PrEP adherence in Black MSM in HPTN 073 – and Beyond

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With updates on HPTN 069 and HPTN 077

CHIPTS
Center for HIV Identification, Prevention and Treatment Services

Overview

- Brief Epi
- PrEP rationale
- HPTN 073 Protocol
- Study Status
- HPTN 069
- HPTN 077

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Center for HIV Identification, Prevention and Treatment Services

HIV Among MSM

- MSM represent 2% of the US population, yet are the most severely affected
- In 2011 MSM accounted for
  - 62% of all new HIV infections
  - MSM-IDU accounted for an additional 3% of new infections
- BMSM accounted for 38% new HIV infections in 2011

Foundational Research
HPTN 061:
The BROTHERS Study

HIV Prevention Trials Network

Study Overview

- The first and largest prospective study of BMSM conducted in the U.S.
- Enrolled a total of 1,553 men in six U.S. cities
- First study to clearly define HIV incidence rate for BMSM in the U.S.

Study Findings

- HIV incidence among high risk BMSM was 2.8% per year, 50% higher than rates in white MSM in the U.S.
- Young BMSM (< 30) acquired HIV infection at a rate of 5.9% per year, three times that of U.S. white MSM.
- Los Angeles HIV incidence was 6.9% per year, accounting for 16.7% of the sample and 40% of the incident infections.

Pre-Exposure Prophylaxis (PrEP)

HIV Prevention Trials Network

What is PrEP?

- PrEP (Pre-Exposure Prophylaxis) is a new approach that has shown that the use of antiretroviral medications (ARVs) can reduce the risk of HIV infection in HIV-negative people
- In mid-2012 the FDA approved Truvada® to be used for as PrEP prevention of HIV
- Used as part of a HIV prevention package (risk reduction counseling and condoms)

PrEP Adherence

- The level of protection depends on how consistently participants used PrEP
- Greater levels of protection were found among those who adhered well to the daily dosing regimen
- Other than low adherence, no factors have yet been identified that influence the effectiveness of PrEP

HPTN 073: BMSM Open-Label PrEP Demonstration Project in Three US Cities

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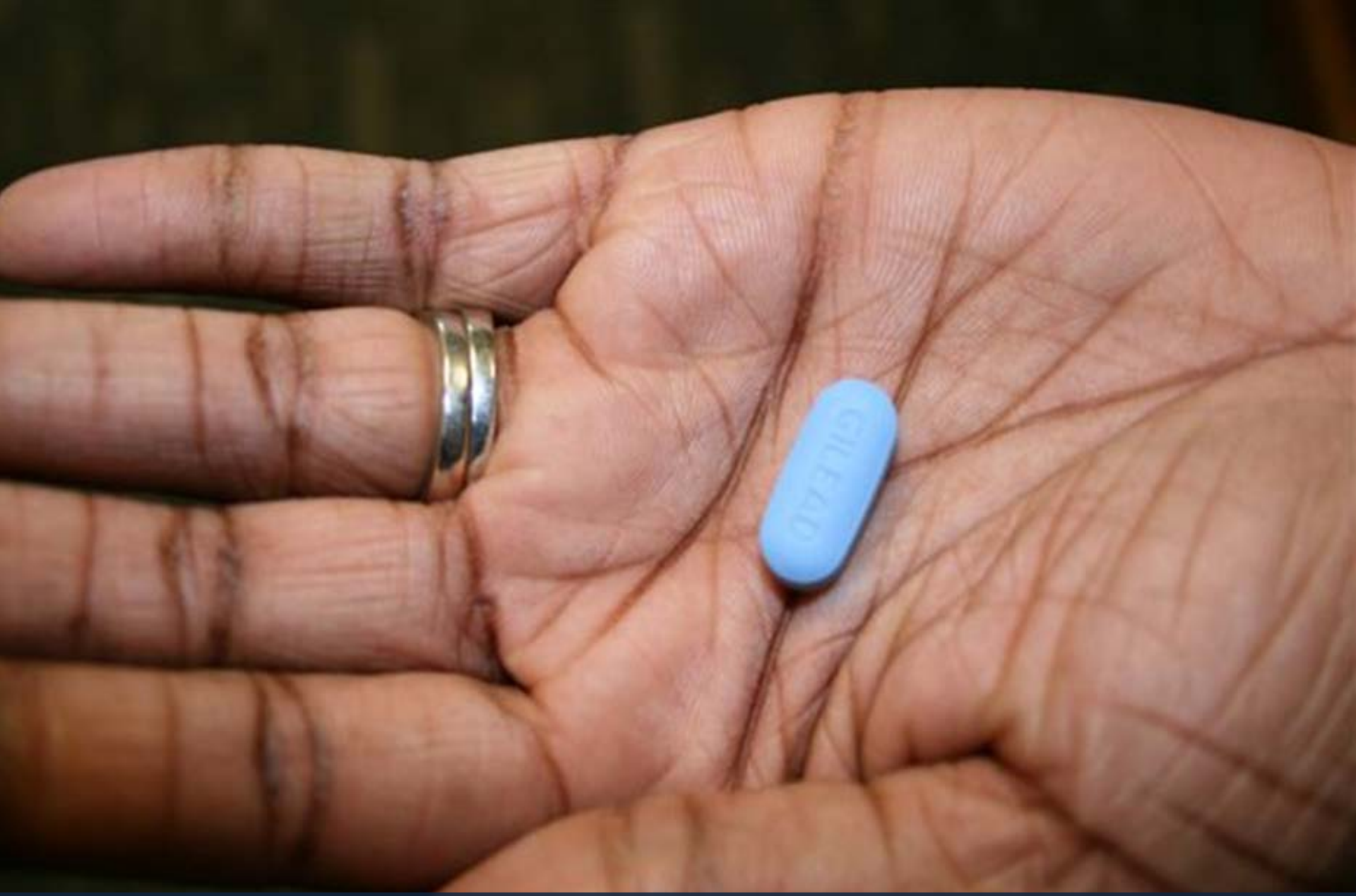
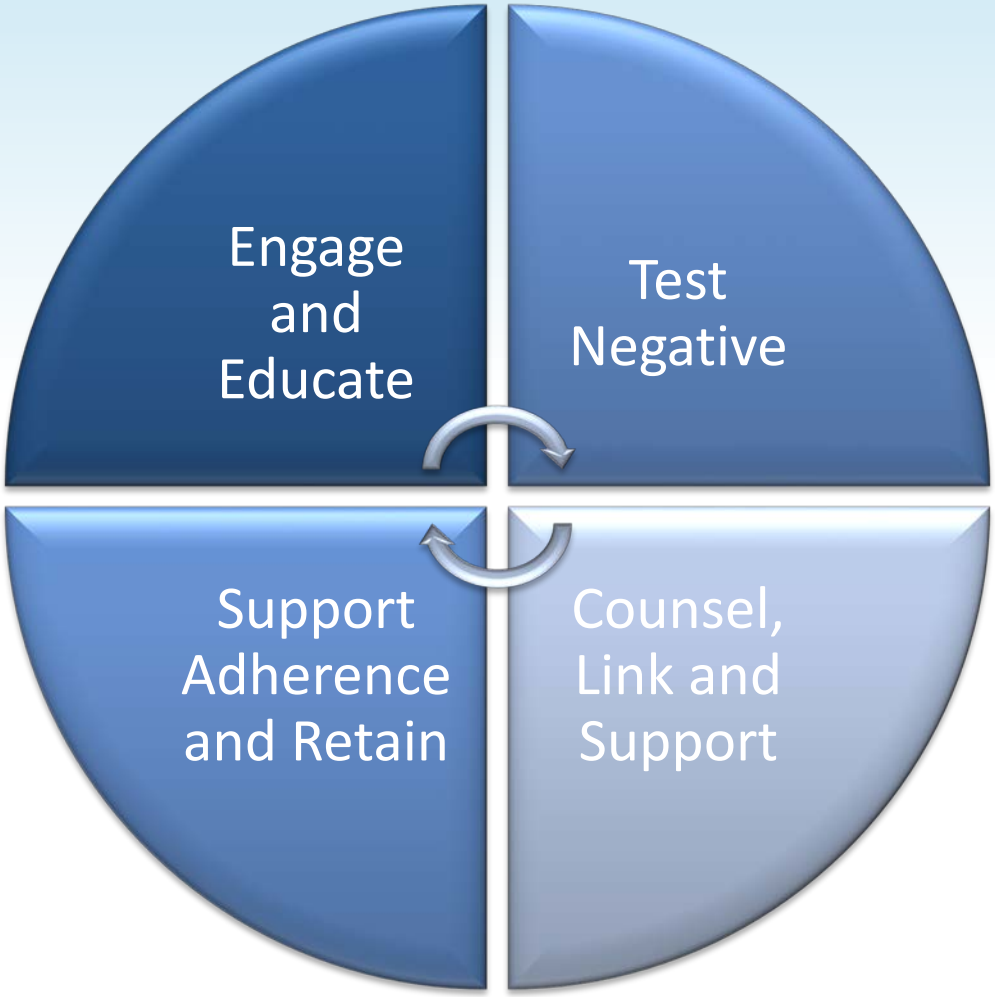


TRUVADA® TABLET

HPTN 073 Study Design

- Demonstration project
- Planned enrollment
  - 225 participants
  - 75 participants per site
- All participants will be offered once daily oral Truvada® combined with client centered care coordination (C4)

Study Procedures



HPTN 073 Study Questions

- Will BMSM initiate PrEP?
- Will BMSM use PrEP daily?
- Is it safe for BMSM to use PrEP?
- Will BMSM sexual practices change with uptake of PrEP?
- Is it acceptable for local health care facilities to administer client-centered care coordination (C4) along with PrEP to BMSM?
- How much Truvada® is in the blood of BMSM who report taking it?
- How often does HIV drug resistance occur?

BMSM in the Study

BMSM who meet all of the following criteria are eligible for inclusion in this study:

- 18 years of age or older
- Black, Caribbean Black, or a multi-ethnic Black male
- MSM
- HIV negative
- Male at birth and identify as male
- Sexually active
- Willing to provide comprehensive and current locator information

BMSM in the Study

- Participants will visit the clinic approximately 7 times during the study
- At each visit participants will
  - be offered the option of beginning/ending Truvada®
  - have a physical examination
  - discuss concerns or drug side effects
  - establish a care plan
  - receive HIV/STI counseling and testing
  - be offered condoms

HPTN 073
Status Update

HIV Prevention Trials Network

HPTN 073 Status Update

- Of 56 enrolled, only 2 have dropped after 10 months of enrollment
- 35 of 56 (62.5%) enrolled men (as of 6-20-2014) began PrEP; 30 currently on PrEP
  - 24/30 on PrEP (80%) started from enrollment
  - 6/30 on PrEP (20%) started weeks/months after
  - 5 men initiated PrEP, then d/c'd and no longer take

HPTN 073 Status Update

- There is no adherence measure except the blood analysis at end of study
- 5 men reported more than a several day pill lapse due to: lost pills, incarceration, vacation.
- One man reported he wasn't taking the pills and is not included in the 30 currently on PrEP.
- 2 men said they wanted PrEP, but then decided they didn't want it after all and never picked up the pills.
- Men report they are fairly consistent, but report missing a pill here or there

HPTN 073 Status Update

- We have not had to withdraw Truvada from any participant for medical reasons.
- One participant stopped his body building supplements due to high creatinine, but was able to stay on Truvada without problems.
- Two participants reported loose stools that seem to linger (one with a history of laxative use) otherwise, no real medical issues or side effects.
- Zero seroconversions, but one acute case detected at admission

Summary

- Recruitment proceeding well; getting young Black MSM onto protocol requires constant attention
- About 2/3 of high risk Black MSM will take Truvada when offered the chance
- No problems with retaining any of the men in the protocol
- Still Enrolling! 866 449 UCLA

  866 449 8252

HPTN 069
Status Update

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HPTN 069: NEXT-PrEP

- Design: Phase II, 4-arm multisite study
  - N=400 at-risk HIV-negative gay men
  - N=200 at risk HIV-negative women
- Study Treatment:
  - MVC monotherapy
  - MVC + FTC
  - MVC + TDF
  - TDF + FTC (control)
- Duration: 48 weeks
- Primary endpoint: Grade ≥3 toxicities; time to study treatment discontinuation
- Ongoing at UCLA CARE Center – slots for men and women
  - Behavioral prevention package platform
  - Adherence is closely monitored using self-report and biomarkers

HPTN 069 Status Update

- Male cohort: 406/400 men enrolled; last participant seen March 2015
- Female cohort: 119/200 women enrolled; closing enrollment December 2015
- UCLA site: Tissue subset site enrolled 30/25 mne; 2/15 women
- Adherence measured using wise pill and by drug levels
- Blinded review by examined blood levels for MVC or TDF among men –
  - If < 70% detection, stop the study; no message
  - Analysis to be completed for women

HPTN 077

Something Completely Different

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HPTN 077 – GSK 744LA

- Nanotechology formulation
- SC + IM injections
- Half-life 21-50 days! Spreen IAS 2012 #TUPE040
  - Great deal unless something goes wrong
- Supports quarterly dosing
- Safe
- Tissue levels Ford PK Workshop 2013 #O-02
  - Cervicovaginal tissue 16-28% of plasma
  - Rectal tissue (men) ≤8% of plasma
- Few drug-drug interactions expected

HPTN 077 – GSK 744LA
PrEP Study in Macaques

- Study population: male macaques (N=16)
- Study treatment:
  - GSK 744 X 2, 4 weeks apart
  - Placebo
- Weekly SHIV rectal challenge X 8
- Results
  - GSK 744: no infections
  - Placebo: all infected

Andrews CROI 2013 #24LB

HPTN 077 – GSK 744LA

- Raphael Landovitz MD is the protocol chair
- Randomized 3:1 active:placebo for 176 men and women
- Oral tablets for 4 weeks to assess safety and tolerability
- Injections (2 IM gluteal injections of 400 mg GSK 744LA or placebo) every 12 weeks
- Primary endpoint: Safety and tolerability to 52 weeks
- Secondary endpoints:
  - PK data by participant characteristics
  - Sexual risk behaviors
  - Incidence on product
  - Drug resistance

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National Institute of Allergy and Infectious Diseases

NIMH National Institute of Mental Health

NIH National Institutes of Health

U.S. Department of Health and Human Services

NATIONAL INSTITUTES OF HEALTH

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