

Adult Initial Empiric Therapy in Sepsis Patients

Possible Source of Infection	Common Organisms	Suggested Therapy (All drugs to be given IV)	Alternative Therapies (All drugs to be given IV)
Empiric (Unknown Source)		Piperacillin/tazobactam 4.5g [#] + Vancomycin 15mg/kg [#]	<u>Penicillin allergy (Not IgE-mediated):</u> Cefepime 2g [#] + Vancomycin 15mg/kg [#] <u>Penicillin allergy (IgE-mediated):</u> Aztreonam 2g [#] + Vancomycin 15mg/kg [#]
Community Acquired Pneumonia (CAP)	<i>Streptococcus pneumoniae</i> <i>Haemophilus influenzae</i> <i>Legionella pneumophila</i> <i>Mycoplasma pneumoniae</i> <i>Chlamydia pneumoniae</i>	Ceftriaxone 1g + Azithromycin 500mg	<u>Penicillin allergy (IgE-mediated):</u> Levofloxacin 750mg [#]
Nosocomial Pneumonia (HCAP, HAP, VAP)	<i>S. aureus</i> (including MRSA) <i>S. pneumoniae</i> Gram-negative bacilli <i>Pseudomonas aeruginosa</i>	Piperacillin/tazobactam 4.5g [#] + Vancomycin 15 mg/kg [#] ± Levofloxacin 750mg ^{*#}	<u>Penicillin allergy (Not IgE-mediated):</u> Cefepime 2g [#] + Vancomycin 15mg/kg [#] ± Levofloxacin 750mg [#] <u>Penicillin allergy (IgE-mediated):</u> Levofloxacin 750mg [#] + Vancomycin 15mg/kg [#] ± Gentamicin 7mg/kg ^{*#¶}
Intra-abdominal Infections – Mild to Moderate Community Acquired	Enterobacteriaceae Anaerobes	Ceftriaxone 1g + Metronidazole 500mg	<u>Penicillin allergy (IgE-mediated):</u> Levofloxacin 750mg [#] + Metronidazole 500mg
Intra-abdominal Infections – Severe Community Acquired OR Healthcare Associated	Enterobacteriaceae <i>Pseudomonas aeruginosa</i> Anaerobes	Piperacillin/tazobactam 3.375g [#]	<u>Penicillin allergy (Not IgE-mediated):</u> Cefepime 2g [#] + Metronidazole 500mg <u>Penicillin allergy (IgE-mediated):</u> Levofloxacin 750mg [#] + Metronidazole 500mg
Urosepsis – Community Acquired	<i>E. coli</i>	Ceftriaxone 1g	<u>Penicillin allergy (IgE-mediated):</u> Gentamicin 5mg/kg ^{#¶} <u>Acute renal failure:</u> Levofloxacin 500mg [#]
Urosepsis – Healthcare Associated	Enterobacteriaceae <i>Pseudomonas aeruginosa</i>	Piperacillin/tazobactam 3.375g [#]	<u>Penicillin allergy (Not IgE-mediated):</u> Cefepime 2g [#] <u>Penicillin allergy (IgE-mediated):</u> Gentamicin 5mg/kg ^{#¶} <u>Acute renal failure:</u> Levofloxacin 500mg [#]

* = Double coverage for pseudomonas and other MDRO

= Requires dosage adjustment in renal impairment

¶ = Dose based on ideal body weight or adjusted body weight in obese patients

IgE-mediated = immediate reactions including anaphylaxis, urticaria, angioedema, shortness of breath, etc.

Not IgE-mediated = delayed reactions including rash, itching, unknown, etc.

Possible Source of Infection	Common Organisms	Suggested Therapy (All drugs to be given IV)	Alternative Therapies (All drugs to be given IV)
Skin, Soft Tissue Infection – Mild to Moderate Cellulitis (non-purulent, low risk for MRSA)	<i>S. aureus</i> <i>Streptococcus</i> species	Cefazolin 1g [#]	<u>Penicillin allergy (IgE-mediated):</u> Clindamycin 600mg
Skin, Soft Tissue Infection – Severe Cellulitis (purulent, at risk for MRSA)	<i>S. aureus</i> (including MRSA) <i>Streptococcus</i> species	Vancomycin 15mg/kg [#]	
Skin, Soft Tissue Infection – Immunocompromised/diabetic foot infection	<i>S. aureus</i> (including MRSA) <i>Streptococcus</i> species Enterobacteriaceae <i>Pseudomonas aeruginosa</i> Anaerobes	Vancomycin 15mg/kg [#] + Piperacillin/tazobactam 3.375g [#]	<u>Penicillin allergy (Not IgE-mediated):</u> Vancomycin 15mg/kg [#] + Cefepime 2g [#] + Metronidazole 500mg <u>Penicillin allergy (IgE-mediated):</u> Vancomycin 15mg/kg [#] + Levofloxacin 750mg [#] + Metronidazole 500mg
Skin, Soft Tissue Infection – Necrotizing Fasciitis	<i>S. pyogenes</i> <i>S. aureus</i> (including MRSA) <i>Vibrio vulnificus</i> <i>Aeromonas hydrophila</i> <i>Clostridium</i> species	Vancomycin 15mg/kg [#] + Piperacillin/tazobactam 3.375g [#] + Clindamycin 600mg	<u>Penicillin allergy (Not IgE-mediated):</u> Vancomycin 15mg/kg [#] + Cefepime 2g [#] + Clindamycin 600mg <u>Penicillin allergy (IgE-mediated):</u> Vancomycin 15mg/kg [#] + Levofloxacin 750mg [#] + Clindamycin 600mg
Bacterial Meningitis ** (Dexamethasone 15-20 min before or simultaneously with first antibiotic infusion for pneumococcal meningitis)**	<i>S. pneumoniae</i> <i>Neisseria meningitidis</i> <i>H. influenzae</i> <i>Listeria monocytogenes</i>	Vancomycin 15mg/kg [#] + Ceftriaxone 2g ± Ampicillin 2g [#] (if Listeria suspected)	<u>Penicillin allergy (IgE-mediated):</u> Vancomycin 15mg/kg [#] + Levofloxacin 750mg [#] ± TMP/SMX 5mg/kg [#] (if Listeria suspected)
Suspected Catheter related infection (including hemodialysis patients)	<i>S. aureus</i> (including MRSA) Enterobacteriaceae <i>Pseudomonas aeruginosa</i>	Vancomycin 15mg/kg [#] + Gentamicin 7mg/kg ^{#¶}	<u>Acute renal failure:</u> Vancomycin 15mg/kg [#] + Piperacillin/tazobactam 3.375g [#]
Suspected Gram-Negative Multi-Drug Resistant Organism (MDRO)	Extended Spectrum β-lactamase (ESBL)	Piperacillin/tazobactam 4.5g [#] + Gentamicin 7mg/kg ^{#¶}	<u>Penicillin allergy (Not IgE-mediated):</u> Cefepime 2g [#] + Gentamicin 7mg/kg ^{#¶¶} <u>Penicillin allergy (IgE-mediated):</u> Aztreonam 2g [#] + Gentamicin 7mg/kg ^{#¶¶} <u>ESBL Suspected:</u> Meropenem 1g [#] ± Gentamicin 7mg/kg ^{#¶¶}

Recommendations based on spectrum of activity, national guidelines, side effect profile, and drug cost

Approved by P&T Committee 12/2016

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