# Upper GI and Colorectal Surgery

## Surgical Antibiotic Prophylaxis Guidelines

### PRE-OPERATIVE CONSIDERATIONS

**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

**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

<table>
<thead>
<tr>
<th></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><em>Gastric / duodenal / oesophageal</em> (bypass, resection, ulcer oversew, oesophagectomy etc.)</td>
<td><strong>Cephazolin 2g IV (single dose only)</strong> bolus over 5 minutes before incision</td>
<td><strong>Vancomycin 1g IV (single dose only)</strong> infused over 100 minutes before incision, <em>(1.5g IV for patients &gt; 80 kg infused over 150 minutes)</em> plus <strong>Gentamicin 3mg/kg IV (single dose only)</strong> bolus over 5 minutes before incision</td>
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<tr>
<td><em>Biliary</em> (cholecystectomy etc.)</td>
<td><strong>Cephazolin 2g IV (single dose only)</strong> bolus over 5 minutes before incision plus <strong>Metronidazole 500mg IV (single dose only)</strong> infused over 20 minutes before incision</td>
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<td><em>Hernia repair</em> (with mesh insert)</td>
<td><strong>Cephazolin 2g IV (single dose only)</strong> bolus over 5 minutes before incision plus <strong>Metronidazole 500mg IV (single dose only)</strong> infused over 20 minutes before incision</td>
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<td><em>Colorectal</em> (colon or small bowel resection, revision of anastomosis or stoma, appendicectomy etc.)</td>
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<td><em>Exploratory laparotomy / division of adhesions</em></td>
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#### MRSA COLONISATION

Patients with a history of MRSA colonisation or infection

ADD

**Vancomycin 1g IV** infused over 100 minutes before incision, *(1.5g IV for patients > 80 kg infused over 150 minutes)*

#### 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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