

50^{plus} LIFE



September is Sepsis Awareness Month.

Sepsis: Deadly Condition Requires Urgent Treatment

Written by Keith Gillogly

Despite the fact that sepsis affects more than 1.5 million Americans each year, it's been called a silent epidemic and urgent public health issue.

Sepsis has been garnering more attention lately among the medical community and the public, however. September is Sepsis Awareness Month.

Sepsis is a condition that results when the body's response to infection injures its own tissues and organs. As the immune system responds to foreign invaders, it often overshoots, triggering damaging inflammation and life-threatening consequences.

Usually bacterial infections lead to sepsis, but viral and fungal pathogens can also cause it.

If unchecked, organ systems can begin to fail. During septic shock, blood pressure drops so low that the body cannot adequately manage blood perfusion and oxygenation of its tissues and organs.

Such condition puts strain on virtually all the organ systems, potentially causing organ failure and injuring the kidneys, heart, lungs, brain, and other organs.

As Dr. Thomas Stoner, vice president of hospitalist services at PinnacleHealth Hospital and HAP (The Hospital and Healthsystem Association of Pennsylvania) sepsis physician champion, says, the more organ systems affected, the more deadly sepsis becomes.

Sepsis and septic shock are considered the No. 1 cause of preventable and hospital-related mortalities, Stoner says.

“Statistically, a small number of our folks in the community are aware of what sepsis is, even though it’s the No. 1 killer and has a higher mortality rate than heart attack,” he says. “What we need to do is ensure that the community is engaged in sepsis education and awareness.”

Depending on severity of the infection, the sepsis mortality rate can approach 50 percent, says Dr. Jason M. Biggs, chair of emergency medicine at St. Clair Hospital in Pittsburgh.

Historically, Stoner says sepsis was thought of as a condition of the very young and very ill. In actuality “it affects everyone, top to bottom, left to right,” he says, although it’s more common in the elderly and in immunocompromised patients.

To diagnose sepsis, doctors first assess vital signs. Elevated heart rate and elevated respiratory rate are key clinical symptoms. Septic patients usually present a fever or in some cases, especially in the elderly, hypothermia, Stoner says. Confusion and altered mental status can also indicate sepsis.

The faster sepsis is detected and treated, the greater the likelihood of survival; hours, even minutes, count.

“The most important thing is early recognition,” Biggs says. “We think about [sepsis] every time we see someone with an infection.”

But diagnosing sepsis is trickier than it seems. Conditions such as pneumonia, urinary tract infections, and gastrointestinal infections commonly precede sepsis. These conditions, along with a host of other types of infections, all present their own sometimes similar symptoms and complications, which can muddle diagnosis.

Further, no lab test can specifically identify sepsis. Still, doctors can measure blood lactate levels and perform other tests to aid with diagnosis.

Administering intravenous antibiotics and fluids is standard sepsis treatment. The antibiotics work to eliminate the infectious pathogens and modulate inflammation while the fluids aim to normalize blood pressure and support blood perfusion to organs and tissue.

Staying current on vaccines, such as the meningococcal vaccine and a regular flu shot, will help prevent sepsis. Preventing or properly managing any infections is key to stopping sepsis before it sets in.

Sepsis survivors can still experience cardiovascular complications or be on dialysis for the rest of their lives, among other chronic issues. Stoner says older and sicker survivors can be prone to developing some cognitive impairment.

Biggs recalls seeing one elderly patient with flu-like symptoms and evidence of pneumonia. Approximately 80 years old, she was the type of patient who knew her medical history and was on top of her health, he says. Her pneumonia led to sepsis and, soon after, septic shock.

She wound up in the ICU on a ventilator and medicine to support her dangerously low blood pressure. Yet, with aggressive fluids and antibiotics, her treatment prevailed, and she was eventually sent home.

Had she waited an additional 24 hours to come in, Biggs says, she might not have lived.

For more information on sepsis and septic shock, visit the Sepsis Alliance at www.sepsis.org.