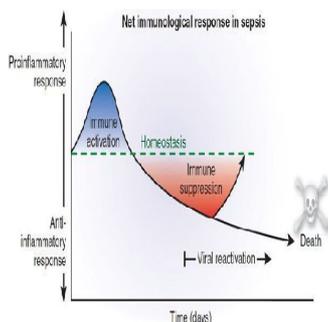


## Septic Shock: Readmission Rates Above Average



Most patients now survive a hospital stay for septic shock, although 23 percent of these patients will return to the hospital within 30 days, according to a new study. The number is noticeably higher than the normal readmission rate at a large academic medical centre, researchers reported. The study findings have been published in *Critical Care Medicine*.

Septic shock, the most severe form of sepsis, is the body's response to a severe bacterial bloodstream infection that is often systemic. It can lead to multisystem organ failure and death. "Half of patients diagnosed with sepsis are treated outside of the Intensive Care Unit at their initial admission," said senior author Mark Mikkelsen, MD, MSCE, associate director of the Medical Intensive Care Unit and assistant professor of Pulmonary, Allergy and Critical Care Medicine at the Perelman School of Medicine at the University of Pennsylvania.

Septic shock most often affects patients whose immune systems are already compromised by illnesses such as cardiovascular disease, cancer or advanced age. These patients' immune systems are unable to fight off such a severe infection.

For this study, Mikkelsen and colleagues analysed retrospective data on 269 patients admitted to one of three University of Pennsylvania Health System hospitals with a diagnosis of septic shock who were discharged to a non-hospice setting between 2007 and 2010. Their investigation yielded the following results:

- In 78 percent of cases, the reason for readmission was related to the initial/unresolved sepsis hospitalisation, accounting for 46 percent of all 30-day readmissions.
- Other common complications included new conditions such as cardiovascular illnesses or blood clots.
- One out of six readmissions resulted in death or a transition to hospice.

"Part of what makes these findings so troubling is that so many of these patients return to the hospital after discharge and that frequently these hospitalisations are due to another life-threatening condition," Dr. Mikkelsen said. "We have come so far in understanding how to tame the initial infection that we have minimal understanding of what life is like for these patients once they leave the hospital."

Patients who were readmitted, the researchers observed, were more likely to have been hospitalised within the prior 30 days or to have cancer, cirrhosis, or to have had a prolonged hospital stay. Further examination of these trends and potential prevention strategies, the authors noted, is especially important in light of the potential for Centers for Medicare and Medicaid Services to expand readmission penalties for patients with sepsis in addition to those with heart failure, heart attacks and pneumonia.

"Our hope is that these findings will give a new urgency to the need for better patient education regarding the signs of a recurrent infection and common reasons for readmission in addition to improved discharge planning to keep these patients healthy and from returning to the hospital," Dr. Mikkelsen said.

Penn Medicine, one of the world's leading academic medical centres, consists of the Raymond and Ruth Perelman School of Medicine at the University of Pennsylvania (founded in 1765 as the nation's first medical school) and the University of Pennsylvania Health System.

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