Post-Exposure Prophylaxis for HIV

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 Australian 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 Children’s Health Queensland (CHQ) Clinical 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

- CHQ-GDL-65665: Community acquired needle stick injury
- CHQ-PROC-01036 Antimicrobial: Prescribing and Management
- CHQ Antimicrobial restrictions list
- Queensland Health Guideline for the Management of care for people 14 years and over disclosing Sexual Assault (health.qld.gov.au)
Guideline

Assessment of the risk of HIV transmission

- All children presenting following a potential risk of Human immune deficiency virus (HIV) exposure should be immediately considered for post exposure prophylaxis (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 men who have sex with men (MSM) or intravenous drug user (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 QCH 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 QCH via QCH 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.
Table 1: 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.

A three drug regimen should be used for all children except those more than or equal to 50 kg AND more than 12 years of age AND when a 2 drug regimen is appropriate.

<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><strong>More than or equal to 50kg and &gt; 12 years of age</strong></td>
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<tr>
<td>Preferred 2 drug regimen</td>
<td>Truvada®</td>
<td>Tab: Tenofovir 300 mg / Emtricitabine 200 mg <em>(Do not use in renal impairment)</em></td>
<td>1 tab once daily</td>
<td>Truvada®: Take with food</td>
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<td>Bioequivalent options:</td>
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<td></td>
<td>Tenofovir disoproxil phosphate 291 mg + emtricitabine 200 mg</td>
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<td></td>
<td>Tenofovir disoproxil maleate 300 mg + emtricitabine 200 mg</td>
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<tr>
<td></td>
<td>Tenofovir disoproxil succinate 301 mg + emtricitabine 200 mg</td>
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<tr>
<td>Alternative 2 drug regimen</td>
<td>Combivir®</td>
<td>Tab: Zidovudine 300 mg / Lamivudine 150 mg</td>
<td>1 tab twice daily</td>
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<tr>
<td><strong>More than or equal to 35kg but &lt; 50kg OR three drug regimen indicated OR if &lt; 12 years of age</strong></td>
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<td>Preferred 3 drug regimen</td>
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<td>Tab: Tenofovir 300 mg / Emtricitabine 200 mg <em>(Do not use in renal impairment)</em></td>
<td>1 tab once daily</td>
<td>Truvada®: Take with food Raltegravir: 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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<td>Film coated Tab: 400 mg</td>
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<td>Film coated Tab: 400 mg</td>
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Table 1: Recommended PEP regimens and dosing for children (continued)

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<tr>
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<th>Formulation</th>
<th>Oral dose</th>
<th>Intake advice</th>
</tr>
</thead>
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<td><strong>Less than 35kg</strong></td>
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</table>
| Preferred for those < 3 years of age (and alternative option for ≥3 years of age unable to swallow/chew tablets) | Zidovudine plus Lamivudine plus Kaletra® (Lopinavir/Ritonavir)  
(See drug dosing information below) |                        |                                                | See below                                         |
| Preferred if ≥3 years of age AND Raltegravir chewable tablets are available | Zidovudine plus Lamivudine plus Raltegravir  
(See drug dosing information below) |                        |                                                | See below                                         |
| **Oral drug dosing:** |                                              |                        |                                                |                                                  |
| Zidovudine | Liquid: 10 mg/mL  
Capsules: 100 mg or 250 mg |                        | Liquid: 4 to 9 kg: 12 mg/kg twice daily  
More than 9 to 30 kg: 9 mg/kg twice daily (Max 300 mg/dose)  
Capsules: 8 to 13 kg: 100 mg twice daily  
14 to 21 kg: 100 mg in the morning and 200 mg at night  
22 to 28 kg: 200 mg twice daily  
29 to 35 kg: 250 mg twice daily | Liquid:  
With or without food.  
Capsules can be opened and dissolved in water. |
| Lamivudine | Liquid: 10 mg/mL  
Tab: 150 mg |                        | Liquid and tablets: More than 3 months and less than 35 kg: 5 mg/kg twice daily (Max 150 mg/dose) | Liquid:  
With or without food.  
Tablet can be crushed and mixed with small amount of water or food. |
| Kaletra®  
(Lopinavir/ritonavir)  
Co-formulated | Liquid:  
Lopinavir 80mg/mL  
+ Ritonavir 20mg/mL  
Tab: Paediatric  
Lopinavir 100 mg + Ritonavir 25 mg  
*Note strength of tablet |                        | Weight banded dosing using liquid: 3 to 5.9 kg: 1 mL twice daily, 6 to 9.9 kg: 1.5 mL twice daily, 10 to 13.9 kg: 2 mL twice daily, 14 to 19.9 kg: 2.5 mL twice daily, 20 to 24.9 kg: 3 mL twice daily.  
**Dose based on Lopinavir component**  
Weight banded dosing using 100/25mg tablets: 14 to 24.9 kg: 2 tablets twice daily  
25 to 35 kg: 3 tablets twice daily | Weight banded dosing using  
100/25mg tablets:  
14 to 24.9 kg: 2 tablets twice daily  
25 to 35 kg: 3 tablets twice daily  
Tablet: Can be given with or without food | Liquid:  
With food  
Contains 42% alcohol.  
Tablet: Can be given with or without food |
| Raltegravir  
25 mg and 100 mg CHEWABLE tablets  
*The chewable tablets are NOT bioequivalent to the 400mg Raltegravir tablet.  
400 mg tablets | #CHEWABLE tablet: 11 to 14 kg: 75 mg twice daily  
14 to 20 kg: 100 mg twice daily  
20 to 28 kg: 150 mg twice daily  
28 to 40 kg: 200 mg twice daily  
If more than 25 kg and can swallow tablets whole:  
400 mg tablet twice daily (use 400mg film coated tablets)  
#Note: 100mg chewable tablet can be halved for 50mg dosing increments. |                        | With or without food.  
Take at least 4 hours before or after calcium/ magnesium/iron/aluminium/zinc containing supplements/products |
● 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 disoproxil containing regimens are not preferred in the setting of renal impairment.

● Routine repeat CHEM20 is not required unless the patient has risk factors for renal impairment or experience myalgia. Seek ID advice.

● For information on counselling points, monitoring and drug interactions with HIV PEP medications:
  – ASHM Post exposure prophylaxis after non-occupational and occupational exposure to HIV – Medication information and cautions

**How do I access emergency HIV medications at QCH?**

● Approval for HIV PEP is required from IMPS. Contact On Call Infection Management Consultant or Fellow via Queensland Children’s Hospital (QCH) switchboard (07) 3068 1111.

● For supply:
  – Within normal pharmacy hours: call QCH Pharmacy (07) 3068 1914
  – Afterhours: Contact the on-call pharmacist via QCH switchboard (07) 3068 1111

● HIV PEP is available in pre-dispensed 3-day dose packs in afterhours drug cupboards for young people weighing more than 35 kg. Access to these medications should be approved by the IMPS Consultant on service and authorised by the pharmacist on duty/on call pharmacist.

● **Two 3-day packs** should be dispensed if PEP is commenced on Friday, Saturday or Sunday to facilitate IMPS review and continued prescription within 3 to 4 days.

● PEP is supplied as non-chargeable to patients according to the CHQ Pharmaceutical Patient charges, exemptions, and waivers procedure.

● Pharmacist to complete the Queensland Health Non occupational HIV post exposure prophylaxis drug replacement form and send with copy of prescription to BBVCDU@health.qld.gov.au.

**Follow up for children commenced on HIV PEP**

If HIV PEP prescribed, arrange for early (generally within 3 to 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 QCH 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.
Abbreviations

HIV Human immune deficiency virus
IMPS Infection Management and Prevention Service
IVDU Intravenous drug user
MSM Men who have sex with men
PEP Post exposure prophylaxis
STI Sexually transmitted diseases

Consultation

Key stakeholders who reviewed this version:

• Director, IMPS, Rheumatology and Immunology (CHQ)
• Paediatric Infection Specialists (CHQ)
• Clinical Pharmacist Lead - Antimicrobial Stewardship (CHQ)
• Medicines Advisory Committee (CHQ) endorsed 09/08/2021

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

<table>
<thead>
<tr>
<th>Version No.</th>
<th>Modified by</th>
<th>Amendments authorised by</th>
<th>Approved by</th>
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<td>1.0</td>
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Keywords
- Post exposure prophylaxis, PEP, HIV, antiretroviral, paediatric, raltegravir, lamivudine, zidovudine, lopinavir, ritonavir, tenofovir, emtricitabine, truvada, kaletra, combivir, 65664

Accreditation references