

## The New York Times

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### ABOUT NEW YORK

# *A Boy's Life Is Lost to Sepsis. Thousands Are Saved in His Wake.*

By Jim Dwyer

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A note arrived, asking about a subject that was covered here five years ago.

"I am a nursing instructor at Marian University in Indianapolis," Diane Friedman wrote. "I teach research and informatics to the undergraduate students. I am going to present the articles you wrote about enhanced suspicion and early detection of sepsis, based on your reporting of Rory Staunton."

In March 2012, Rory, age 12, dived for a basketball at his private school in Queens and cut his arm.

He awoke the next day vomiting, feverish and with pain in his leg. Through the day, he got sicker. That evening, he threw up on his pediatrician, who sent him to the emergency room at NYU Langone Medical Center, where he was given anti-nausea drugs, Tylenol and intravenous fluids. His blood was drawn for tests. Then he was sent home with a diagnosis of a stomach bug.

That was a Thursday night. Rory was back in the hospital Friday evening, his organs failing. Only then did anyone pay attention to the blood test results from the previous night, which showed extraordinarily high levels of white blood cells, signs that his body was then in an escalating fight against infection.

In sepsis, the body's own immune response turns into a tornado of self-destruction that picks up speed. The earlier it is spotted, the better chance a patient has of surviving. It is the leading cause of death in hospitals, and kills more people in the United States than AIDS, prostate cancer and breast cancer combined, according to the New York State Health Department.

By Sunday, Rory was dead of severe septic shock. An account of the events appeared in The New York Times in July 2012. After a campaign by Rory's parents, Orlaith and Ciaran Staunton, New York State ordered hospitals to quickly identify signs of sepsis and begin treatment before the process gathered irreversible, lethal force.

New York's program, initiated by the former health commissioner, Dr. Nirav Shah, and Gov. Andrew M. Cuomo, was the first by a state, according to Dr. Howard Zucker, who has been the health commissioner since 2014.

Ms. Friedman in Indiana wanted to know how the New York regulations were working out.

“I was just wondering if you had a chance to revisit the issue five years later?” she asked.



Rory Staunton's death at NYU Langone Medical Center spurred changes in the detection of sepsis. Michael Kirby Smith for The New York Times

Good question. The state just released a study showing that more people with sepsis were being identified and treated earlier, and that fewer of them were dying. It covered 10 quarters, beginning in 2014 and continuing into the third quarter of 2016.

“Despite the early nature of this initiative we can demonstrate encouraging improvements,” the report said.

For adults who got faster treatment, the odds of dying declined by 21 percent, the report said. The picture with children was complicated: Although three times as many children were being treated quickly, the mortality rate fluctuated but did not decline. However, the report said the number of pediatric sepsis patients was too small for existing statistical tools to generate meaningful results.

One difficulty in treating sepsis is that the earliest signs — fever, rapid heartbeat, confusion — look like many other ailments. By the time people get help, they may have been sick for hours, Dr. Zucker said. That makes quick response essential, he said, citing the examples of suspected heart attacks and strokes.

When nurses and doctors suspect those crises, they immediately begin treatments proven to work. The same mind-set needs to be applied to sepsis, Dr. Zucker said. “It’s getting people thinking that this could be the problem,” he said.

Private and public hospital networks with similar programs have also made headway. A reduction in sepsis mortality rates in New York State from the beginning of 2011 (before the state regulations took effect in 2014) through the end of 2015 meant that 4,727 fewer people died from it, according to the state.

Rory Staunton — who took flying lessons for his 12th birthday; wrote letters to diplomats protesting the enormous military in North Korea, a country afflicted by famine; and ran a campaign to end the derogatory use of the word “retarded” — would be graduating from high school this year.

“Rory deserved a chance,” Orlaith Staunton said. “Governor Cuomo’s work has given every person in New York State a fighting chance, and everyone in the United States deserves that.”

Told of the state’s report, the nursing instructor, Ms. Friedman, commented: “It will be further evidence for my students that science is an ongoing conversation, and that anyone who has done the reading and thinking — like them! — can ask a question.”

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