



Sepsis and Emergency Medical Services Fact Sheet

Definition: Sepsis is the body's overwhelming and life-threatening response to infection which can lead to tissue damage, organ failure, and death.

Who it Hurts: While sepsis is an equal-opportunity killer, impacting the sick, the well, and people of all ages, some groups are more likely to be affected. These include very young children, older adults, those with a weakened immune system, racial and ethnic minorities, and lower income individuals and families.

Prevention: The risk of sepsis can be reduced by preventing or quickly identifying and managing infections. This includes practicing good hygiene, staying current with vaccinations, and seeking treatment when infections are suspected.

Treatment: Sepsis is a medical emergency that requires urgent attention and rapid treatment for survival. Sepsis can be treated and, in many instances, lives are saved by using existing and proven protocols.

Recovery: Many people fully recover from sepsis while others may have long-lasting effects, such as amputations or organ dysfunction, like kidney failure. Other after-effects of sepsis are less obvious, such as memory loss, anxiety, or depression.

Symptoms: When it comes to sepsis, remember *It's About TIME™*:

T – Temperature – higher or lower than normal

I – Infection – may have signs or symptoms of infection

M – Mental Decline – confused, sleepy, difficult to rouse

E – Extremely ill – severe pain, discomfort, shortness of breath

If you **suspect sepsis** (observe a combination of these symptoms), see your medical professional immediately, CALL 911, or go to a hospital with an advocate and say, **"I AM CONCERNED ABOUT SEPSIS."**

Critical Facts:

- Emergency Medical Services (EMS) personnel transport more than 50% of all adult sepsis cases to the hospital emergency department (ED).^{1,2,3,4}
- In the U.S., it is estimated that EMS providers care for over 60,000 more severe sepsis patients each year than they do for heart attack and stroke patients combined.⁵
- In 2009, for every 4 patients hospitalized with acute myocardial infarction (heart attack), EMS personnel cared for 10 patients hospitalized with severe sepsis.⁵

- Adult sepsis patients transported by EMS tend to be older and sicker, are more likely to be Black, and are more likely to be nursing home residents, than patients who walk into the ED.^{6,12}
- Research in a single pediatric ED found that 19% of child septic shock cases are transported by EMS. Child septic shock patients transported by EMS tend to be sicker, and more likely to be on public insurance, than pediatric septic shock patients who walk into the ED.¹¹
- Care provided by EMS personnel can lead to faster sepsis treatment times in the ED. Transport by EMS decreased the time to antibiotic administration by 24% and decreased the time to receiving IV fluids by 50%.^{3,7}
- Administration of IV fluids or placement of an IV catheter alone by EMS personnel before arriving at the hospital reduced the odds of hospital death in severe sepsis patients. This was most likely due to faster initiation of care in the ED.⁸
- In one small study, EMS providers were trained on a severe sepsis alert protocol that included prehospital sepsis screening and an alert to the receiving ED. Patients in the sepsis alert protocol group had a lower mortality rate of 13.6%, compared to the overall mortality rate of 26.7% in patients transported by EMS.⁹
- Another small study found that sepsis alerts called in the field by EMS personnel resulted in antibiotics being administered more quickly in the ED.¹³
- EMS personnel frequently represent the first medical contact for sepsis patients since as many as 87% of sepsis cases start in the community, prior to hospitalization.^{2,10}

Sources:

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