For patients with sepsis, an infectious disease expert may reduce the risk of death

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When people with severe sepsis, an extreme overreaction by the body to a serious infection, come to the emergency room (ER), they require timely, expert care to prevent organ failure and even death. When that care includes the early involvement of an infectious disease (ID) specialist, patient mortality can be reduced by as much as 40 percent, according to a new retrospective, single-center study published in Open Forum Infectious Diseases.

"If you or a loved one has a serious infection, including sepsis, then having an infectious disease physician as part of the team of doctors that cares for you will probably result in better outcomes," said lead study author Theresa Madaline, MD, assistant professor of Medicine at Albert Einstein College of Medicine and Healthcare Epidemiologist at Montefiore Health System in New York City. "You should ask to have an infectious disease physician see you, if that is available at your hospital."

In-hospital mortality was 40 percent lower among patients with severe sepsis and septic shock whose care included an ID consultation within 12 hours of their arrival at the ER, compared to patients not seen by an ID physician within that timeframe. The study, which included 248 ER patients with severe sepsis seen from 2017 to 2018 at Montefiore Health System's Jack D. Weiler Hospital, also found that antibiotic prescriptions for these patients were stopped more quickly when an ID consult happened early. While antibiotics may be lifesaving initially, they can cause harmful side effects, particularly when taken for long periods. Diagnostic test results can help guide and refine antibiotic treatment over time, so medications can be decreased, as appropriate.

"It's very important to use antibiotics for the shortest amount of time that is appropriate in order to spare the patient potential negative effects of the medication," Dr. Madaline said. "That's really a crucial way infectious diseases consultation makes a difference."

Unlike previous research in this area, the new study focused only on patients who received the recommended care for severe sepsis within three hours. This allowed the researchers to specifically hone in on the clinical benefit of early consultation with an ID specialist and separate it from improved adherence to recommended standards, which can also positively effect patient outcomes.

The continuity that ID physicians are able to provide as a patient with severe sepsis transitions from one team of caregivers in the ER to another elsewhere in the hospital may provide care teams a greater degree of confidence when deciding to stop antibiotic treatment. Additional research is needed to quantify how early ID consultation affects this decision-making process and to identify what aspects of having these specialists involved initially in a patient's care are most meaningful, Dr. Madaline said.

In the meantime, the new findings add to the growing evidence that ID physicians have a beneficial impact on outcomes for patients with sepsis and other infection-related conditions.

"Infectious disease specialists are excellent partners for other physicians in different specialties who care for patients," Dr. Madaline said. "It is important to continue to pursue research on how ID specialists can best partner with other providers to optimize patient outcomes, and how early consultation models can be tailored in different environments. Diagnosing and treating severe sepsis can be a huge challenge, so it is important to remember that there is 'no one size fits all' model for improving outcomes for people impacted by this condition."

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