PHARMACY CODE SEPSIS ANTIMICROBIAL POCKET CARD

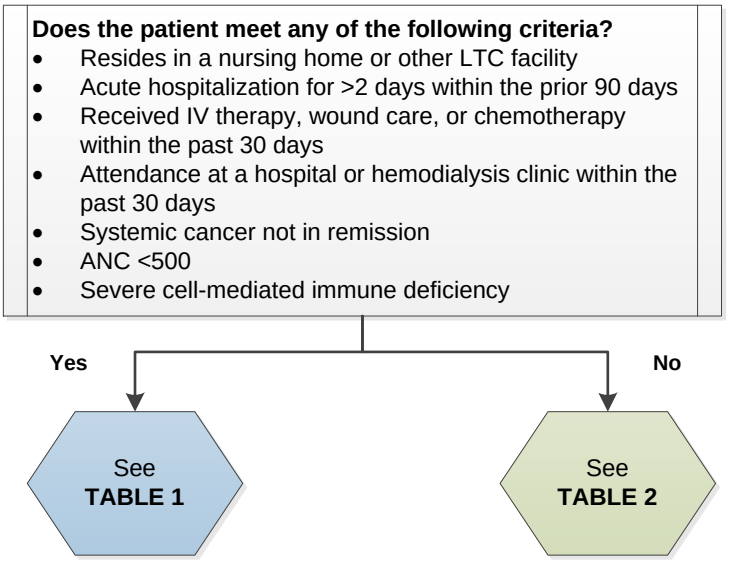

TABLE 1: Antibiotic selection options for treat healthcare associated and/or immunocompromised patients
****NOTE:** Dosing recommendations assume normal renal function; refer to SHC ABX Renal Dosing Guide for dose adjustments in renal impairment**

Suspected Source	Antibacterial A (Select One)	AND	Antibacterial B (Select One)	+/-	Antibacterial C	+/-	Antifungal
Undifferentiated or Vascular Access Device Infection	**Piperacillin-tazobactam** 4.5g IV Q8H extended infusion* OR **Cefepime** 2g IV Q8H extended infusion* OR **Meropenem** 1g IV Q8H extended infusion* - if at risk for ESBL infection • Previous ABX exposure • Previous colonization • Recent treatment of ESBL organism		**Vancomycin** ~25 mg/kg x1 (load) + vancomycin 15mg/kg OR **Linezolid** 600mg IV q12h - if at risk of VRE infection: • Liver transplant • Known colonization • Prolonged broad antibacterial therapy • Prolonged profound immunosuppression		**Tobramycin** 7mg/kg IV Q24H - if at risk of *P. aeruginosa* infection: • Prior IV antibiotics within 90 days • 5 or more days of hospitalization prior to onset • Acute renal replacement therapy prior to onset • Septic shock • Known colonization with MDROs		**Caspofungin** 70mg IV ONCE + caspofungin 50 mg IV Q24H - if at risk of invasive candidiasis: • Central venous catheter • Broad-spectrum antibiotics • + 1 of the following risk factors: Parenteral nutrition, dialysis, recent abdominal surgery, necrotizing pancreatitis, systemic steroids or other immuno-suppressive agents
Pneumonia	**Piperacillin-tazobactam** 4.5g IV Q8H extended infusion* OR **Meropenem** 1g IV Q8H extended infusion* - if at risk for ESBL infection • Previous ABX exposure • Previous colonization • Recent treatment of ESBL organism OR **Cefepime** 2g IV Q8H extended infusion*		**Azithromycin** 500mg IV Q24H OR **Levofloxacin** 750mg IV Q24H AND **Vancomycin** ~25 mg/kg x1 (load) + 15 mg/kg OR **Linezolid** 600mg IV Q12h - if at risk of VRE infection: • Liver transplant • Known colonization • Prolonged broad antibacterial therapy • Prolonged profound immunosuppression		**Tobramycin** 7mg/kg IV Q24H - if at risk of *P. aeruginosa* infection: • Prior IV antibiotics within 90 days • 5 or more days of hospitalization prior to onset • Acute renal replacement therapy prior to onset • Septic shock Known colonization with MDROs		
Urinary Tract Infection	**Piperacillin-tazobactam** 4.5g IV Q8H extended infusion* OR **Meropenem** 1g IV Q8H extended infusion* - if at risk for ESBL infection • Previous ABX exposure • Previous colonization • Recent treatment of ESBL organism		**Vancomycin** ~25 mg/kg x1 (load) + vancomycin 15mg/kg OR **Linezolid** 600mg IV Q12h - if at risk of VRE infection: • Liver transplant • Known colonization • Prolonged broad antibacterial therapy • Prolonged profound immunosuppression		**Tobramycin** 5mg/kg IV Q24H - if at risk of *P. aeruginosa* infection: • Prior IV antibiotics within 90 days • 5 or more days of hospitalization prior to onset • Acute renal replacement therapy prior to onset • Septic shock • Known colonization with MDROs		
Intra-Abdominal Infection	**Piperacillin-tazobactam** 4.5g IV Q8H extended infusion* OR **Meropenem** 1g IV Q8H extended infusion* - if at risk for ESBL infection • Previous ABX exposure		**Vancomycin** ~25 mg/kg x1 (load) + vancomycin 15mg/kg OR **Linezolid** 600mg IV Q12h - if at risk of VRE infection: • Liver transplant • Known colonization				**Caspofungin** 70mg IV once + caspofungin 50 mg IV Q24H - if at risk of invasive candidiasis: • Central venous catheter • Broad-spectrum antibiotics • + 1 of the following risk factors: Parenteral nutrition, dialysis, recent abdominal

	• Previous colonization • Recent treatment of ESBL organism OR **Cefepime** 2g IV Q8H extended infusion* + **Metronidazole** 500mg IV Q8H	• Prolonged broad antibacterial therapy • Prolonged profound immunosuppression		surgery, necrotizing pancreatitis, systemic steroids or other immuno-suppressive agents
Skin/Skin Structure Infection - Pure Cellulitis with MRSA Risk: ▪ Known colonization with MDROs ▪ Recent MRSA infection ▪ Known MRSA colonization ▪ Skin & Skin Structure and/or IV access site purulence or abscess	**Vancomycin** ~25 mg/kg x1 (load) + vancomycin 15mg/kg	**Cefazolin** 2g IV Q8H		
Skin/Skin Structure Infection – Cellulitis with Special Risks: ▪ Malignancy on chemotherapy ▪ Neutropenia ▪ Severe cell-mediated immunodeficiency ▪ Immersion injuries ▪ Animal Bites ▪ Diabetic foot ulcer	**Piperacillin-tazobactam** 4.5g IV Q8H extended infusion* OR **Meropenem** 1g IV Q8H extended infusion* - if at risk for ESBL infection • Previous ABX exposure • Previous colonization • Recent treatment of ESBL organism OR **Cefepime** 2g IV Q8H extended infusion* + **Metronidazole** 500mg IV Q8H	**Vancomycin** ~25 mg/kg x1 (load) + vancomycin 15mg/kg		
Necrotizing Fasciitis (including Fournier's Gangrene), Clostridial Gas Gangrene or Myconecrosis	**Piperacillin-tazobactam** 4.5g IV Q8H extended infusion* OR **Meropenem** 1g IV Q8H extended infusion* - if at risk for ESBL infection • Previous ABX exposure • Previous colonization • Recent treatment of ESBL organism OR **Cefepime** 2g IV Q8H extended infusion* + **Metronidazole** 500mg IV Q8H	**Vancomycin** ~25 mg/kg x1 (load) + vancomycin 15mg/kg OR **Linezolid** 600mg IV Q12h - if at risk of VRE infection: • Liver transplant • Known colonization • Prolonged broad antibacterial therapy • Prolonged profound immunosuppression	**Clindamycin** 600mg IV Q8H (use only <u>in combination</u> with vancomycin for toxin suppression)	
Bacterial Meningitis – "Spontaneous"	**Ceftriaxone** 2g IV Q12H	**Vancomycin** ~25 mg/kg x1 (load) + vancomycin 15mg/kg	**Ampicillin** 2g IV Q4H (>50 years of age OR immunocompromised)	
Bacterial Meningitis – Post-Trauma or Neurosurgery	**Meropenem** 1g IV Q8H extended infusion*	**Vancomycin** ~25 mg/kg x1 (load) + vancomycin 15mg/kg		

**The first dose should be given as a bolus dose (over 30 mins.) and subsequent doses should be given as extended infusion*

TABLE 2: Antibiotic selection options for community acquired, immunocompetent patients

****NOTE:** Dosing recommendations assume <u>normal renal function</u>; refer to SHC ABX Renal Dosing Guide for dose adjustments in renal impairment**

Suspected Source	Antibacterial A (Select One)	**<u>AND</u>**	Antibacterial B (Select One)	**<u>+/-</u>**	Antibacterial C
Undifferentiated	**Ertapenem** 1g IV Q24h OR **Piperacillin-tazobactam** 4.5g IV Q8H extended infusion* OR **Cefepime** 2g IV Q8H extended infusion*		**Vancomycin** ~25 mg/kg x1 (load) + vancomycin 15mg/kg		
Pneumonia	**Ceftriaxone** 2g IV q24H + **Azithromycin** 500mg IV Q24H OR **Levofloxacin** 750mg IV Q24H				+/- **Vancomycin** ~25 mg/kg x1 (load) + vancomycin 15mg/kg
Urinary Tract Infection	**Ertapenem** 1g IV q24h		**Vancomycin** ~25 mg/kg x1 (load) + vancomycin 15mg/kg		
Intra-Abdominal Infection	**Piperacillin-tazobactam** 4.5g IV Q8H extended infusion* OR **Ertapenem** 1g IV Q24H		**Vancomycin** ~25 mg/kg x1 (load) + vancomycin 15mg/kg		

Skin/Skin Structure Infection - Pure Cellulitis with MRSA Risk: ▪ Known colonization with MDROs ▪ Recent MRSA infection ▪ Known MRSA colonization ▪ Skin & Skin Structure and/or IV access site purulence or abscess	**Cefazolin** 2g IV Q8H	**Vancomycin** ~25 mg/kg x1 (load) + vancomycin 15mg/kg	
Skin/Skin Structure Infection – Cellulitis with Special Risks: ▪ Malignancy on chemotherapy ▪ Neutropenia ▪ Severe cell-mediated immunodeficiency ▪ Immersion injuries ▪ Animal Bites ▪ Diabetic foot ulcer	**Piperacillin-tazobactam** 4.5g IV Q8H extended infusion* OR **Meropenem** 1g IV Q8H extended infusion* – if at risk for ESBL infection • Previous ABX exposure • Previous colonization • Recent treatment of ESBL organism OR **Cefepime** 2g IV Q8H extended infusion* + **Metronidazol**e 500mg IV Q8H OR **Aztreonam** 2g IV Q8H + **Metronidazole** 500mg IV Q8H	**Vancomycin** ~25 mg/kg x1 (load) + vancomycin 15mg/kg	
Bacterial Meningitis – "Spontaneous"	**Ceftriaxone** 2g IV Q12H	**Vancomycin** ~25 mg/kg x1 (load) + vancomycin 15mg/kg	**Ampicillin** 2g IV Q4H (>50 years of age)

**The first dose should be given as a bolus dose (over 30 mins.) and subsequent doses should be given as extended infusion*

How to Address Antibiotic Allergies

Penicillins

- Substitute with AZTREONAM if history of type I immediate hypersensitivity (e.g., urticaria, angioedema, anaphylaxis, bronchospasm), except those with a history of type I hypersensitivity reaction to CEFTAZIDIME).
- For a history of other serious reactions, avoid the implicated drug but others in the class may be used (exception: cephalosporins with same R group side chains).

Fluoroquinolones

- If there is a history of an immediate reaction to one fluoroquinolone, AVOID USE of any of the class.

Vancomycin

- Avoid if there is a history of bullous reaction, or of associated thrombocytopenia. If there is a history of possible immediate reaction or macular skin reactions, carefully assess the history. If the reaction involved flushing, pruritus, or urticaria, then, premedicate with an antihistamine (diphenhydramine or hydroxyzine) and acetaminophen, hold/reduce opiates (if possible), and infuse at ½ or 1/3 rate over 2-3 hours.

General Guidance for Approved Antibiotic Regimens:

Approved **Monotherapy** ABX:
Ampicillin/sulbactam
Cefepime
Cefotaxime
Cefotetan
Ceftaroline fosamil
Ceftazidime
Ceftriaxone
Doripenem
Ertapenem
Imipenem/Cilastatin
Levofloxacin
Meropenem
Moxifloxacin
Piperacillin/tazobactam
Ticarcillin/clavulanate

Approved **Combination Therapy** ABX:

Requires one antibiotic from Table 1 AND one antibiotic from Table 2

Table 1	
Aminoglycosides	Amikacin
	Gentamicin
	Kanamycin
	Tobramycin
Aztreonam	Aztreonam
Ciprofloxacin	Ciprofloxacin

Table 2	
Cephalosporins (1st and 2nd Generation)	Cefazolin
	Cefoxitin
	Cefuroxime
Clindamycin IV	Clindamycin
Daptomycin	Daptomycin
Glycopeptides	Teicoplanin
	Televancin
	Vancomycin
Linezolid	Linezolid
Macrolides	Azithromycin
	Erythromycin
	Telithromycin
Penicillins	Ampicillin
	Nafcillin
	Oxacillin
	Penicillin G