# Sharp Healthcare Treatment Guidelines for Empiric Sepsis Treatment Based on Suspected Source

| Selecting Antimicrobial Agent(s) | MDRO Risk Factors (Consider ID Consultation*) |
|---|---|
| • Review pathogen history<br>• Review for recent exposure to antimicrobial agents | • Prior history of MDROs<br>• Structural lung disease, IV antibiotics within past90 days, hospital stay ≥5 days, preceding ARDS |
| All cephalosporins included in the sepsis antibiotic recommendations are considered safe alternatives in patients with penicillin allergy, including Type I anaphylaxis (see Policy 43008 Cephalosporin administration to Penicillin-allergic Patients) | |

*Particularly for patients with history of carbapenem-resistant organisms (e.g. KPC, CRE) given high associated mortality, therecommended regimens below may or may not provide adequate coverage for such organisms.

| Suspected Source | Preferred Empiric Regimen | PCN Allergy, Including Severe or Type 1 |
|---|---|---|
| Community acquired pneumonia (CAP) | Ceftriaxone 2g IV q24h<br>+ Doxycycline[1] 100mg IV q12h | Ceftriaxone 2g IV q24h<br>+ Doxycycline[1] 100mg IV q12h |
| CAP with Pseudomonas Risk[2] | Cefepime 2g IV q8h<br>+ Doxycycline[1] 100mg IV q12h<br>+/- Tobramycin 7mg/kg IV x1 if septic shock | Cefepime 2g IV q8h<br>+ Doxycycline[1] 100mg IV q12h<br>+/- Tobramycin IV 7mg/kg x1 if septic shock |
| Nosocomial Pneumonia HAP/VAP | Cefepime 2g IV q8h<br>+ Vancomycin[3] per pharmacy or linezolid 600 mg IV Q12h<br>+/- Tobramycin IV 7mg/kg x1 if septic shock | Cefepime 2g IV q8h<br>+ Vancomycin[3] per pharmacy or linezolid 600 mg IV Q12h<br>+/- Tobramycin IV 7mg/kg x1 if septic shock |
| Nosocomial Pneumonia, h/o ESBL | Meropenem 500mg IV q6h<br>+ Vancomycin[3] per pharmacy or linezolid 600 mg IV Q12h | Meropenem 500mg IV q6h<br>+ Vancomycin[3] per pharmacy or linezolid 600 mg IV Q12h |
| Urinary Tract | Ceftriaxone 2g IV q24h<br>+/- Tobramycin per pharmacy | Ceftriaxone 2g IV q24h<br>+/- Tobramycin per pharmacy |
| Urinary Tract, h/o ESBL | Meropenem 500mg IV q6h | Meropenem 500mg IV q6h |
| Intra-abdominal | Zosyn 4.5g IV q8h | Cefepime 2g IV q8h<br>+ Metronidazole 500mg IV q8h |
| Intra-abdominal, h/o ESBL | Meropenem 500mg IV q6h | Meropenem 500mg IV q6h |
| Skin and Soft Tissue | Cefazolin 2g IV q8h<br>+ Vancomycin[3,4] per pharmacy or linezolid 600 mg IV Q12h | Cefazolin 2g IV q8h<br>+ Vancomycin[3,4] per pharmacy or linezolid 600 mg IV Q12h |
| Diabetic Foot/Wound/Ulcer | Zosyn 4.5g IV q8h<br>+ Vancomycin[3] per pharmacy or linezolid 600 mg IV Q12h | Cefepime 2g IV q8h<br>+ Metronidazole 500mg IV q8h<br>+ Vancomycin[3] per pharmacy or linezolid 600 mg IV Q12h |
| Skin and Soft Tissue, Diabetic Foot, or Wound/Ulcer h/o ESBL | Meropenem 500mg IV q6h<br>+ Vancomycin[3] per pharmacy or linezolid 600 mg IV Q12h | Meropenem 500mg IV q6h<br>+ Vancomycin[3] per pharmacy or linezolid 600 mg IV Q12h |
| Necrotizing Skin and Soft Tissue including fasciitis, Gas Gangrene | Zosyn 4.5g IV q8h<br>+ Vancomycin[3] per pharmacy<br>+ Clindamycin[4] 900 mg IV q8h<br>Zosyn 4.5g IV q8h + linezolid 600 mg IV Q12h | Cefepime 2g IV q8h<br>+ Vancomycin[3] per pharmacy<br>+ Clindamycin[5] 900mg IV q8h<br>Cefepime 2g IV Q8h + linezolid 600 mg IV Q12h |
| Unknown Source | Zosyn 4.5g IV q8h<br>+ Vancomycin[3] per pharmacy | Cefepime 2g IV q8h<br>+ Vancomycin[3] per pharmacy<br>+/- Metronidazole 500mg IV q8h |
| Unknown Source, h/o ESBL | Meropenem 500mg IV q6h<br>+ Vancomycin[3] per pharmacy | Meropenem 500mg IV q6h<br>+ Vancomycin[3] per pharmacy |

MDRO=Multi-drug resistant organisms (e.g. ESBL, AmpC, etc), PCN=penicillins

[1] Doxycycline will also provide MRSA activity and may be associated with less CDI vs. Azithromycin.

[2] Patients with structural lung disease (e.g. cystic fibrosis, bronchiectasis, etc), recurrent COPD exacerbations treated with antibiotics and/orsystemic steroids, etc.

[3] For patients with allergic reactions (excluding red man syndrome) to vancomycin or a history of vancomycin resistant enterococcus (VRE), substitutewith Daptomycin 6 mg/kg IV q24h for non-respiratory infections. For respiratory infections, substitute with Linezolid 600 mg IV Q12H. For patients with red man syndrome to vancomycin, please re-challenge with vancomycin slow infusion +/- premedication.

[4] Consider discontinuing vancomycin if no MRSA identified

[5] For anti-toxin effect if suspected severe streptococcal infection or presence of toxic shock syndrome.