

Antimicrobial Treatment and Prophylaxis of Spontaneous Bacterial Peritonitis

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Diagnosis

Spontaneous Bacterial Peritonitis (SBP) is a frequent and serious complication of cirrhotic patients with ascites. If your patient has liver cirrhosis, alcohol excess or alcoholic liver disease AND clinical ascites or shifting dullness or a fluid thrill present SBP should be suspected.

Investigations

A diagnostic ascitic tap should be performed and an urgent sample sent to:

- Microbiology for microscopy/gram stain and RCC/WCC cell counts.
- Microbiology (in blood culture bottle) for culture and sensitivities
- Biochemistry for albumin, protein and amylase

SBP is confirmed if:

- Neutrophil count of >250 cells/mm³
OR
- WCC count >250 cells/mm³
AND
 $\geq 90\%$ polymorphs

Ensure antibiotic treatment (see below) is prescribed, ascites is drained and IV human albumin solution (4-5%) ordered and prescribed (1 unit infused, for every 3L ascitic fluid drained, the total albumin required can be infused over up to 48 hours).

Antibiotic Treatment

SEVERE DISEASE (i.e. patient is unwell) Total IV + PO course: 5-7 days

- 1st line - Co-trimoxazole IV 960mg BD (*If CrCl <30 ml/min reduce dose to 480mg BD*)
- If unable to have co-trimoxazole eg. allergy - Piperacillin/Tazobactam IV 4.5g TDS. (*If CrCl <20 ml/min reduce to 4.5g BD*)
Step down to Co-trimoxazole PO 960mg BD to finish course when clinically improved (*If CrCl <30 ml/min reduce dose to 480mg BD*)
- If patient usually on prophylaxis give Piperacillin/Tazobactam IV 4.5g tds for complete course (*or if Penicillin allergy IV Co-trimoxazole 960mg bd*)

MILD DISEASE (i.e. incidental diagnosis on routine tap) Total course: 5-7 days

- Co-trimoxazole PO 960mg BD
- If CrCl <30 ml/min reduce dose to 480mg BD

Antibiotic Prophylaxis

Prophylaxis should be given to patients who do not have SBP but are at risk and those who have finished an SBP treatment course above and are still hospital inpatients. All prophylaxis should be stopped on discharge from hospital unless specific instructions from a consultant are documented in the medical notes.

- Co-trimoxazole PO 960mg OD
- If CrCl <30 ml/min reduce dose to 480mg OD
- If co-trimoxazole is contraindicated: ciprofloxacin 500mg OD, if CrCl <20 ml/min reduce dose to 250mg OD (please note the MHRA fluoroquinolone warnings Jan 2024 [FQ Warnings AMG key points.pdf \(scot.nhs.uk\)](https://www.mhra.gov.uk/safetyandpharmacovigilance/fluoroquinolone-warnings) and ensure patients are counselled and provided with [MHRA patient information leaflet](#))