

EMS: *The First Line of Defense* *Against Sepsis*



EMS providers care for over **60,000 more severe sepsis patients** each year than they do for heart attack and stroke patients combined.¹



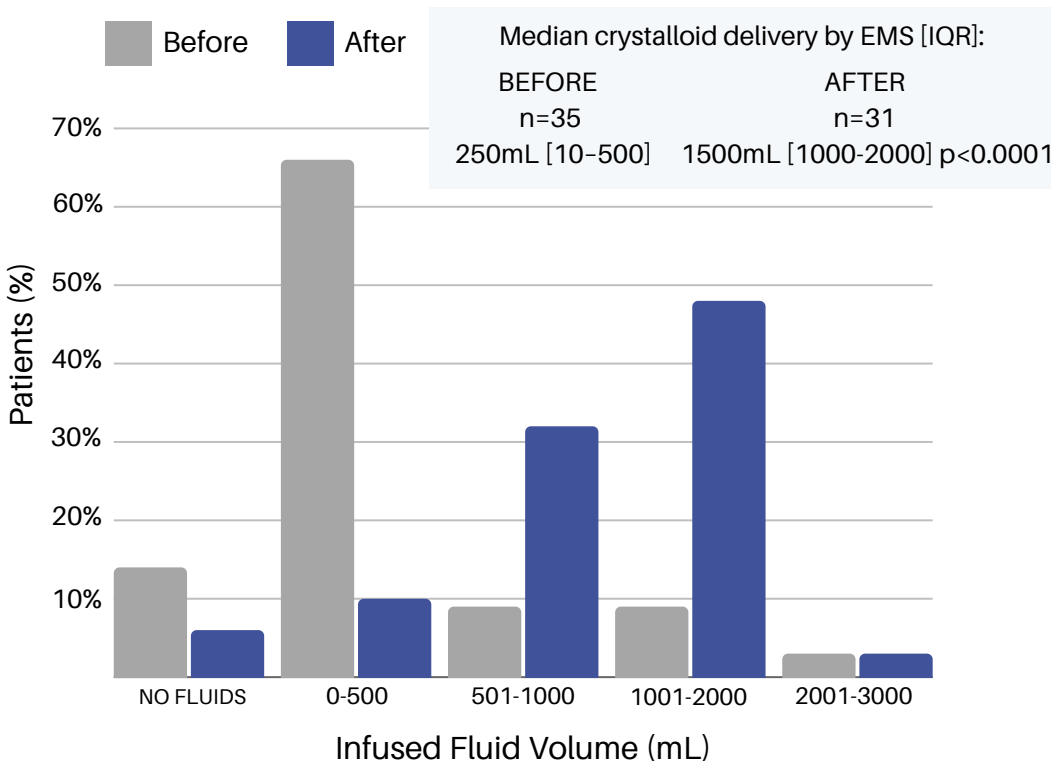
Administration of IV fluids by EMS personnel during transport **reduces the odds of hospital death** in severe sepsis patients.²



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%.^{3,4}

Proportion of Patients Receiving Various Crystalloid Volume Amounts by EMS Before and After a Rapid-Fluid Delivery Protocol Intervention⁵



Case Study: Fluid Resuscitation for Sepsis in EMS

Alexandria Fire Department Case: Two Liters in Two Miles⁶

Alexandria paramedics responded to a call for a man in his 60s at a local skilled nursing facility. When they arrived, it seemed pretty clear that sepsis was likely: the man was slightly hypotensive, his heart rate crept toward 150 beats per minute, his temperature was elevated and his mental status was altered.

While the department's sepsis protocol indicated a 30 mL/kg bolus of normal saline, in the past Alexandria's medics rarely got more than a few hundred milliliters in before arriving at the hospital.

But this time was different. Using LifeFlow, the crew administered nearly two full liters during the two-mile transport to the emergency department.

"His pulse went down to the 90s and his blood pressure came up into the 130s," said Lt. Tim Jaffry, one of the paramedics who treated the patient. **"He was no longer diaphoretic. His improvement was significant, and the ED doctor was amazed. That is when I was convinced about LifeFlow. I was hooked."**

Wellstar EMS Improves Pre-Hospital Septic Shock Management with Efficient Fluid Resuscitation⁷

Administering fluids to increase blood pressure significantly reduces mortality rates and is one of the most effective pre-hospital interventions for septic shock. However, traditional equipment often limits first responders' ability to perform sufficient fluid resuscitation during transport.

Wellstar Spalding Medical Center EMS has seen significant benefits from implementing LifeFlow in its pre-hospital treatment playbook. A sample of 50 recent patient cases involving LifeFlow saw an average of 1,600 mL of crystalloid fluids administered. The literature suggests that, on average, pre-hospital sepsis

patients receive between 300 mL to 500 mL of fluids. Moreover, of all Wellstar EMS cases involving LifeFlow so far in 2024, only one patient passed away before leaving the hospital.

Matthew Perry, the EMS Director at Wellstar Spalding Medical Center, says, **"The resuscitation we are able to provide using LifeFlow gives patients a greater chance of survival, without question. Giving a fluid bolus in minutes gives us an opportunity to perform quality reassessments and allows for a faster transition to vasopressive drugs as needed."**

References:

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2. 8
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