

Intra-Abdominal Infections (IAI)

EMPIRIC TREATMENT

Uncomplicated IAI: involves source organ only		
Severity		Duration (days) following source control
Mild-moderate infection <i>e.g., appendicitis or cholecystitis without perforation</i>	cefazolin 2 g IV q8h PLUS metronidazole 500 mg IV/PO q12h <i>If severe beta-lactam allergy:</i> ciprofloxacin 400 mg IV q12h ¹ AND metronidazole 500 mg IV/PO q12h	≤ 24 hours post-op
Perforation without established infection <i>e.g., perforated peptic ulcer with source control within 24 hours</i>	cefazolin 2 g IV q8h <i>If gastric acid suppression or gastric malignancy:</i> ADD metronidazole 500 mg IV/PO q12h <i>If severe beta-lactam allergy:</i> ciprofloxacin 400 mg IV q12h ¹ AND metronidazole 500 mg IV/PO q12h	≤ 24 hours post-op
Complicated IAI: extends beyond source organ		
Mild-moderate infection <i>e.g., diverticulitis, perforated appendicitis, perforated peptic ulcer with delayed surgery >24 hours</i>	ceftriaxone 2 g IV q24h AND metronidazole 500 mg IV/PO q12h <i>If severe beta-lactam allergy:</i> ciprofloxacin 400 mg IV q12h ¹ AND metronidazole 500 mg IV/PO q12h	4-7
Severe infection OR Health care-Associated	piperacillin-tazobactam 3.375 g IV q6h <i>If severe beta-lactam allergy:</i> meropenem 500 mg IV q6h	4-7
Post-Operative Complicated IAI		
Mild-moderate infection <i>e.g., post-operative abscess, anastomotic leak, peritonitis</i>	piperacillin-tazobactam 3.375 g IV q6h <i>If severe beta-lactam allergy:</i> ciprofloxacin 400 mg IV q12h ¹ AND metronidazole 500 mg IV/PO q12h <i>If MRSA suspected: ADD vancomycin²</i>	4-7
Severe infection <i>(sepsis or septic shock)</i>	meropenem 500 mg IV q6h AND vancomycin ² <i>If yeast or candida identified: ADD micafungin 100 mg IV q24h</i>	4-7
Cholangitis		
Mild-moderate infection	ceftriaxone 2 g IV q24h <i>If severe beta-lactam allergy:</i> ciprofloxacin 400 mg IV q12h ¹ <i>If biliary-enteric anastomosis: ADD metronidazole 500 mg IV/PO q12h</i>	4-7
Severe infection OR Health care-Associated	piperacillin-tazobactam 3.375 g IV q6h <i>If severe beta-lactam allergy:</i> imipenem 500 mg IV q6h <i>If known VRE colonization: ADD linezolid 600 mg IV/PO q12h</i>	4-7
Oral Step-Down & Duration		
Oral Step-Down	When patient clinically improving and able to take PO medications: amoxicillin-clavulanate 875-125 mg one tab PO BID <i>If severe beta-lactam allergy:</i> moxifloxacin 400 mg PO daily OR ciprofloxacin 500 mg PO BID AND metronidazole 500 mg PO BID	
Duration	-Patients with adequate source control procedure (e.g., surgery, IR drainage, ERCP) can have their antibiotics discontinued 4 days after the procedure. -Patients who DO NOT have adequate source control may require prolonged course of antibiotics dependent on clinical and radiographic response. Consider expert consultation.	

¹ Or ciprofloxacin 500 mg PO BID if hemodynamically stable, able to swallow, and functioning GI tract.

² For vancomycin dosing, refer to "Vancomycin Dosing and Therapeutic Monitoring"