



ADULT PATIENTS WITH NEUTROPENIC FEVER (ANC <500)

Blood cultures are not recommended after 72 hours of persistent febrile neutropenia except in the setting of new hemodynamic instability, prior positive blood cultures, or as recommended by the infectious diseases consult service.

Footnotes:

The above algorithms are not a substitute for clinical judgment.

* Blood culture (BCx) required by US Centers for Medicare and Medicaid Services severe sepsis criteria of the Severe Sepsis and Septic Shock Early Management Bundle.

[†] Endovascular infection: Septic thrombophlebitis, infected endovascular thrombi, implantable cardioverter defibrillator (ICD)/pacemaker lead infections, intravascular catheter infections, VAD, and vascular graft infections.

[‡]Patients at risk of endovascular infection: ICD/pacemaker, VAD, vascular graft, prosthetic valves and prosthetic material used for cardiac valve repair, history of infective endocarditis, valvulopathy in heart transplant recipient, unrepaired congenital heart disease, repaired congenital heart disease with residual shunt or valvular regurgitation, or within the first 6 months post-repair.

§ Cellulitis in patients with comorbidities: Immunocompromised hosts or those at risk of poor outcomes missed S. aureus bacteremia.

¶ A single set of BCx for Enterococcus in patients without valvular heart disease and no urinary retention/obstruction that would predispose patients to bacteremia may not need repeat BCx.

Abbreviations: BCx, blood culture; CAP, community-acquired pneumonia; CLABSI – central line associated bloodstream infection; HAP, healthcare-associated pneumonia; UTI, urinary tract infection; VAD, ventricular assist device; VAP, ventilator- associated pneumonia

References:

Fabre V, Sharara SL, Salinas AB et al. Does this patient need blood cultures? A scoping review of indications for blood cultures in adult nonneutropenic inpatients. Clin Infect Dis. 2020; 71(5): 1339-1347

Robinson ED, Keng MK, Thomas TD *et al.* Reducing repeat blood cultures in febrile neutropenia: a single-center experience. *Open Forum Infect Dis.* 2022; 9(11): ofac521 Theophanous R, Ramos J, Calland AR *et al.* Blood culture algorithm implementation in emergency department patients as a diagnostic stewardship intervention. 2024; May 6:S0196-6553(24)00472-3