

Upper GI and Colorectal Surgery Surgical Antibiotic Prophylaxis Guidelines

PRE-OPERATIVE CONSIDERATIONS

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.

Patients with a history of MRSA colonisation or infection

In addition to the prophylaxis regimen below, if not already included, **GIVE**:

- **Vancomycin 1g IV** infused over 100 minutes, (**1.5g IV** for patients >80 kg, infused over 150 minutes). The infusion should be timed to end \leq 30 minutes before incision, see Drug Administration and Timing, below.

PROPHYLAXIS REGIMEN

| Procedures | First line regimen | Alternative (Immediate type or severe penicillin or cephalosporin hypersensitivity) |
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| Gastric / duodenal / oesophageal (bypass, resection, ulcer oversew, oesophagectomy etc.) Biliary (open procedures, or high risk laparoscopic) Hernia repair (open +/- mesh) | Cefazolin 2g IV (3g if >120kg) (single dose only) as a bolus over 5 minutes given 30 minutes before incision | Vancomycin 1g IV (single dose only) infused over 100 minutes (1.5g IV for patients > 80 kg infused over 150 minutes) with the infusion timed to end \leq 30 minutes before incision plus Gentamicin 3mg/kg IV (single dose only) as a bolus over 5 minutes given 30 minutes before incision |
| Laparoscopic TEP hernia repair Laparoscopic cholecystectomy – elective, low risk | Antibiotic prophylaxis is not recommended | |
| Colorectal (colon or small bowel resection, revision of anastomosis or stoma, appendectomy etc.) Exploratory laparotomy / division of adhesions | Cefazolin 2g IV (3g if >120kg) (single dose only) as a bolus over 5 minutes given 30 minutes before incision plus Metronidazole 500mg IV (single dose only) infused over 20 minutes, ending 30 minutes before incision | Vancomycin 1g IV (single dose only) infused over 100 minutes (1.5g IV for patients > 80 kg infused over 150 minutes) with the infusion timed to end \leq 30 minutes before incision plus Gentamicin 3mg/kg IV (single dose only) as a bolus over 5 minutes given 30 minutes before incision plus Metronidazole 500mg IV (single dose only) infused over 20 minutes, ending 30 minutes before incision |

DRUG ADMINISTRATION AND TIMING

Drug administration

- Slow IV bolus – should be given \leq 60 minutes before skin incision (ideally at 30 minutes). Administration after skin incision or > 60 minutes before incision reduces effectiveness
- IV infusion – should be timed to end \leq 30 minutes before skin incision

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. (e.g. 4 hours for cefazolin). Continuing antibiotic administration is not appropriate unless infection is confirmed or suspected – modify antibiotic regimen appropriately according to treatment guidelines.

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