## Risk Factors for Specific Pathogens

| MDR Pathogens (i.e. *Pseudomonas*) | MRSA | Fungal |
|---|---|---|
| Recent broad spectrum antibiotics within 90 days | MRSA nares positive/colonized | Recent broad spectrum antibiotics within 90 days |
| Recent hospitalization >2 days within 90 days | Chronic dialysis within 30 days | Hematologic malignancy or Chemotherapy |
| Residence in Long-Term Care Facility | Recent invasive surgical procedure | Parenteral nutrition |
| Family member with MDR infection | Injectable drug users | Renal replacement therapy in ICU |
| Current hospitalization of ≥ 5 days | Presence of a purulent skin infection | Prolonged neutropenia (>7 days) |
| Mechanical ventilation ≥ 5 days | Implantable prosthetic devices | Recent abdominal surgery or suspicion of perforated bowel |
| Immunosuppressive disease or therapy | Immunosuppressive disease or therapy | Immunosuppressive disease or therapy |
| Structural lung disease (i.e. COPD) | Presence of a central venous catheter | Implantable prosthetic devices |
| | | Presence of a central venous catheter |

## Empiric Drugs of Choice

| MDR Pathogens (i.e. *Pseudomonas*) | MRSA | Fungal |
|---|---|---|
| Cefepime or Piperacillin/ Tazobactam | Vancomycin | Micafungin |

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# SEPSIS ANTIBIOTIC GUIDE

## QUICK REFERENCE GUIDE

## Empiric Sepsis Antibiotic Chart

| Source of Infection | Empiric Antimicrobial Therapy | Alternative Therapy (Severe Penicillin Allergy**) | Comments |
|---|---|---|---|
| **Unknown Source** (includes IV-associated bacteremia) | Vancomycin (see comments) + (Cefepime or Piperacillin/ Tazobactam) +/- Tobramycin | Vancomycin (see comments) + Aztreonam +/- Tobramycin (if high suspicion for *Pseudomonas*) | Daptomycin 6 mg/kg is an option for severe vancomycin allergy (not Redman syndrome). |
| **Community-acquired Pneumonia** | Ceftriaxone + Azithromycin or Levofloxacin | Vancomycin + Levofloxacin | Consider the addition of empiric Oseltamivir during influenza season.<br><br>Aztreonam has lower susceptibilities to *Pseudomonas* than beta-lactams. |
| **Community-acquired Pneumonia** (with Pseudomonal Risk Factors) | Cefepime + (Azithromycin or Levofloxacin) | Aztreonam + Levofloxacin | |
| **Healthcare-acquired Pneumonia** | (Cefepime or Piperacillin/ Tazobactam) + (Vancomycin or Linezolid) +/- (Tobramycin or Levofloxacin) | Aztreonam + (Vancomycin or Linezolid) + (Tobramycin or Levofloxacin) | |
| **Intra-abdominal Infection** (Community-acquired) | Ceftriaxone + Metronidazole or Piperacillin/Tazobactam | Option 1: Aztreonam + Metronidazole + (Vancomycin or Linezolid)<br><br>Option 2: Levofloxacin + Metronidazole | Consider adding empiric Micafungin if concern for bowel perforation.<br><br>If PCN allergy is not anaphylaxis, consider Ertapenem (Community) and Meropenem (Hospital) for monotherapy. |
| **Intra-abdominal Infection** (Hospital-acquired) | Cefepime + Metronidazole or Piperacillin/ Tazobactam | Aztreonam + Metronidazole + (Vancomycin or Linezolid) | |
| **Urinary Tract Infection** | Ceftriaxone (or Cefepime if catheter-associated) +/- Tobramycin | Levofloxacin + (Aztreonam or Tobramycin) | For documented or suspected ESBL producing-organisms use Ertapenem. |
| **Febrile Neutropenia** | (Cefepime or Piperacillin/ Tazobactam) + Tobramycin +/- Vancomycin (see comments) | Aztreonam + Tobramycin + Vancomycin | For patients without severe Beta-lactam allergies, add empiric vancomycin if patient is MRSA colonized or has MRSA risk factor. |
| **Necrotizing/Severe Skin and Soft Tissue Infection** (patient requires an immediate surgery consult) | Vancomycin + Piperacillin/ Tazobactam +/- Clindamycin (see comments) | Vancomycin + Aztreonam +/- Clindamycin (see comments) | Add Clindamycin if *Streptococcus pyogenes* or toxic shock syndrome suspected. In addition for severe Beta-lactam allergic patient, add clindamycin if anaerobic coverage required. |
| **Necrotizing/Severe Skin and Soft Tissue Infection** (Waterborne Infection) | (Ceftriaxone or Ceftazidime) + Doxycycline | Vancomycin + Aztreonam + Doxycycline | |

***** Severe penicillin allergy: anaphylaxis, bronchospasm, angioedema or hives - Allergy assessment is needed to assure optimal therapy***