

EMPIRIC CHOICE

- ✦ Ceftriaxone 1g* IV daily

DURATION

- ✦ 5 days

ALTERNATIVES FOR ALLERGIES

- ✦ Ertapenem 1g IV daily (cross-reactivity ~ 1% with penicillin allergy, see [β-Lactam allergy summary](#))
- ✦ Moxifloxacin 400mg PO/IV daily

COMMON ORGANISMS

- ✦ Vast majority of cases are monomicrobial (polymicrobial infections warrant evaluation for other causes)
- ✦ Enterobacteriaceae (*E. coli*, *K. pneumoniae* in particular)
- ✦ *Streptococcus pneumoniae*
- ✦ Other *Streptococcus* or *Enterococcus* spp., *S. aureus* (less frequent)

CURRENT RESISTANCE ISSUES

- ✦ High likelihood of fluoroquinolone resistance if patient has been receiving fluoroquinolone prophylaxis

ADDITIONAL DIAGNOSTIC AND THERAPEUTIC COMMENTS

- ✦ Cultures:
 - All patients with cirrhosis and ascites should have a diagnostic paracentesis upon admission to hospital, change in clinical status or with GI bleeding, may be sent in blood culture bottles for higher yield.
 - Blood cultures (2 sets) should be obtained prior to starting antibiotics
- ✦ Antibiotics:
 - Start empiric antibiotics if ascitic fluid neutrophil count ≥ 250 cells/mm³
 - If paracentesis is contraindicated or cannot be performed, other clinical considerations for starting empiric antibiotics include fever $\geq 38^{\circ}\text{C}$, abdominal pain, altered level of consciousness
- ✦ Antibiotic regimen should be tailored based on culture results
- ✦ Consider Infectious Diseases consultation if polymicrobial infection, unusual organism isolated (e.g. *Pseudomonas*), or non-resolving infection
- ✦ Follow-up paracentesis is recommended if fever persists after 5 days or if infection is polymicrobial

ADDITIONAL PROPHYLAXIS CONSIDERATIONS

- ✦ For patients with prior SBP secondary prophylaxis has been shown to decrease future episodes
- ✦ Options include norfloxacin 400mg PO daily, TMP-SMX 1 DS tab PO daily, or ciprofloxacin 750mg PO weekly (intermittent dosing may select for resistant flora more rapidly)

References:

- Such J, Runyon BA. Spontaneous bacterial peritonitis. *Clin Infect Dis*. 1998;27:669.
- Sort P, Navasa M, Arroyo V, et al. Effect of Intravenous Albumin on Renal Impairment and Mortality in Patients with Cirrhosis and Spontaneous Bacterial Peritonitis. *NEJM*. 1999;341:403-9.
- Chavez-Tapia NC, Barrientos-Gutierrez T, et al. Meta-analysis: antibiotic prophylaxis for cirrhotic patients with upper gastrointestinal bleeding - an updated Cochrane review. *Aliment Pharmacol Ther*. 2011.

***Although initial trials of therapy with ceftriaxone used 2g per dose, current literature does not support the need for routine administration of higher doses.**