

# Considerable variation seen in mortality rates for suspected sepsis

May 28 2024, by Elana Gotkine

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There is considerable variation in mortality rates among patients with suspected sepsis, according to a research letter [published](#) online May 28

in the *Annals of Internal Medicine*.

Brett Biebelberg, from Massachusetts General Hospital in Boston, and colleagues conducted a retrospective analysis of all adults admitted to five Massachusetts hospitals with suspected sepsis, defined as suspected infection with concurrent organ dysfunction. In total, 74,858 patients with suspected [sepsis](#) were identified.

Overall, 31% of patients were admitted to [intensive care](#) and 8.9% died in the hospital. The researchers identified 30-fold variation in crude deaths, depending on the primary site of infection, varying from 1 to 33% (tick- or vector-borne infections and bacteremia, respectively). A 13-fold variation in crude deaths was seen across organ dysfunctions, ranging from 2.2 to 27% with a decline in [systolic blood pressure](#) of  $\geq 40$  mm Hg alone and respiratory organ failure requiring intubation with or without other organ dysfunctions, respectively.

With successively more organ dysfunctions, there was an increase in [mortality rates](#) observed, but wide variation was still seen depending on which organs were involved (one, two, and three or more organ dysfunctions: 0 to 7, 3 to 10, and 5 to 21% mortality, respectively). When considering combinations of infection sources and organ dysfunctions, differences in mortality were further magnified.

"The wide range of disease manifestations and outcomes begs the question whether it is appropriate and helpful to group all these infections together as one syndrome with a common descriptor and common treatment plan," the authors write.

**More information:** Brett Biebelberg et al, Heterogeneity of Sepsis Presentations and Mortality Rates, *Annals of Internal Medicine* (2024).

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