**Melanie Cole, MS**: Sepsis is the body’s overwhelming and life-threatening response to infection which can lead to tissue damage, organ failure, and even death. My guests today are Sherri Weekley—she’s a quality improvement coordinator at Memorial Health System—and Dr. Cynthia Gaerke—she’s an internist and a member of the hospital medicine team at Memorial Health System. Ladies let’s talk about sepsis as people have heard the word, they don’t know what it is. Dr. Gaerke, I’d like to start with you. Please explain what is sepsis and how it comes about.

**Cynthia Gaerke, MD:** Sepsis is a life-threatening situation that can occur in anyone in response to an infection.

**Melanie:** So what kinds of infection could this be caused from Dr. Gaerke? Is it a little infection or is it something that would have to be pretty big?

**Dr. Gaerke:** Well, it can start as a little infection. It can start as an outpatient diagnosis of pneumonia that’s not getting better and progresses to a life-threatening situation. It can start as a toe infection, a urinary tract infection. Any source of infection to the body can become a life-threatening [inaudible 01:27] if not properly treated.

**Melanie:** Dr. Gaerke I’m going to stick with you just for a minute. So, who is at risk for sepsis? Can anybody get it? Is it something that only happens in the hospital?

**Dr. Gaerke:** It is not something that only happens in the hospital. Frequently patients come in to the hospital already in sepsis. It can occur while a person is in the hospital as well.

**Melanie:** So, Sherri, what would somebody notice if they have an infection? What would you like them to know about sepsis and red flags? Because it’s very important. This is a medical emergency. What would you like them to know about symptoms and red flags?

**Sherri Weekley, BSN, RN:** Yes. When it comes to sepsis, we are asking that the public remember TIME. So, we are talking about temperature that may be higher or lower than normal. An infection may have signs and symptoms of an infection. The patient may have chills or shaking. Mental decline, confusion, sleepy, difficult to arouse. And extremely ill. They may feel like they want to die. They may have severe pain or discomfort. We are also asking that they be aware of infections that are not getting better at home. If those are continuing to become worse, that they seek treatment immediately.

**Melanie:** What a great acronym. And it’s just kind of like the FAST acronym for stroke and how important. TIME for temperature, infection, mental decline, and extremely ill. That’s excellent. So, Dr. Gaerke, if somebody thinks that they have sepsis, do they call 911 and say, “I think it’s sepsis.” Or if it’s a loved one, do they drive themselves to the hospital and then what happens in the emergency room?

**Dr. Gaerke:** If a person thinks they have sepsis, it’s easy to be alarmed just knowing that this can occur when you have an infection. If you do not have the symptoms of fever, altered mental status, being or feeling extremely ill, then you can first simply call your family doctor, or you can call the nurse helpline and explain your symptoms to get more guidance whether you need to call EMS or if you have the ability to drive in. But certainly, anyone with sepsis, it’s not recommended they drive themselves to the hospital. It’s recommended they call EMS. If family members feel their loved one is septic based on the symptoms they’re having, it’s best they always call EMS and be brought to the hospital.

Once they get to the hospital, then they’re treated rather emergently because time is of the issue. The first and most important thing is being given a proper antibiotic. Once that antibiotic is in, cultures are all obtained from different sites in the body to be sure we find the source of infection. Then we treat the other symptoms that are created by the infectious state. It’s these other symptoms and the whole constellation of events that is the life-threatening issue. So, time is of the essence. Getting those antibiotics on board, getting the cultures obtained so we can figure out the source of infection, so we can pinpoint, and goal direct our antibiotic therapy to the source as it’s needed.

**Melanie:** Sherri, as an improvement coordinator and an educator, tell us about preventing sepsis in the first place. Is that even possible?

**Sherri:** I think that by treating your cuts, abrasions, things like that, treating them, washing them out, keeping them clean and dry, monitoring them for changes is very important. I think that that can definitely prevent bacteria from getting into those areas. Other diagnosis, as Dr. Gaerke had mentioned, urinary tract infection, pneumonia, things like that are less likely to be prevented. We just ask that everyone monitor for those signs and symptoms of sepsis or an infection and get treatment immediately.

**Melanie:** Sherri, would somebody who is immuno-compromised or elderly, are they more at risk?

**Sherri:** Yes, absolutely. They can of course wash hands, frequently use the antibacterial gel on their hands, avoid situations during high peak times—flu season, things like that—try to avoid those high concentration of people and to try to prevent being exposed to any bacteria.

**Melanie:** Dr. Gaerke, how long do the symptoms of sepsis last in a patient? If you’ve gotten to them soon enough and you’ve gotten those antibiotics and you’ve managed to stop this infection spread, is it something that can leave them exhausted for a very long time?

**Dr. Gaerke:** If a person has true sepsis, and they antibiotics are immediately provided as the fluids, the other medications needed to get their body systems back to a normal state, the long-term effects of it will, even for a typical pneumonia, it can take 10 days to two weeks until a person is back up to par. So, you can imagine with something that becomes more fulminant than the basic infection or basic disease is going to take longer. But everybody’s immune system is different and everybody’s fighting ability is different. Like you already said, the elderly, the immunocompromised. They are going to take much longer to recover from a bout of sepsis, but they do ultimately recover.

As far as the situation of sepsis is just that. It’s a constellation of events that are going on in the body that need to be reversed immediately to keep the person alive. So, on day two after coming in with a diagnosis of sepsis, you should no longer have—if you are turning the corner and getting better—you should no longer meet the so-called criteria of sepsis, but you are being treated for that process, but the process should have been primarily negated. Yet the infection, you might say, is as a sign with an elevated white count on day two after the person’s in the hospital and the treatment process. The white count may be coming down. The blood pressure is no longer low. It’s coming back up to normal. The urine output is returning to normal. We follow all these parameters. Sepsis in itself can progress to multi-system organ failure. Meaning every system in the human body will shut down and there’s no reversing it. That’s what leads to it being called a life-threatening situation because it does cause death. One in three people that die in the hospital die from sepsis. Because of that, this is why we’re watching and looking for it so closely.

**Melanie:** So important and great information. Sherri, wrap it up for us with your best advice for the listeners about sepsis. What you really want them to know and why it’s so important to keep track of those infections, recognize any symptoms that seem not right, and get help immediately if you suspect that it might be sepsis.

**Sherri:** My final thoughts would be for the public to be aware of an infection, take antibiotics as directed by your doctor—the complete course—know the signs and symptoms that we spoke about earlier. The TIME—temperature, infection, mental decline, and extremely ill feeling. If you have any of those symptoms, please seek treatment immediately.

**Melanie:** Thank you so much ladies for being here with us today and sharing your expertise on a topic that is really important and time is a factor in this. So, thank you again. You’re listening to Memorial Health Radio with Memorial Health System. For more information, please visit mhsystem.org. That’s mhsystem.org. This is Melanie Cole. Thanks so much for listening.