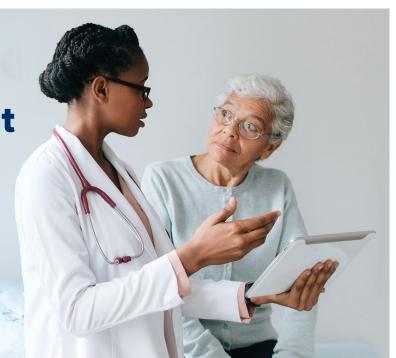
# Sepsis in Outpatient Dialysis Centers: What Healthcare Professionals Need to Know



# **Key Points**

- Sepsis is the body's extreme response to an infection. It is a life-threatening medical emergency.
- Anyone can develop sepsis, but some people are at higher risk, including people with chronic conditions, such as end-stage kidney disease (ESKD) requiring chronic dialysis.
- Sepsis is one of the leading causes of death in patients with ESKD receiving chronic dialysis.
  - Approximately 13% of people with ESKD receiving chronic hemodialysis will develop sepsis each year.<sup>1</sup>
  - About 75% of those people will die.¹
- You play a critical role. Timely management of sepsis can save lives. Protect your patients by acting fast.

# **How Can You Get Ahead of Sepsis?**

Know the **signs and symptoms** of sepsis to identify and treat patients early.

A patient might have one or more of the following signs or symptoms:



or low blood pressure



Fever, shivering, or feeling very cold\*



New onset or increased confusion or disorientation



Shortness of breath



Extreme pain or discomfort



\*Patients with ESKD may have a lower resting body temperature than people without ESKD, but a low or normal body temperature does not rule out sepsis.

Patients with ESKD on chronic dialysis have a high risk of infection, which can sometimes lead to sepsis.

Be aware of signs of infection that are specific to patients receiving chronic dialysis:







### **Prevent infections** by following recommended infection control practices:

- Ensure patients receive all recommended vaccines.
- Follow the Core Interventions to prevent bloodstream infections in patients on hemodialysis, which includes hand hygiene, vascular access care, and patient engagement.
- Emphasize dialysis safety by using CDC-recommended <u>audits and checklists</u> for catheter care, arteriovenous fistula and graft cannulation practices, hand hygiene, medication preparation/ administration, and dialysis station disinfection routines.
- Adhere to peritoneal dialysis catheter exit site care recommendations, such as keeping site clean and applying antibiotic cream or ointment daily. Patients on chronic peritoneal dialysis can still get sepsis.<sup>2</sup>
- Ensure patients on home dialysis, including peritoneal dialysis, are adequately trained, and have the necessary resources to perform dialysis safely.

### **Educate** your patients, their families, and other staff about:

- Preventing infections.
- Keeping cuts and wounds clean and covered until healed.
- Managing other chronic conditions, such as diabetes mellitus, lung disease, and cancer.
- Recognizing early signs and symptoms of worsening infection and when to seek immediate care.

# If you suspect sepsis, act fast. Healthcare professionals should perform steps to escalate their patient safely and quickly to a higher level of care, such as:

- Immediately call Emergency Medical Services personnel if your patient is unstable (e.g., lethargy, hypotensive, respiratory distress, very high or low heart rate).
- Alert the patient's nephrologist and the on-call medical director at the facility that the patient may have sepsis.
- Know your dialysis facility's existing guidance for diagnosing and managing sepsis, which may include repeating and confirming vital signs, disconnecting the patient from the hemodialysis machine, and collecting blood cultures.
- Start broad-spectrum intravenous antimicrobials as soon as possible in addition to other therapies appropriate for the patient.
- Triage the patient to an acute care facility and communicate the transition of care to the new healthcare team.

<sup>&</sup>lt;sup>2</sup>-Powe NR, Jaar B, Furth SL, Hermann J, Briggs W. Septicemia in dialysis patients: incidence, risk factors, and prognosis. Kidney Int. Mar 1999;55(3):1081-90. doi:10.1046/j.1523-1755.1999.0550031081.x







<sup>&</sup>lt;sup>1</sup>Locham S, Naazie I, Canner J, Siracuse J, Al-Nouri O, Malas M. Incidence and risk factors of sepsis in hemodialysis patients in the United States. J Vasc Surg. Mar 2021;73(3):1016-1021 e3. doi:10.1016/j.jvs.2020.06.126