

## Nurse Staffing and Mortality Risk of Sepsis



Sepsis is one of the most challenging complications in the ICU. It is a physiologic response to infection that could lead to multiorgan failure and death if not managed and treated properly. Sepsis is a major health issue in the U.S., with more than 1.7 million cases diagnosed annually. Sepsis is also a leading cause of death and one of the most expensive conditions treated by hospitals.

The treatment of sepsis has evolved over the last 20 years. The Surviving Sepsis Campaign, which represents a collaborative effort between the European Society of Intensive Care Medicine, Society of Critical Care Medicine, International Sepsis Forum, and Institute for Healthcare Improvement, has guided care for sepsis and includes bundles of care that outline actions to be completed within a specific period after a patient receives a diagnosis of sepsis. In addition, the US Centers for Medicare & Medicaid Services (CMS) have implemented the Sepsis Core Measure SEP-1: The Severe Sepsis and Septic Shock Management Bundle.

A new study was conducted to determine whether registered nurse workload is associated with mortality among patients admitted to an acute care hospital with a diagnosis of sepsis.

One thousand nine hundred fifty-eight acute care hospitals and 702,140 patients diagnosed with sepsis were included in the study. The primary outcome of the study was mortality within 60 days of admission. The variables of interest were SEP-1 score and direct care registered nurse staffing.

Hospital characteristics that were considered included number of beds, ownership, teaching status, technology status, rurality, and region. Patient characteristics included age, sex, transfer status, ICU admission, palliative care, do-not-resuscitate order, and 29 comorbid diseases based on the Elixhauser Comorbidity Index.

Findings show that an increase in registered nurse hours per patient day was associated with a 3% decrease in 60-day mortality in older adults with sepsis.

Overall, these findings show that the hours of care provided by registered nurses are associated with the outcomes of patients with a diagnosis of sepsis. These results suggest that hospitals that provide more nurse hours of care could decrease the likelihood of mortality in patients with sepsis and greater compliance to SEP-1 to promote the early recognition and treatment of sepsis.

Source: [JAMA](#)

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