

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.¹
 - 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:

 <p>High heart rate or low blood pressure</p>	 <p>Fever, shivering, or feeling very cold*</p>	 <p>New onset or increased confusion or disorientation</p>	 <p>Shortness of breath</p>	 <p>Extreme pain or discomfort</p>	 <p>Clammy or sweaty skin</p>
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*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.

**GET AHEAD
OF SEPSIS**

KNOW THE RISKS.
SPOT THE SIGNS.
ACT FAST.

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 [audits and checklists](#) 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.²
- 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.

¹Locham 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

²Powe NR, Jaar B, Furth SL, Hermann J, Briggs W. Sepsis 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



Learn more at www.cdc.gov/sepsis/index.html



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