



GUIDELINE	
Surgical Prophylaxis: Gastrointestinal and Abdominal	
Scope (Staff):	Medical, Nursing and Pharmacy
Scope (Area):	Perth Children's Hospital (PCH)

This document should be read in conjunction with this [DISCLAIMER](#)

- Surgical prophylaxis refers to a **single** preoperative dose 15 to 60 minutes prior to surgical incision unless otherwise stated.
- If **vancomycin** is required for surgical prophylaxis – the infusion must be **completed** one hour **prior** to surgical incision due to the extended distribution phase.

CLINICAL SCENARIO		DRUGS/DOSES			
		Standard Protocol	Known or Suspected MRSA ^a	Penicillin allergy ^b Delayed	Penicillin allergy ^b Immediate
Gastrointestinal / Abdominal	All gastrointestinal surgery (<1 month of age)	IV cefazolin 30mg/kg (to a maximum of 2 grams) as a single dose. Repeat dose if operation > 8 hours. AND IV metronidazole 15mg/kg as a single dose. Repeat dose if operation > 8 hours.	As per standard protocol	As per standard protocol	clindamycin ^c AND gentamicin ^d
	Upper gastrointestinal tract or biliary surgery (≥1 month of age)	IV cefazolin 30mg/kg (to a maximum of 2 grams) as a single dose. Repeat dose if operation > 3 hours.	As per standard protocol	As per standard protocol	clindamycin ^c AND gentamicin ^d
	PEG tube placement, revision or conversion	IV cefazolin 30mg/kg (to a maximum of 2 grams) as a single dose. Repeat dose if operation > 3 hours.	ADD vancomycin ^e to standard protocol	As per standard protocol	clindamycin ^c AND gentamicin ^d

Surgical Prophylaxis: Gastrointestinal and Abdominal

Elective colorectal surgery (≥ 1 month)	<p>IV cefazolin 30mg/kg (to a maximum of 2 grams) as a single dose.</p> <p>Repeat dose if operation > 3 hours.</p> <p>AND</p> <p>IV metronidazole 12.5mg/kg (to a maximum of 500mg) as a single dose.</p> <p>Repeat dose if operation > 8 hours.</p>	As per standard protocol	As per standard protocol	clindamycin ^c AND gentamicin ^d
Appendicitis or Intra-abdominal surgery with peritonitis or a perforated viscus	<p>IV amoxicillin/clavulanic acid^f as a single dose</p> <p>See treatment guideline for the recommended post-operative antibiotic therapy.</p>	As per standard protocol	ceftriaxone ^g AND metronidazole ^h	clindamycin ^c AND gentamicin ^d
Hernia repair	<p>If prosthetic material required consider IV cefazolin 30mg/kg (to a maximum of 2 grams) as a single dose.</p>	In neonates, Add vancomycin ^e	As per standard protocol	Discuss with ID or Microbiology service
Prophylaxis is not recommended for routine repair if no prosthetic material				

- a. Children known or suspected to be colonised with MRSA may need to have their therapy/prophylaxis modified. Children suspected of having MRSA include:
 - i. Children previously colonised with MRSA
 - ii. Household contacts of MRSA colonised individuals
 - iii. In children who reside in regions with higher MRSA rates (e.g. Kimberley and the Pilbara) a lower threshold for suspected MRSA should be given
 - iv. Children with recurrent skin infections or those unresponsive to ≥ 48 hours of beta-lactam therapy. For further advice, discuss with Microbiology or ID service
- b. An immediate (IgE mediated) reaction is characterised by the development of urticaria, angioedema, bronchospasm or anaphylaxis within 1 to 2 hours of drug administration. Delayed reactions including maculopapular or morbilliform rashes, drug fever and cytopenias are more in keeping with other forms of immunological reactivity. Isolated diarrhoea is not usually immune-mediated and does NOT contraindicate the future use of an antibiotic.
- c. IV clindamycin **15mg/kg** (to a maximum of 600mg) as a single dose. Repeat dose if operation > 6 hours.
- d. IV gentamicin **5mg/kg** (to a maximum of 480mg) as a single dose only.


Surgical Prophylaxis: Gastrointestinal and Abdominal

- e. IV vancomycin **15mg/kg** (to a maximum of 750mg) given via slow infusion. Repeat dose if operation > 6 hours (repeat dose not required in the setting of abnormal renal function). Vancomycin infusion must be **completed** one hour **prior** to the surgical incision due to the extended distribution phase.
- f. IV [amoxicillin/clavulanic acid](#) (doses based on amoxicillin component)
 - Birth (term) to <40kg: IV 25mg/kg (maximum 1g) as a single dose.
 - >40kg: IV 1g as a single dose.
- g. IV ceftriaxone **50mg/kg** (to a maximum of 2 grams) as a single dose only.
- h. IV metronidazole **12.5mg/kg** (to a maximum of 500mg) as a single dose only. Repeat dose if operation > 8 hours.

Related internal policies, procedures and guidelines
Antimicrobial Stewardship Policy ChAMP Empiric Guidelines

References
<ol style="list-style-type: none"> 1. Antibiotic Writing Group. Therapeutic Guidelines - Antibiotic. West Melbourne: Therapeutic Guidelines Ltd; 2019. Available from: http://online.tg.org.au.pklibresources.health.wa.gov.au/ip/. 2. Bratzler DW, Dellinger EP, Olsen KM, Perl TM, Auwaerter PG, Bolon MK, et al. Clinical practice guidelines for antimicrobial prophylaxis in surgery. Am J Health-Syst Pharm. 2013;70:195-283.

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