

Boston Children's Hospital/Bright Star Collaborative

Blood Culture Algorithm



Recommendations for blood culture use in critically ill children without signs of sepsis

"To Do" before blood culture decision:

 Review the clinical data (e.g., vital signs, laboratory/ imaging, urine output, recent cultures, antimicrobial therapy)

- Examine the patient
- Discuss the patient's clinical status with the bedside nurse

Do NOT:

- Draw blood cultures from peripheral IVs
- Obtain blood culture for NEW fever within 24 hours of surgery and with no signs of sepsis; WITH or WITHOUT a CVAD in place

In ASYMPTOMATIC patients, avoid blood cultures:

- For surveillance (e.g., daily screening blood cultures). In particular
 - o on CRRT
 - in the immunocompromised WITH or WITHOUT CVAD
- In patients who have inadvertent CVAD disconnection
- In patients who have a broken or cracked CVAD



If a recent set of blood cultures from the CVAD is no growth to date, then subsequent cultures, if indicated, do not need to be drawn from the CVAD

Blood Culture Algorithm References

1. Woods-Hill, Charlotte, MD, et al. "Consensus Recommendations for Blood Culture Use in Critically III Children Using Modified Delph Approach". *Pediatric Critical Care Medicine*, vol 22, no. September 2021, pp.774-784, DOI:10.1097/PCC.000000000002749

2. Boston Children's Hospital /Bright Star collaborative