

Sepsis involved in high percentage of hospital deaths

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An analysis that included approximately 7 million hospitalizations finds that sepsis contributed to 1 in every 2 to 3 deaths, and most of these patients had sepsis at admission, according to a study published by *JAMA*. The study is being released early online to coincide with its presentation at the American Thoracic Society International Conference.

Sepsis, the inflammatory response to infection, affects millions of [patients](#) worldwide. However, its effect on overall hospital mortality has not been fully measured, according to background information in the article.

Vincent Liu, M.D., M.S., of the Kaiser Permanente Division of Research, Oakland, and colleagues quantified the contribution of sepsis to mortality in 2 inpatient groups from Kaiser Permanente Northern California (KPNC) and the Healthcare Cost and Utilization Project Nationwide Inpatient Sample (NIS). The KPNC cohort included 482,828 adults with overnight, nonobstetrical hospitalizations at 21 KPNC hospitals between 2010 and 2012. The NIS, a nationally representative sample of 1,051 hospitals, included 6.5 million adult hospitalizations in 2010. Two approaches were used to identify patients with sepsis: explicit (those with certain sepsis-related codes); and implicit (patients with evidence of both infection and acute organ failure).

Of 14,206 KPNC inpatient deaths, 36.9 percent (explicit) to 55.9 percent (implicit) occurred among patients with sepsis, which was nearly all present on admission. Of 143,312 NIS deaths, 34.7 percent (explicit)

to 52.0 percent (implicit) occurred among patients with sepsis. In a 2012 KPNC subset, patients with sepsis meeting criteria for early goal-directed therapy (n = 2,536) comprised 32.6 percent of sepsis deaths.

"Given the prominent role it plays in hospital mortality, improved treatment of sepsis could offer meaningful improvements in population mortality," the authors write.

The researchers note that patients with initially less [severe sepsis](#) made up the majority of sepsis deaths. "Performance improvement efforts in the treatment of sepsis have primarily focused on standardizing care for the most severely ill patients, whereas interventions for treating other patients with sepsis are less well defined. Given their prevalence, improving standardized care for patients with less severe [sepsis](#) could drive future reductions in [hospital mortality](#)."

More information: [DOI: 10.1001/jama.2014.5804](https://doi.org/10.1001/jama.2014.5804)

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