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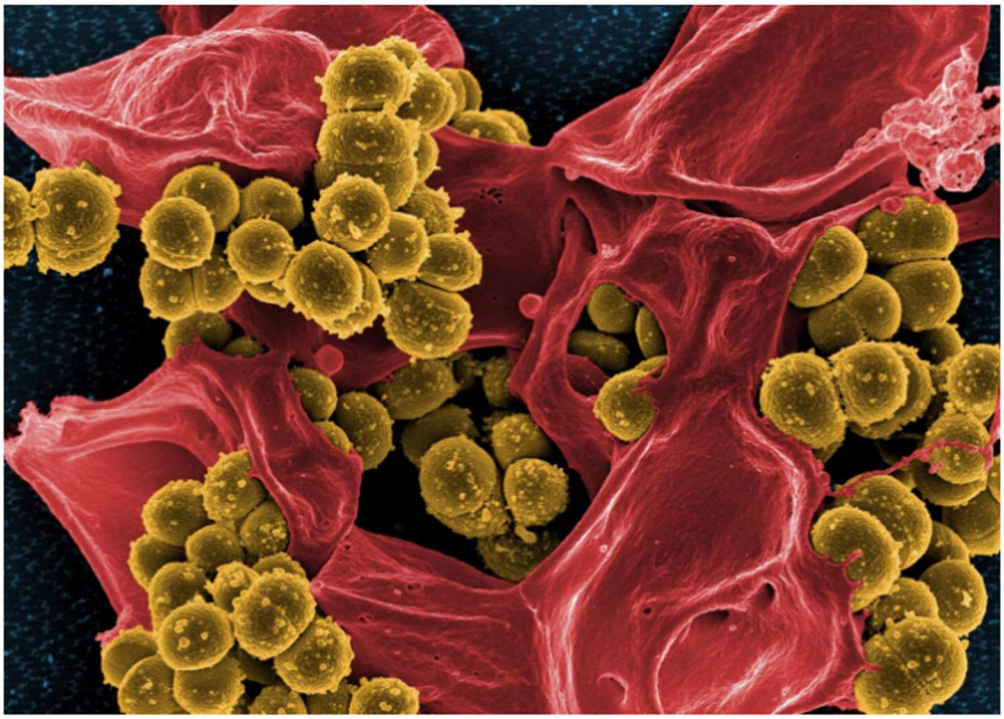
COMMENTARY

Rhode Island's new sepsis regulations will save lives

Rhode Island recently became the first state in New England to enact regulations to improve the recognition and treatment of sepsis. The law goes into effect this month.

By Ann MacDonald Updated February 8, 2024, 6:00 a.m.



The MRSA bacteria, which can lead to sepsis, being engulfed by a human white blood cell. NIAID

For several days before my mother died in a Providence hospital, my father and I raised the alarm that she was deteriorating. Her doctor dismissed our concerns. "The surgery is healing well," he said. "She will be fine."

My mother died of sepsis, which is a leading cause of death in hospitals. At least 350,000 American adults die annually of sepsis — more than lung, breast, and prostate cancer combined.

Although federal guidelines are in place to improve sepsis outcomes, only state regulations have been proven to save lives. That's why I'm glad Rhode Island recently became the first state in New England to enact regulations to improve the recognition and treatment of sepsis. The law goes into effect this month.

Sepsis develops when the immune system overreacts to an infection or injury. As sepsis progresses, vital organs such as the lungs, kidneys, and liver, may fail. The longer sepsis goes untreated, the more likely a patient will die.

The Centers for Medicare & Medicaid Services requires that hospitals implement the Severe Sepsis and Septic Shock Management Bundle, or SEP-1, to improve sepsis care. However, this federal regulation is widely criticized, compliance is low, and there's no evidence it saves lives.

In contrast, research shows that state sepsis regulations do save lives. Four states have now implemented sepsis regulations. New York implemented the first, in 2013; Illinois in 2016; New Jersey in 2018, and now Rhode Island.

The best studied is the New York law, which was enacted after 12-year-old Rory Staunton died of unrecognized and untreated sepsis. The New York Department of Health reports that at least 16,000 lives have been saved because of the sepsis regulations.

Of course, a crucial question is whether regulations are more effective than voluntary state efforts by hospitals or consortiums to improve sepsis care. To answer that question, researchers compared sepsis mortality in New York with four states lacking sepsis regulations (one of them was Massachusetts). After the regulations were implemented, sepsis deaths in both adults and children in New York declined at a greater rate compared with the other states. This meant the sepsis regulations were responsible for the improvement.

State regulations also enable policymakers to address gaps in federal efforts to improve sepsis care. For example, the federal SEP-1 measure applies only to adults treated in hospitals. The Rhode Island law also applies to children, which is important because sepsis kills more American children each year than cancer. The Rhode Island law is the first in the nation to cover urgent care facilities, freestanding emergency rooms, pediatric practices, and emergency medical services, in addition to hospitals. That is crucial because most cases of sepsis develop outside the hospital.

Some argue that state sepsis regulations could lead to overly-aggressive treatment that harms patients. Others present evidence that sepsis mandates are effective only when hospitals have sufficient numbers of nurses on staff to care for patients. Another concern is that these regulations are too inflexible and prevent doctors from using their own clinical judgment.

But clinical judgment is not perfect. When providers are not sufficiently educated to recognize and treat sepsis, the results are tragic. The Rhode Island law was passed after three children died of sepsis that was not diagnosed in time.

Clinical judgment also failed my mother. When I obtained her medical records, I learned that her white blood cell count had risen dramatically in the last week of her life. She was fighting an infection. A blood differential, to identify the types of white blood cells circulating, showed that the infection was so severe her immune system was calling in the reserves. These blood test results, coupled with the significant physical and mental decline she experienced, should have alerted her doctors that she might have sepsis.

I can only speculate why they missed all the signs and symptoms. Certainly one possibility is that they didn't know enough about sepsis to consider it.

That's why the Rhode Island sepsis regulations are so important. They require that the Rhode Island Department of Health share information about evidence-based sepsis screening and treatment protocols with all health care facilities in the state. In addition, the law requires hospitals to establish a multidisciplinary committee to implement the screening tools and protocols. Most important, the Rhode Island regulations emphasize ongoing education, to ensure that frontline clinicians remain familiar with how to identify and treat sepsis.

End Sepsis, an organization founded by Orlaith and Ciaran Staunton to honor their son's memory and prevent further deaths, is working to ensure that additional states enact sepsis regulations. I hope other states will do so.

It's too late to save my mother. It's too late to save the three children whose grieving families helped enact the Rhode Island sepsis regulations. But it's not too late to ensure that others will live.

Ann MacDonald has worked as a medical writer for 30 years. She is writing a book about efforts to improve sepsis care, and lives in Rhode Island.

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