



Quarterly Newsletter

2020 Issue 2 - November

Blood Cultures Best Practices Update

- Patients requiring blood cultures (BCx) should always have two sets to increase bacterial detection, including when obtaining repeat BCx to document clearance of *S. aureus* bacteremia.
- Repeat BCx to document clearance of *S. aureus* bacteremia can be obtained every 24 or 48 hours; however, 48 hour intervals are not advisable if critical management decisions need to be made based on results such as going for valve replacement, placement of a new central line or endovascular hardware.
- For *S. aureus* or yeast bloodstream infections, BCx should be negative for 48 hours before placement of a new vascular catheter and for 72 hours before placement of permanent endovascular devices (e.g., pacemaker, implanted cardiac defibrillator).
- BCx prior to central line placement are not routinely recommended for pathogens other than *S. aureus* and yeast if there is no clinical suspicion of persistent bacteremia.
- Patients can continue parenteral nutrition if they develop bacteremia/fungemia (through alternative catheter if source of infection is the vascular catheter) and do not need BCx to document clearance unless otherwise clinically indicated.

Bacterial Infections & Antibiotic Use in COVID-19

- The JHH AS team in conjunction with several other ID faculty members developed consensus definitions for proven, probable and possible bacterial co-infection (i.e., detected at hospital presentation) in COVID-19 and applied them to 1,016 patients admitted to JHHS between 3/1/20 and 5/31/20.
- A proven or probable concurrent bacterial respiratory infection at time of admission was found in 1.2% of patients (1 proven case with MSSA CAP).

- 60% of patients without evidence of bacterial co-infection received CAP antibiotics, and 33% of these patients were continued on CAP antibiotics after 48 hours.
- Antibiotics should only be prescribed for COVID-19 patients with evidence of bacterial respiratory co-infection, not routinely.
- PCT was elevated in a large proportion of patients without evidence of bacterial co-infection and should not guide decisions to start or continue antibiotics.
- Watch for a new section on this topic in the Guidelines app coming out this week!

Duration of Therapy for Gram-negative Bacteremia

- In light of recent data^{1,2,3,4} supporting a duration of 7 days for treatment of uncomplicated Enterobacterales bacteremia, JHH ASP has developed an [algorithm](#) to assist clinicians in selecting patients in whom 7 days would be appropriate.
- Between 11/11/19 and 3/31/20 the JHH AS team called providers to suggest shorter courses and oral switches among patients with Enterobacterales bacteremia based on the algorithm. There was an opportunity to shorten duration to 7 days in ~60% of patients and to switch to the oral route in ~40% of patients.
- When compared to the same period the year before, patients with Enterobacterales bacteremia during the intervention had a shorter duration of therapy (8 vs 10 days) and shorter hospitalization (4 vs 7 days) with no difference in bacteremia recurrence or mortality.

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Happy Thanksgiving!**

References: 1) Stewart et al. OFID 2017, 2) Yahav, et al. Clin Inf Dis 2018, 3) Chotiprasitsakul, et al. Clin Inf Dis 2018, 4) Von Dach, et al. JAMA 2020.