Guideline

Paediatric Guideline
Post-Exposure Prophylaxis for HIV

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**Purpose**

This Guideline provides best practice recommendations for the immediate assessment, management and follow-up of children who have been exposed (or suspect they have been exposed) to HIV in non-occupational settings and provides recommendations for initiation of post-exposure prophylaxis (PEP). This Guideline is consistent with the National Guidelines for post-exposure prophylaxis after non-occupational and occupational exposure to HIV 2nd ed. (2016), takes into account available paediatric PEP recommendations and was developed in consultation with experienced Paediatric Infectious Diseases clinicians.

**Scope** - This Guideline provides information for all Queensland Health employees (permanent, temporary and casual) and all organisations and individuals acting as its agents (including Visiting Medical Officers and other partners, contractors, consultants and volunteers) caring for paediatric patients.

**Related documents**

**Procedures, Guidelines, Protocols**
- Paediatric guideline: Community acquired needle stick injury

**Acronymns**

- HIV: human immune deficiency virus
- IVDU: intravenous drug user
- IMPS: Infection Management and Prevention Service
- LCCH: Lady Cilento Children’s Hospital
- MSM: Men who have sex with men
- PEP: post exposure prophylaxis
Guideline

Assessment of the risk of HIV transmission

- All children presenting following a potential risk of HIV exposure should be immediately considered for PEP.
- However most cases of potential exposure to HIV in children in Australia do not require PEP.
- Seroprevalence of HIV in adults not known to be MSM or IVDU is approximately 0.1%
- PEP is not routinely recommended for non-occupational exposure when an HIV-positive source has a known undetectable viral load (with source history accurate, good medication compliance, regular follow up and no inter-current STIs).
- If in exceptional cases, HIV PEP is considered appropriate, please contact IMPS service at LCCH for confirmation and advice.
- In cases of sexual assault, for guidance re further investigation and intervention, see Queensland Sexual Assault Guidelines.
- In cases of child sexual abuse contact your local Child Protection Specialist or On call Child Protection Consultant at LCCH via LCCH switchboard (07) 3068 1111.

Risk assessment

For detailed discussion, risk assessment, clinical and laboratory follow up refer to Australian National Guidelines for Post-Exposure Prophylaxis after Non-Occupational and Occupational exposure to HIV.

LCCH Recommended PEP Regimens and Dosing for children

PEP should be started as early as possible, preferably within 1 hour but has been shown to be effective up to 72 hours following exposure if required. Duration of PEP is 28 days.

<table>
<thead>
<tr>
<th>Weight</th>
<th>Regimens</th>
<th>Formulation</th>
<th>Oral dose</th>
<th>Intake advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;35kg</td>
<td>Preferred</td>
<td>Truvada® plus Raltegravir</td>
<td>Tab: Tenofovir 300mg/ Emtricitabine 200mg Tab: 400mg</td>
<td>1 tab once daily 1 tab BD</td>
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<tr>
<td></td>
<td>Alternative</td>
<td>Combivir® Plus Raltegravir</td>
<td>Tab: Zidovudine 300mg / Lamivudine 150mg Tab: 400mg</td>
<td>1 tab BD 1 tab BD</td>
</tr>
<tr>
<td>Weight</td>
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<tr>
<td>&lt;35kg</td>
<td></td>
<td>Zidovudine plus Lamivudine plus Kaletra® (Lopinavir/Ritonavir) (See drug dosing information below)</td>
<td>See below</td>
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Preferred for those < 3 years of age (and alternative option for ≥3 years of age unable to swallow/chew tablets)

Preferred if ≥3 years of age AND Raltegravir chewable tablets are available

### Drug dosing:

<table>
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<tr>
<th>Zidovudine</th>
<th>Liquid: 10 mg/mL</th>
<th>180 mg/m²/dose BD (Max: 250 mg BD)</th>
<th>Liquid: With or without food. Capsules can be opened and dissolved in water.</th>
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<tbody>
<tr>
<td>Lamivudine</td>
<td>Liquid: 10 mg/mL</td>
<td>4 mg/kg/dose BD (Max: 150 mg BD)</td>
<td>Liquid: With or without food. Tablet can be crushed and mixed with small amount of water or food.</td>
</tr>
<tr>
<td>Kaletra® (Lopinavir/ritonavir) Co-formulated</td>
<td>Liquid: Lopinavir 80mg/mL + Ritonavir 20mg/mL</td>
<td>300mg/m²/dose BD (Max: 400mg BD) <strong>Dose based on Lopinavir component</strong></td>
<td>Liquid: Take with food</td>
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<tr>
<td>Raltegravir</td>
<td>100 mg CHEWABLE tablets <em>The chewable tablets are NOT bioequivalent to the 400mg Raltegravir tablet.</em></td>
<td>#CHEWABLE tablet: 11-14 kg: 75 mg BD 14-20 kg: 100 mg BD 20-28 kg: 150 mg BD 28-40 kg: 200 mg BD &gt;40 kg: 300 mg BD <strong>Note:</strong> 100mg chewable tablet can be halved for 50mg dosing increments. 25mg chewable tablets unavailable in Australia at present.</td>
<td>With or without food. Take at least 4 hours before or after calcium/magnesium/iron/aluminium/zinc containing supplements/products</td>
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**Formula for body surface area (BSA):**

\[
\sqrt{\frac{\text{Weight (kg)} \times \text{Height (cm)}}{3600}}
\]

*Note strength of tablet*
If Raltegravir used, measure baseline serum creatine kinase and repeat during course of treatment. Repeat also if myalgias or weakness develop along with clinical examination for proximal muscle weakness.

- Tenofovir containing regimens are not preferred in the setting of renal impairment.
- For information on drug interactions with HIV PEP medications: University of Liverpool HIV drug interaction checker: [http://www.hiv-druginteractions.org/](http://www.hiv-druginteractions.org/)

### How do I access emergency HIV medications at LCCH?

- Approval for HIV PEP is required from IMPS. Contact On Call Infection Management Consultant or Fellow.
- Within normal pharmacy hours: call LCCH Pharmacy (07) 3068 1914
- Outside of these hours: Contact the on-call pharmacist via LCCH switchboard (07) 3068 1111
- PEP is available in pre-dispensed 3-day dose packs in afterhours drug cupboards for young people >35kg. Access to these medications should be approved by the IMPS Consultant on service and authorised by the pharmacist on duty.

### Follow up for children commenced on HIV PEP

If HIV PEP prescribed, arrange for early (generally within 3-4 days) review with IMPS; follow up planning is part of providing HIV PEP and should be discussed when deciding to commence HIV PEP. Local or other appropriate follow up should be organised if follow up at LCCH is not practical or appropriate.

If risk determined to be low and no HIV PEP given, review can be with LMO or appropriate local service.

### Consultation

Key stakeholders who reviewed this version:

- Dr Julia Clark, Director – Paediatric Infectious Diseases, Rheumatology and Immunology
- Dr Clare Nourse, Paediatric Infectious Diseases Consultant
- Dr Vikram Vaska, Paediatric Infectious Diseases Consultant, Microbiologist Mater Pathology.
- Nicolette Graham, Antimicrobial Stewardship Pharmacist

### Definition of terms

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<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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References and suggested reading

1. Post-Exposure Prophylaxis after Non-Occupational and Occupational exposure to HIV Australian National Guidelines (Second edition) ASHM
7. ANZPID Post-exposure prophylaxis (PEP) after non-occupational exposure to blood-borne viruses in children – available online: http://www.asid.net.au/groups/paediatric-id-clinical-guidelines

Guideline revision and approval history

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Post exposure prophylaxis, PEP, HIV, antiretroviral, paediatric

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