

# Nationwide data shows that overweight and obese patients are less likely to die from sepsis in hospital than patient

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Data from 3.7 million hospital admissions for sepsis from 1,000 US hospitals, presented at this year's European Congress on Obesity in Vienna, shows that patients who are overweight or obese are more likely to survive than those who are normal weight. The study is by Dr. Yu-Jiun Lin, Taipei Medical University Hospital, Taipei City, Taiwan, and Dr. Jon Wolfshohl, Department of Emergency Medicine, John PeterSmith Hospital, Fort Worth, TX, USA, and colleagues.

About 25 % of adults admitted to intensive care units in the United States(US) have overweight and obesity, and sepsis is a common cause for admission. Although obesity reduces overall lifespan, it is unclear whether it also impacts the outcome of critically ill [patients](#) in general, or with sepsis specifically. Previous studies have delivered mixed results on mortality rates of patients of patients in intensive care based on their [weight](#).

In this new research, the authors determined the impact of being overweight and obese on sepsis patients. Using the Nationwide Readmission database of the US from 2013 to 2014, they identified patients hospitalised with sepsis. Hospitalised patients with sepsis were categorised into normal, overweight (BMI >25 and 30). To minimise baseline imbalance between patients with different body weight, we carried out PS-matched analysis, using 1:1:1 PS matching technique. PS contains 41 variables including demographics, social economic status, chronic comorbidities, and severity of sepsis.

Computer modelling was then used to estimate the association between body weight and 30-day [in-hospital](#) mortality. A total of 3,712,764 sepsis hospitalisation episodes fulfilled the inclusion criteria, of which 52,101 were overweight, 511,140 were obese, and 3,149,523 were normal weight.

Compared with [normal weight](#) patients, overweight patients were 23% less likely to die and [obese patients](#) 22% less likely to die from admission to hospital for sepsis. 30-day readmission rate were also slightly lowered for overweight and obese patients, but total cost of hospital stay were highest in obese patients.

To investigate whether there was a differential risk of 30-day mortality among different obese populations (based on income, type of infection, and severity of sepsis). However, the effect of obesity on mortality was consistent among these different subgroups.

The authors conclude: "Using a large and nationally representative sample of over 1,000 hospitals in the US, we found that increase in BMI was significantly associated with improved survival and lowered readmission among hospitalized patients with sepsis. Our results suggest that BMI may be used for risk stratification of patients with [sepsis](#)."

Provided by European Association for the Study of Obesity

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