HIV – Pre-exposure Prophylaxis

Disclaimer

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Background – About HIV - Pre-exposure Prophylaxis

- There is robust evidence for the use of once daily HIV pre-exposure prophylaxis (PrEP) now.
- Co-formulated tenofovir/emtricitabine is Medicare funded for prevention in patients at substantial risk of HIV acquisition.

Assessment

Practice point – Assess risk and perform testing

*If restarting PrEP after a break, assess risk and perform essential baseline testing on every occasion.*

1. If recent **high risk sexual exposure**, and:

   **High risk sexual exposure**

   Condomless sexual intercourse with partner who is:
   - of unknown HIV status.
   - HIV positive and inadequately treated.
   - a man who has sex with men.
   - from a high prevalence country.

   - < 72 hours, refer urgently to a **post-exposure prophylaxis (PEP) dispensing provider**.
   - > 72 hours, perform essential laboratory testing and seek advice from an experienced **PrEP provider**.

   See also **HIV – Post-exposure Prophylaxis**.

2. Assess for behavioural suitability for daily PrEP and seroprevalence of HIV in the population group:
   - **Men who have sex with men (MSM)**

     **Men who have sex with men (MSM)**

     Patient reports any one of:
     - **Current and future risk of HIV acquisition**:
       - Condomless anal intercourse (CLAI) with HIV positive regular partner (not on treatment, or detectable viral load), or at least one episode of ineffective condom use
       - Receptive CLAI with any casual male partner
       - Rectal gonorrhoea, rectal chlamydia or infectious syphilis
       - Sexualised drug use (‘chemsex’), typically with methamphetamine or gamma hydroxybutyrate (GHB)

     - Foresees HIV risk in next 3 months:
• Travel, and condomless sex with casual partners, particularly countries with high HIV prevalence
• Entering or leaving institutional or correctional facilities, and condomless sex with casual partners
• Deteriorating mental health, binge drinking, or substance abuse, and history of HIV acquisition risk behaviour in this setting
• Ended monogamous relationship, and condomless sex with casual partners anticipated

• Highly indicated circumstances:
  o Undue anxiety in HIV serodiscordant couple despite the positive partner being sufficiently virologically suppressed on treatment
  o Recurrent genital dermatoses or ulceration (e.g. psoriasis) that may increase risk of transmission
  o Extreme anxiety preventing engagement with regular HIV testing or engaging in desired anal intercourse

➢ Transgender and gender diverse patients

Transgender and gender diverse patients
Patient reports any one of:
• Current and future risk of HIV acquisition:
  o Condomless anal intercourse (CLAI) with HIV positive regular partner (not on treatment, or detectable viral load)
  o More than one episode of receptive anal or vaginal intercourse with any casual HIV positive partner, or male homosexual partner, or bisexual partner of unknown status
  o More than one episode of ineffective condom use during anal or vaginal intercourse where the partner was HIV positive (not on treatment, or detectable viral load) or of unknown status
  o Rectal gonorrhoea, rectal chlamydia or infectious syphilis
  o Sexualised drug use ('chemsex'), typically with methamphetamine or gamma hydroxybutyrate (GHB)

• Foresees HIV risk in next 3 months:
  o Travel, and condomless sex with casual partners, particularly countries with high HIV prevalence
  o Entering or leaving institutional or correctional facilities, and condomless sex with casual partners
  o Deteriorating mental health, binge drinking, or substance abuse, and history of HIV acquisition risk behaviour in this setting
  o Ended monogamous relationship, and condomless sex with casual partners anticipated

• Highly indicated circumstances:
Undue anxiety in HIV serodiscordant couple despite the positive partner being sufficiently virologically suppressed on treatment

- Recurrent genital dermatoses or ulceration (e.g. psoriasis) that may increase risk of transmission
- Extreme anxiety preventing engagement with regular HIV testing or engaging in desired anal intercourse

➢ Heterosexual patients

**Heterosexual patients**

Patient reports any one of:

- Current and future risk of HIV acquisition:
  - Condomless anal or vaginal intercourse with HIV positive regular partner (not on treatment, or detectable viral load)
  - More than one episode of receptive anal or vaginal condomless intercourse with any casual HIV positive partner, or male homosexual partner, or bisexual partner of unknown status
  - Episodes of planned condomless insertive or receptive vaginal sex in an effort to conceive with a HIV positive partner (regardless of viral load)

- Foresees HIV risk in next 3 months:
  - Episodes of planned condomless insertive or receptive vaginal sex in an effort to conceive with a HIV positive partner (regardless of viral load)
  - Travel, and condomless sex with casual partners who are HIV positive or of unknown status, particularly in countries with high HIV prevalence
  - Deteriorating mental health, binge drinking, or substance abuse, and history of HIV acquisition risk behaviour in this setting
  - Ended monogamous relationship, and condomless sex anticipated with casual partners who are HIV positive, of unknown serostatus and from a country with high HIV prevalence, or with a male partner who is thought to have sex with men

- Highly indicated circumstances:
  - Undue anxiety in HIV serodiscordant couple despite the positive partner being sufficiently virologically suppressed on treatment

➢ Patients who inject drugs

**Patients who inject drugs**

- Needle and syringe programs and opioid substitution therapies are first-line HIV prevention strategies.

- Second-line indications:
  - Current and future risk of HIV acquisition:
    - Condomless anal or vaginal intercourse with HIV positive regular partner (not on treatment, or detectable viral load)
    - More than one episode of receptive anal or vaginal condomless intercourse with any casual HIV positive partner, or male homosexual partner, or bisexual partner of unknown status
    - Shared injecting equipment with an HIV positive person, or a gay or bisexual man of unknown HIV status
3. All general practitioners can prescribe PrEP. Any patients who do not meet the PBS eligibility criteria for PrEP can be assisted to self-import PrEP under the TGA’s personal importation scheme. See PAN – Wanna Get PrEP’d? for a prescription of the legal self-import of PrEP.

4. Perform essential laboratory testing:
   - Documented **negative HIV test result** every 3 months

**Negative HIV test result**
- Fourth-generation HIV antibody/antigen test – performed within 7 days of patient commencing PrEP or presenting for repeat prescription.
- Rapid, point of care tests – can facilitate rapid initiation of PrEP in high-risk patients but does not negate the need for a fourth-generation HIV antibody/antigen test.

Do not accept patient-reported or anonymous test results.

- **Renal function** at baseline and every 3 months

**Renal function**
- Measure serum creatinine, eGFR, urine protein:creatinine ratio, blood pressure
- Ensure eGFR > 90 mL/min/173m²
- Consider risk factors for renal disease: hypertension, diabetes, smoking status, concurrent medications, known renal impairment
- Individuals aged < 25 years, or aged > 40 years may be at increased risk of renal impairment from HIV PrEP

- Other **STI screening** at baseline and repeated according to risk profile

- **Hepatitis B and hepatitis C status**

**Hepatitis C test**
- Anti-HCV – screening
- HCV-RNA – confirms current infection, Medicare eligible once in a 12-month period if anti-HCV positive

**Hepatitis B test**
- HBsAg (hepatitis B surface antigen)
- Anti-HBc (HBc or hepatitis B core antibody)
• Anti-HBs (HBs antibody or hepatitis B surface antibody)

➢ Pregnancy status

➢ Bone mineral density in persons at risk of osteoporosis.

Management

If patient needs to be referred to another clinic with PrEP access, see the list of PrEP prescribers in Australia.

1. Provide:
   ➢ contraceptive counselling, education regarding safer sex practices and needle sharing programs.
   ➢ hepatitis A and hepatitis B vaccination.

   **Hepatitis B vaccination**
   If aged > 20 years, use 1 of these 3-dose schedules of monovalent:
   • 0, 1, and 6 months
   • 0, 1, and 4 months
   • 0, 2, and 4 months.

   **Hepatitis A vaccination**
   Use 2-dose schedule of monovalent at point of presentation and 6 to 12 months later.

   ➢ treatment for any concurrent STIs.

2. If any complications or contraindications or in doubt, discuss with an experienced PrEP provider.

   **Complications or contraindications**
   • HIV positive
   • eGFR < 60
   • Concurrent hepatitis B and hepatitis C
   • Pregnant or breastfeeding women
   • Osteoporosis or osteopenia
   • Patient seeks non-daily or intermittent dose of PrEP

3. Commence co-formulated tenofovir/emtricitabine 300/200 mg daily for 90 days or tenofovir/emtricitabine 291/200 mg.
➢ Protection is increased after 7 days daily dosing.
➢ High adherence is essential.

Follow-up

1. At 30 days:
   • Assess for seroconversion illness and repeat HIV testing.
   • Check for PrEP ‘start-up syndrome’ side-effects:
     o Headache, nausea, flatulence resolving in first month
     o Symptoms of acute renal and liver dysfunction (rare)
   • Perform pregnancy testing.
   • Facilitate mental health optimisation, and address drug and alcohol use.

2. Every 3 months:
   • Repeat HIV testing – assess HIV risk in future 3 months, adherence, and incremental risk reduction.
   • Incremental risk reduction
     o Elicit barriers and facilitators of consistent condom use, and substance abuse.
     o Help patient identify 1 to 2 feasible, acceptable steps to reduce risk.
     o Reinforce success.
   • Assess PrEP side-effects.
   • PrEP side-effects
     o PrEP-associated symptoms usually return to baseline by 3 months.
     o Assess for symptoms of acute renal and liver dysfunction.
   • Repeat sexual health screening.
   • Manage renal function if deterioration.
   • Manage renal function
     o Check electrolytes, urea, and creatinine, eGFR, urine protein:creatinine ratio.
     o If eGFR > 60 and rise in serum creatinine: continue PrEP and monitor renal function closely. Ask about history of steroid use and bodybuilding.
     o If eGFR declining steadily but still > 60, continue PrEP and discuss with an experienced PrEP provider.
     o If eGFR < 60, look for other reversible causes, hydrate patient and repeat in a week. If still low, leave on PrEP until discussion with an experienced PrEP provider.
     o Perform pregnancy testing.
     o Facilitate mental health optimisation, address drug and alcohol use.
Referral

If seeking pre-exposure prophylaxis (PrEP), refer to an experienced PrEP provider if:

- HIV positive
- eGFR < 60
- concurrent hepatitis B and hepatitis C
- pregnant or breastfeeding women
- osteoporosis or osteopenia
- patient seeks non-daily or intermittent dose of PrEP.

Information

For health professionals

Further information

Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM):

- Decision Making in PrEP
- PrEP Guidelines Update – Prevent HIV by Prescribing PrEP

For patients

ACON – Access to PrEP - What You Need to Know

References


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