



Florida/Caribbean AIDS Education and Training Center

HIV CareLink

A Newsletter for HIV/AIDS Primary Care Providers

ABOUT US

The Florida/Caribbean AIDS Education and Training Center provides state-of-the-art HIV education, consultation, and resource materials to health care providers in Florida, Puerto Rico and the US Virgin Islands.

Major funding is provided by the US Public Health Service's Health Resources Services Administration (HRSA) DHHS-HAB Grant No. H4AHA00049 through the University of South Florida Center for HIV Education and Research, Kimberly Molnar, M.Acc.

EDITORS

Jeffrey Beal, MD, AAHIVS
239-839-4645
aetbeal@embarqmail.com

Joanne J. Orrick, PharmD, AAHIVE
352-273-7845
orricjj@ufl.edu

Lois Hall, ARNP
813-974-8501
loishall@usf.edu

MANAGING EDITOR

Pamela Gatches-Fort, BA
(813) 974-2983
pgatches@usf.edu

Volume 12 - Issue 5

April 25, 2011

Preexposure Prophylaxis for the Prevention of HIV Infection in Men Who Have Sex with Men Interim Guidance

Amy Wu, BS, MS

MS1, University of South Florida College of Medicine

Madhvi Shah, MA

Research Assistant, University of South Florida College of Medicine

Charurut Somboonwit, MD, FACP

University of South Florida College of Medicine, Florida/Caribbean AETC Faculty Member

In the U.S., there are approximately 56,000 people who are infected with HIV yearly; 53% of those are in men who have sex with men (MSM). On November 23, 2010, the Preexposure Prophylaxis Initiative (iPrEX) Study Team announced the results from their study evaluating the use of tenofovir/emtricitabine (TDF/FTC, Truvada®) to prevent HIV acquisition in MSM. The following summary is from the international iPrEX clinical trial and the Interim Guidance for Preexposure Prophylaxis for the Prevention of HIV Infection in Men Who Have Sex with Men issued by the Centers for Disease Control and Prevention (CDC) on January 28, 2011. Clinicians are encouraged to consult the full CDC guidance report at <http://www.cdc.gov/nchhstp/newsroom/PrEPMSM.htm>.

iPrEX Study

- Aimed to decrease the number of MSM who participate in high-risk sexual behaviors, from acquiring HIV.
- The strategy used in this clinical trial was a combination of: 1) a fixed dose combination of tenofovir disoproxil fumarate and emtricitabine (TDF/FTC), market name Truvada®, as preexposure prophylaxis (PrEP) and, 2) counseling.
- Conducted in Peru, Ecuador, Brazil, Thailand, South Africa and the U.S.
- Eligible participants were men or male-to-female transgender who reported participating in high-risk sexual practices. Participants were HIV-uninfected and had no contraindications to taking TDF/FTC. If patients were susceptible to hepatitis B at the time of enrollment, they were offered vaccinations.

Study Design

- Study participants were randomized either into placebo or preexposure prophylaxis (PrEP) arm (TDF/FTC taken once daily).
- Participants were followed every 4 weeks for interview, risk reduction counseling, adherence assessment and HIV test.
- Every 3 months participants were given a physical exam, and blood and urine samples were taken to test for kidney and liver function. Participants also were tested for sexually transmitted infections (STIs) and treated accordingly.

- Participants were followed for a median of 1.2 years and a maximum of 2.8 years.

Study Results

- A total of 2,499 participants were randomized to placebo or PrEP arm and the modified intent-to-treat analysis of visits through May 1, 2010, was presented.
 - Excluded from analysis: 10 participants who were found to be HIV-infected at enrollment, 48 participants did not have an HIV test after enrollment.
- 100 participants became infected during follow-up (36 in PrEP arm and 64 in placebo arm).
 - 44% ↓ in HIV acquisition in PrEP group (95% CI, 15 to 63; p=0.005).
 - 50% ↓ in acquisition when patients had ≥ 50% adherence to the regimen (95% CI, 18 to 70; p=0.006).
 - 73% ↓ in HIV acquisition in participants with ≥ 90% adherence to the regimen (95% CI, 41 to 88; p< 0.001).
 - Participants with detectable levels of TDF/FTC had a relative reduction of risk of HIV acquisition of 92% compared to those with undetectable levels (95% CI, 40 to 99; p<0.001).
- TDF/FTC had little to no side effects. There was no difference in severe or life-threatening lab abnormalities between the two groups.

For more information,
please visit our website:

www.FCAETC.org

To request clinical consultation, please call the
National Clinicians' Consultation Hotline:

1-800-933-3413



- There was no drug resistance in the participants that became infected during the study.
- Participants also reported a lower number of penetrative sexual partners and increased use of condoms compared to before the study.

Study Limitations

- Small sample size in the U.S. (10%) limits ability to directly apply these results to the U.S. population as a whole.
- Drug level testing was not conducted on all participants.
- Long-term effects of TDF/FTC use in uninfected men is unknown.
- Drug levels indicated that adherence measures (i.e., pill counts, self-report, and dispensing records) used in the trial might overstate the actual adherence.
- There may be a difference in adherence to PrEP and sexual behavior in trial environment versus outside of the trial environment.

Concerning the limitations of applying the study into clinical practice, CDC and other U.S. Public Health Service agencies are developing guidelines for using PrEP and in the interim have provided guidance to hopefully prevent the use of various unsafe and potentially less effective and/or unproven PrEP strategies [e.g. use of other antiretrovirals not well-studied such as protease inhibitors, unproven dosing schedules (e.g. intermittent dosing around time of sexual activity), not assessing for acute retroviral syndrome before starting PrEP]. Until such guidelines are available, CDC provides interim recommendations as follows:

Before beginning PrEP medication, determine the eligibility of the patient:

- HIV antibody test(s) immediately prior to start of PrEP are negative
- Acute HIV infection has been ruled out
- Patient has an ongoing, high-risk for acquiring HIV infection
- Calculated creatinine clearance is ≥ 60 mL/min (via Cockcroft-Gault formula)
- There is no clinical contraindication to taking TDF/FTC

Additional recommendations

- Screen for hepatitis B infection; vaccinate against hepatitis B if susceptible, or treat if active infection is present (regardless of prescribing PrEP)
- Screen and treat for STIs

Beginning PrEP medication regimen:

- Prescribe Truvada[®] (TDF/FTC 300/200 mg) 1 tab once daily
- Prescribe maximum of a 90-day supply; renew the prescription only after repeat HIV testing remains negative

- If active hepatitis B is diagnosed, consider using TDF/FTC for both hepatitis B treatment and HIV prevention
- Educate patient about risk-reduction and medication adherence and provide condoms

Follow-up while PrEP medication is being taken:

Every 2-3 months

- Perform an HIV antibody test and document negative result
- Evaluate adherence at each visit
- Assess risk behaviors and provide risk-reduction counseling and condoms
- Assess for STI symptoms, test and treat as needed

Every 6 months

- Test for STI in all patients, regardless of symptoms, and treat as needed

3 months after initiation of PrEP regimen and yearly subsequently

- Check blood urea nitrogen and serum creatinine

Discontinuing PrEP (upon patient request, safety concerns, or HIV acquisition):

- Perform HIV test(s) to determine HIV status
- If HIV positive, order resistance testing and arrange for HIV care
- If HIV negative, arrange risk-reduction support services
- If active hepatitis B is diagnosed at initiation of PrEP, consider continuing treatment of hepatitis B with appropriate medication

Summary

- The result of the iPrEX study is the first evidence that daily oral use of an antiretroviral drug can also help to prevent sexually-acquired HIV among MSM if it is delivered as a part of comprehensive HIV prevention services.
- CDC emphasized the importance of targeting PrEP to MSM at high-risk for HIV acquisition and delivering it as a part of comprehensive HIV prevention services.
- It is important that any MSM who may be prescribed PrEP is confirmed to be HIV-negative prior to use.
- The Interim Guidance only applies to MSM. Currently, there is no data among other populations.

References

1. Grant RM, et al. Preexposure Chemoprophylaxis for HIV Prevention in Men Who Have Sex with Men *Engl J Med* 2010; 363:2587-2599.
2. Centers for Disease Control and Prevention. *MMWR*. January 28, 2011 / 60(03):65-68.

The complete collection of previous issues of HIV CareLink are available online.

To view past issues, please visit the archives at:

www.FCAETC.org/Newsletter



FDA Approves Intelence® (etravirine) 200 mg tablets

- The FDA recently approved a 200 mg tablet strength of etravirine.
- The adult dose of etravirine is 200 mg twice daily following a meal.
- As with the 100 mg tablet, the tablet can be swallowed whole or dissolved in water and swallowed.

FDA Approves Viramune XR® (Nevirapine extended release) 400 mg tablets

- The FDA recently approved an extended release once daily version of nevirapine which should be available in pharmacies in a few weeks.
- Viramune® XR 400 mg tablets are an extended release formulation and should not be crushed, chewed or broken.
- Patients who are not currently taking nevirapine, should initiate therapy with Viramune® 200 mg immediate-release, 1 tablet once daily for 14 days. If no rash or hepatic events occur, patient should be switched to Viramune® XR 400 mg once daily. If mild rash occurs and hepatotoxicity is ruled out, the 200 mg once daily dose can be continued for an additional 14 days, but if rash continues beyond 28 days an alternate ART regimen should be prescribed.
- Patients who are currently taking the 200 mg immediate-release formulation (either as 200 mg twice daily or 400 mg once daily) can be switched to Viramune® XR 400 mg once daily without a 14-day lead-in period with the 200 mg once daily dosing.

Note: If therapy is interrupted for > 7 days in any patient taking nevirapine (Viramune® or Viramune® XR), reinstate therapy with the 200 mg once daily dosing for 14 days using the immediate-release formulation.

- Due to increased risk of hepatic events in these patients, the FDA recommends that nevirapine therapy NOT be initiated in women with CD4 > 250 or men with CD4 > 400 cells/mm3 unless the benefits outweigh the risks.

Liver function should be monitored closely when initiating nevirapine therapy. Check LFTs at baseline, 2 weeks, 4 weeks, and monthly for the first 3 months, then every 3 months thereafter. (No specific guidelines are available regarding frequency of monitoring beyond 4 weeks).

- For more information including the full product label, go to the FDA website at:

<http://www.accessdata.fda.gov/scripts/cder/drugsatfda/index.cfm?fuseaction=Search.DrugDetails>

Warning Regarding Kaletra® (Lopinavir/ritonavir) Oral Solution in Premature Babies

- The propylene glycol in Kaletra® oral solution can lead to renal, cardiac, and/or respiratory problems in premature babies due to their decreased ability to eliminate this substance.
- Due to severe or possibly fatal adverse events, Kaletra® oral solution should be avoided in pre-term babies until 14 days after their due date and should not be used in full-term babies < 14 days old unless the benefit outweighs the risk.
- For more information, go to the FDA website at: <http://www.fda.gov/ForConsumers/ByAudience/ForPatientAdvocates/HIVandAIDSactivities/ucm244639.htm>

REGISTER TODAY
May 13-14, 2011
20th ANNUAL HIV CONFERENCE
 of the Florida/Caribbean AIDS Education and Training Center
Hilton Orlando

CHOOSE FROM FOUR HIV/AIDS CONCURRENT CLINICAL SESSIONS:
 Fundamentals • Advanced • Nursing Issues • Pediatrics
 Pharmacy and Medical Case Management Related Topics Available

KEYNOTE SPEAKERS

Friday, May 13
Mario Stevenson, Ph.D.
Obstacles to Eradication of HIV through Antiretroviral Therapy

Saturday, May 14
Julie Cross
Health Care Reform and the National AIDS Strategy

www.FCAETC.org/Conference

Funded in part by DHHS-HAB Grant No. H4AHA00049

The complete collection of previous issues of HIV CareLink are available online.

To view past issues, please visit the archives at:

www.FCAETC.org/Newsletter