

A TRUE EMERGENCY

THE FIGHT AGAINST SEPSIS

Lee Kiser, M.D., associate chief medical officer at Columbus Regional Health, is well aware of the dangers of sepsis, the body's overwhelming and life-threatening response to infection. A practicing nephrologist, Kiser is trained to recognize the symptoms of sepsis. It's not uncommon for sepsis to begin with a urinary tract infection that has spread to a kidney. In addition, organ failure is a hallmark of sepsis, and the kidneys often are among the first organs affected.

Physicians specializing in other areas may not have the same experience with sepsis, however. Even those who see sepsis more than most, such as emergency department (ED) physicians, don't always recognize sepsis as a major public health issue. But sometimes, as Kiser discovered during a hospital-wide presentation on the condition, all it takes is a little education.

During his presentation, Kiser showed a slide comparing the mortality rates of acute myocardial infarction (AMI), stroke, trauma and septic shock. The numbers were staggering: While the mortality rates for the first three conditions were in the single digits, the mortality rate for septic shock was nearly 50 percent.

"Afterward, one of our ED physicians came up to me and said, 'This is a true emergency. We are ED doctors. Why aren't we treating this like an emergency?'" said Kiser. "It was an eye-opening moment for him."

Indeed, sepsis is a serious, and potentially deadly, condition. It is more common than heart attacks and claims more lives than any cancer, but according to the 2016 Sepsis Alliance survey, 55 percent of

Americans have not even heard the term. There are more than 1 million cases of sepsis each year across the nation, and up to 50 percent of affected patients die from it. In 2015, in Indiana alone, almost 3,500 patients died from the condition.

Conquering the Unconquerable

The medical community historically has been successful at identifying diseases and conditions with high mortality rates and taking action to reduce those rates, Kiser notes. From coronary disease to stroke, mortality rates dropped significantly following major research and advancements in treatment. But sepsis remains an outlier.

"Sepsis still stands out. As a medical community, we have had difficulty tackling it," said Kiser. "For years, mortality stayed high no matter what we did."

It wasn't just physicians and administrators who were noticing the issue. The Centers for Medicare & Medicaid Services (CMS) also was paying attention. In 2015, CMS adopted a bundle of sepsis interventions as a core measure in its inpatient quality reporting program.



"CMS picked up on this and said, 'You are going to do better,'" said Kiser. "The carrot is gone. Now it's the stick."

Columbus Regional Health saw the new bundle not as a challenge, but as an opportunity. Kiser and his team dug into the research on sepsis and began a campaign to educate staff on the latest information. One of the most important findings was that, much like AMI or stroke, sepsis is a time-sensitive condition.

"You still have to individualize the therapy, but for the most part, you really do have to follow the CMS guidelines and intervene early," said Kiser.

Kiser and his team reviewed the trials, research and data with hospital staff through a series of meetings. There was some pushback initially, but once everyone saw the data, they began to understand the unconquerable could be conquered.

"I think as an industry we finally have realized we can do this. We can make an impact on the mortality rate," said Kiser. "That's absolutely what the data show."

Staff began focusing on identifying sepsis earlier and intervening sooner. The electronic medical record system was modified to trigger



IHA members and the public rally together at the Rally Against Sepsis on Sept. 13, 2016.

alerts when it appeared a patient may be becoming septic. Most importantly, everyone came together and worked as a unified team.

“This is not owned by a single group. It has to be a hospital-wide project,” said Kiser.

A key part of the work is continual feedback. Kiser makes a point to thank everyone for their hard work and provide data demonstrating their progress.

“Our total mortality rate for sepsis dropped from just under 20 percent in 2014 to 5.7 percent in 2016,” said Kiser. “Being able to show physicians the data and the results of their efforts has been really impactful.”

It’s important to get the community involved, Kiser noted. Columbus Regional Health took advantage of the resources IHA offered through its *See It. Stop It. Survive It.* campaign, such as the campaign posters. The hospital also has placed ads in the paper and held educational events that community members were invited to attend.

“We would like to expand our community outreach,” said Kiser. “It’s a challenge because the symptoms of sepsis aren’t clear-cut, and we don’t want to alarm people and make them

worry about every little scratch. But we need to do a better job of educating our community.”

Making It Personal

Anita Keller, RN, chief nursing officer of Johnson Memorial Health (JMH) in Franklin, also has extensive experience with sepsis. Her experience is personal, however: Keller is a sepsis survivor herself. Her understanding of sepsis and its symptoms helped her realize she was becoming septic and get the treatment she needed.

“A key aspect of our staff education is making it personal,” said Keller, who wrote about her experience in the hospital’s quality newsletter. “We tell staff, ‘This could be your mother, your child or you.’ It was me.”

JMH has been focusing on fighting sepsis for almost a decade. In 2009, the hospital was examining its sepsis early identification and mortality rates. That led to questions, which led to more questions and then to action.

“We began peeling back the layers,” said Keller. “We realized it was a process issue, so we started tackling each process along the way.”

The hospital started with its most frequent point of entry into the facility, the ED. JMH

staff developed and wrote a new ED sepsis screening tool and lactate protocol, allowing for venous lactates to be obtained on all patients who screened positive for sepsis. They then tracked and trended all of the data collected around these new initiatives, mortality and other variables to see how this early identification was impacting care. JMH used this protocol for six months in the ED and then began using sepsis screening and the lactate protocol on all inpatient departments.

While examining the hospital’s processes and data, the JMH team continued to review and stay on top of new research studies and evidence-based practice guidelines. The studies reinforced the hospital’s own findings, and the team knew it was headed in the right direction.

“The studies were showing the same information and trends we were seeing,” said Keller.

Armed with data, the JMH team began the daunting process of educating providers and staff. While initially some staff members were resistant to change, the facts and data spoke for themselves. The personalized angle helped as well.

“We emphasized that we were affecting somebody’s life and somebody’s family member,” said Keller. “We reminded people that sepsis plays no favorites, and anyone can get it.”



Michele Saysana, M.D., speaks at last year's Rally Against Sepsis.

Involving senior leadership, including the board of trustees, is vital, Keller noted. This includes finding physician champions to lead the charge.

Education and information-sharing is ongoing. This includes everything from hanging posters throughout the hospital to the formation of a peer review committee to examine successes and areas for improvement.

“Our committee reviews any cases where we were successful or could have done better and goes back to that individual provider to discuss the identified facilitator or barrier,” said Keller. “For larger hospitals, that might be cumbersome. However, it’s important for individual providers to understand their role in improving outcomes for our patients. When you only provide global information, every provider thinks, ‘That’s not me.’”

Today, JMH is proud to be part of setting the bar for sepsis care in Indiana. Nonetheless, the hospital continues to study its processes and identify where it needs to improve.

“Through hard work, education and astute observation, our medical community’s understanding of sepsis continues to evolve. We are certain that this is a potentially deadly disease and requires early and appropriate intervention to improve our patients’ chances of



Jennifer Walthall, M.D., talks about risk factors, warning signs and the overall impact on the state.

survival,” said Hospitalist Medical Director Brett McCullough, M.D. “JMH takes this challenge very seriously and has experienced significant success. We have achieved this through strong collaboration across multiple disciplines. Our administration has supported these efforts unequivocally, and our clinical services are committed to staying vigilant and beating this disease. This is no small task, but if it saves lives, it is well worth it.” ▲

See It. Stop It. Survive It.

Sepsis Awareness Month is celebrated in September each year. In 2016, IHA and IPSC launched a sepsis awareness campaign in conjunction with Sepsis Awareness Month to engage member hospitals, regional patient safety coalitions, health care providers and the general public. It used a multichannel approach to educate the audience on sepsis facts, symptoms, risks and opportunities for prevention.

A key component of the campaign was the development of IHA’s Sepsis Awareness Month Toolkit, which contains the following:

- Fact sheets
- FAQs
- Posters
- A social media plan
- Outdoor advertising opportunities

To download the toolkit or learn more about how you can help raise awareness of sepsis in your community, go to IHAconnect.org.

Rally Against Sepsis Coming Up on World Sepsis Day, Sept. 13

World Sepsis Day is Sept. 13, and for the second year in a row IHA will be showing its support with a Rally Against Sepsis. Plan to attend the second annual Rally Against Sepsis Sept. 13 in Pershing Auditorium at the Indiana War Memorial, 431 N. Meridian St., and join the fight to See It. Stop It. Survive It.

For questions, contact Cynthia Roush at croush@IHAconnect.org.