

Supplementary Online Content

Liu AY, Cohen SE, Vittinghoff E, et al. Preexposure prophylaxis for HIV infection integrated with municipal- and community-based sexual health services. *JAMA Intern Med*. Published online November 16, 2015. doi:10.1001/jamainternmed.2015.4683.

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This supplementary material has been provided by the authors to give readers additional information about their work.

eMethods 1. Description of Client-Centered Counseling

Client-centered risk reduction and adherence counseling involved a 10-15 minute discussion by a counselor or clinician about the participants' sexual activities and his or her substance use, how PrEP fits into the participant's overall plan to stay HIV negative, how participant's pill adherence impacts his or her protection from HIV, and other strategies the participant is following to stay HIV-negative. Facilitators and barriers of PrEP pill-taking and strategies to promote PrEP adherence were also discussed. All participants were offered free condoms, lubricants, and linkages to appropriate community services.

eMethods 2. DBS Processing Methods

DBS samples were stored at $<-20^{\circ}\text{C}$ within 24 hours of collection and shipped monthly on dry ice to the University of Colorado Antiviral Pharmacology Laboratory where 3 mm punches were extracted and analyzed for tenofovir diphosphate by liquid chromatography and mass-spectroscopy, as previously described.^{1,2} Week 4 values were adjusted to steady-state values based on a 17-day half-life.

eMethods 3. Drug Resistance Testing Methods

Blood plasma HIV RNA was assessed for drug resistance by HIV-1 pol population sequencing with mixed base detection at 20% (TRUGENE, Siemens Healthcare Diagnostics, Inc, Tarrytown NY), and an allele-specific polymerase chain reaction-based quantitative minor variant assay (qMVA) targeting reverse transcriptase mutations K65R, K70E, M184V and M184I.³ Detection of mutations conferring drug resistance are considered positive if over measured background levels of 0.5%.

eMethods 4. Adverse Event Grading Methods

All adverse events were graded using the Division of AIDS (DAIDS) Adverse Event Grading Table Version 1.0, December 2004, and the DAIDS Male Genital Grading Table, except that participants with a creatinine >1.5 times the baseline creatinine were defined as having a Grade 1 creatinine toxicity, even if it did not meet Grade 1 criteria according to the DAIDS table.

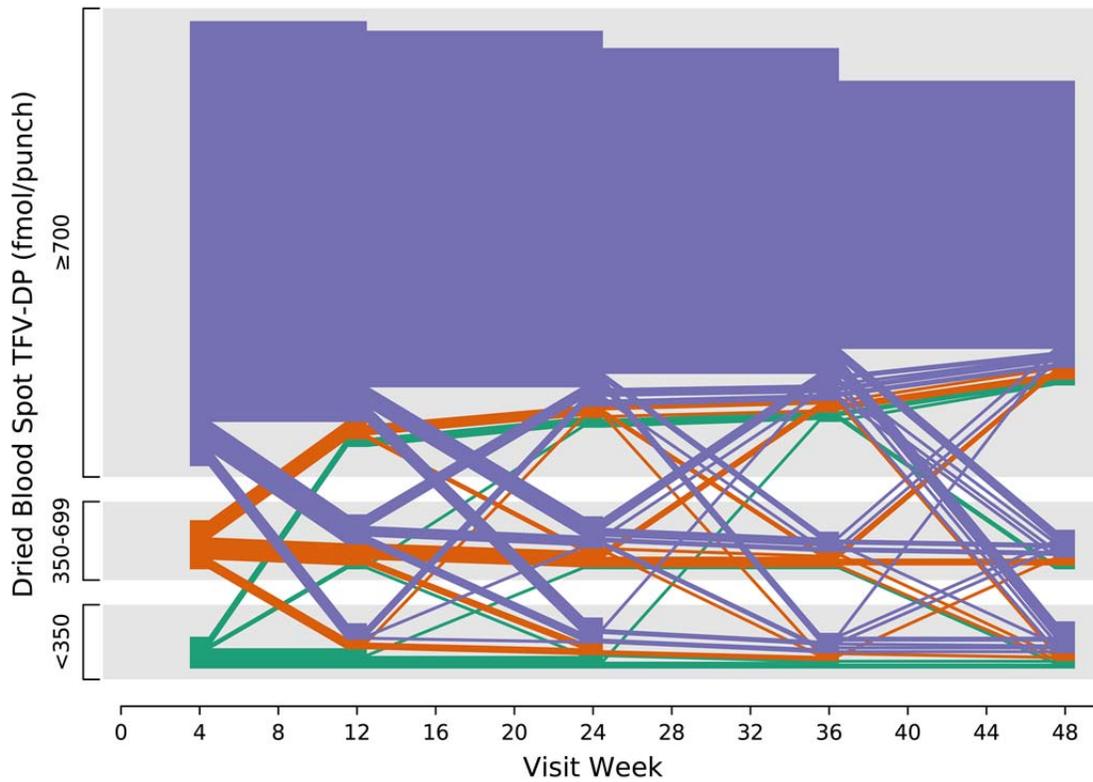
eMethods 5. Definition of Protective TFV-DP Concentrations in DBS

Protective levels are defined as having a TFV-DP concentration of ≥ 700 fmol/punch, which has been previously shown in iPrEx OLE to be associated with no HIV infections (100% efficacy, 95% CI 86% to 100%). This value is estimated to be associated with taking ≥ 4 doses/week of TDF/FTC PrEP.^{1,2}

eReferences

1. Grant RM, Anderson PL, McMahan V, et al; iPrEx Study Team. Uptake of pre-exposure prophylaxis, sexual practices, and HIV incidence in men and transgender women who have sex with men: a cohort study. *Lancet Infect Dis.* 2014;14(9):820-829.
2. Castillo-Mancilla JR, Zheng JH, Rower JE, et al. Tenofovir, emtricitabine, and tenofovir diphosphate in dried blood spots for determining recent and cumulative drug exposure. *AIDS Res Hum Retroviruses.* 2013;29(2):384-390.
3. Liegler T, Abdel-Mohsen M, Bentley LG, et al; iPrEx Study Team. HIV-1 drug resistance in the iPrEx preexposure prophylaxis trial. *J Infect Dis.* 2014;210(8):1217-1227.

eFigure. Trajectory of DBS Concentrations by Participant



Drug concentrations in dried blood spots (DBS) for participants who initiated PrEP in the Demo Project and had ≥ 2 DBS samples tested (N=272). Each line represents one participant. Blue lines indicate participants who had DBS levels ≥ 700 fmol/punch (4-7 doses/week) at week 4, orange lines indicate participants who had DBS levels between 350-699 (2-3 doses/week), and green lines indicate participants with DBS levels < 350 (< 2 doses/week).