

Denver Health Guideline for the Management of Non-Pregnant Adults with Complicated Intra-abdominal Infections

Known or suspected **complicated intra-abdominal infection**:
 1) infection extending beyond hollow viscus of origin into the peritoneal space
 AND
 2) peritonitis or abscess formation

Associated with *any* of the following:
 - Recent abdominal surgery (elective or emergent)
 - Prior treatment of current infection with antibiotic
 - Hospital stay (pre-operative) or antimicrobial treatment >48 hours
 - Immunosuppressive therapy (chemotherapy, organ transplantation, other)

No **Yes**

Community-acquired infection

Health care-associated

Clinical or hemodynamic instability, severe sepsis, OR septic shock

No

Yes

Empiric antibiotic coverage*:
 Ceftriaxone 1gm IV Q24 hrs
plus
 Metronidazole 500mg IV Q8 hrs[†]

Empiric antibiotic coverage*:
 Piperacillin/tazobactam 4.5gm IV Q8 hrs
 Add vancomycin 1gm IV Q12 hrs *if* clinical or hemodynamic instability, severe sepsis, or septic shock

Source control of infection:
 Send fluid or tissue for gram stain and bacterial culture in anaerobic transport system (swabs not appropriate specimens)

Narrow antibiotic therapy based on culture data

- normalization of temperature AND
- normalization of WBC count AND
- return of gastrointestinal function

Persistent or recurrent clinical evidence of infection after 5–7 days of therapy

Consider CT scan, ultrasound, or additional intervention for source control

Discontinue antibiotic therapy

No evidence of new or persistent infection after evaluation

New or persistent infection

*dosing for normal renal function shown; adjust for renal insufficiency
 † routine coverage of Enterococcus species is not indicated for community-acquired infections but should be included for health care-associated infections

- **Source control**
- Continue antibiotic therapy, adjust as needed