Liver Transplant

Surgical Antibiotic Prophylaxis Guidelines

PRE-OPERATIVE CONSIDERATIONS

Drug administration

- IV bolus – should be given ≤ 60 minutes **before** skin incision (ideally 15 to 30 minutes). Administration after skin incision or > 60 minutes before incision reduces effectiveness
- IV infusion – should be timed to end ≤ 30 minutes before skin incision

Pre-existing infections (known or suspected) – if present, use appropriate treatment regimen instead of prophylactic regimen for procedure. Doses should be scheduled to allow for re-dosing just prior to skin incision.

PROPHYLAXIS REGIMEN

Procedures	First-line regimen	Alternative ***(For Penicillin hypersensitivity & for Inpatients with acute liver failure treated with beta-lactams)***
Liver Transplant	**Piperacillin-Tazobactam 4.5 g IV** infused over 30 minutes (re-dose 4-hourly intra-operatively)	**Teicoplanin 800 mg IV** (or **1200 mg IV** for patients > 100 kg) bolus over 5 minutes (re-dose 12-hourly intra-operatively) **AND** **Aztreonam 2 g IV** bolus over 5 minutes (re-dose 6-hourly intra-operatively if normal renal function) **AND** **Metronidazole 500 mg IV** infused over 20 minutes (re-dose 8-hourly intra-operatively)

MRSA &/OR VRE COLONISATION

ADD:
Teicoplanin 800 mg IV (or **1200 mg IV** for patients > 100 kg) bolus over 5 minutes (re-dose 12-hourly intra-operatively)
Note: the addition of Teicoplanin is only required for the above first-line regimen

LIPOSOMAL AMPHOTERICIN B (AMBISOME®)

Liposomal Amphotericin B (AmBisome®) 50mg IV infused over 30 minutes
is indicated for the following patient groups:

- Fulminant hepatic failure
- Existing Roux-en-Y duct drainage or biliary drain in-situ
- Childs C and advanced B disease (scores >8)
- Prolonged ICU stay with haemofiltration
- Wilson's disease treated with penicillamine or splenic embolisation
- Re-transplantation

DURATION OF PROPHYLAXIS

Prophylaxis should be no greater than 24 hours, with a single dose sufficing in most cases. A second dose should be given if the procedure is longer than two half-lives of the agent used. Continuing antibiotic administration is not appropriate unless infection is confirmed or suspected – modify antibiotic regimen appropriately according to treatment guidelines.

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