

Clinical Guideline

Guidelines for the Selection of Anti-infective Agents for OBGYN Intra-abdominal Infections

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SUMMARY

These guidelines, from the Infectious Diseases Society of America (IDSA), the Surgical Infection Society, the American Society for Microbiology, and the Society of Infectious Disease Pharmacists, contain evidence-based recommendations for selection of antimicrobial therapy for adult patients with complicated intra-abdominal infections. Complicated intra-abdominal infections extend beyond the hollow viscus of origin into the peritoneal space and are associated either with abscess formation or with peritonitis. These guidelines also address timing of initiation of antibiotic therapy, when and what to culture, modification of therapy based on culture results, and duration of therapy.

Infecting flora. The anticipated infecting flora in these infections and, therefore, the agent(s) selected are determined by whether the infection is community acquired or health care associated. Health care-associated intra-abdominal infections are most commonly acquired as complications of previous elective or emergent intra-abdominal operations and are caused by nosocomial isolates particular to the site of the operation and to the specific hospital and unit.

For community-acquired infections, the location of the gastrointestinal perforation (stomach, duodenum, jejunum, ileum, appendix, or colon) defines the infecting flora. Established infection beyond the proximal small bowel is caused by facultative and aerobic gram-negative organisms; infections beyond the proximal ileum also can be caused by a variety of anaerobic microorganisms.

Microbiologic evaluation. Given the activity of common regimens against the anaerobic organisms identified in community-acquired infections, microbiologic workup for specimens from such infections should be limited to identification and susceptibility testing of facultative and aerobic gram-negative bacilli. Susceptibility profiles for *Bacteroides fragilis* group isolates demonstrate substantial resistance to clindamycin, cefotetan, cefoxitin, and quinolones, and these agents should not be used alone empirically in contexts in which *B. fragilis* is likely to be encountered.

Recommended regimens. These infections may be managed with a variety of single- and multiple-agent regimens. The antimicrobials and combinations of antimicrobials listed in table 1 are considered appropriate for the treatment of community-acquired intra-abdominal infections. No regimen has been consistently demonstrated to be superior or inferior. Although many of the listed regimens have been studied in prospective clinical trials, many such studies have serious design flaws. Recommendations are, therefore, based in part on in vitro activities.