

EMPIRIC CHOICE

- ✦ Clinically stable short or long-term catheters: vancomycin
- ✦ Septic patients: pip-tazo* 4.5 g IV q 8 h + vancomycin

ROUTE

- ✦ Intravenous

DURATION

- ✦ Generally 7-14 days, but dictated by organism and presence of complications.
 - CNST in stable patient with short-term catheter: remove catheter and stop empiric vancomycin once organism identified; monitor for clinical improvement
 - CNST in patient with clinical line sepsis: remove catheter and continue vancomycin for 5 days
 - *Staphylococcus aureus* infection in long-term catheter requires minimum 14 days therapy
 - Complications such as infective endocarditis, suppurative thrombophlebitis or osteomyelitis require prolongation of antibiotics to 4-6 weeks.

ALTERNATIVES FOR ALLERGIES

- ✦ linezolid 600 mg iv/p.o. q 12h to replace vancomycin. Consult ID

TOP FIVE ORGANISMS (what we expect for common organisms)

- ✦ Coagulase negative Staphylococci
- ✦ *Staphylococcus aureus*
- ✦ Enterococci
- ✦ *Candida albicans*
- ✦ Gram negative bacilli (including *Pseudomonas aeruginosa* in ICU and hemodialysis patients)

CURRENT RESISTANCE ISSUES

- ✦ MRSA accounts for approximately 15% of *S. aureus* blood isolates
- ✦ Gram negative susceptibility to pip-tazo in blood isolates from MSH/UHN ICUs 78-100%; aminoglycosides can be considered as alternative

IMMUNOCOMPROMISED HOST CONSIDERATION

- ✦ Consider adding gram negative coverage, including *Pseudomonas aeruginosa*, for empiric treatment of patients with suspected line sepsis
- ✦ Dialysis catheter-related infection: treat as immunocompromised. Dose accordingly.

ADDITIONAL DIAGNOSTIC AND THERAPEUTIC COMMENTS

- ✦ **The catheter must be removed and a new catheter inserted in a different location (if still needed)**
- ✦ If it will be difficult to remove catheter, consult ID
- ✦ See Candidemia key messages for Candida CLIs

*Based on TGH, MSH, TWH ICU blood isolates antibiogram (all Gram negatives)

**Based on TGH hospital-wide non-urine isolates antibiogram (all Gram negatives)

References:

1. Mermel et al. Clinical Practice Guidelines for the Diagnosis and Management of Intravascular Catheter-Related Infection: 2009 Update by the Infectious Diseases Society of America. *Clin Infect Dis* 2009; 49: 1-45.
2. Antibiograms – MSH, TGH, TWH; https://www.mountsinai.on.ca/education/staff-professionals/microbiology/microbiology-laboratory-manual/antibiogram/copy_of_department-of-microbiology

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