## Paediatric Antibiotic Surgical Prophylaxis & Perioperative Guidelines

**ANTIBIOTIC DOSING IN PAEDIATRICS (For use in children aged >3 months)**

### CNS:
- **ALL NEUROSURGERY:** Cefuroxime IV

### EYE:
- **ROUTINE EYE OPERATIONS:** Not Recommended

### ENT:
- **ROUTINE EAR, NOSE AND SINUS SURGERY:** Not Routinely Recommended
- **TONSILLECTOMY AND ADENOIDECTOMY:** Not Routinely Recommended
- **GROMMET INSERTION:** Ciprofloxacin Eye Drops topically as a ONE off

### Ortho:
- **OPEN FRACTURE:** Gentamicin IV + Flucloxacillin IV (+ Metronidazole IV if grossly contaminated wound)
  - (Penicillin Allergy: Clindamycin IV + Gentamicin IV)
- **OPEN SURGERY FOR A CLOSED FRACTURE:** Gentamicin IV + Flucloxacillin IV
  - (Penicillin Allergy: Clindamycin IV + Gentamicin IV)
- **ORTHOPAEDIC SURGERY WITH IMPLANT:** Gentamicin IV + Flucloxacillin IV
  - (Penicillin Allergy: Clindamycin IV + Gentamicin IV)
- **ORTHOPAEDIC SURGERY (WITHOUT IMPLANT):** Not Recommended

### GI
- **SOFT TISSUE INJURIES:** Not routinely recommended unless open digit fracture or contaminated wound.
- **BURNS:** Flucloxacillin IV (may need to be continued post op on individual basis)
  - (Penicillin Allergy: Clindamycin IV)
- **DENTAL EXTRACTION:** Not routinely recommended

### GU
- **APPENDICECTOMY:** Gentamicin IV + Metronidazole IV (may need to add Amoxicillin IV if perforated gangrenous appendix. May need to be continued post op on individual basis)
- **COLORECTAL SURGERY:** Gentamicin IV + Metronidazole IV
- **PEG TUBE INSERTION:** Co-amoxiclav IV (Penicillin Allergy: Co-trimoxazole IV)

### Plastics
- **CIRCUMCISION:** Not routinely recommended
- **HYPOSPADIAS:** Not routinely recommended (post operatively oral Trimethoprim until catheter removed)
- **HYDROCELES / HERNIA REPAIR:** Not routinely recommended
- **CYSTOSCOPY +/- STENT REMOVAL:** Gentamicin IV

### OMFS
- **STRUCTURAL CARDIAC DEFECTS:** Routine prophylaxis no longer recommended for patients having surgery.

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For advice regarding appropriate doses of antibiotics please check the current BNF for Children. See Paediatric Gentamicin monograph for more information around dosing and monitoring. Standard prophylactic doses of the antibiotics recommended above are as follows: (NB: Doses given are per individual dose)

<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>Dose Range</th>
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<tbody>
<tr>
<td>Amoxicillin</td>
<td>(20-30mg/kg, max 500mg)</td>
</tr>
<tr>
<td>Cefuroxime</td>
<td>(50mg/kg, max 1.5g)</td>
</tr>
<tr>
<td>Clindamycin</td>
<td>(3.75-6.25mg/kg, max 1.2g)</td>
</tr>
<tr>
<td>Co-amoxiclav</td>
<td>(30mg/kg max 1.2g)</td>
</tr>
<tr>
<td>Gentamicin</td>
<td>(4mg/kg, see monograph)</td>
</tr>
<tr>
<td>Flucloxacillin</td>
<td>(25mg/kg max 1g)</td>
</tr>
<tr>
<td>Metronidazole</td>
<td>(30mg/kg max 500mg)</td>
</tr>
<tr>
<td>Co-trimoxazole</td>
<td>(18mg/kg max 1.44g)</td>
</tr>
</tbody>
</table>

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**References:**
- NHS Lothian Surgical Prophylaxis guidelines. 2014
- BNF for children 2019-2020
- Tayside local guidance

**ADVICE:**
- Microbiology: bleep 4039
- Paediatric Pharmacist: bleep 4024
- Antibiotic Pharmacist: bleep 4732