TITLE: Hospital-Based Acute Care Use in Survivors of Septic Shock

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ABSTRACT

Objective: Septic shock is associated with increased long-term morbidity and mortality. However, little is known about the use of hospital-based acute care in survivors after hospital discharge. The objectives of the study were to examine the frequency, timing, causes, and risk factors associated with Emergency Department (ED) visits and hospital readmissions within 30 days of discharge.

Design: Retrospective cohort study.

Setting: Tertiary, academic hospital in the United States.

Patients: Patients admitted with septic shock (serum lactate ≥ 4 mmol/L or refractory hypotension) and discharged alive to a non-hospice setting between 2007 and 2010.

Interventions: None.

Measurements and Main Results: The co-primary outcomes were all-cause hospital readmission and ED visits (treat-and-release encounters) within 30 days to any of the three health system hospitals. Of 269 at-risk survivors, 63 (23.4%, 95% confidence interval (CI): 18.2, 28.5) were readmitted within 30 days of discharge and another 12 (4.5%, 95% CI: 2.3, 7.7) returned to the ED for a treat-and-release visit. Readmissions occurred within 15 days of discharge in 75% of cases and were more likely in oncology patients (p=0.001) and patients with a longer hospital length of stay (p=0.04). Readmissions were frequently due to another life-threatening condition and resulted in death or discharge to hospice in 16% of cases. The reasons for readmission were deemed potentially related to the index septic shock hospitalization in 78% (49/63) of cases. The most common cause was infection-related, accounting for 46% of all 30-day readmissions, followed by cardiovascular or thromboembolic events (18%).
Conclusions: The use of hospital-based acute care appeared to be common in septic shock survivors. Encounters often led to readmission within 15 days of discharge, were frequently due to another acute condition, and appeared to result in substantial morbidity and mortality. Given the potential public health implications of these findings, validation studies are needed.