

Intra-abdominal Infections in Adults

Solomkin JS, Mazuski JE, Bradley JS, et al. Diagnosis and management of complicated intra-abdominal infection in adults and children: guidelines by the Surgical Infection Society and the Infectious Diseases Society of America. Clin Infect Dis 2010;50(2):133-64.

Infection	Modifying factors	Usual pathogens	Empiric Antibiotic Therapy (Mild penicillin allergies (i.e. rash): cephalosporins may be safely used)	Alternative Antibiotic Therapy (Severe penicillin allergy: anaphylaxis, angioedema, respiratory distress, hives)	Treatment Duration (combined IV+PO)	
	Uncomplicated appendicitis	Antibiotic treatment beyond surgical prophylaxis may not be necessary				
Uncomplicated intra-abdominal infection (mild-moderate) Community-acquired (hospitalized ≤ 3 days), ruptured appendicitis	Diverticulitis, peritonitis	Enterobacteriaceae (<i>E. coli</i> , <i>K. pneumoniae</i>), Streptococci, anaerobes (e.g., <i>B. fragilis</i>)	<u>IV</u> Ceftriaxone IV + Metronidazole IV <u>PO</u> Option 1: Cefuroxime PO + Metronidazole PO Option 2: Cefdinir PO + Metronidazole PO	<u>IV</u> Ciprofloxacin IV + Metronidazole IV ± Gentamicin IV <u>PO</u> Ciprofloxacin PO + Metronidazole PO	4–7 days	
	Cholecystitis/ cholangitis)	Enterobacteriaceae (<i>E. coli</i> , <i>K. pneumoniae</i>), Streptococci	<u>IV</u> Ceftriaxone IV <u>PO</u> Option 1: Cefuroxime PO Option 2: Cefdinir PO	<u>IV</u> Ciprofloxacin IV ± Gentamicin IV <u>PO</u> Ciprofloxacin PO		
Complicated intra-abdominal infection (high risk or severity) (severe physiologic disturbance, advanced age, or immunocompromised state)		As above plus <i>P. aeruginosa</i>	Option 1: Piperacillin/tazobactam IV Option 2: Cefepime IV + Metronidazole IV/PO	Aztreonam IV + Metronidazole IV/PO + Vancomycin IV	4–7 days (may need to be extended with inadequate source control)	

The above recommendations are a guide for the selection of empiric antibiotic therapy. Consider modifying antibiotic therapy if cultures and sensitivity results are available.

Antibiotic recommendations are based on the example antibiogram provided. Facility-specific guidelines should be created using local susceptibility data.