EMPIRIC ANTIBIOTIC GUIDELINES FOR COMMON INFECTIONS IN ADULT PATIENTS AT BH/BHMC 2025

- Developed based upon published recommendations and BH/MC susceptibility data
- Doses listed below are for normal renal function; pharmacists will adjust doses per renal function as per the YNHH Renal Dose Adjustment Protocol
- IV antibiotics will be converted to PO equivalents when patients meet conversion criteria as per the Intravenous (IV) to Enteral Medication Conversion Protocol for Adult Patients
- Empiric therapy should be streamlined pending identification and susceptibilities of identified pathogens
- Clinical Care Signature Pathways are available for select diseases states to help guide patient care. Pathways are listed for reference as available. Please consult the Clinical Care Signature Pathways tab in Epic for the most updated list of available pathways.

INFECTION	RECOMMENDED TREATMENT	TRUE ALLERGY TO BETA-LACTAMS[Δ]	RECOMMENDED ORAL STEPDOWN
Abdominal: Gallbladder (cholecystitis, cholangitis, biliary sepsis or common duct obstruction OR other Intra-abdominal Infection Available Pathways: 1. *Appendicitis (suspected or confirmed): Adult ED* 2. *ERAS Appendicitis/Appendectomy: Adult Inpatient* 3. *Cholangitis, Acute: Adult Inpatient* 4. *Cirrhosis Inpatient Care: Adult Inpatient (SBP)* 5. *Diverticulitis: Adult Inpatient*	Ceftriaxone 1g IV q24H **+** Metronidazole 500mg IVPO q12H	Ciprofloxacin IV/PO q12H **+** Metronidazole 500mg IV/PO q12H	Cefuroxime 500mg PO q12H **+** Metronidazole 500mg PO q12H **OR** Ciprofloxacin 500mg PO q12H **+** Metronidazole 500mg PO q12H
Line-Related Infection Available Pathways: 1. *Blood Culture Guidance for Hospitalized Patients: Adult Inpatient*	Vancomycin IV per pharmacy to dose protocol	Vancomycin IV per pharmacy to dose protocol	Oral stepdown therapy not recommended without ID consult. Streamline IV antibiotics to sensitivity of pathogen.
Meningitis Non-immunocompromised host Age 18-49 yo	Ceftriaxone 2g IV q12H **ID Consult Recommended**	**ID Consult Recommended**	Oral stepdown therapy not recommended without ID consult. Streamline IV antibiotics to sensitivity of pathogen.
Meningitis Immunocompromised Host Age ≥ 50 yo	Ceftriaxone 2g IV q12H + Ampicillin 2g IV q4H + Vancomycin IV per pharmacy to dose protocol **ID Consult Recommended**	**ID Consult Recommended**	Oral stepdown therapy not recommended without ID consult. Streamline IV antibiotics to sensitivity of pathogen.
Neutropenic Fever	Vancomycin IV per pharmacy to dose protocol + Cefepime 2g IV q8H **±** Aminoglycoside IV per pharmacy to dose protocol	Vancomycin IV per pharmacy to dose protocol + Ciprofloxacin 400mg IV q12H **±** Aminoglycoside IV per pharmacy to dose protocol	Ciprofloxacin 750mg PO q12H

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Pancreatitis (severe or necrotizing ONLY*) **In absence of infected and severe or necrotizing infection, antibiotic therapy is not indicated. Prophylactic antibiotics are generally not necessary in acute appendicitis, regardless of severity.* Available Pathways: 1. *Pancreatitis: Adult Inpatient*	Piperacillin/tazobactam 4.5g IV q6H **OR** Meropenem 1g IV q8H	Ciprofloxacin 400mg IV q12H **+** Metronidazole 500mg IV q12H	Ciprofloxacin 500mg PO q12H **+** Metronidazole 500mg PO q12H
Pneumonia: Aspiration (community-acquired) *Antibiotics not indicated in chemical pneumonitis* Available Pathways: 1. *Pneumonia: Adult ED* 2. *Pneumonia Management: Adult Inpatient*	Ampicillin/sulbactam 1.5g IV q6H	Moxifloxacin 400mg PO q24H *(IV formulation restricted to pharmacy entry only)* Lung abscess/empyema: Clindamycin 450mg PO q8H	Amoxicillin-clavulanate 875mg PO q12H **OR** Moxifloxacin 400mg PO q24H OR Clindamycin 450mg q8H
Pneumonia: Aspiration (nosocomial) *Antibiotics not indicated in chemical pneumonitis*	Cefepime 2g IV q8H **±** Vancomycin IV per pharmacy to dose protocol **OR** Piperacillin/tazobactam 4.5g IV q6H (ICU only) **+** Vancomycin IV per pharmacy to dose protocol	Ciprofloxacin IV/PO q12H **±** Vancomycin IV per pharmacy to dose protocol	Ciprofloxacin 500mg PO q12H
Pneumonia: Community Acquired	Ceftriaxone 1g IV q24H **+** Doxycycline 100mg IV/PO q12H **OR** Ampicillin/sulbactam 1.5g IV q6H **+** Doxycycline 100mg IV/PO q12H	Moxifloxacin 400mg PO q24H *(IV formulation restricted to pharmacy entry only)*	Cefuroxime axetil 500mg PO q12H **OR** Moxifloxacin 400mg PO q24H

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Pneumonia: Hospital Acquired or Ventilator Associated	**ICU Admission:** Vancomycin IV per pharmacy to dose protocol **+** Piperacillin/tazobactam 4.5g IV q6H **±** Aminoglycoside IV per pharmacy to dose protocol **Non-ICU Admission:** Vancomycin IV per pharmacy to dose protocol + Cefepime 2g IV q8H	Vancomycin IV per pharmacy to dose protocol **+** Ciprofloxacin 400mg IV q12H **±** Aminoglycoside IV per pharmacy to dose protocol	Streamline antibiotics to sensitivity of pathogen
Pelvic Inflammatory Disease Available Pathways: 1. *Sexually transmitted Infections (STI): Adult ED* 2. *Sexual Assault Evaluation: Adult ED*	**Outpatients:** Ceftriaxone* **+** Doxycycline 100mg PO BID x 14 days **+** Metronidazole 500mg PO BID x 14 days *Ceftriaxone dose: ≥150kg: 1g IM x 1 dose <150kg: 500mg IM x 1 dose **Inpatients:** Ceftriaxone 1g IV q24H + Doxycycline 100mg IV/PO q12H **+** Metronidazole 500mg IV/PO q12H	Clindamycin 900mg IV q8H **+** Gentamicin IV per pharmacy to dose protocol	Doxycycline 100mg PO q12H **+** Metronidazole 500mg PO q12H to complete 14 day course
Post-Operative Wound Infection	Vancomycin IV per pharmacy to dose protocol	Vancomycin IV per pharmacy to dose protocol	Streamline antibiotics to sensitivity of pathogen
Post-Operative Intra-abdominal Infection	Vancomycin IV per pharmacy to dose protocol **+** Ceftriaxone 1g IV q12H **+** Metronidazole 500mg IV/PO q12H	Vancomycin IV per pharmacy to dose protocol **+** Ciprofloxacin 500mg q12H **+** Metronidazole 500mg IV q12H	Cefuroxime axetil 500mg PO q12H **+** Metronidazole 500mg PO q12H **OR** Ciprofloxacin 400mg PO q12H **+** Metronidazole 500mg PO q12H
Sepsis (without obvious source) Available Pathways: 1. *Sepsis:: Adult Inpatient* 2. *Sepsis: Adult Emergency*	**ICU Admit**: Vancomycin IV per pharmacy to dose protocol **+** Piperacillin/tazobactam 4.5g IV q6H **±** Aminoglycoside IV pharmacy to dose protocol **Non-ICU Admit**: Vancomycin IV per pharmacy to dose protocol **+** Cefepime 2g IV q8H **±** Metronidazole 500mg IV/PO q12H **±** Aminoglycoside IV pharmacy to dose protocol	Vancomycin IV per pharmacy to dose protocol **+** Ciprofloxacin 400mg IV q12H **±** Metronidazole 500mg IV/PO q12H **±** Aminoglycoside IV pharmacy to dose protocol	Streamline antibiotics to sensitivity of pathogen

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Skin and Soft Tissue: Cellulitis Available Pathways: 1. *Cellulitis: Adult ED* 2. *Cellulitis: Adult Inpatient*	**Nonpurulent (No MRSA Suspected):** Penicillin G 3 million units IV q4H **OR** Cefazolin 1-2g IV q8H **Purulent (MRSA Suspected):** Vancomycin IV per pharmacy to dose protocol	Vancomycin IV per pharmacy to dose protocol	Dicloxacillin 500mg PO q6H **OR** Cephalexin 500mg PO q6H **OR** Doxycycline 100mg PO BID
Skin and Soft Tissue: Decubitus Ulcer or Diabetic Foot Infection Available Pathways: 1. *Ulcer of Foot or Ankle: Adult Inpatient*	Ampicillin/sulbactam 1.5g IV q6H **+** Vancomycin IV per pharmacy to dose protocol	Vancomycin IV per pharmacy to dose protocol **+** Ciprofloxacin IV/PO q12H **+** Metronidazole 500mg IV/PO q12H	Amoxicillin/clavulanate 875mg PO q12H **+/-** Doxycycline 100mg PO q12H **OR** Ciprofloxacin 500mg PO q12H + Metronidazole 500mg PO q12H +/- Doxycycline 100mg PO q12H
Skin and Soft Tissue: Osteomyelitis	Vancomycin IV per pharmacy to dose protocol **+** Ampicillin/sulbactam 1.5g IV q6H **OR** Vancomycin IV per pharmacy to dose protocol **+** Cefepime 2g IV q8H **+** Metronidazole 500mg IV/PO q12H (if *Pseudomonas aeruginosa* concern)	Vancomycin IV per pharmacy to dose protocol **+** Ciprofloxacin IV/PO q12H **+** Metronidazole 500mg IV/PO q12H	Oral stepdown therapy not recommended without ID consult. Streamline IV antibiotics to sensitivity of pathogen.
Urinary Tract Infections (community acquired) Available Pathways: 1. UTI-Evaluation and Treatment: Adult Inpatient	**IV Therapy:** Cefazolin 1g IV q8H **OR** Ceftriaxone 1g IV q24H **PO Therapy:** Cefuroxime axetil 500mg PO q12H	Ciprofloxacin IV/PO q12H **OR** TMP/SMX PO (1-2 tabs q12H or liquid equivalent) **OR** Nitrofurantoin 100mg PO q12H	Streamline antibiotics to sensitivity of pathogen Cefuroxime axetil 500mg PO q12H **OR** Nitrofurantoin 100mg PO q12H **OR** Ciprofloxacin 500mg PO q12H **OR** TMP/SMX PO (1-2 tabs q12 hours or liquid equivalent) **OR** Fosfomycin 3g PO x 1 (ESBL *E.Coli* cystitis only)

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Urinary Tract Infections (nosocomial/acquired) Review patient-specific culture history to help guide empiric therapy Available Pathways: UTI-Evaluation and Treatment: Adult Inpatient	Cefepime 2g IV q8H	Ciprofloxacin 400mg IV q12H	Streamline antibiotics to sensitivity of pathogen Cefuroxime axetil 500mg PO q12H **OR** Nitrofurantoin 100mg PO q12H **OR** Ciprofloxacin 500mg PO q12H **OR** TMP/SMX PO (1-2 tabs q12 hours or liquid equivalent) **OR** Fosfomycin 3g PO x 1 (ESBL *E.Coli* cystitis only)
Uncomplicated cervicitis, urethritis (Treat for both gonococcal and non-gonococcal infections) Available Pathways: 1. *Sexually transmitted Infections (STI): Adult ED* 2. *Sexual Assault Evaluation: Adult ED*	Ceftriaxone* **+** Doxycycline 100mg PO BID x 7 days *Ceftriaxone dose: ≥150kg: 1g IM x 1 dose <150kg: 500mg IM x 1 dose	Gentamicin 240mg IM x 1 **+** Azithromycin 2,000mg PO x 1	None

[Δ]True allergy to beta-lactams: True and severe drug allergies to penicillin and beta-lactam antibiotics are rare. Please investigate allergy history thoroughly prior to using second-line antibiotics. Second-line antibiotics are associated with increased adverse effects, emergence of drug resistance and reduced clinical efficacy as compared with first-line beta-lactam antibiotics. Consider contacting the pharmacy department as needed for a review of previously administered antibiotics for patients with documented penicillin or beta-lactam allergies to evaluate past tolerance of beta-lactam antibiotics.