

# NHS Lanarkshire Recommendations for Antibiotic Prophylaxis in Paediatric Surgery

## Dosing advice for children aged 3 months or over

- ❖ Take recent culture results and antibiotic therapy into account. Discuss with Infection Specialist if multidrug resistance eg. Carbapenemase producing enterobacteriaceae (CPE) isolated
- ❖ Check allergy status of patient including nature of allergy prior to prescribing
- ❖ Give a single pre-operative dose (unless otherwise specified). Optimum timing of IV antibiotics is ≤60 minutes prior to skin incision, usually at induction of anaesthesia
- ❖ Record antibiotic on "once only" section of drug cardex and on Anaesthetic Record Sheet
- ❖ If surgery prolonged:  
**Re-dose at 4 hours for:** amoxicillin, cefuroxime, clindamycin, co-amoxiclav and flucloxacillin (full pre-operative dose)  
**Re-dose at 8 hours for:** gentamicin (half the pre-operative dose) and metronidazole (full pre-operative dose)
- ❖ If significant blood loss (25mL/kg), after fluid replacement:  
**Repeat dose for:** amoxicillin, cefuroxime, co-amoxiclav, flucloxacillin and Metronidazole (full pre-operative dose).  
Repeat clindamycin and gentamicin at half the pre-operative dose
- ❖ Decolonisation therapy should be used prior to elective surgery if patient MRSA positive and antimicrobial prophylaxis should include cover for MRSA.

Speciality	Procedure	1 <sup>st</sup> Choice <i>If MRSA positive contact microbiology</i>	In Penicillin Allergy	SIGN 104 Recommendations/ additional information
ENT	Routine ear, nose and throat operations (adenoidectomy, tonsillectomy)	Not recommended	Not recommended	Not recommended
	Grommet insertion	Gentamicin ear drops (single dose in theatre at surgeons discretion)	Gentamicin ear drops (single dose in theatre at surgeons discretion)	Single dose of topical antibiotic recommended
GI	Appendicectomy	<sup>1</sup> Gentamicin IV 5mg/kg (max 400mg) + Metronidazole IV 30mg/kg (max 500mg) + amoxicillin 30mg/kg (max 500mg)	<sup>1</sup> Gentamicin IV 5mg/kg (max 400mg) + Clindamycin IV 5mg/kg (max 600mg)	Highly recommended. Consult treatment guideline if appendix is perforated/gangrenous
Genito-Urinary	Circumcision, hydroceles, hernia repair, orchidopexy.	Not recommended	Not recommended	Not recommended
Orthopaedic	Procedures involving implantation of permanent screws, plates or wires	Cefuroxime IV 50mg/kg (max 1.5g)	Clindamycin IV 5mg/kg (max 600mg)	
	Implantation and removal of K-wires	Not recommended	Not recommended	Not recommended
	Open fracture OR open surgery for closed fracture	Cefuroxime IV 50mg/kg (max 1.5g)	Clindamycin IV 5mg/kg (max 600mg)	Highly recommended. For open fracture continue antibiotic until closure or review at 1 week
	Hand trauma (no bite but contaminated)	Flucloxacillin IV 25mg/kg (max 1g)	Clindamycin IV 5mg/kg (max 600mg)	Should be considered
	Trauma caused by a human or animal bite	Co-amoxiclav IV 30mg/kg (max. 1.2g)	Ciprofloxacin IV 10mg/kg (max 400mg) + Metronidazole IV 30mg/kg (max 500mg)	Give a 7 day treatment course, Switch to oral antibiotics when appropriate.

<sup>1</sup>In overweight and obese children, use ideal body weight to calculate gentamicin dose. Please see Paediatric Department Guideline for calculating ideal body weight in overweight children or seek advice from medical staff.

### REFERENCES:

- ❖ British National Formulary for Children 2018/2019
- ❖ NHS Lanarkshire. Adult Antibiotic Prophylaxis Guidelines 2019
- ❖ SAPG. Recommendations for Re-dosing Antibiotics for Surgical Prophylaxis. October 2018.
- ❖ SIGN 104. Antibiotic Prophylaxis in Surgery April 2014
- ❖ NHS GGC RHSC recommendations for antibiotic prophylaxis in paediatric surgery 2019