

# Management of *Staphylococcus aureus* bacteremia in adults

Anthony D. Bai MD, Andrew M. Morris MD SM

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## **1 Cases in which a blood culture grows *Staphylococcus aureus* should always be treated as a true bloodstream infection**

*Staphylococcus aureus* bacteremia is associated with substantial mortality and complications, including endocarditis and metastatic infection requiring specific investigations and treatment.<sup>1</sup> Given the potential for substantial mortality and morbidity, patients with growth of *S. aureus* in blood culture should always be treated.<sup>1</sup>

## **2 Expert consultation is suggested for all patients with *S. aureus* bacteremia**

In observational and quasi-experimental studies, consultation with infectious disease specialists improved the quality of care in patients with *S. aureus* bacteremia, including early source control, follow-up blood culture, echocardiography, and appropriate choice and duration of antibiotic therapy.<sup>1</sup> These measures decrease mortality and facilitate earlier discharge.<sup>1</sup>

## **3 Initial antibiotic therapy for *S. aureus* bacteremia should be intravenous and tailored to susceptibility once known**

Vancomycin can be used as empiric therapy before susceptibility is known and as definitive therapy for methicillin-resistant *S. aureus*.<sup>2</sup> Definitive therapy for methicillin-susceptible *S. aureus* should be cefazolin or an antistaphylococcal penicillin.<sup>2,3</sup> Evidence supporting oral antibiotic therapy is currently limited.

## **4 All patients with *S. aureus* bacteremia should undergo thorough evaluation for infectious source and secondary infectious foci**

About 10%–20% of patients with *S. aureus* bacteremia have infective endocarditis.<sup>4</sup> All patients with *S. aureus* bacteremia should undergo echocardiography, because the presence of endocarditis has therapeutic and diagnostic implications including consideration for surgery.<sup>4,5</sup> Patients at high risk (i.e., those with embolic events, pacemakers, prior endocarditis, prosthetic valves or intravenous drug use) need transesophageal echocardiography to exclude endocarditis.<sup>4</sup>

## **5 Patients with *S. aureus* bacteremia should be treated with at least 2 weeks of antibiotic therapy**

According to consensus guidelines, patients with uncomplicated *S. aureus* bacteremia (Box 1) may be treated with 2 weeks of antibiotic therapy.<sup>5</sup> All other patients should be treated with at least 4 weeks of antibiotic therapy.<sup>5</sup>

### **Box 1: Criteria for uncomplicated bacteremia<sup>5</sup>**

Patients have uncomplicated bacteremia if they satisfy all of the following:

- Exclusion of endocarditis
- No implanted prostheses
- Repeat blood cultures (2–4 d after initial set) give negative results
- Defervescence within 72 hours of appropriate antibiotic therapy
- No evidence of metastatic infectious foci

### **References**

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**Affiliations:** Department of Medicine (Bai), Queen's University, Kingston, Ont.; Department of Medicine (Morris), University of Toronto; Sinai Health System (Morris); University Health Network (Morris), Toronto, Ont.

**Correspondence to:** Andrew Morris,  
andrew.morris@sinahealthsystem.ca