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 and 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 ≤ 30 minutes before incision, see Drug Administration and Timing, below.

**PROPHYLAXIS REGIMEN**

<table>
<thead>
<tr>
<th>Procedures</th>
<th>First line regimen</th>
<th>Alternative (Immediate type or severe penicillin or cephalosporin hypersensitivity)</th>
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</thead>
<tbody>
<tr>
<td>Gastric / duodenal / oesophageal (bypass, resection, ulcer oversew, oesophagectomy etc.)</td>
<td><strong>Cephazolin 2g IV</strong> (single dose only) as a bolus over 5 minutes given 30 minutes before incision</td>
<td><strong>Vancomycin 1g IV</strong> (single dose only) infused over 100 minutes (1.5g IV for patients &gt; 80 kg infused over 150 minutes) plus <strong>Gentamicin 3mg/kg IV</strong> (single dose only) as a bolus over 5 minutes given 30 minutes before incision</td>
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<td>Biliary (open procedures, or high risk laparoscopic)</td>
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<td>Hernia repair (open +/- mesh)</td>
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<tr>
<td>Laparoscopic TEP hernia repair</td>
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<td><strong>Antibiotic prophylaxis is not recommended</strong></td>
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<td>Laparoscopic cholecystectomy – elective, low risk</td>
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<td>Colorectal (colon or small bowel resection, revision of anastomosis or stoma, appendicectomy etc.)</td>
<td><strong>Cephazolin 2g IV</strong> (single dose only) as a bolus over 5 minutes given 30 minutes before incision plus <strong>Metronidazole 500mg IV</strong> (single dose only) infused over 20 minutes, ending 30 minutes before incision</td>
<td><strong>Vancomycin 1g IV</strong> (single dose only) infused over 100 minutes (1.5g IV for patients &gt; 80 kg infused over 150 minutes) plus <strong>Gentamicin 3mg/kg IV</strong> (single dose only) as a bolus over 5 minutes given 30 minutes before incision plus <strong>Metronidazole 500mg IV</strong> (single dose only) infused over 20 minutes, ending 30 minutes before incision</td>
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<td>Exploratory laparotomy / division of adhesions</td>
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**DRUG ADMINISTRATION AND TIMING**

**Drug administration**
- Slow IV bolus – should be given ≤ 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 ≤ 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 cephazolin)
Continuing antibiotic administration is not appropriate unless infection is confirmed or suspected – modify antibiotic regimen appropriately according to treatment guidelines.

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