Spontaneous Bacterial Peritonitis (SBP) or Spontaneous Bacterial Pleuritis, Cirrhosis Adult Panel

For adults with cirrhosis diagnosed with Spontaneous Bacterial Peritonitis (ascites PMN greater than 250 cells/mm^3) or Spontaneous Bacterial Pleuritis (pleural fluid PMN greater than 500 cells/mm^3 or greater than 250 cells/mm^3 with positive culture).

Recommendations for Plasma Protein Albumin infusions (ordered using the Plasma Protein Albumin 25% panel):
Day 1 - Albumin 25% (100ml=25g) IV 1.5 g/kg. Maximum dose is 400ml (100g) per day.
THEN
Day 3 - Albumin 25% (100ml-25g) IV 1g/kg on day 3 of SBP treatment. Maximum dose is 400ml (100g) per day.

☐ Blood Culture Panel - Adult x 2

Diagnostic Imaging

Ultrasound guided paracentesis - Consider repeating a diagnostic paracentesis after 48 hours of antibiotic therapy. With non-response (less than 25% reduction in the PMN count), consider broadening antibiotic therapy and ruling out secondary peritonitis: open and merge Gastroenterology Ascites Fluid Analysis panel (diagnostic).

Consider CT Abdomen if polymicrobial culture or signs of secondary peritonitis and no contraindication to CT.

☐ CT Abdomen
Once

Medications

Antibacterial

Select Risk Factor:

Consider the following risk factors when choosing appropriate antibiotics: Hospitalization or antibiotic use within the last 3 months, from long-term care or on hemodialysis, infection starting at or after 72 hours post admission, previous documented colonization or infection with MRSA, VRE or an Extended Spectrum Beta-lactamase producing organism, presentation with sepsis/septic shock. In all patients, it is essential to review and narrow the antibiotic spectrum as soon as possible (72 hours) using culture and susceptibility results. Most patients will need treatment for 7 days.

○ For patients without risk factors for healthcare associated infection, hospital acquired infection or sepsis/septic shock

○ cefTRIAXone IV ($4.29)
2 g, intravenous, every 24 hours, scheduled

○ ciproFLOXacin IV or PO

○ ciprofloxacin IV ($7.20)
400 mg, intravenous, every 12 hours

○ ciprofloxacin tablet ($0.11)
500 mg, oral, 2 times per day

○ Risk factors for healthcare associated infection (hospitalization or antibiotic use within the last 3 months, from long-term care, or on hemodialysis)

○ piperacillin-tazobactam 4.5 g in NaCl 0.9% 100 mL MFG/Premix ($31)
4.5 g, intravenous, every 8 hours, scheduled, First Dose today at 1615

○ If patient has a known Penicillin Allergy

cefTRIAXone 2 g in NaCl 0.9% 100 mL MFG/Premix ($4.29)
2 g, intravenous, every 24 hours, scheduled, First Dose today at 1615

vancomycin IV

○ Vancomycin Loading dose followed by scheduled dose

vancomycin 2,000 mg in NaCl 0.9% 500 mL bag ($8.71)
2,000 mg (rounded from 2,040 mg = 25 mg/kg/dose × 81.6 kg), intravenous, once, today at 1615, For 1 dose
Based on actual body weight; maximum maintenance dose is 2 grams. Adjust based on CrCl and dosing tables- reassess at 48-72h with culture results. Vancomycin pre-level 30 minutes or less prior to 4th dose. Do not hold next dose while waiting for results. Consult pharmacist before rescheduling administration times as it may impact drug levels.

Followed by

vancomycin 1250 mg in NaCl 0.9% 250 mL mfg ($8.71)
1,250 mg (rounded from 1,224 mg = 15 mg/kg/dose × 81.6 kg), intravenous, every 12 hours, First Dose tomorrow at 0415
Based on actual body weight; maximum maintenance dose is 2 grams. Adjust based on CrCl and dosing tables- reassess at 48-72h with culture results. Vancomycin pre-level 30 minutes or less prior to 4th dose. Do not hold next dose while waiting for results. Consult pharmacist before rescheduling administration times as it may impact drug levels.

If patient has a known Cephalosporin Allergy

ciproFLOXacin IV or PO

- ciprofloxacin IV ($7.20)
  400 mg, intravenous, every 12 hours, scheduled
- ciprofloxacin tablet ($0.11)
  500 mg, oral, 2 times per day

vancomycin IV

Vancomycin Loading dose followed by scheduled dose

vancomycin 2,000 mg in NaCl 0.9% 500 mL bag ($8.71)

2,000 mg (rounded from 2,040 mg = 25 mg/kg/dose × 81.6 kg), intravenous, once, today at 1615, For 1 dose
Based on actual body weight; maximum maintenance dose is 2 grams. Adjust based on CrCl and dosing tables- reassess at 48-72h with culture results. Vancomycin pre-level 30 minutes or less prior to 4th dose. Do not hold next dose while waiting for results. Consult pharmacist before rescheduling administration times as it may impact drug levels.

Followed by

vancomycin 1250 mg in NaCl 0.9% 250 mL mfg ($8.71)

1,250 mg (rounded from 1,224 mg = 15 mg/kg/dose × 81.6 kg), intravenous, every 12 hours, First Dose tomorrow at 0415
Based on actual body weight; maximum maintenance dose is 2 grams. Adjust based on CrCl and dosing tables- reassess at 48-72h with culture results. Vancomycin pre-level 30 minutes or less prior to 4th dose. Do not hold next dose while waiting for results. Consult pharmacist before rescheduling administration times as it may impact drug levels.

Hospital acquired infection (infection starting at or after 72 hours post admission) OR previous documented colonization or infection with an Extended Spectrum Beta-lactamase or AmpC producing organism

- meropenem IV ($14)
  500 mg, intravenous, every 6 hours, scheduled, adjust dose based on creatinine clearance

meropenem and vancomycin IV

meropenem 500 mg in NaCl 0.9% 50 mL mfg ($14)

500 mg, intravenous, every 6 hours, scheduled, First Dose today at 1800
adjust dose based on creatinine clearance

vancomycin IV

Vancomycin Loading dose followed by scheduled dose

vancomycin 2,000 mg in NaCl 0.9% 500 mL bag ($8.71)

2,000 mg (rounded from 2,040 mg = 25 mg/kg/dose × 81.6 kg), intravenous, once, today at 1615, For 1 dose
Based on actual body weight; maximum maintenance dose is 2 grams. Adjust based on CrCl and dosing tables- reassess at 48-72h with culture results. Vancomycin pre-level 30 minutes or less prior to 4th dose. Do not hold next dose while waiting for results. Consult pharmacist before rescheduling administration times as it may impact drug levels.

Followed by

vancomycin 1250 mg in NaCl 0.9% 250 mL mfg ($8.71)

1,250 mg (rounded from 1,224 mg = 15 mg/kg/dose × 81.6 kg), intravenous, every 12 hours, First Dose tomorrow at 0415
Based on actual body weight; maximum maintenance dose is 2 grams. Adjust based on CrCl and dosing tables- reassess at 48-72h with culture results. Vancomycin pre-level 30 minutes or less prior to 4th dose. Do not hold next dose while waiting for results. Consult pharmacist before rescheduling administration times as it may impact drug levels.

meropenem and linezolid

meropenem 500 mg in NaCl 0.9% 50 mL mfg ($14)

500 mg, intravenous, every 6 hours, scheduled, First Dose today at 1800
adjust dose based on creatinine clearance

linezolid IV or PO

- linezolid injection ($31)
  600 mg, intravenous, every 12 hours, scheduled, use instead of Vancomycin if suspected VRE
- linezolid tablet ($33)
  600 mg, oral, every 12 hours, scheduled, use instead of Vancomycin if suspected VRE

For any unstable patient with prior colonization/infection with MRSA, add in

vancomycin IV

Vancomycin Loading dose followed by scheduled dose

vancomycin 2,000 mg in NaCl 0.9% 500 mL bag ($8.71)

2,000 mg (rounded from 2,040 mg = 25 mg/kg/dose × 81.6 kg), intravenous, once, today at 1615, For 1 dose
Based on actual body weight; maximum maintenance dose is 2 grams. Adjust based on CrCl and dosing tables-reassess at 48-72h with culture results. Vancomycin pre-level 30 minutes or less prior to 4th dose. Do not hold next dose while waiting for results. Consult pharmacist before rescheduling administration times as it may impact drug levels.

Followed by

vancomycin 1250 mg in NaCl 0.9% 250 mL mfg ($8.71)

1,250 mg (rounded from 1,224 mg = 15 mg/kg/dose × 81.6 kg), intravenous, every 12 hours, scheduled, First Dose tomorrow at 0800
Based on actual body weight; maximum maintenance dose is 2 grams. Adjust based on CrCl and dosing tables-reassess at 48-72h with culture results. Vancomycin pre-level 30 minutes or less prior to 4th dose. Do not hold next dose while waiting for results. Consult pharmacist before rescheduling administration times as it may impact drug levels.

For any unstable patient with prior colonization/infection with VRE, add in

linezolid IV or PO

- linezolid injection ($31)
  600 mg, intravenous, every 12 hours, scheduled, use instead of Vancomycin if suspected VRE
- linezolid tablet ($33)
  600 mg, oral, every 12 hours, scheduled, use instead of Vancomycin if suspected VRE

Long Term Prophylaxis

After IV antibiotics are complete start secondary prophylaxis with ciprofloxacin or co-trimoxazole. (Consider switching to Norfloxacin 400 mg PO daily at discharge as the first choice for long-term therapy).

Note: These are currently defaulted to start in 7 days from start of order. Change start time as needed.

- ciprofloxacin tablet ($0.11)
  500 mg, oral, daily, 2 hours after breakfast, Starting H+168 Hours
- sulfamethoxazole-trimethoprim 800 mg-160 mg per tablet ($0.23)
  160 mg of trimethoprim, oral, daily, Starting H+168 Hours