



GUIDELINE

Surgical Prophylaxis – Craniofacial, Maxillofacial and ENT

Scope (Staff):	Clinical Staff – Medical, Nursing, Pharmacy
Scope (Area):	Perth Children's Hospital (PCH)

Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

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

- Surgical prophylaxis refers to a **single** preoperative dose given 0 to 60 minutes prior to surgical incision unless otherwise stated.⁽¹⁾
- Patients receiving broad spectrum antibiotics prior to surgery may not require additional surgical antibiotic prophylaxis. For patients already receiving beta-lactam antibiotics (e.g. cefazolin, piperacillin tazobactam or amoxicillin clavulanate) an additional dose can be given just prior to surgical incision if the last dose was given >3 hours prior to surgery.
- If **vancomycin** is required for surgical prophylaxis, start the vancomycin infusion within the 120 minutes before surgical incision (ideally at least 15 minutes before incision) to ensure adequate blood and tissue concentrations at the time of incision and allow potential infusion-related reactions to be recognised before induction of anaesthesia. The infusion can be completed after surgical incision.⁽¹⁾

Surgical Prophylaxis – Craniofacial and Maxillofacial

CLINICAL SCENARIO	DRUGS/DOSES			
	Standard Protocol	Known or Suspected MRSA ^a	Low risk penicillin allergy ^b	High Risk Penicillin allergy ^b
Head and neck surgery – uncomplicated (e.g. thyroidectomy, lymph node excision, parotidectomy)	Antibiotic prophylaxis is not recommended			
Head and neck surgery – major procedure (e.g. insertion of prosthetic material, extensive neck dissection, reconstructive surgery)	IV cefazolin 30mg/kg (to a maximum of 2 grams) as a single dose If surgery >3 hours, repeat dose intraoperatively at 3 hours AND IV metronidazole 12.5mg/kg (to a maximum of 500mg) as a single dose If surgery >12 hours, repeat dose intraoperatively at 12 hours	ADD vancomycin ^c to standard protocol	As per standard protocol	clindamycin ^d ADD gentamicin ^e for extensive neck dissection/debulking or reconstructive surgery
Selected routine elective ENT procedures: (e.g. tonsillectomy, adenoidectomy, endoscopic sinus surgery, septoplasty, uncontaminated simple neck dissection)	Antibiotic prophylaxis is not recommended for these procedures as it has not been shown to reduce postoperative infection rates. Prophylaxis against endocarditis for these procedures for patients with certain cardiac conditions is recommended – see the Medical Prophylaxis Guideline .			
Cochlear implant	IV cefazolin 30mg/kg (to a maximum of 2 grams) as a single dose If surgery >3 hours, repeat dose intraoperatively at 3 hours	ADD vancomycin ^c to standard protocol	As per standard protocol	vancomycin ^c
ENT surgery – major procedures (e.g. Tympanomastoid (mastoidectomy) surgery / Laryngectomy)	IV cefazolin 30mg/kg (to a maximum of 2 grams) as a single dose If surgery >3 hours, repeat dose intraoperatively at 3 hours AND IV metronidazole 12.5mg/kg (to a maximum of 500mg) as a single dose If surgery >12 hours, repeat dose intraoperatively at 12 hours	ADD vancomycin ^c to standard protocol	As per standard protocol	clindamycin ^d AND gentamicin ^e

Surgical Prophylaxis – Craniofacial and Maxillofacial

CLINICAL SCENARIO	DRUGS/DOSES			
	Standard Protocol	Known or Suspected MRSA ^a	Low risk penicillin allergy ^b	High Risk Penicillin allergy ^b
Oral maxillofacial surgery – uncomplicated (e.g. dental implants, clean procedures)	Antibiotic prophylaxis is not recommended			
Oral maxillofacial surgery - cleft lip and palate repair	IV benzylpenicillin 30mg/kg (to a maximum of 1.2g) as a single dose If surgery >1 hour, repeat dose intraoperatively at one hour	As per standard protocol	cefazolin ^f AND metronidazole ^g	clindamycin ^d
Oral maxillofacial surgery – major procedures (e.g. Abbe flap alveolar bone graft pharyngoplasty orthognathic surgery, Mandibular / maxillary osteotomies)	IV cefazolin 30mg/kg (to a maximum of 2 grams) as a single dose If surgery >3 hours, repeat dose intraoperatively at 3 hours AND IV metronidazole 12.5mg/kg (to a maximum of 500mg) as a single dose If surgery >12 hours, repeat dose intraoperatively at 12 hours	ADD vancomycin ^c to standard protocol	As per standard protocol	clindamycin ^d
Contaminated non-elective surgery (e.g. complex wounds, open fractures, wound soiling)	Refer to Surgical Prophylaxis: Skin, soft tissue and Orthopaedic			
Craniofacial surgery without insertion of prosthetic material.	Antibiotic prophylaxis is not recommended			
Craniofacial surgery with insertion of prosthetic material (e.g. craniofacial surgery and spring cranioplasty)	IV cefazolin 30mg/kg (to a maximum of 2 grams) as a single dose If surgery >3 hours, repeat dose intraoperatively at 3 hours	ADD vancomycin ^c to standard protocol	As per standard protocol	clindamycin ^d AND gentamicin ^e
Traumatic wounds	Refer to traumatic wounds in Surgical Prophylaxis: Skin, soft tissue and Orthopaedic			

Surgical Prophylaxis – Craniofacial and Maxillofacial

- 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, Goldfields 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) Refer to the [ChAMP Beta-lactam Allergy Guideline](#):
- Low risk allergy: a delayed rash (>1 hr after initial exposure) without mucosal or systemic involvement (without respiratory distress and/or cardiovascular compromise).
 - High risk allergy: an immediate rash (<1 hr after exposure); anaphylaxis; severe cutaneous adverse reaction {e.g. Drug Rash with Eosinophilia and Systemic Symptoms (DRESS) and Stevens – Johnson syndrome (SJS) / Toxic Epidermal Necrolysis (TEN)} or other severe systemic reaction.
- c) IV [vancomycin 15mg/kg](#) (to a maximum initial dose of 750mg) given via slow infusion. If surgery >6 hours, repeat dose intraoperatively at 6 hours (**repeat dose not required in the setting of abnormal renal function**). The vancomycin infusion should be commenced within the 120 minutes before surgical incision (ideally at least 15 minutes before incision) to ensure adequate blood and tissue concentrations at the time of incision and to allow potential infusion-related reactions to be recognised before induction of anaesthesia. The infusion can be completed after surgical incision.
- d) IV [clindamycin 15mg/kg](#) (to a maximum of 600mg) as a single dose. If surgery >6 hours, repeat dose intraoperatively at 6 hours.
- e) IV [gentamicin 2mg/kg](#) (to a maximum of 320mg) as a single dose only.
- f) IV [cefazolin 30mg/kg](#) (to a maximum of 2 grams) as a single dose. If surgery >3 hours, repeat dose intraoperatively at 3 hours
- g) IV [metronidazole 12.5mg/kg](#) (to a maximum of 500mg) as a single dose. If surgery >12 hours, repeat dose intraoperatively at 12 hours.

Related CAHS internal policies, procedures and guidelines

[Antimicrobial Stewardship Policy](#)

[ChAMP Empiric Guidelines and Monographs](#)

[KEMH Neonatal Medication Protocols](#)

References and related external legislation, policies, and guidelines

1. Antibiotic Writing Group. Therapeutic Guidelines - Antibiotic. West Melbourne: Therapeutic Guidelines Ltd; 2021. 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(3):195-283.

This document can be made available in alternative formats on request.

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