Surgical Antibiotic Prophylaxis Guidelines

Otorhinolaryngology / Head & Neck 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 30 minutes) [1]. Administration after skin incision or > 60 minutes before incision reduces effectiveness.
- IV infusion – should be timed to end ≤ 30 minutes before skin incision (e.g. see clindamycin below)

MRSA risk (defined as history of MRSA colonisation or infection, OR inpatient of high risk hospital or unit (where MRSA is endemic) for more than the last five days)

- Add vancomycin to cefazolin (see vancomycin administration below).

Clindamycin administration

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

Vancomycin administration

- Give vancomycin 1g (1.5g for patients >80kg **actual body weight**) by IV infusion started 30-120 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.

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
No incision through mucosal (oral, nasal, pharyngeal, oesophageal) surface	**cefazolin 2g** IV (child: 30mg/kg up to 2g) High risk of MRSA : **ADD vancomycin 1g I**V infusion (1.5g for patients > 80kg **actual body weight**)	**clindamycin 600mg** IV infusion (child: 15mg/kg up to 600mg) High risk of MRSA : **ADD vancomycin 1g** IV infusion (1.5g for patients > 80kg **actual body weight**)
With incision through mucosal (oral, nasal, pharyngeal, oesophageal) surface	**cefazolin 2g** IV (child: 30mg/kg up to 2g) PLUS **metronidazole 500mg** IV infusion (child: 12.5mg/kg up to 500mg) High risk of MRSA : **ADD vancomycin 1g** IV infusion (1.5g for patients > 80kg **actual body weight**)	**clindamycin 600mg** IV infusion (child: 15mg/kg up to 600mg High risk of MRSA : **ADD vancomycin 1g I**V infusion (1.5g for patients > 80kg **actual body weight**)
Other **uncomplicated or minor clean procedures** (e.g. tonsillectomy, adenoidectomy, typanostomy, nasal septoplasty, endoscopic sinus surgery, uncontaminated neck dissection)	Prophylaxis NOT recommended	

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 accordingly to clinical condition and microbiological results.

Definitions / Acronyms

DRESS	Drug rash with eosinophilia and systemic symptoms
ID	Infectious Diseases
IV	Intravenous
MRSA	Methicillin-resistant *Staphylococcus aureus*
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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Endorsed by South Australian expert Advisory Group on Antibiotic Resistance (SAAGAR) March 2012, Last reviewed and amended August 2017