

How sepsis care program saves lives and reduces costs

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A sepsis care quality improvement program saves lives, shortens hospital stays and reduces healthcare costs, according to a study by researchers at Loyola Medicine and Loyola University Chicago.

The study is published in the journal *Critical Care Medicine*.

Loyola's sepsis care quality improvement program includes a multidisciplinary sepsis committee, an education campaign, electronic health record tools and early warning system.

First author Majid Afshar, MD, MSCR, and colleagues examined records of 13,877 adult Loyola patients with suspected infections. Researchers compared outcomes of patients treated before and after the quality program was implemented.

Among patients treated after the quality improvement program began, the in-hospital death rate was 30 percent lower and time to discharge from the hospital was 25 percent faster. The program also was associated with a savings of \$272,645 among patients with suspected infections.

Sepsis occurs when an infection triggers an extreme response throughout the body. Sepsis can lead to [septic shock](#), a catastrophic drop in [blood pressure](#) that can lead to respiratory or [heart failure](#), stroke, failure of other organs and death.

Sepsis is the leading cause of in-hospital mortality and the most expensive condition treated in the United States. It costs the country more than \$24 billion per year.

In 2015, the Centers for Medicare and Medicaid Services (CMS) adopted guidelines for treating sepsis and septic shock that included early resuscitation and timely administration of

antibiotics. For patients with severe sepsis, the hospital should obtain blood cultures, measure the patient's blood lactate levels and administer antibiotics within three hours of diagnosis. Hospitals should follow the same steps for patients with septic shock, plus take additional steps within six hours.

Loyola implemented its sepsis care quality improvement program in anticipation of the CMS three-hour and six-hour guidelines. Loyola's program includes education about the CMS guidelines; a sepsis [early warning system](#) in the [electronic health records](#); the hiring of a sepsis coordinator; real-time physician feedback; and built-in features in the electronic health record system designed to improve adherence to the guidelines.

Loyola's program "may serve as a benchmark for other institutions to improve [health outcomes](#) and provide cost-effective care in patients with suspected infection or sepsis," Dr. Afshar and colleagues concluded.

The study is titled "Patient Outcomes and Cost-Effectiveness of a Sepsis Care Quality Improvement Program in a Health System."

Provided by Loyola University Health System

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