

RECOMMENDED ANTIBIOTIC THERAPY IN SEVERE SEPSIS OR SEPTIC SHOCK

(Adapted from nationally published guidelines and/or the Sanford Guide to Antimicrobial Therapy)

All doses are for patients with normal renal function. Please contact pharmacy for information regarding dosing with renal dysfunction

Last revised October 2016

Suspected Source	First Line Antibiotics	Alternative Antibiotics	Alternative for Severe Penicillin Allergic Patients
Pneumonia – Community Acquired in ICU (Patient not at risk for <i>Pseudomonas aeruginosa</i>)	Azithromycin [†] 500mg IV x1 <u>plus</u> Ceftriaxone 2g IV x1	Levofloxacin [†] 750mg IV x1 <u>plus</u> Ceftriaxone 2g IV x1	Consult Pharmacy
Pneumonia – Healthcare Associated (With known risk factors for multi-drug resistant pathogens ⁺)	Cefepime 2g IV x1 <u>plus</u> Tobramycin 5-7mg/kg IV x1 <u>plus</u> Vancomycin 25mg/kg IV x1 <u>plus</u> Azithromycin [†] 500mg IV x1	Piperacillin/tazobactam 3.375-6.75g x1 <u>plus</u> Tobramycin 5-7mg/kg IV x1 <u>plus</u> Vancomycin 25mg/kg IV x1 <u>plus</u> Azithromycin [†] 500mg IV x1	Meropenem 500-1000mg IV x1 <u>plus</u> Tobramycin 5-7mg/kg IV x1 <u>plus</u> Vancomycin 25mg/kg IV x1 <u>plus</u> Azithromycin [†] 500mg IV x1
Urinary Tract Infection, Pyelonephritis	Ceftriaxone 1-2g IV x1 <u>or</u> Levofloxacin [†] 500mg IV x1	Ampicillin 1g IV x1 <u>plus</u> Gentamicin 3-5mg/kg IV x1 (if concern for enterococcus)	N/A
Complicated Urinary Tract Infection/Indwelling Urinary Catheter	Cefepime 2g IV x1	Piperacillin/tazobactam 3.375-6.75g IV x1 (if concern for enterococcus)	Meropenem 500-1000mg IV x1

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Intraabdominal Infection – Mild to moderate infection	Ceftriaxone 2g IV x1 <u>plus</u> Metronidazole 500mg IV x1	Levofloxacin † 500-750mg IV x1 <u>plus</u> Metronidazole 500mg IV x1	N/A
Intraabdominal Infection – High severity infection	Piperacillin/tazobactam 3.375-6.75g IV x1 <u>or</u> Cefepime 2g IV x1 <u>plus</u> Metronidazole 500mg IV x1	Levofloxacin † 500-750mg IV x1 <u>plus</u> Metronidazole 500mg IV x1 <u>or</u> Meropenem 500-1000mg IV x1	N/A
Indwelling Line Sepsis	Vancomycin 25mg/kg IV x1 <u>plus</u> Ciprofloxacin † 400mg IV x1 (for suspected sepsis ONLY)	**Only for vancomycin hypersensitivity or VRE** Daptomycin 6-8mg/kg x1 <u>or</u> Linezolid 600mg x1 <u>plus</u> Ciprofloxacin 400mg IV x1 (for suspected sepsis ONLY)	N/A
Skin or Soft Tissue Infection – Cellulitis	Ampicillin/sulbactam 1.5-3g IV x1 <u>plus</u> Vancomycin 25mg/kg	N/A	Vancomycin 25mg/kg IV x1 <u>plus</u> Ciprofloxacin † 400mg IV x1 (for suspected sepsis ONLY)
Skin or Soft Tissue Infection – Cellulitis with diabetes, decubitus, venous stasis or arterial insufficiency ulcers	Ampicillin/sulbactam 1.5-3g IV x1 <u>plus</u> Vancomycin 25mg/kg <u>or</u> Piperacillin/tazobactam 3.375-6.75g IV x1 <u>plus</u> Vancomycin 25mg/kg	N/A	Meropenem 500-1000mg IV x1 <u>plus</u> Vancomycin 25mg/kg

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Skin or Soft Tissue Infection – Incisional surgical site infection –Intestinal tract, Female genital tract, Axillary, Perineum	Cefepime 2g IV x1 <u>plus</u> Metronidazole 500mg IV x1 <u>plus</u> Vancomycin 25mg/kg IV x1	Piperacillin/tazobactam 3.375-6.75g IV x1 <u>plus</u> Vancomycin 25mg/kg IV x1	Meropenem 500-1000mg IV x1 <u>plus</u> Vancomycin 25mg/kg IV x1
Skin or Soft Tissue Infection – Incisional surgical site infection –Nonintestinal – Trunk and extremities	Ceftriaxone 2g IV x1 <u>Plus/Minus</u> Vancomycin 25mg/kg IV x1 (add vancomycin if MRSA risk factors present)	Vancomycin 25mg/kg IV x1 <u>plus</u> Ciprofloxacin [†] 400mg IV x1 (for suspected sepsis ONLY)	N/A
Skin or Soft Tissue Infection – Necrotizing infection of the skin, fascia and muscle (including Fournier Gangrene and Gas Gangrene)	Piperacillin/tazobactam 3.375-6.5g IV x1 <u>plus</u> Clindamycin 900mg x1 <u>plus</u> Vancomycin 25mg/kg IV x1	Ampicillin/sulbactam 1.5-3g IV x1 <u>plus</u> Clindamycin 900mg IV x1 <u>plus</u> Vancomycin 25mg/kg IV x1	Meropenem 500-1000mg IV x1 <u>plus</u> Vancomycin 25mg/kg IV x1
Meningitis – 1-50 years of age	Ceftriaxone 2g IV x1 <u>plus</u> Vancomycin 25mg/kg IV x1 <u>plus</u> Acyclovir 10mg/kg IV x1 (if patient is immunocompromised or there is concern for HSV)	Meropenem 1g IV x1 <u>plus</u> Vancomycin 25mg/kg IV x1 <u>plus</u> Acyclovir 10mg/kg IV x1 (if patient is immunocompromised or there is concern for HSV)	N/A

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Meningitis – Greater than 50 years of age or alcoholic	Ampicillin 2g IV x1 <u>plus</u> Ceftriaxone 2g IV x1 <u>plus</u> Vancomycin 25mg/kg IV x1 <u>plus</u> Acyclovir 10mg/kg IV x1 (if patient is immunocompromised or there is concern for HSV)	Meropenem 1g IV x1 <u>plus</u> Vancomycin 25mg/kg IV x1 <u>plus</u> Acyclovir 10mg/kg IV x1 (if patient is immunocompromised or there is concern for HSV)	
Meningitis – Device related or post neurosurgery	Cefepime 2g x1 <u>plus</u> Vancomycin 25mg/kg IV x1	Meropenem 1g IV x1 <u>plus</u> Vancomycin 25mg/kg IV x1	

†Levofloxacin, ciprofloxacin, azithromycin should be avoided, or used with caution, in patients equal to or greater than 65 years of age with electrolyte abnormalities, known cardiovascular compromise or receiving other medications that may prolong the QT_c interval

+ Risk factors for multi-drug resistant pathogens: (1) antimicrobial therapy in the preceeding 90 days (therapeutic treatment ONLY) (2) Current hospitalization of 5 days or more (3) Antibiotic resistance likely in place prior to admission (4) Prior hospitalization of 2 days or more in the preceeding 90 days (5) Residence in a nursing home or extended care facility (6) Home infusion therapy (7) Chronic dialysis within 30 days (8) Chronic wound care (8) Immunosuppressive disease and/or therapy