## Eye Infections: Paediatric Empiric Guidelines

**Scope (Staff):** Medical, Nursing and Pharmacy  
**Scope (Area):** Perth Children’s Hospital (PCH)

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

### CLINICAL SCENARIO | Usual duration | DRUGS/DOSES
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Periorbital cellulitis</strong></td>
<td>3 months &lt; 3 months</td>
<td>Contact Infectious Diseases (ID) or Clinical Microbiology for advice.</td>
</tr>
</tbody>
</table>
| **Mild periorbital cellulitis** | ≥ 3 months | 7 days  
Oral amoxicillin/clavulanic acid 25mg/kg (to a maximum of 875mg amoxicillin component) 12 hourly.  
Add cotrimoxazole to standard protocol  
cefalexin or cefuroxime (if HiB suspected)  
Discuss with ID or Microbiology service |

**Periorbital Cellulitis**  
Moderate (preseptal) or cellulitis ≥ 3 months  
Total 7-10 days (IV and oral)  
IV flucloxacillin 50mg/kg/dose (to a maximum of 2 grams)  
6 hourly.  
and  
IV ceftriaxone 50mg/kg/dose (to a maximum of 2 grams)  
one daily.  
then consider  
Step down to oral amoxicillin/clavulanic acid 25mg/kg/dose (to a maximum of 875mg amoxicillin component) 12 hourly.  
ceftriaxone and vancomycin  
ceftriaxone and clindamycin  
Discuss with ID or Microbiology service  
Refer to HiTH Antimicrobial guidelines for suitable HiTH antibiotic options. |

**Severe periorbital (post septic) or orbital cellulitis**  
(≥ 3 months)  
Total 7-10 days (IV and oral)  
IV ceftriaxone 50mg/kg/dose (to a maximum of 2 grams)  
once daily.  
and  
IV vancomycin 15mg/kg/dose (to a maximum initial dose of 750mg)  
6 hourly.  
then consider  
Step down to oral amoxicillin/clavulanic acid 25mg/kg/dose (to a maximum of 875mg amoxicillin component) 12 hourly.  
As per standard protocol.  
Discuss with ID or Microbiology service |
### Antibiotics alone are not definitive management. Immediate referral to appropriate specialist surgical services is essential

#### CLINICAL SCENARIO

<table>
<thead>
<tr>
<th>Penetrating eye injury (including open globe rupture or laceration) and/or endophthalmitis</th>
<th>Usual duration</th>
<th>DRUGS/DOSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total 7 days (IV and oral)</td>
<td>Standard Protocol</td>
<td>Known or Suspected MRSA&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>IV ceftazidime 50mg/kg/dose (to a maximum of 2 grams) 8 hourly, and IV vancomycin 15mg/kg/dose (to a maximum initial dose of 750mg) 6 hourly.</td>
<td>As per standard protocol.</td>
<td>ciprofloxacin&lt;sup&gt;1&lt;/sup&gt; and vancomycin&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Antibiotics alone are not definitive management. Immediate referral to appropriate specialist surgical services is essential.

IV treatment around the time of injury and for one to two (1-2) days. Consider changing to oral ciprofloxacin 10mg/kg/dose (to a maximum of 750mg) 12 hourly for seven (7) days once surgically stable.

#### Concomitively

- Topical chloramphenicol 0.5% eye drops; instil one to two (1-2) drops into the affected eye(s) every two (2) hours on day one (1), then reduce to four (4) times daily until discharge resolves.

#### Contact lens conjunctivitis

- Topical steroids to reduce inflammation (e.g. prednisolone 0.5% eye drops; instil one to two (1-2) drops into the affected eye(s) two (2) to four (4) times a day).
- Topical ciprofloxacin 0.3% eye drops; instil one (1) drop into the affected eye(s) four (4) times daily.

Patients should be instructed to stop using contact lenses for at least two (2) weeks and review lens care with an optometrist.

#### Dacryocystitis (mild)

- Topical chloramphenicol 0.5% eye drops; instil one to two (1-2) drops into the affected eye(s) four (4) times daily.

#### Dacryocystitis (severe)

- Oral cefalexin 12.5mg/kg/dose (to a maximum of 500mg) 6 hourly.

<table>
<thead>
<tr>
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<th>Oral cefalexin 12.5mg/kg/dose (to a maximum of 500mg) 6 hourly.</th>
<th>cotrimoxazole&lt;sup&gt;c&lt;/sup&gt;</th>
<th>As per standard protocol</th>
<th>cotrimoxazole&lt;sup&gt;c&lt;/sup&gt;</th>
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<tbody>
<tr>
<td>5 days</td>
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<tr>
<td>7 days</td>
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</tbody>
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<sup>a</sup> Children known or suspected to be colonised with MRSA may need to have their therapy/prophylaxis modified. Children suspected of having MRSA include:

1. Children previously colonised with MRSA
2. Household contacts of MRSA colonised individuals
3. In children who reside in regions with higher MRSA rates (e.g. Kimberley and the Pilbara) a lower threshold for suspected MRSA should be given
4. Children with recurrent skin infections or those unresponsive to ≥ 48 of beta-lactam therapy. For further advice, discuss with Microbiology or ID service
b. An immediate (IgE mediated) reaction is characterised by the development of urticaria, angioedema, bronchospasm or anaphylaxis within 1 to 2 hours of drug administration. Delayed reactions including maculopapular or morbilliform rashes, drug fever and cytopenias and are more in keeping with other forms of immunological reactivity. Isolated diarrhoea is not usually immune-mediated and does NOT contraindicate the future use of an antibiotic.

c. Oral **cotrimoxazole** 4mg/kg/dose of trimethoprim component 12 hourly; equivalent to 0.5mL/kg/dose of mixture, (maximum of 160mg trimethoprim component per dose).

d. Oral **cephalexin** 12.5mg/kg/dose (to a maximum of 500mg) 6 hourly.

e. Oral **cefuroxime** 15mg/kg/dose (to a maximum of 250mg) 12 hourly.

f. IV **vancomycin** 15mg/kg/dose (to a maximum initial dose of 750mg) 6 hourly. Therapeutic drug monitoring is required.

g. IV **ceftriaxone** 50mg/kg/dose (to a maximum of 2000mg) once daily.

h. IV **clindamycin** 10mg/kg/dose (to a maximum of 450mg) 8 hourly.

i. IV **ciprofloxacin** 10mg/kg/dose (to a maximum of 400mg) 12 hourly. ChAMP approval required.

### Related internal policies, procedures and guidelines

- **Antimicrobial Stewardship Policy**
- **ChAMP Empiric Guidelines and Monographs**

### References


