

## Levels of Intensive Care and In-Hospital Mortality in Sepsis



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Sepsis is a life-threatening condition caused by a dysfunctional response to infection. It is a significant global health issue, with approximately 48.9 million cases and 11 million deaths annually. Sepsis accounts for nearly 30% of all ICU admissions worldwide. Previous studies have reported varying prevalence rates of ICU-treated sepsis, ranging from 58 to 80 cases per 100,000 person-years, highlighting significant differences in intensive care services for sepsis patients among countries.

Effective management of sepsis patients requires a tiered admission strategy based on the severity of the patient's condition, given that intensive care resources are limited and costly. Because sepsis is highly prevalent and severity can range from sepsis to septic shock, patients are treated in the ICU, high-dependency care units (HDU), or general wards, depending on the severity of their condition and the availability of intensive care resources.

A study investigated the link between intensive care levels and in-hospital mortality in sepsis patients. The analysis was conducted based on the patients' Sequential Organ Failure Assessment (SOFA) score at admission.

The study included adult sepsis patients in Japan admitted with SOFA scores of 2 or higher on admission. There were two exposure and control groups based on the treatment unit on the day of admission: ICU + HDU vs general ward and ICU vs HDU. The 97,070 patients included in the study were divided into different treatment units: 20.4% in the ICU, 23.8% in the HDU, and 55.9% in the general ward.

The ICU + HDU group had lower in-hospital mortality than the general ward group for patients with SOFA scores of 6 or higher. There were no significant differences in in-hospital mortality for patients with SOFA scores between 3 and 5. The ICU + HDU group had higher in-hospital mortality than the general ward group for patients with SOFA scores of 2. The ICU group had lower in-hospital mortality than the HDU group for patients with SOFA scores of 12 or higher. There were no significant differences in in-hospital mortality for patients with SOFA scores between 5 and 11. The ICU group had higher in-hospital mortality than the general ward group for patients with SOFA scores of 4 or less.

Patients with sepsis with SOFA scores of 6 or higher and hospitalised in the ICU or HDU had lower in-hospital mortality than those in the general ward. Similarly, patients with SOFA scores of 12 or higher in the ICU had lower in-hospital mortality than those in the HDU.

Source: [Critical Care Medicine](#)

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