



GUIDELINE	
Surgical Prophylaxis: Genitourinary	
Scope (Staff):	Clinical Staff – Medical, Nursing, 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 given 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.
- Patients with prior urinary tract infection (UTI) should be tested and treated for bacteriuria prior to surgery. Results should be taken into consideration for the antibiotic choice for prophylaxis. If microorganisms grown in previous urine specimens are not susceptible to the protocol antibiotics then Infectious Diseases/Clinical Microbiology should be contacted for advice.

CLINICAL SCENARIO (Children ≥1 month of age)	DRUGS/DOSES			
	Standard Protocol	Known or Suspected MRSA ^a	Penicillin allergy ^b Delayed	Penicillin allergy ^b Immediate
Pyeloplasty, Reimplantation or Hypospadias repair	IV gentamicin 5mg/kg (to a maximum of 320mg) as a single dose only AND IV cefazolin 30mg/kg (to a maximum of 2 grams) as a single dose Repeat dose if operation > 3 hours	vancomycin ^c AND gentamicin ^d	As per standard protocol	vancomycin ^c AND gentamicin ^d
	Ongoing prophylaxis with oral cefalexin 12.5mg/kg/dose (to a maximum of 250mg) given once daily at night OR trimethoprim with sulfamethoxazole (cotrimoxazole) 2mg/kg/dose of the trimethoprim component given once daily to a maximum of 80mg is recommended whilst stents are in situ			
Cystoscopy +/- ureteric stent removal	CONSIDER IV gentamicin 5mg/kg (to a maximum of 320mg) as a single dose			
Bladder augmentation or Mitrofanoff appendico-vesicostomy	IV piperacillin/tazobactam ^e 100mg/kg as a single dose. Repeat dose if operation > 3 hours	ADD vancomycin ^c to standard protocol	gentamicin ^d AND cefazolin ^f AND metronidazole ^g	vancomycin ^c AND gentamicin ^d AND metronidazole ^g

CLINICAL SCENARIO	DRUGS/DOSES			
	Standard Protocol	Known or Suspected MRSA ^a	Penicillin allergy ^b Delayed	Penicillin allergy ^b Immediate
Nephrectomy (Complete or Partial)	IV cefazolin 30mg/kg (to a maximum of 2 grams) as a single dose Repeat dose if operation > 3 hours	ADD vancomycin ^c to standard protocol	As per standard protocol	vancomycin ^c AND gentamicin ^d
Circumcision, orchidopexy or hydrocele repair	Prophylaxis not routinely recommended			

- a) Children known or suspected to be colonised with MRSA may need to have their therapy/prophylaxis modified. Children suspected of having MRSA include:
- Children previously colonised with MRSA
 - Household contacts of MRSA colonised individuals
 - 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
 - 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 and 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 [vancomycin](#) **15mg/kg** (to a maximum initial dose 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 surgical incision due to the extended distribution phase.
- d) IV [gentamicin](#) **5mg/kg** (to a maximum of 320mg) as a single dose only
- e) IV piperacillin/tazobactam 100mg/kg (to a maximum of 4 grams piperacillin component) as a single dose only. Repeat dose if operation >3 hours.
- f) IV [cefazolin](#) **30mg/kg** (to a maximum of 2 grams) as a single dose only. Repeat dose if the operation is > 3 hours.
- g) IV [metronidazole](#) **12.5mg/kg** (to a maximum of 500mg) as a single dose only.

Related internal policies, procedures and guidelines


[Antimicrobial Stewardship Policy](#)

[ChAMP empiric guidelines and monographs](#)

References

- Antibiotic Writing Group (2019). eTG complete. West Melbourne, Therapeutic Guidelines Ltd.
- Bratzler DW, et al. (2013). "Clinical practice guidelines for antimicrobial prophylaxis in surgery." *Am J Health-Syst Pharm* **70**: 195-283.

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