Safety and efficacy of tenofovir disoproxil fumarate plus emtricitabine for HIV pre-exposure prophylaxis in Thailand

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Figure 4: Observed HIV prevalence among high risk MSM in Bangkok VS Adjusted HIV prevalence among all MSM.
PrEP in Thailand

- PrEP recommended for “key populations” in the national guidelines (2014)
- No funding for PrEP in public programs
- Public demonstration project for 600 MSM started in 2015
- Princess PrEP supporting 7 CBOs in 4 cities launched in 2016
- Increasing availability in the private sector
The Anonymous Clinic at the Thai Red Cross AIDS Research Centre

- The largest VCT in Thailand with over 35,000 HIV tests in 2015
- MSM HIV prevalence is 20%
- Non-MSM HIV prevalence is 6%
- MSM are 30% of clients, but MSM are 90% of all new HIV infections detected.
PrEP-30 program at Thai Red Cross Anonymous Clinic

PrEP-30: a newly launched, self-paid program (30THB per day) to increase awareness and access to PrEP among at-risk populations at TRC Anonymous Clinic.

PrEP-30 is a service project at the Anonymous Clinic, The Thai Red Cross AIDS Research Centre offering PrEP for Thai and foreigners to provide "tenofovir/emtricitabine" or "TDF/FTC" (also sold under the brand name Truvada in western countries) for MSM as part of a combined HIV prevention program that includes counseling, HIV, Hepatitis B and Kidney testing, and the provision of condoms and lubricants under the fee of 30 Thai Baht (~1 USD) per day.

What is PrEP?

Criteria for PrEP-30

Where can I get PrEP? and How much does it cost?

PrEP - FAQ

Need Advice? Ask us more about PrEP-30

PrEP article on 'attitude' Gay Magazine Thailand
PrEP-30 at the TRC Anonymous Clinic

• Fee-based PrEP
• Established in an existing VCT/ART clinic using current staff and clinic facilities
• Simple protocol for VCT counselors to screen for “at-risk” clients, introduce PrEP to clients, and refer to doctor if PrEP indicated and client agrees
• PrEP provided at first visit, after HIV test with negative result
• Total cost 30 THB (<US$1) per day
• Launched December 2014
### PrEP-30 laboratory monitoring

<table>
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<th>Labs</th>
<th>Baseline</th>
<th>MONTH</th>
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<tbody>
<tr>
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<tr>
<td>Anti-HBs</td>
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PrEP-30 clients: cumulative
PrEP-30 clients

- 197 clients through December 2015
- Mean age 34.3 (range 18-67)
- 98% male, 91% MSM, 1% TGW
- Risk behavior:

![Risk Behavior Bar Chart]

- PWID
- HIV + partner
- Sex work
- AI no condom
- >5 partners
- PEP
Results: Risk behavior

**Condom Use**
- **Baseline**: 54.3% Used condoms, 45.7% Condomless sex
- **3 Months**: 48.1% Used condoms, 51.8% Condomless sex
- **6 Months**: 50% Used condoms, 50% Condomless sex

**Drug Use**
- **Baseline**: 23.3% Yes, 76.7% No*
- **3 Months**: 37.7% Yes, 62.3% No*
- **6 Months**: 45.4% Yes, 54.6% No*
Results: liver function

ALT (mean)

[Graph showing ALT levels over baseline, month 6, and month 12, with different grades of elevation and normal range indicated.]

Baseline
Month 6

Grade 4 elevation (>450)
Grade 3 elevation (226-450)
Grade 2 elevation (113-225)
Grade 1 elevation (46-112)
Normal (≤45)
Results: renal function

Mean Creatinine (mg/dL)

- Baseline
- Month 6
- Month 12

Mean eGFR (mean)

- Baseline
- Month 6
- Month 12

- Severe renal deficiency (eGFR <30)
- Moderate renal deficiency (eGFR 30-59)
- Mild renal deficiency (eGFR 60-89)
- Normal (eGFR ≥90)
Results: HIV incidence

- As of April 2016, no PrEP user has become HIV positive.
- Total follow-up time = 456 person-months (38 person-years).
- Estimated HIV infections prevented:

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<td>Expected HIV infections (6/100 P-Y)*</td>
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<tr>
<td>Observed HIV infections</td>
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Anonworanich, 2013; van Griensven, 2013
Results: Tolerance

• 25 (12.7%) users stopped PrEP:
  • 17 (8.6 %) stopped due to change in risk
  • 2 (1%) stopped due to side effects (dizziness)
  • 6 users (3%) had to stop PrEP due to minor elevations in creatinine. Only 1 had grade II renal insufficiency. All resolved after stopping PrEP.
Lessons Learned

• MSM are willing to pay for PrEP if delivered at an affordable price.

• The major toxicity is renal insufficiency, which is reversible if discovered early and PrEP discontinued.

• PrEP is safe if monitored following international guidelines.

• Thus far, no client has acquired HIV infection while taking PrEP in Thailand.