

Surgical Antibiotic Prophylaxis Guidelines

Oral and Maxillofacial Surgery

Pre-Operative Considerations

Prophylaxis is not indicated for intra-oral procedures: dentoalveolar surgery (extractions, impactions, exposures); minor pathology (soft tissue, cysts).

Consider individual risk factors for every patient – need for prophylaxis, drug choice or dose may alter (e.g. immune suppression, presence of prostheses, allergies, obesity, diabetes, remote infection, available pathology or malignancy).

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.

*For patients with cardiac conditions refer to [Antibiotic Prophylaxis Guidelines for Prevention of Endocarditis](#) for further information

Practice Points

Drug administration

- > IV bolus – should be timed ≤ 60 minutes before skin incision (optimal 15 to 30 minutes). Commencing administration of any antibiotic after skin incision or completing administration of antibiotics > 60 minutes before incision reduces effectiveness.
- > IV infusion – should be commenced 30-60 minutes prior to skin incision (e.g. metronidazole, clindamycin). See below for vancomycin administration.

MRSA risk (defined as history of MRSA colonisation or infection, OR inpatient of metropolitan or other high risk hospital for more than the last five days)

- > Add vancomycin (see vancomycin administration below).

Vancomycin administration

- > Give vancomycin 1g (1.5g for patients > 80kg **actual body weight**) started 30 to 120 minutes before surgical incision and given at a recommended rate of 1g per hour (1.5g over 90 minutes). Note: Infusion can be completed after skin incision.

Clindamycin administration

- > Give clindamycin 600mg (child: 15 mg/kg up to 600mg) by IV infusion over at least 20 minutes just before procedure. Repeat 4 hourly intra-operatively for prolonged procedures.

Repeat doses

A single pre-operative dose is sufficient for most procedures, however repeat intra-operative doses are advisable:

- > for prolonged surgery (> 4 hours from the time of first preoperative dose) when a short-acting agent is used (e.g. cefazolin), OR
- > if major blood loss occurs, following fluid resuscitation

Obese patients

- > Consider increased dose of cefazolin (3g) if patient is obese (>120kg). Consult ID for advice.

Recommended Prophylaxis

	Recommended Prophylaxis	*High risk penicillin/cephalosporin allergy
Orthognathic surgery	benzylpenicillin 1.2g IV (child < 12 years: 30mg/kg up to 1.2g) THEN (for procedures greater than 2 hours duration) Repeat dose 2-hourly intra-operatively	clindamycin 600mg IV infusion (child: 15mg/kg up to 600mg)
Skin approach procedures (oral cavity not involved)	cefazolin 2g IV (child < 12 years: 30mg/kg up to 2g)	clindamycin 600mg (child: 15mg/kg up to 600mg) by IV infusion, then 8-hourly for 24 hours
Skin approach procedures (with concurrent oral cavity involvement)	cefazolin 2g IV (child < 12 years: 30mg/kg up to 2g) PLUS metronidazole 500mg IV infusion (child < 12 years: 12.5mg/kg up to 500mg) before incision, then 12-hourly for 24 hours	clindamycin 600mg (child: 15mg/kg up to 600mg) by IV infusion, then 8-hourly for 24 hours
Implants (1st stage)	benzylpenicillin 1.2g IV (child < 12 years: 30mg/kg up to 1.2g) before incision THEN 2-hourly intra-operatively (for procedures greater than 2 hours duration)	clindamycin 600mg (child: 15mg/kg up to 600mg) by IV infusion

Recommended Prophylaxis

	Recommended Prophylaxis	*High risk penicillin/cephalosporin allergy
Trauma		
Intraoral compound operation (injury of any age, compound to nose/skin/sinuses)	benzylpenicillin 1.2g IV infusion (child < 12 years: 30mg/kg up to 1.2g) at presentation, then 4-hourly for 48 hours PLUS metronidazole 500mg IV infusion (child: 12.5mg/kg up to 500mg) at presentation, then 12-hourly for 48 hours	clindamycin 600mg (child: 15mg/kg up to 600mg) by IV infusion, then 8-hourly for 48 hours
Skin approach with concurrent oral cavity involvement (reconstructive surgery with ORIF or bone graft placement)	cefazolin 2g IV (child < 12 years: 30mg/kg up to 1g), then 8-hourly for 24 hours PLUS metronidazole 500mg IV infusion (child: 12.5mg/kg up to 500mg), then 12-hourly for 24 hours	clindamycin 600mg (child: 15mg/kg up to 600mg) by IV infusion, then 8-hourly for 24 hours

Post-Operative Care

Except where included above, post-operative antibiotics are NOT indicated unless infection is confirmed or suspected, regardless of the presence of surgical drains

If infection is suspected, consider modification of antibiotic regimen according to clinical condition and microbiological results.

Definitions / Acronyms

DRESS	Drug rash with eosinophilia and systemic symptoms
ID	Infectious Diseases
IV	Intravenous
MRSA	Methicillin-resistant <i>Staphylococcus aureus</i>
SJS / TEN	Stevens-Johnson syndrome / Toxic epidermal necrolysis

* High Risk penicillin/cephalosporin allergy: History suggestive of high risk (eg. anaphylaxis, angioedema, bronchospasm, urticaria, DRESS/SJS/TEN)

References

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