

## Many Severe Sepsis Survivors Experience Preventable Readmissions



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Rehospitalisation within 90 days is common for survivors of severe sepsis, in which internal organs begin to shut down in response to serious infection. Approximately 42 percent of patients who survive severe sepsis return to the hospital within three months, but new research suggest that the same percentage of those readmissions are related to diagnoses for potentially preventable conditions. Paying closer attention to post-hospital risks could improve recovery for patients and help to control healthcare costs.

A study led by Hallie C. Prescott, MD, MSc and colleagues at the University of Michigan at Ann Arbor, investigated the most common readmission diagnoses for severe sepsis survivors, and whether post discharge ambulatory care might prevent such readmissions. Their findings appear in the March 10 issue of *JAMA*.

The analysis involved 2,617 hospitalisations for severe sepsis between 1998 and 2010, extracted from the US Health and Retirement Study, a nationally representative sample. The study surveys households with adults who are at least 50 years old, and is linked to Medicare claims. The sepsis cases were matched by the researchers to hospitalisations for other acute medical problems, to explore whether and how the readmission diagnoses differed between the two groups.

In order to determine which rehospitalisations could be considered preventable, the authors measured ambulatory care sensitive conditions (ACSCs), a set of diagnoses that can be improved by effective outpatient care, thereby possibly reducing readmission rates. Among the 10 most common rehospitalisation diagnoses after severe sepsis are chronic obstructive pulmonary disease exacerbation, heart failure, pneumonia and urinary tract infection, all of which are ACSCs.

"The high prevalence and concentration of specific diagnoses during the early postdischarge period suggest that further study is warranted of the feasibility and potential benefit of postdischarge interventions tailored to patients' personalised risk for a limited number of common conditions," the authors contend.

Of the 2,617 severe sepsis cases included in the study, 42.6 percent were readmitted to hospital within 90 days. Together, ACSC diagnoses made up 22 percent of 90-day readmissions for the severe sepsis patients. Compared with the patients who were rehospitalised following acute medical conditions, severe sepsis patients were more likely to be readmitted (22 percent vs. 19 percent) and represented a bigger proportion of all 90-day readmissions (42 percent vs. 37 percent).

Infection was a common primary diagnosis for readmitted patients, with 12 percent of severe sepsis survivors and 8 percent of patients with acute medical conditions presenting with pneumonia, sepsis, skin or soft tissue infections, or urinary tract infections. Sepsis patients face specific risks due to impaired swallowing from ICU breathing tubes, and weakened kidneys.

"Getting on the right medications and diet, receiving counseling on infection risks and signs, and having kidney function tested more often could be examples of post-hospital interventions that sepsis survivors could benefit more from," Prescott said.

Source: *JAMA*

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