

Catheter-related bloodstream infection (CRBSI)



Definitions: Infection that originates from or is related to a central venous catheter.

Microbiology testing: Paired blood cultures, drawn from the catheter and a peripheral vein should be obtained prior to initiation of antimicrobial therapy. The line should be removed and catheter cultures should be performed when a catheter is removed for suspected CRBSI but should not otherwise be obtained routinely.

Location	Common microbiology	Preferred empiric therapy	Potential alternatives	Comments
All inpatient settings	<p><i>S. aureus</i></p> <p>coagulase-negative staphylococci</p> <p><i>Enterobacterales</i> <i>Klebsiella spp.</i> <i>E. coli</i> <i>Enterobacter spp.</i></p> <p><i>Pseudomonas aeruginosa</i></p> <p>Enterococci</p> <p>*<i>Candida spp.</i></p>	<p>cefepime 2g IV Q8H</p> <p>PLUS</p> <p>vancomycin</p>	<p>meropenem 1g IV Q8H</p> <p>PLUS</p> <p>vancomycin</p>	<p>*Empiric therapy targeting catheter-related candidemia may be appropriate for select patients with suspected line-associated sepsis and any of the following risk factors:</p> <ul style="list-style-type: none"> • TPN • Prolonged broad-spectrum antibiotics • Hematologic malignancy or SCT • Solid organ transplant • Femoral catheterization • <i>Candida</i> colonization at multiple sites <p>Suggest discussion with ID (PIC 1369 or 1205) or Antimicrobial Stewardship (PIC 1337).</p> <p>CONSIDER: *micafungin 100mg IV Q24H</p>

Dosing recommendations in renal insufficiency can be found [here](#). UVA antibiograms can be found [here](#). More detailed guidance can be found in [practice guidelines](#) from the IDSA.

These recommendations provide evidence-based guidance to assist practitioners in making decisions for patient care in patients with suspected line-related sepsis. However, guidelines and protocols are general and cannot take into account all of the circumstances of a particular patient. Judgment regarding the propriety of using a specific protocol or guideline with a particular patient remains with the patient's primary provider team taking into account the individual circumstances presented by the patient.