# Wake Forest Baptist Health

**Empiric Antibiotic Recommendations for Adults with Sepsisa,b,c**

Sepsis is currently defined as life-threatening organ dysfunction (ie, increased SOFA score ≥ 2 points) caused by a dysregulated host response to infection (no longer defined as just SIRS due to infection). (JAMA. 2016;315(8):801-810) Septic patients are sufficiently ill to require admission or transfer to the intensive care unit. Appropriate antibiotics should be given within 1 hour to patients with septic shock in possible. Obtain cultures before the first antibiotic dose whenever possible without undue delay in treatment. Antibiotic therapy should be re-assessed and de-escalated based on laboratory results and patient response. A CAUSE representative is available to assist in antibiotic selection or interpretation of microbiology studies (6494).

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| Pneumonia |
|  | Treatment | If Severe Penicillin Allergy |
| Community-acquired PNA1(CAP) | Ceftriaxone**PLUS**Azithromycin | Moxifloxacin or levofloxicn2**PLUS**Vancomycin |
| Hospital-acquired(developed after >2 days of hospitalization) orVentilator-associated PNA(HAP or VAP) | Vancomycin **PLUS** Amikacin**PLUS EITHER**Cefepime**OR**Piperacillin/tazobactam | Vancomycin **PLUS** Amikacin**PLUS EITHER**Ciprofloxacin**OR**Meropenem |

1See WFBH CAP guide for recommended treatments when Pseudomonas or MRSA risk factors present. 2Based on inpatient formulary

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| Skin and Soft Tissue Infections |
|  | Treatment | If Severe Penicillin Allergy |
| Necrotizing Fasciitis | Piperacillin/tazobactam**PLUS** Clindamycin**PLUS** Vancomycin | Meropenem **OR** Aztreonam**PLUS** Clindamycin**PLUS** Vancomycin |
| Fournier’s Gangrene | Piperacillin/tazobactam**PLUS** Vancomycin | Vancomycin **PLUS Either**Meropenem **OR**[Contact ID or CAUSE] |
| Diabetic Foot or CellulitisAssociated with Peripheral Vascular Disease | Vancomycin **PLUS EITHER**[Cefepime **PLUS**Metronidazole] **OR** Piperacillin/tazobactam | Vancomycin **PLUS EITHER**Meropenem **OR**[Ciprofloxacin **PLUS**Metronidazole] |
| Toxic Shock Syndrome | Vancomycin **PLUS**Clindamycin | Vancomycin **PLUS**Clindamycin |
| Cellulitis  | Vancomycin | Vancomycin |

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| Abdominal Infections1 |
| Treatment | If Severe Penicillin Allergy |
| Piperacillin/tazobactam**OR**[Cefepime **PLUS** Metronidazole] | Meropenem **OR**[Ciprofloxacin **PLUS**Metronidazole **PLUS** Amikacin] |

1For hospital/healthcare-associated infections, consider adding Micafungin if Candida risk factors (upper GI perforation, recurrent bowel perforations, surgically treated pancreatitis, prolonged courses of broad-spectrum ABX, heavy colonization with Candida) and/or Vancomycin if MRSA risk factors (eg, MRSA colonized) |

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| Meningitis |
|  | Treatment | If Severe Penicillin Allergy |
| Community-onset1 | Ceftriaxone **PLUS**Vancomycin1,2 | [Moxifloxacin or meropenem] **PLUS** Vancomycin1,2 |
| Post-neurosurgical/ Healthcare-associated | Cefepime **PLUS**Vancomycin | Vancomycin  **PLUS**Meropenem |

1**ADD** ampicillin (**OR** trimethoprim-sulfamethoxazole for PCN allergy) if >50 years old, cancer, diabetes, or immunosuppressed. If purulent LP (visible purulence or WBC>50), run ME panel on CSF ASAP & direct antimicrobials accordingly 2Give dexamethasone prior to ABX if causative pathogen is *S. pneumoniae* or unknown

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| IV Catheter-Related Infections |
| Treatment1 | If Severe Penicillin Allergy1 |
| Cefepime **PLUS**Vancomycin | Vancomycin **PLUS Either**Meropenem **OR** [Ciprofloxacin **PLUS** Amikacin] |

1Consider adding Micafungin for septic patients with following characteristics: Total Parenteral Nutrition, current use of broad-spectrum ABX, solid organ transplant, femoral catheterization, colonization due to Candida species at multiple sites

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| Urinary Tract Infections1 |
|  | Treatment | If Severe Penicillin Allergy |
| Community Acquired & NoSignificant Comorbidities | Ceftriaxone | Meropenem **OR**Aztreonam |
| Nursing Home-Acquired,Health Care-Associated, or Elderly Patient | Cefepime **OR** Piperacillin/tazobactam | Meropenem **OR**[Amikacin **PLUS** Ciprofloxacin] |

1Warning: Asymptomatic bacteriuria is common. If unclear whether urinary tract is source of sepsis, treat as if sepsis of unknown source (see below)

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| Sepsis of Unknown Source |
| Treatment | If Severe Penicillin Allergy |
| Vancomycin  **PLUS**Amikacin **PLUS** Piperacillin/tazobactam **OR** Cefepime | Vancomycin **PLUS Either**[Ciprofloxacin **PLUS** Amikacin] **OR**[Meropenem ± Amikacin] |

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| Burn Unit Patients with Sepsis from Any Source |
| Treatment | If Severe Penicillin Allergy |
| Vancomycin **PLUS** Cefepime  | Vancomycin **PLUS** Meropenem  |

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aRefer to Febrile Neutropenia algorithm for patients with neutropenia

 bExamples of severe penicillin allergy include anaphylaxis, shortness of breath, angioedema, immediate hives, or similar life-threatening events. There is a slight risk of cross reaction when giving meropenem to these patients. Weigh the risk of this reaction versus the risk of inadequate anti-bacterial coverage when choosing alternative ABX for these patients.

 cConsider colonization with multi-resistant organisms, previously infecting organisms, and prior ABX therapy within the previous 3 months when prescribing empiric ABX for patients with sepsis.

April 2020