Antibiotic Guidelines for Adult Patients with Spontaneous Bacterial Peritonitis or Liver Cirrhosis with Upper Gastrointestinal Bleed.

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Ratified by	• Nottingham Antibiotic Guidelines Committee • Drugs and Therapeutics Committee
Authors	• Drs Aithal, Ryder and Teli – Consultant Gastroenterologists • Mr Tim Hills – Senior Pharmacist Microbiology and Infection Control • Dr Vivienne Weston – Consultant Microbiologist.
Consultation:	• Consultants (Gastroenterology), NCH and QMC • Nottingham Antibiotic Guidelines Committee Members. • Gastroenterology Pharmacists: Azma Malik, Maureen Milligan
Evidence Base	• Medline literature search -2008 • British Society of Gastroenterology Guidelines • Recommended best practice based on clinical experience of guideline developers
Changes from previous Guideline	• Spontaneous bacterial peritonitis prophylaxis regimen changed to daily administration to improve compliance. • New guidelines for patients with liver cirrhosis and Gastrointestinal bleed. • Minor update January 2009 where " Tazocin® " was advised it has been replaced by Piperacillin/Tazobactam
Audit	• Annual Directorate Audit Plans as appropriate
Distribution	• Relevant ward areas EAU, Hogarth, D57, B3, F21 • NCH and QMC Antibiotic websites
Local Contacts	• Tim Hills ext 65955 • Vivienne Weston ext 64179

This guideline has been registered with the Trust. However, clinical guidelines are 'guidelines' only. The interpretation and application of clinical guidelines will remain the responsibility of the individual clinician. If in doubt consult a senior colleague or expert. Caution is advised when using guidelines after the review date.

Antibiotic Treatment and Prophylaxis of Spontaneous bacterial peritonitis

Diagnosis

Spontaneous Bacterial Peritonitis (SBP) is a frequent and serious complication of cirrhotic patients with ascites. Patients with SBP are frequently asymptomatic and present in 15% of all those with ascites admitted to hospital irrespective of their symptoms. Diagnosis should also be suspected in cirrhotic patients with ascites presenting with:

- Acute deterioration
- Hepatic encephalopathy
- Impairment of renal function
- Peripheral leucocytosis without any obvious precipitating factor

Investigations

A diagnostic paracentesis is mandatory in all cirrhotic patients with ascites requiring hospital admission.

- Inject ascites fluid into FBC count bottle (lavender EDTA bottle) and send to haematology. Ask for WCC and neutrophils. **This should be an urgent request and results should be followed up**. SBP is confirmed if:
  Ascitic fluid WCC of >0.5 x 10^9/L (> 500 cells/mm^3)
  or neutrophil count of >0.25 x 10^9/L (>250 cells/mm^3)
- Ascitic fluid should be inoculated into a sterile universal container and sent to microbiology for culture and into blood culture bottles at the bedside and sent to microbiology for culture.
- DO NOT request glucose and lactate estimation in ascitic fluid routinely.

Antibiotic Treatment

Initial treatment in severe disease:

1st Line:
Piperacillin/Tazobactam IV 4.5g TDS (N.B. contains a penicillin)

Mild penicillin allergy (e.g. rash only)
Cefuroxime IV 1.5g TDS +/- Metronidazole PO 400mg TDS

Severe penicillin allergy/allergic to cephalosporins
Ciprofloxacin PO 500mg BD (discuss with microbiology if the oral route is not available) **plus** Vancomycin IV 1g BD (reduce Vancomycin to 1g OD if >65yrs or renal impairment) [monitor levels] +/- Metronidazole PO 400mg TDS

Mild disease/Oral continuation treatment from severe above:
(NB see IV to PO switch guideline on the antibiotic website*)*

1st Line
Co-trimoxazole PO 960mg BD (Reduce dose to 480mg BD if CrCl <30ml/min - N.B. contains a sulphonamide and trimethoprim)

Allergic to sulphonamides and/or trimethoprim
Discuss with medical microbiologist/gastroenterologist

PTO…

Antibiotic Prophylaxis

Prophylaxis should be given to patients who have recovered from one previous episode of SBP
Continuous Prophylaxis Regimen:

1st Line
Co-trimoxazole PO 960mg OD
(N.B. contains sulphonamide and trimethoprim)

Allergic to sulphonamides and/or trimethoprim
Discuss with medical microbiologist/gastroenterologist

Upper Gastrointestinal Haemorrhage in Patients with Liver Cirrhosis

Introduction

Bacterial infections occur in about 20% of patients with cirrhosis with upper gastrointestinal bleeding within 48 hours of admission, another 50% will have an infection during their hospital stay. A Cochrane review of randomised trials indicated that antibiotic prophylaxis reduces the risk of infection and mortality in this patient group.

Antibiotic Prophylaxis

Prophylaxis should be started on admission for all cirrhotic patients with upper gastrointestinal haemorrhage.

1st Line whilst NBM
Piperacillin/Tazobactam IV 4.5g TDS (N.B. contains a penicillin)
converting once able to
Co-trimoxazole PO 960mg BD (Reduce dose to 480mg BD if CrCl <30ml/min - N.B. contains a sulphonamide and trimethoprim)
Total duration of antibiotic prophylaxis (IV+PO) is usually 5 days

Mild penicillin allergy (e.g. rash only)
Cefuroxime IV 1.5g TDS converting to Co-trimoxazole as above
Total duration of antibiotic prophylaxis (IV+PO) is usually 5 days

Severe penicillin allergy/allergic to cephalosporins
Discuss with medical microbiologist/gastroenterologist

Allergic to sulphonamides and/or trimethoprim
Discuss with medical microbiologist/gastroenterologist