of the study, they found a correlation between the elapsed time between two consecutive admissions and mortality.

Researchers examined 13,234 consecutive ICU admissions. A quarter of these admissions had an elapsed [time](#) between two consecutive admissions of less than 55 minutes. They found a "dose-dependent" and inverse relationship between the elapsed time between admissions and mortality. In summary, the shorter the interval between admissions, the higher the odds of death. Specifically, the adjusted odds ratio (OR) of death gradually decreased by an additional average of 0.93 (95% CI 0.9?0.97, P=.001) for each log(unit) of time separating admissions.

"This study shows that providing the same level of care during multiple admissions is difficult when [patients](#) of equal severity arrive at the same time. Further studies are needed to confirm these findings and work towards ways to improve mechanisms, structures and processes to improve patient outcomes regardless of [admission](#) rates," says Dr. Markos Kashiouris, lead researcher.

More information: M. Kashiouris et al, NEAR-SIMULTANEOUS

ICU ADMISSIONS AND ALL-CAUSE MORTALITY, *Chest* (2019).
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