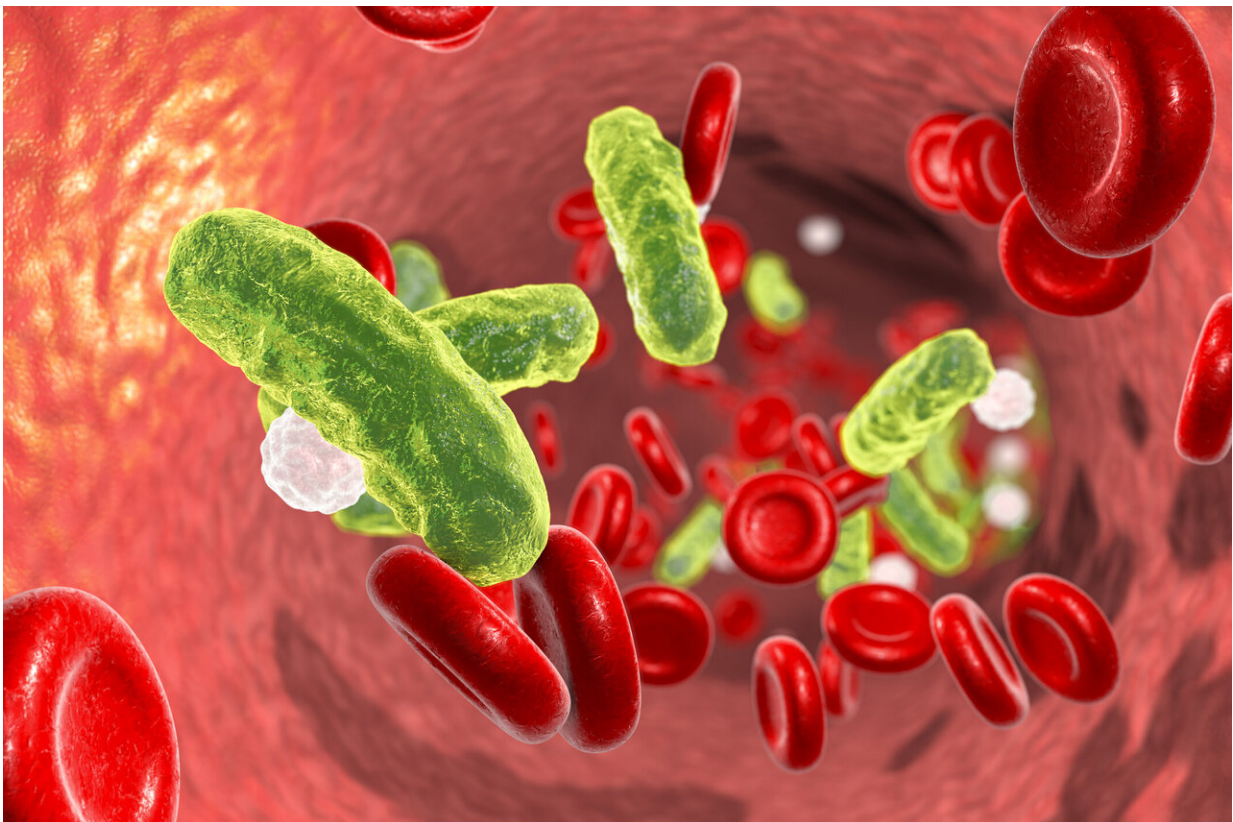


Study finds lower ER triage scores associated with delayed antibiotics delivery for sepsis patients

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in a new study, researchers at Intermountain Healthcare in Salt Lake City found that antibiotic delivery was significantly faster -- by up to 32 minutes -- for sepsis patients being treated in an emergency department if they were assigned a slightly higher score on a subjective one-to-five acuity scale commonly used for patient triage. Credit: Intermountain Healthcare

Providing early, appropriate antibiotic treatment for patients with sepsis—a serious complication of infection that can lead to organ failure and death—is crucial for their survival.

But in a new study, researchers at Intermountain Healthcare in Salt Lake City found that antibiotic delivery was significantly faster—by up to 32 minutes—for sepsis [patients](#) being treated in an [emergency department](#) if they were assigned a slightly [higher score](#) on a subjective one-to-five acuity scale commonly used for patient triage.

"Triageing patients and delivering antibiotics quickly in the emergency department is a constant challenge," said Sierra R. McLean, a University of Utah [medical student](#) and the study's lead author. "We're trying to figure out ways to provide better quality care to patients, and this study shows us we need to come up with interventions to make sure very-ill sepsis patients are appropriately recognized to help get their antibiotics on time."

In the study, Intermountain researchers examined adult sepsis patients who were treated in four Intermountain Healthcare emergency departments in Utah between July 2013 and January 2017. Many emergency departments, including those in this study, assign patients an acuity score on a five-point scale to aid triage and resource allocation, with one being most in need of immediate care and five the least.

The assessment is often made quickly, however, and the choice between mid-range triage scores can be subtle and subjective, researchers noted. For this study, investigators zeroed in on patients with mid-range scores—those given a 2 (emergent) or 3 (urgent) - who also had abnormally low blood pressures. Among 799 eligible patients, 591 had a score of 2 and 208 had a score of 3. Researchers then evaluated how quickly they received antibiotics.

They found that patients given a triage score of 3, or urgent, had door-to-antibiotic times that were 32 minutes longer than patients assigned a triage score of 2, or emergent.

"Federal and international standards encourage the start of broad-spectrum antibiotics within three hours of a sepsis patient's arrival in the ED. Those 32 minutes can make a major difference in a patient's chances for survival," said Ithan D. Peltan, MD, MSc, senior author of the study and an attending physician in the Intermountain Medical Center Shock Trauma Intensive Care Unit and Intermountain Healthcare Telecritical Care.

"If we could find interventions to help triage patients better, we might be able to help patients get [antibiotics](#) on time," added McLean.

McLean and Dr. Peltan will present their findings from the study at ATS 2019, the annual international conference of the American Thoracic Society, in Dallas on May 22.

Dr. Peltan said the study is part of a broader look at the system level challenges that make it hard to deliver high-quality sepsis care. "How do we help these incredibly busy, skilled ED clinicians—who are working in an environment where there's not much information—to identify [sepsis](#) patients who are at risk for under-[triage](#)? This study is a step toward answering that question," he added.

Provided by Intermountain Medical Center

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