



## Prehospital Bundle of Care Associated With Mortality Decrease in Septic Shock



Over 50 million people worldwide suffer from sepsis every year. Sepsis causes nearly 11 million deaths and is responsible for one-third to half of all in-hospital deaths. The mortality rate for sepsis ranges from 10 to 20%. For septic shock, the most serious form of sepsis, the mortality rate can range from 50 to 60%.

Guidelines recommend early recognition, severity assessment and early treatment implementation to reduce septic shock mortality. The 2019 guidelines, in particular, highlight the need to implement an early strategy, "hour 1 bundle," to be started within the first hour. A bundle of care, including antibiotic treatment and haemodynamic optimisation, is believed to be more efficient than a single treatment. Evidence suggests that this early intervention is strongly associated with improvement in patient outcomes.

However, 70% of sepsis occurs outside the hospital environment. The approximate median time to reach a hospital is around 60 minutes and could take longer - up to 120 minutes. Hence, there is a need to further clarify the impact of prehospital interventions on sepsis and septic shock outcomes. There are no specific guidelines for septic shock prehospital care, and there is a wide variation among physician practices.

A new study investigated the association between 30-day mortality in patients with septic shock and a prehospital bundle of care completion, antibiotic administration and haemodynamic optimisation. The goal was to determine whether an early bundle of care completion decreased 30-day mortality in patients with septic shock.

The analysis included 354 patients with septic shock who required prehospital mobile ICU (mICU) intervention. Pulmonary, digestive, and urinary infections were the cause of septic shock in 49%, 25%, and 13% of the patients, respectively. The overall 30-day mortality was 32%. 20% of the patients received prehospital antibiotic therapy and fluid expansion.

Study findings show that a prehospital bundle of care that includes antibiotic therapy and haemodynamic optimisation, is associated with a decrease in 30-day mortality in patients suffering from septic shock cared for by an mICU.

Source: [Critical Care Medicine](#)

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