DUH Empiric Antibiotic Recommendations for Infections in HOSPITALIZED Adults

Obtain cultures before the first antibiotic dose whenever possible without undue delay in treatment
Severe Penicillin (PCN) includes anaphylaxis, angioedema, shortness of breath, Stevens Johnson, or immediate hives
Always refer to past or current cultures to help select appropriate therapy

RESPIRATORY INFECTION

Infection	Treatment
Pneumonia – Community acquired	Ceftriaxone **AND** Azithromycin
Pneumonia – Hospital acquired	Vancomycin **AND** Piperacillin-tazobactam
Aspiration pneumonia with abscess or empyema (otherwise see CAP or HAP)	Ampicillin-sulbactam
Acute bacterial exacerbation of chronic bronchitis	Doxycycline

SKIN, SOFT TISSUE, BONE INFECTION

Infection	Treatment
SSTI, non-purulent	Cephalexin/Cefazolin
SSTI, purulent (If mild, use oral MRSA therapy)	Vancomycin
Diabetic foot infections (DFI)	
Mild (Local infection with erythema ≤ 2 cm)	Amoxicillin-clavulanate
Moderate (Local infection with erythema > 2 cm)	Vancomycin **AND** Ceftriaxone **OR** Piperacillin-tazobactam (if Pseudomonas risk factors)
Associated with bite	Amoxicillin-clavulanate
Osteomyelitis	If stable, obtain culture before antibiotics.

FEBRILE NEUTROPENIA

Infection	Treatment
Unknown source	Cefepime
- Vascular line site infection - History of MRSA - Pneumonia or SSTI - Gram-positive bacteremia - Clinical/hemodynamic instability	Cefepime **AND** Vancomycin
Intra-abdominal source	Cefepime **AND** Metronidazole **OR** Piperacillin/tazobactam

MENINGITIS

Infection	Treatment
Community-acquired	Ceftriaxone **AND** Vancomycin **ADD** Ampicillin if >50 yr old
Community-acquired AND Immunocompromised	Vancomycin **AND** Cefepime **AND** Ampicillin
Healthcare- or Shunt-Associated Meningitis/ Ventriculitis	Cefepime **AND** Vancomycin

IV CATHETER RELATED INFECTION

Infection	Treatment
Catheter Related Bacteremia	Vancomycin

ABDOMINAL INFECTION

Infection	Treatment
Acute uncomplicated diverticulitis	
Afebrile, no leukocytosis, immunocompetent, and **without** abscess/perforation	Observe without antibiotics
If above criteria not met	Ceftriaxone **AND** metronidazole
Appendicitis	
Community-acquired, mild/moderate	Ceftriaxone **AND** metronidazole
Community-acquired, high risk* OR healthcare-associated	Piperacillin-tazobactam
Cholangitis and Cholecystitis	
Mild to moderate	Ceftriaxone
High risk*	Piperacillin-tazobactam
Pancreatitis	
Non-necrotizing	Antibiotic not indicated
Infected pancreatic pseudocyst	Cefepime **AND** Metronidazole
Spontaneous Bacterial Peritonitis	Ceftriaxone

*High risk = severe physiologic disturbance, age > 70, immunocompromised, delay in presentation >24 hrs, APACHE II ≥15, diffuse peritonitis, malignancy, anastomotic failure or fistula

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URINARY TRACT INFECTION

Infection	Treatment
Uncomplicated UTI (Lower Tract, limited to the bladder)	Nitrofurantoin **OR** Cefuroxime
Complicated UTI (Upper Tract, above the bladder including kidney and ureters)	Ceftriaxone
Pelvic Inflammatory Disease	Ceftriaxone **AND** Metronidazole **AND** Doxycycline

SEVERE INFECTION

Source	Treatment
Respiratory – CAP	Ceftriaxone and Azithromycin
MRSA/Pseudomonas risk°	Vancomycin **AND** Piperacillin-tazobactam
Skin and Soft Tissue	Vancomycin
Septic Shock or chronic wound/DFI	Vancomycin **AND** Piperacillin-tazobactam
Necrotizing SSTI Necrotizing fasciitis	Vancomycin **AND** Piperacillin-tazobactam **AND** Clindamycin
Febrile Neutropenia	Vancomycin **AND** Cefepime
IV Catheter Related	Vancomycin
Septic Shock	Vancomycin **AND** Cefepime
Intra-abdominal	Piperacillin-tazobactam
Urinary	Ceftriaxone
Septic Shock or recent hospital stay	Piperacillin-tazobactam
Unknown source	Vancomycin **AND** Piperacillin-tazobactam

For patients with **SEVERE PENICILLIN** allergy, please refer to CustomID for antibiotic recommendations.

° MRSA and Pseudomonas risk factors include prior positive respiratory culture, or hospitalization and IV antibiotics in past 90 days

Duke University Hospital Empiric Antibiotic Recommendations for Infections in OUTPATIENT Adults

Obtain cultures before the first antibiotic dose whenever possible without undue delay in treatment
Severe Penicillin (PCN) includes anaphylaxis, angioedema, shortness of breath, Stevens Johnson, or immediate hives
Always refer to past or current cultures to help select appropriate therapy

INFECTION	TREATMENT	IF SEVERE PCN ALLERGY	DURATION
Skin and skin structure infections			
Cellulitis, non-purulent	Cephalexin **OR** Cefadroxil	Clindamycin	5 days
Cellulitis, purulent	Doxycycline **OR** TMP-SMX		7 days
Associated with bite	Amoxicillin-clavulanic acid	Moxifloxacin	Prophylaxis (only for high risk patients): 3-5 days Infection: Mild-moderate: 5-7 days Severe: 10-14 days
Diabetic foot infections			
Soft tissue only, mild-moderate	Amoxicillin-clavulanic acid	Doxycycline **OR** TMP-SMX	7 days
Respiratory tract infections			
Bacterial rhinosinusitis	Amoxicillin/Clavulanic Acid	Doxycycline **OR** Moxifloxacin	5 days
Streptococcal pharyngitis	Amoxicillin	Azithromycin **OR** Clindamycin	Beta-lactam, clindamycin: 10 days Azithromycin: 5 days
COPD exacerbation	Azithromycin **OR** Doxycycline		If no change in character of sputum: no antibiotics If increase in volume and purulence of sputum: 5 days
Community-acquired pneumonia (CAP) without comorbidities	Amoxicillin **OR** doxycycline	Doxycycline	5 days
Community-acquired pneumonia (CAP) with comorbidities	Azithromycin **AND** Cefuroxime	Moxifloxacin	5 days
Genitourinary infections (Bacterial)			
Uncomplicated UTI (Lower Tract, limited to the bladder in afebrile men or women)	Nitrofurantoin **OR** Cefuroxime	Ciprofloxacin or trimethoprim/sulfamethoxazole	Nitrofurantoin: 5 days Cefuroxime: 7 days **Alternative** Ciprofloxacin or trimethoprim/sulfamethoxazole: 3 days
Complicated UTI (Upper Tract, above the bladder including kidney and ureters), CA-UTI WITH systemic symptoms	IM Ceftriaxone x 1 dose, then Ciprofloxacin **OR** TMP-SMX		Ciprofloxacin or TMP-SMX: 7 days **Alternative** Amox-clav (1st) or cefuroxime (2nd): 7 days
Asymptomatic Bacteriuria	Do not treat unless pregnant or undergoing invasive urologic procedures		
Prostatitis	Ciprofloxacin **OR** TMP-SMX		4-6 weeks
Genitourinary infections (Candida sp.)			
Vulvovaginal candidiasis	Fluconazole		150 mg one-time dose
Asymptomatic candiduria	Treatment not recommended unless patient is high risk: Neutropenic or undergoing invasive urologic procedures		

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