

ANMC Antibiotic Guidelines for Gastrointestinal Infection

| High Risk/Severe Criteria | Suspected Pathogens | Cultures |
|---|--|---|
| <ul style="list-style-type: none"> Albumin <2.5 Age >70 yo Immunocompromised state Severe sepsis/septic shock | Polymicrobial process: Enterobacteriaceae <i>Enterococcus</i> sp. Anaerobes* (including <i>Bacteroides</i> sp.) *Less significant for biliary sources unless bile duct to bowel anastomosis or fistula present | <ul style="list-style-type: none"> Routinely obtaining cultures is not recommended for community-acquired infections. Cultures SHOULD be obtained in patients with nosocomial infection or who require operation for prior treatment failure |

Antibiotic Selection

| | Mild-Moderate Risk | High Risk/Severe | Duration of Therapy |
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| Extra-biliary Source <ul style="list-style-type: none"> Appendicitis Diverticulitis Bowel perforation with peritonitis | <u>Preferred therapy:</u> <ul style="list-style-type: none"> Cefazolin 2gm IV q8hr PLUS Metronidazole 500mg IV q8hr <u>Anaphylactic Beta-Lactam Allergy:</u> <ul style="list-style-type: none"> Levofloxacin 500mg IV q24hr PLUS Metronidazole 500mg IV q8hr | <u>Preferred therapy:</u> <ul style="list-style-type: none"> Piperacillin/Tazobactam 3.375gm IV q8hr (extended infusion over 4 hours) <u>Anaphylactic Beta-Lactam Allergy:</u> <ul style="list-style-type: none"> Levofloxacin 500mg IV q24hr PLUS Metronidazole 500mg IV q8hr | <ul style="list-style-type: none"> Adequate surgical source control achieved*: 4 days Retained focus of infection <ul style="list-style-type: none"> Guided by clinical response Consider ID consult Uncomplicated diverticulitis: 5 days |
| Biliary Source <ul style="list-style-type: none"> Cholecystitis Cholangitis | <u>Preferred therapy:</u> <ul style="list-style-type: none"> Cefazolin 2gm IV q8hr <u>Anaphylactic Beta-Lactam Allergy:</u> <ul style="list-style-type: none"> Levofloxacin 500mg IV q24hr -If bilio-enteric anastomosis present ADD Metronidazole 500mg IV/PO q8hr | <u>Preferred therapy:</u> <ul style="list-style-type: none"> Piperacillin/Tazobactam 3.375gm IV q8hr (extended infusion over 4 hours) <u>Anaphylactic Beta-Lactam Allergy:</u> <ul style="list-style-type: none"> Levofloxacin 500mg IV q24hr PLUS Metronidazole 500mg IV q8hr | <ul style="list-style-type: none"> Uncomplicated: ≤ 24 hours Non-operative (uncomplicated) management: 5 days Complicated: 7-14 days <ul style="list-style-type: none"> Delayed clinical response Inadequate source control* Consider ID consult |

| Pediatric Dosing [^] | IV to PO Conversion |
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| <ul style="list-style-type: none"> Cefazolin 30 mg/kg IV q8hr (max 2000mg/dose) Cephalexin 20 mg/kg PO q8hr (max 4000mg/day) Ciprofloxacin 15 mg/kg PO q12hr (max 500mg/dose) Levofloxacin 10 mg/kg IV q24hr (q12hr if <5 yo) (max 500mg/dose) Metronidazole 10 mg/kg IV/PO q8hr (max 500mg/dose) Piperacillin/Tazobactam 112.5 mg/kg IV q8hr (max 3.375gm/dose) ^Pediatric abx selection is the same as adults, dosing is provided here for reference. | <ul style="list-style-type: none"> Cefazolin 2g IV q8hr → Cephalexin 1g PO TID Levofloxacin 500mg IV q24hr → Levofloxacin 500mg PO q24hr Metronidazole 500mg IV q8hr → Metronidazole 500mg PO q8hr Piperacillin/Tazobactam → Depends on clinical scenario; consider antimicrobial pharmacy or infectious diseases consultation |

Considerations:

- Due to *E.coli* resistance >10%, empiric quinolone use alone is cautioned in high-risk/severe cases
 - ANMC *E.coli* susceptibility please refer to ANMC Antibiogram on ASP intranet site
 - Ampicillin-sulbactam is not recommended for use because of high rates of resistance among community-acquired *E. coli* (62% susceptibility for ANMC 2018) and *B. fragilis*
- *Source control as determined by operative surgeon (as defined per IDSA: single procedure or series of procedures that eliminate infectious foci, control factors that promote ongoing infection, and correct or control anastomatic derangements to restore normal physiologic function)
- Empiric coverage of *Enterococcus* or *Candida* is NOT recommended for mild-moderate community-acquired intra-abdominal infections
 - Empiric Enterococcal therapy is recommended for health-care associated infections with previous cephalosporin therapy, immunocompromised patients, and those with valvular heart disease or prosthetic intravascular materials.
- Bowel injuries from penetrating, blunt, or iatrogenic trauma repaired w/in 12hr or other intraoperative contamination of the operative field by enteric contents should be treated w/ abx for ≤24hrs.
- Use of ursodeoxycholic acid and/or antibiotics for the prevention of biliary stent occlusion or infection is NOT routinely recommended.
- Need for antibiotics in mild, outpatient diverticulitis disease remains controversial
- Aminoglycosides are not recommended for routine use in adults with community acquired intra-abdominal infection because of the availability of less toxic agents demonstrated to be at least equally effective but may be necessary in high risk/severity patients with Anaphylactic PCN or Cephalosporin allergy.

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