



**PHARMACY
VISION
20/20**

CSHP SEMINAR 20 • OCTOBER 21-25
Disneyland
RESORT

PREPARING FOR SB 159

JENNIFER COCOHOBA, PHARMD, MS, BCPS, FCSHP, APH

UCSF SCHOOL OF PHARMACY

JERIKA T. LAM, PHARMD, AAHIVP, FCSHP, APH

CHAPMAN UNIVERSITY SCHOOL OF PHARMACY

DISCLOSURE

- Dr. Cocohoba is pending receipt of an investigator initiated research award from Viiv.
- Dr. Lam has no potential conflicts of interest to declare.

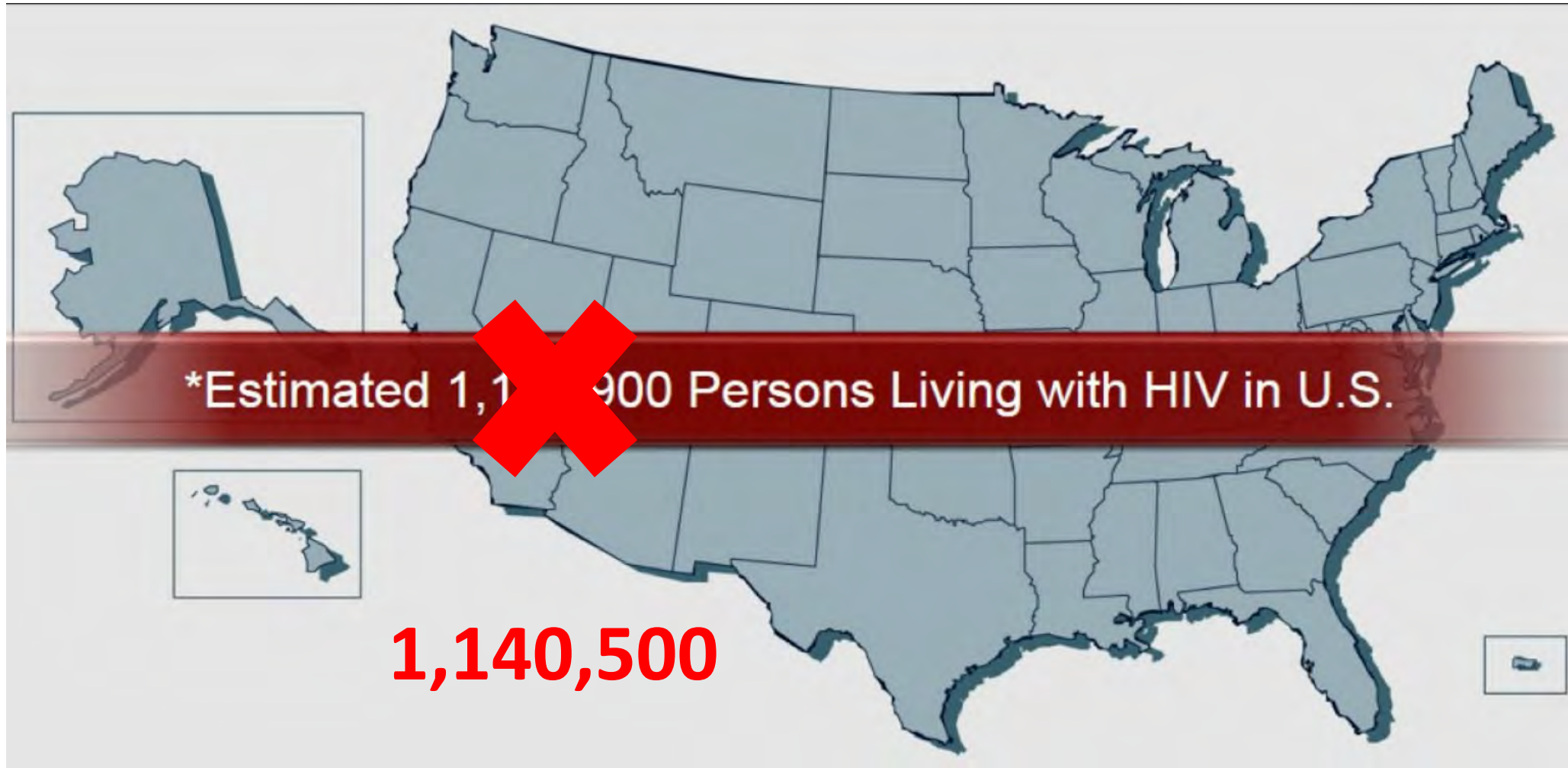
- This program meets the CA Board of Pharmacy requirements for pharmacists to furnish PEP/PrEP under Business and Professions Code 4052.02, 4052.03, and Title 16 Section 1747.
- Participants must complete this training program and pass the quiz at the end of the program to receive the certificate of completion and CPE credit.

Note: No partial credit will be given for the program. You will receive a session code at the end of the program for the entire 2 hours, upon successful completion of the exam.

LEARNING OBJECTIVES

- Review pharmacology of HIV antiretroviral agents
- Review Senate Bill (SB) 159 legislation
- Differentiate between PrEP and PEP antiretroviral agents
- Discuss the value of taking a sexual history
- Discuss the importance of medication adherence
- Address the barriers to PrEP and PEP access

ESTIMATED HIV PREVALENCE IN THE US, 2016



Persons \geq 13 years old living with diagnosed or undiagnosed HIV infection

A NOTE ABOUT SB 159

- Passed in 2019 for start on July 1, 2020
 - California Board of Pharmacy sets training requirements
 - 2021 pharmacy grads will not require additional training
- Allows California pharmacists to furnish a 60-day supply of HIV Pre-Exposure Prophylaxis (PrEP) or 28-day course of Post-Exposure Prophylaxis (PEP) to a patient without a prescription
- Collaborative practice protocols may also permit pharmacists to furnish PrEP

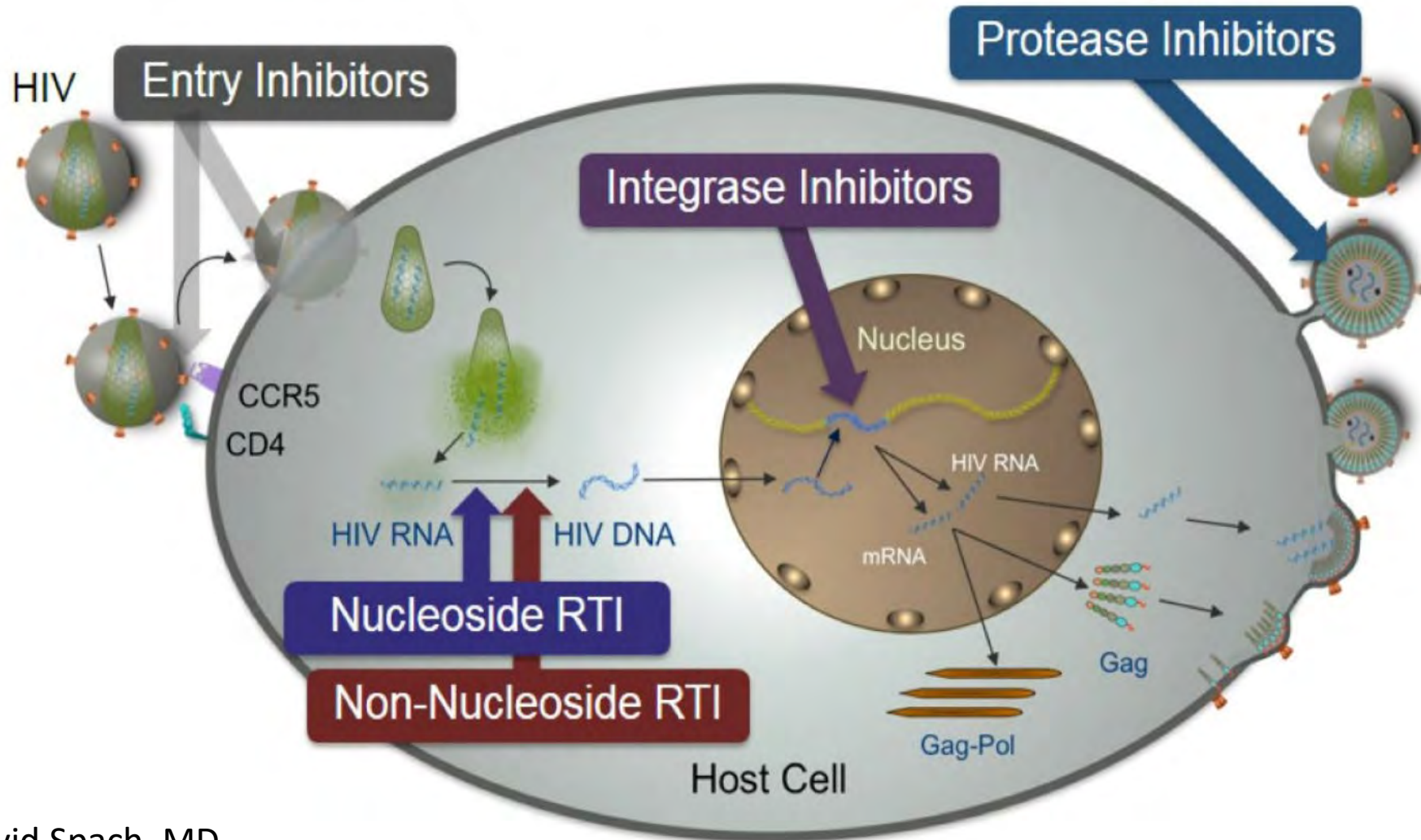
SB 159

- Prohibits insurance companies from requiring patients to obtain prior authorization before using their insurance benefits to obtain PrEP or PEP
- Pharmacists are required to complete an ACPE-accredited training program approved by the California BOP
- A pharmacist shall be enrolled as providers under the Medi-Cal program prior to rendering a pharmacist service that is submitted by a Medi-Cal pharmacy provider for reimbursement pursuant to this section
- Rate of reimbursement for pharmacist services at 85% of the fee schedule for physician services under the Medi-Cal program

HIV ANTIRETROVIRAL AGENTS



HIV ANTIRETROVIRAL THERAPY (ART) CLASSES



PEP vs. PrEP For Prevention of HIV Infection

PEP = Post-Exposure Prophylaxis

- Full antiretroviral regimen (usually 3 drugs used in combination)
- 28-day course of medication given to person who has a significant (potential) high-risk exposure to HIV

PrEP = Pre-Exposure Prophylaxis

- Daily (for now) medication taken by those at risk of acquiring HIV
- Few medications approved for PrEP, but pipeline expanding

AVAILABLE ARV MEDICATIONS

Nucleoside Reverse Transcriptase Inhibitors (NRTIs)

- Abacavir (Ziagen®)
- Emtricitabine (Emtriva®)
- Lamivudine (Epivir®)
- Tenofovir alafenamide (Vemlidy®)
- Tenofovir disoproxil fumarate (Viread®)
- Zidovudine (Retrovir®)

Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTIs)

- Efavirenz (Efavirenz®)
- Etravirine (Intelence®)
- Nevirapine (Viramune®)
- Rilpivirine (Edurant®)
- Doravirine (Pifeltro®)

Protease Inhibitors (PIs)

- Atazanavir (Reyataz®)
- Darunavir (Prezista®)
- Fosamprenavir (Lexiva®)
- Lopinavir/ritonavir (Kaletra®)
- Ritonavir (Norvir®)

Integrase Strand Transfer Inhibitors (INSTIs)

- Dolutegravir (Tivicay®)
- Elvitegravir (in FDC)
- Raltegravir (Isentress®)
- Bictegravir (in FDC)
- Cabotegravir – pending approval

Fusion Inhibitor

- Enfuvirtide (Fuzeon®)

Entry Inhibitor (CCR5 inhibitor)

- Maraviroc (Selzentry®)

HIV-1 Attachment Inhibitor

- Fostemsavir (Rukobia®)

CD4-directed Post-Attachment HIV-1 Inhibitor

- Ibalizumab (Trogarzo®)

PK Enhancer

- Cobicistat (Tybost®)

FDC = fixed dose combination; PK = pharmacokinetic.

DHHS. FDA-approved HIV medicines. www.aidsinfo.nih.gov/education-materials/fact-sheets/21/58/fda-approved-hiv-medicines.

POST-EXPOSURE PROPHYLAXIS (PEP)



CASE 1: 9AM ON A SUNDAY MORNING

- A 36-year-old female presents to your pharmacy at opening time. She explains that she had unprotected vaginal intercourse with a new partner on Friday evening. She has learned from her friends that this person has multiple partners, and is now concerned about HIV. She heard that you can now get “post-exposure pills” to prevent HIV from your local pharmacy.
- She is fairly healthy, only takes one medication (amlodipine 10mg daily) for high blood pressure (well controlled), and had her last menstrual period 4 days ago.

IS THE PATIENT A CANDIDATE FOR PEP?

- Yes
- No

POST-EXPOSURE PROPHYLAXIS (PEP)

HIV antiretroviral treatment given *after* a potential exposure to HIV

- Infectious fluid and portal of entry

To PEP or not to PEP

- Source patient factors (known positive, or high-risk population member)
- Exposed patient's factors (nature of injury, comorbid conditions)

Categories of exposure

- Occupational and non-occupational (aka nPEP, NonoPEP, sexPEP)

TYPES OF EXPOSURE: OCCUPATIONAL

The risk of occupational HIV transmission varies by the type of exposure.

Splashes with
body fluids



Near zero, even if the fluids have blood in them.

Fluid splashes
to intact skin
or mucous
membranes



Extremely low risk, even if blood is involved.

Percutaneous
(needle-stick)
injury



Less than 1%.

Common Types

- Mucous membrane splash
- Percutaneous

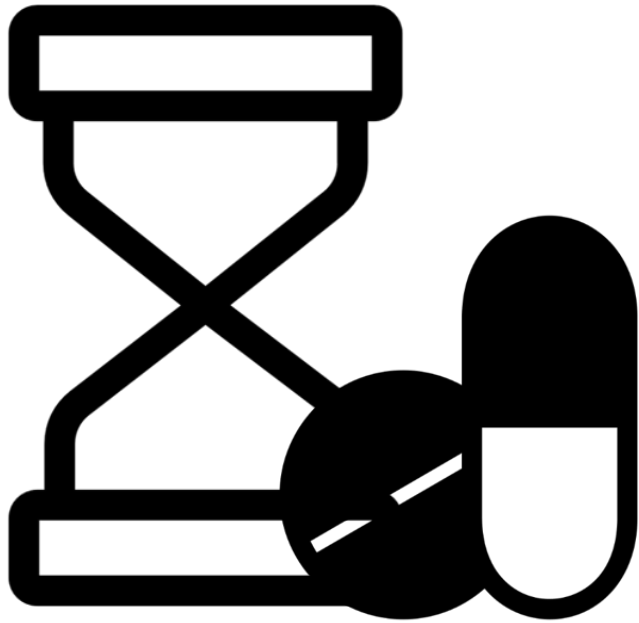
Potential increased risk with

- Deep stick
- Hollow bore (needle)
- Visibly bloody
- Known HIV positive source
 - Viral load

TYPES OF NON-OCCUPATIONAL EXPOSURE

Exposure	Rate for HIV acquisition (per 1000 exposures)
Receptive anal intercourse	13.8
Receptive penile-vaginal intercourse	0.8
Insertive anal intercourse	1.1
Insertive penile-vaginal intercourse	0.4
Receptive or insertive oral intercourse	Low
Biting, spitting, throwing body fluids, sharing sex toys	Negligible

TIMEFRAME OF EXPOSURE



- Most effective when initiated **as soon as possible** after exposure
- Less likely to be effective > 72 hours (animal models)
- Impact on decision making
 - Anxiety provoking, time pressure
 - Can also start and discontinue if information is available about the source

ASSESSING THE SOURCE PATIENT

Known source, known status	Known source, unknown status	Unknown source, unknown status
<p><u>Example:</u> needlestick when drawing blood from a known HIV+ patient</p> <p><u>Example:</u> breastmilk splash to eyes from post-partum woman who tested negative and has no ongoing risk factors</p>	<p><u>Example:</u> sex with new partner</p> <p><u>Example:</u> Needlestick from patient whose status is not known</p>	<p><u>Example:</u> needlestick from found needle in park</p> <p><u>Example:</u> slipped and fell in bloody vomitus</p>
<p>Typically recommend PEP for significant exposures to known HIV+ source patients</p> <p>No PEP for known HIV(-) source</p>	<p>Obtain history and baseline testing if possible</p> <p>Weigh risk factors (source risk factors for acquiring HIV, community risk factors) for PEP decision</p>	<p>PEP typically not recommended for unknown source <i>unless</i> in a setting that has high prevalence for HIV (e.g., needlestick from a needle in HIV clinic)</p>

IS THE PATIENT A CANDIDATE FOR PEP?

- Yes, she is indicated
 - Within 72-hour timeframe
 - Higher risk exposure (receptive vaginal intercourse)
 - Known source, unknown status (SP with multiple partners)
 - Otherwise healthy, no contraindicated medications
 - (We'll get to pregnancy in a moment)

WHAT OTHER INFORMATION DO YOU NEED TO OBTAIN?

- Partner's phone number
- HIV Antibody, Hepatitis B serology, and Hepatitis C Antibody
- Thyroid function and blood pressure
- Temperature, weight, height

BASELINE EVALUATION



Laboratory studies

- HIV testing
- CBC, renal and hepatic tests
- If indicated: pregnancy, HBV and HCV



Counseling (at the time of exposure and at follow-up appts)

- Advise patient to use precautions to prevent secondary transmission, especially during the first 6-12 weeks after exposure



Counseling when PEP is prescribed

- Possible drug adverse effects or toxicities
- Possible drug interactions
- Adherence to PEP regimen

Test	Baseline	4-6 weeks after exposure	3 months after exposure	6 months after exposure
		For all persons considered for or prescribed PEP from any exposure		
HIV-1/2 Ag/Ab Immunoassay	√	√	√	√
Hepatitis B serology (HBsAg, anti-HBs, anti-HBc)	√	---	---	√*
Hepatitis C antibody	√	---	---	√*
		For all persons considered for or prescribed PEP from sexual exposure (nPEP)		
Syphilis serology	√	√	---	√
Gonorrhea	√	√†	---	---
Chlamydia	√	√†	---	---
Pregnancy	√‡	√‡	---	---
		For patients on TDF/FTC + raltegravir OR TDF/FTC + dolutegravir		
Serum creatinine & transaminases	√	√	---	---
		For all persons with HIV infection confirmed at any visit		
HIV RNA level (viral load)			√	
HIV RNA drug resistance			√	

*If exposed person susceptible at baseline
‡For female persons

†If symptomatic at follow-up visit

WHAT OTHER INFORMATION DO YOU NEED?

- Others are nice to know but...
 - Partner's phone number
 - HIV Antibody, Hepatitis B serology, and Hepatitis C Antibody
 - Thyroid function and blood pressure
 - Temperature, weight, height

WHICH REGIMEN?

- You've determined that she is indicated for PEP. Which regimen would you select for her?
 - Biktarvy (bictegravir/TAF/FTC)
 - TDF/FTC + Raltegravir
 - TDF/FTC + Darunavir + Ritonavir
 - Symtuza (DRV/cobi/TAF/FTC)
 - TDF/FTC + dolutegravir

PREFERRED HIV PEP REGIMEN*

- Adults and adolescents aged ≥ 13 yo, including pregnant women
- Duration = 28 days

Drug A	Drug B
<i>With normal renal function (CrCl ≥ 60 mL/min)</i>	
Raltegravir (Isentress [®]) 400 mg PO BID, <i>OR</i>	Tenofovir DF 300 mg/emtricitabine 200 mg (Truvada [®]) PO daily
Dolutegravir (Tivicay [®]) 50 mg PO daily	
<i>With renal dysfunction (CrCl ≤ 59 mL/min)</i>	
Raltegravir (Isentress [®]) 400 mg PO BID, <i>OR</i>	Zidovudine and lamivudine (dose adjusted)
Dolutegravir (Tivicay [®]) 50 mg PO daily	

*SB 159 allows for new PEP regimens to be included in guidelines in the future.

SAFETY AND TOLERABILITY OF ONCE DAILY B/F/TAF FOR PEP

Fenway Health – Boston, MA

Interim analysis of a prospective open-label trial of B/F/TAF for 28-day PEP in eligible* patients (N=48)

Demographics:

- Median age 32
- Race/ethnicity: 79% White, 4% Black, 8% Hispanic/Latinx
- 88% cisgender gay or bi men

Results:

- Most commonly reported AEs:
 - Nausea +/- vomiting (15%)
 - Fatigue (6%)
 - Diarrhea (6%)
- Lab changes did not lead to discontinuation and reverted to normal levels after completion of regimen.
- There were no HIV seroconversions in the study

Regimen Completion Rates Among B/F/TAF Users vs. Historical INSTI-based PEP Regimens at Fenway, 2008-2020

	F/TDF + RAL (N=100) %	E/C/F/TDF (N=100) %	B/F/TAF (N=48) %
Completed as prescribed	57**	71 [‡]	85.4
Stopped or modified	28 [†]	15	10.4
Lost to follow-up	15 [‡]	14	4.2

B/F/TAF for PEP was well-tolerated and resulted in higher completion rates compared to other INSTI-based PEP regimens

B/F/TAF is not FDA approved for PEP indication

*Present for PEP within 72 hours of a high-risk exposure per CDC guidelines; **p=0.001; †p=0.01; ‡p=0.05; B/F/TAF, bicitegravir/emtricitabine/tenofovir alafenamide; PEP, post-exposure prophylaxis; AEs, adverse events; F/TDF, emtricitabine/tenofovir disoproxil fumarate; RAL, raltegravir; E/C/F/TDF, elvitegravir/cobicistat/emtricitabine/tenofovir disoproxil fumarate

Mayer K, et al. CROI 2020 Boston, MA. 996

ALTERNATIVE HIV PEP REGIMEN

- Adults and adolescents aged ≥ 13 yo, including pregnant women
- Duration = 28 days

Drug A	Drug B
<i>With normal renal function (CrCl ≥ 60 mL/min)</i>	
Darunavir (Prezista [®]) 800 mg PO daily + ritonavir 100 mg PO daily	Tenofovir DF 300 mg/emtricitabine 200 mg (Truvada [®]) PO daily
<i>With renal dysfunction (CrCl ≤ 59 mL/min)</i>	
Darunavir (Prezista [®]) 800 mg PO daily + ritonavir 100 mg PO daily	Zidovudine and lamivudine (dose adjusted)

WHICH REGIMEN WOULD YOU SELECT IF SHE WERE PREGNANT?

- Biktarvy (bictegravir/TAF/FTC)
- TDF/FTC + Raltegravir
- TDF/FTC + Darunavir + Ritonavir
- She can't have PEP if she's pregnant

PEP ANTIRETROVIRALS AND PREGNANCY CATEGORY

Drug	Teratogenicity Risk?
<i>Integrase Strand Transfer Inhibitors (INSTIs)</i>	
Bictegravir	Insufficient data
Dolutegravir	<ul style="list-style-type: none"> ▪ Recommended as an option if using effective contraception ▪ Considered an <i>alternative</i> option if sexually active, not planning to conceive, and not using contraception
Raltegravir	No evidence of human teratogenicity
<i>Nucleos(t)ide Reverse Transcriptase Inhibitors (NRTIs)</i>	
Emtricitabine	No evidence of human teratogenicity
Tenofovir DF	

PEP ANTIRETROVIRALS AND PREGNANCY CATEGORY

Drug	Teratogenicity Risk?
<i>Protease Inhibitors (PIs)</i>	
Darunavir	No evidence of human teratogenicity
Ritonavir	

PEP DURING PREGNANCY

- Multiple options are possible
- HIV+ pregnant women do use antiretroviral meds
- Need to weigh PEP adverse effects vs. chance of acquiring HIV
- Expert consultation recommended

WHICH OF THE FOLLOWING MEDICATIONS WOULD POSE AN INTERACTION RISK WITH PEP?

- Rifampin
- Rifabutin
- Amlodipine
- Metformin

Drug	Metabolism	DDI	ADRs
<i>Integrase Strand Transfer Inhibitors (INSTI)</i>			
Raltegravir (Isentress®)	UGT1A1	Rifampin	Diarrhea, nausea and headache
Dolutegravir (Tivicay®)	UGT1A1, CYP3A4 OCT2 inhibitor	Rifampin, CYP3A4 inducers; polyvalent cations	Headache, insomnia, some CNS effects
<i>Protease Inhibitors (PI)</i>			
Darunavir (Prezista®)	CYP3A4 substrate; CYP3A4 inhibitor	CYP3A4 inhibitors and inducers	Nausea, diarrhea, headache, rash (rare)
Ritonavir (Norvir®)	CYP3A4 and 2D6 substrate; CYP3A4 inhibitor		Nausea, diarrhea, headache, taste sense altered, rash (rare)
<i>Nucleoside Reverse Transcriptase Inhibitor (NRTI)</i>			
Tenofovir DF/FTC (Truvada®)	Renal	TDF: substrate of P-gp and BCRP	Nausea, headache

THE REGIMEN SELECTED IS TENOFOVIR DISOPROXIL FUMARATE/EMTRICITBINE + DOLUTEGRAVIR. WHAT COUNSELING SHOULD BE PROVIDED?

EDUCATION PROVIDED

- SB 159: The patient *may not waive* consultation for pharmacist furnished PEP
- Adherence to PEP
- Side effects
- STI prevention
- Importance of testing and treatment
- Availability of PrEP for those who are at substantial risk of acquiring HIV

EDUCATION: SIGNS AND SYMPTOMS OF HIV

- Fever (> 90%)
- Lymphadenopathy (>70%)
- Pharyngitis (\geq 70%)
- Rash (\geq 70%)
- Myalgia/arthralgia (54%)
- Headache (32%)
- Diarrhea (32%), Nausea and vomiting (27%)
- Oral ulcers/thrush, weight loss, transaminase elevation, neurologic symptoms, etc.

DHHS Guidelines for use of Antiretrovirals in Adults and Adolescents (2019/2020)

SB 159: FOLLOW-UP AFTER PEP



Pharmacist must notify the patient's primary care provider(PCP) that they complete the requirements for PEP and provided the medication



If patient has no PCP, or does not consent to have PCP notified: Pharmacist must provide a list of physicians and surgeons, clinics or other healthcare providers for follow-up



Pharmacist must document the services they provided in the patient's records & maintain records of furnishing PEP medications

PATIENT RETURNS TO PHARMACY AFTER COMPLETING PEP.
CAN'T REMEMBER WHEN SHE IS SUPPOSED TO GET LABS
NEXT.

- Now
- At 2 months after the exposure
- At 3 months after the exposure
- At 1 year after the exposure

Test	Baseline	4-6 weeks after exposure	3 months after exposure	6 months after exposure
		For all persons considered for or prescribed PEP from any exposure		
HIV-1/2 Ag/Ab Immunoassay	√	√	√	√
Hepatitis B serology (HBsAg, anti-HBs, anti-HBc)	√	---	---	√*
Hepatitis C antibody	√	---	---	√*
		For all persons considered for or prescribed PEP from sexual exposure (nPEP)		
Syphilis serology	√	√	---	√
Gonorrhea	√	√†	---	---
Chlamydia	√	√†	---	---
Pregnancy	√‡	√‡	---	---
		For patients on TDF/FTC + raltegravir OR TDF/FTC + dolutegravir		
Serum creatinine & transaminases	√	√	---	---
		For all persons with HIV infection confirmed at any visit		
HIV RNA level (viral load)			√	
HIV RNA drug resistance			√	

*If exposed person susceptible at baseline †If symptomatic at follow-up visit

‡For female persons

PATIENT PURCHASED A SODA FROM A VENDING MACHINE, DRANK IT, THEN NOTICED SOME BLOOD ON THE CAN TOP THAT WASN'T HERS. SHOULD SHE GET PEP?

- Yes
- No
- I have no idea. Can I call someone to ask?

WHEN TO OBTAIN EXPERT CONSULTATION FOR PEP?

- Delay of >72 hours from exposure to evaluation
- Unknown source (e.g., needle in sharps disposal container or laundry, source patient declines HIV testing)
- The source person has known or suspected ARV drug resistance
- Individual exposed to HIV is pregnant or breastfeeding
- Serious medical illness in the exposed individual
- Development of toxicity of the initial PEP regimen

PEP EXPERT CONSULTATION RESOURCE

- National Clinician Consultation Center's Post-Exposure Prophylaxis PEpline: (888) 448-4911
 - Hours: 8 am – 5 pm, 7 days a week
 - Callers need to unblock their phone prior to calling the PEpline
- Website: <http://nccc.ucsf.edu/>

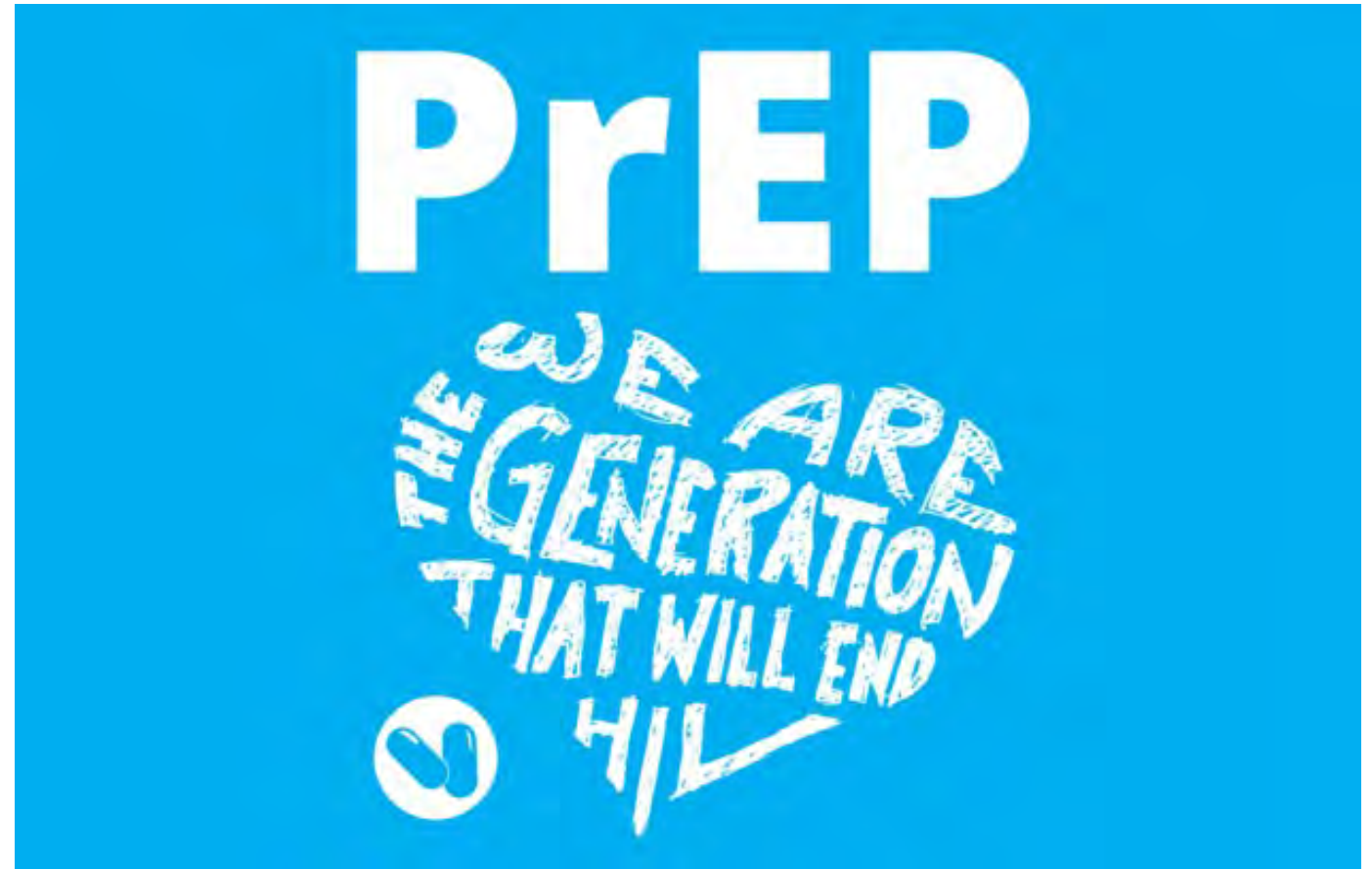
OVER TIME YOU'VE GOTTEN TO KNOW THE PATIENT... THIS IS NOW HER 3RD TIME REQUESTING PEP S/P SEXUAL EXPOSURE OVER THE LAST YEAR. SHOULD YOU

- Change her PEP regimen – clearly it's not working
- Dispense guideline based PEP and counsel on STIs
- Deny PEP and ask her to instead seek it from her PCP
- Dispense PEP and talk with her about transitioning to PrEP

TRANSITIONING FROM nPEP TO PrEP

- Many individuals who present for nPEP may be excellent candidates for PrEP, especially if they have ongoing activities associated with increased risk for HIV acquisition
- Individuals who have completed the 28-day course of nPEP should be evaluated for transitioning to PrEP if:
 - They have repeatedly sought nPEP
 - They have frequent, recurrent exposures to HIV that would require sequential or near-continuous courses of nPEP
- Documentation of HIV-negative status should be obtained before administering PrEP (preferably several days prior to completing the nPEP course)
- Transition from nPEP to PrEP should be done immediately

PRE-EXPOSURE PROPHYLAXIS (PREP)



CASE 2: STARTING PREP

- AN is a 28 year old transgender person (they/theirs) who heard you can now get PrEP at your local pharmacy. Is this true? And if so, can they start it today?
- Current medications include:
 - Estradiol valerate 20 mg IM every 2 weeks
 - Spironolactone 50 mg daily
 - Pantoprazole 20 mg daily

Q1: DISTRIBUTION OF PrEP

- Which group is under-represented with respect to indications for PrEP vs. PrEP prescriptions?
 - Women
 - African Americans
 - Persons aged 16-24
 - All of the above

Q1: COVERAGE OF PREP IN GROUPS

Table 6d. Number of persons prescribed PrEP, number of persons with PrEP indications, and PrEP coverage in 2018, among persons aged ≥ 16 years, by selected characteristics—United States

	Persons prescribed PrEP ^a	Persons with PrEP indications ^b	PrEP coverage ^c
	No.	No.	%
Sex at birth			
Male	204,812	986,476	20.8
Female	14,770	225,301	6.6
Age at infection (yr)			
16–24	28,860	253,709	11.4
25–34	91,077	423,548	21.5
35–44	51,083	233,252	21.9
45–54	31,300	180,400	17.4
≥55	17,371	120,868	14.4
Race/ethnicity^d			
Asian/Other	9,437	n/a	n/a
Black/African American	28,243	479,443	5.9
Hispanic/Latino	33,503	307,689	10.9
White	147,454	350,238	42.1
Total	219,691	1,211,777	18.1

Abbreviations: PrEP, preexposure prophylaxis; n/a, not available.

^a Estimated using 2018 data from IQVIA pharmacy database.

^b Estimated using 2017 data from National HIV Surveillance System, National Health and Nutrition Examination Survey, and American Census Survey.

^c PrEP coverage, reported as a percentage, was calculated as the number who have been prescribed PrEP divided by the estimated number of persons who had indications for PrEP.

^d Race/ethnicity data were only available for 35% of persons prescribed PrEP in 2018. Number prescribed PrEP and PrEP coverage for race/ethnicity reported in the table were adjusted applying the distribution of records with known race/ethnicity to records with missing race/ethnicity.

IS THIS PATIENT INDICATED FOR PREP?

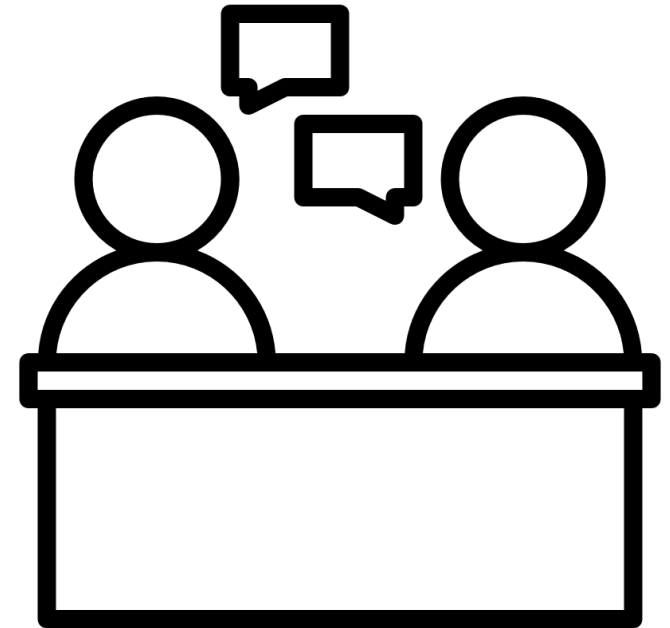
- Yes
- No
- I'm not sure



TAKING A SEXUAL HISTORY

NEED TO BE COMFORTABLE TAKING A SEXUAL HEALTH HISTORY

- Important part of screening for PrEP
- **Preface:** *“I’m going to ask you a few questions about your sexual health and practices. I understand these are very personal but they are important for your overall health”*
- **Normalize:** *“I ask these questions of all my adult patients, regardless of age, gender, partner status. This information will be kept in strict confidence. Do you have any questions before we start?”*



NONJUDGMENTAL LANGUAGE

Ambiguous or stigmatizing

- Unsafe sex
- Risk sexual behavior
- Risky sex
- Sexual risk behavior
- High-risk sexual behavior
- Unprotected sex

Precise and neutral

- Condomless receptive vaginal sex
- Multiple anal sex partners
- Sex with a partner with unknown HIV serostatus
- Condomless receptive anal sex with PrEP
- Condomless receptive anal sex without PrEP
- Condomless insertive anal sex with a PLWH with unsuppressed viral load

PLWH: Person/People Living With HIV

THE 5 P'S

- **PARTNERS** = number and gender of partners, partner risk factors (drug use, condom use)
 - Are you currently sexually active? If no, have you ever been sexually active?
 - In recent months, how many sex partners have you had?
 - Are your sex partners men, women or both?
- **PRACTICES** = “What kind of sexual contact do you have or have you had?”
- **PROTECTION from STDs** = Do you and your partner(s) use any protection against STDs? How often do you use it?
- **PRIOR STDs** = Have you ever been diagnosed with a sexually transmitted disease? Have you ever been tested? Has your current partner?
- **PREGNANCY** = Are you currently trying to get pregnant/father a child?

- *Then...thank your patient for being honest!*

INJECTION DRUG USE

- Have you ever injected drugs that were not prescribed to you by a clinician?
- When did you last inject non-prescribed drugs?
- In the past 6 months, have you injected by using needles, syringes, or other drug preparation equipment that had already been used by another person?
- In the past 6 months, have you been in a methadone or other medication-based drug treatment program?

THE PATIENT STATES THAT THEY HAVE HAD 6 SEX PARTNERS IN THE LAST YEAR. THEY HAVE SEX WITH MEN AND WOMEN. THEY SOMETIMES HAVE SEX WHILE INTOXICATED. THEY IDENTIFY AS A LATINX PERSON. THEY DO NOT USE INJECTION DRUGS. IS THE PATIENT A CANDIDATE FOR PREP?

- Yes
- No

PREP: WHO NEEDS IT?

MSM

- Commercial sex workers
- HIV+ partner
- Recent STI
- Multiple partners
- Inconsistent or no condom use

Heterosexual Men and Women

- Commercial sex workers
- HIV+ partner
- Recent STI
- Multiple partners
- Inconsistent or no condom use
- High prevalence area

Injection Drug Users

- HIV+ injecting partner
- Sharing needles or injection equipment in the past 6 months
- Risk of sexual acquisition

Transgender People

- Trans women of color
(National HIV/AIDS Strategy 2010, 2015)

WHAT OTHER INFORMATION DO YOU NEED TO OBTAIN
THAT WOULD BE HELPFUL IN PROVIDING PREP?

FDA-APPROVED HIV RAPID TEST PRODUCTS

OraQuick® In-Home HIV Test



Result available b/t 20-40 minutes

INSTI® HIV-1/HIV-2 Antibody Test



Result available in 60 seconds

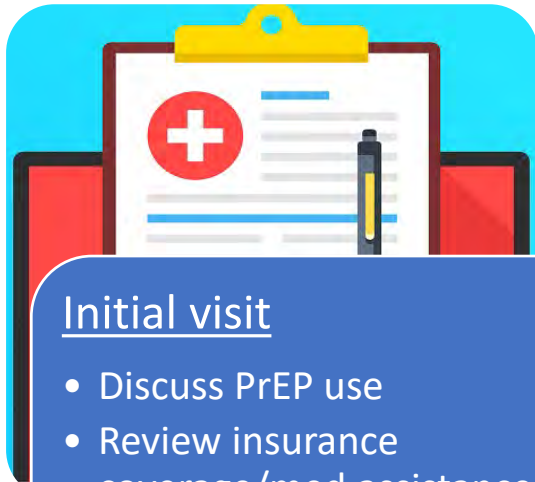
(Used by trained personnel)

Biolytical InstiTest®

Possible results

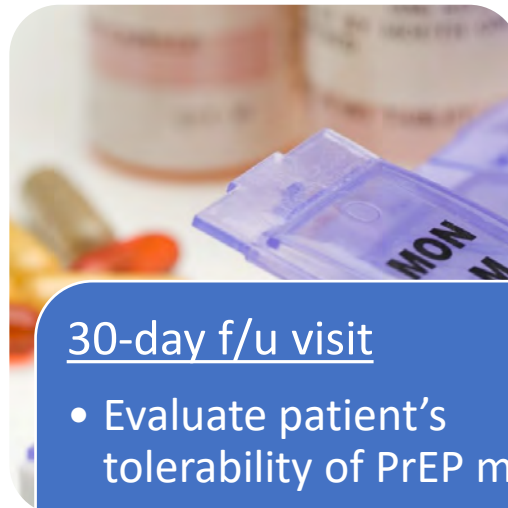
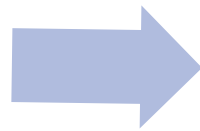
HIV Negative Preliminary HIV Positive; Undetermined; requires Error in test batch; requires

PrEP WORKFLOW PROCESS



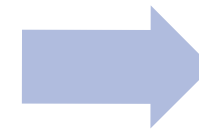
Initial visit

- Discuss PrEP use
- Review insurance coverage/med assistance
- Perform baseline lab tests
- Symptom hx to R/O acute HIV
- 30-day PrEP supply
- Emphasize PrEP adherence
- Risk reduction counseling, condoms



30-day f/u visit

- Evaluate patient's tolerability of PrEP meds
- 30-day PrEP supply
- Emphasize PrEP adherence
- Risk reduction counseling, condoms



3-month visit

- Perform lab tests (HIV Ag/Ab test, pregnancy, STI)
- 30-day PrEP supply
- Emphasize PrEP adherence
- Risk reduction counseling, condoms

PREP LABORATORY TESTS

Tests	Baseline	At 3-month visit	At 6-month & 9-month visits	At 12-month visit
HIV-1/2 Ag/Ab Immunoassay	√	√	√	√ (Q3 months)
Hepatitis B serology (HBsAg, anti-HBs, anti-HBc)	√	---	---	√
Hepatitis C antibody	√	---	---	√
Syphilis serology	√	√	---	√
Gonorrhea & Chlamydia [urine, rectal, oral (based on exposure)]	√	√	√	√ (Q3 months)
Pregnancy	√‡	√‡	√‡	√‡
BUN/SCr	√	---	√	√

Centers for Disease Control and Prevention: US Public Health Service: Preexposure prophylaxis for the prevention of HIV infection in the United States—2017 Update: a clinical practice guideline. <https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2017.pdf>. Published March 2018.

WHICH PREP MEDICATION REGIMEN WOULD YOU RECOMMEND?

- Tenofovir disoproxil fumarate + emtricitabine
- Tenofovir alafenamide + emtricitabine

PREP OPTIONS

Truvada® (TDF 300 mg/FTC 200 mg)

- Approved for persons with CrCl ≥ 60 mL/min
- Approved for adolescents ≥ 35 kg (2018)
- A prescription/refill authorization for NMT 90 days (until next HIV test and follow-up)

Descovy® (TAF 25 mg/FTC 200 mg)

- FDA-approval for MSM & TGW adults & adolescents (≥ 35 kg)
- Approved for patients with CrCl > 30 ml/min



Not an option
for
Cis Women

PREP OPTIONS

Truvada® (TDF 300 mg/FTC 200 mg)

- *Common adverse effects:* nausea, headache, insomnia, fatigue, and dizziness
- *Serious adverse effects:* renal impairment, Fanconi syndrome, decreased bone mineral density
- Studied for on-demand PrEP (MSM only)
- Will become generic in September 2020

Descovy® (TAF 25 mg/FTC 200 mg)

- *Common adverse effects:* nausea
- *Serious adverse effects:* renal impairment, Fanconi syndrome, decreased bone mineral density (all at lower risk than Truvada®)
- Not studied for on-demand PrEP

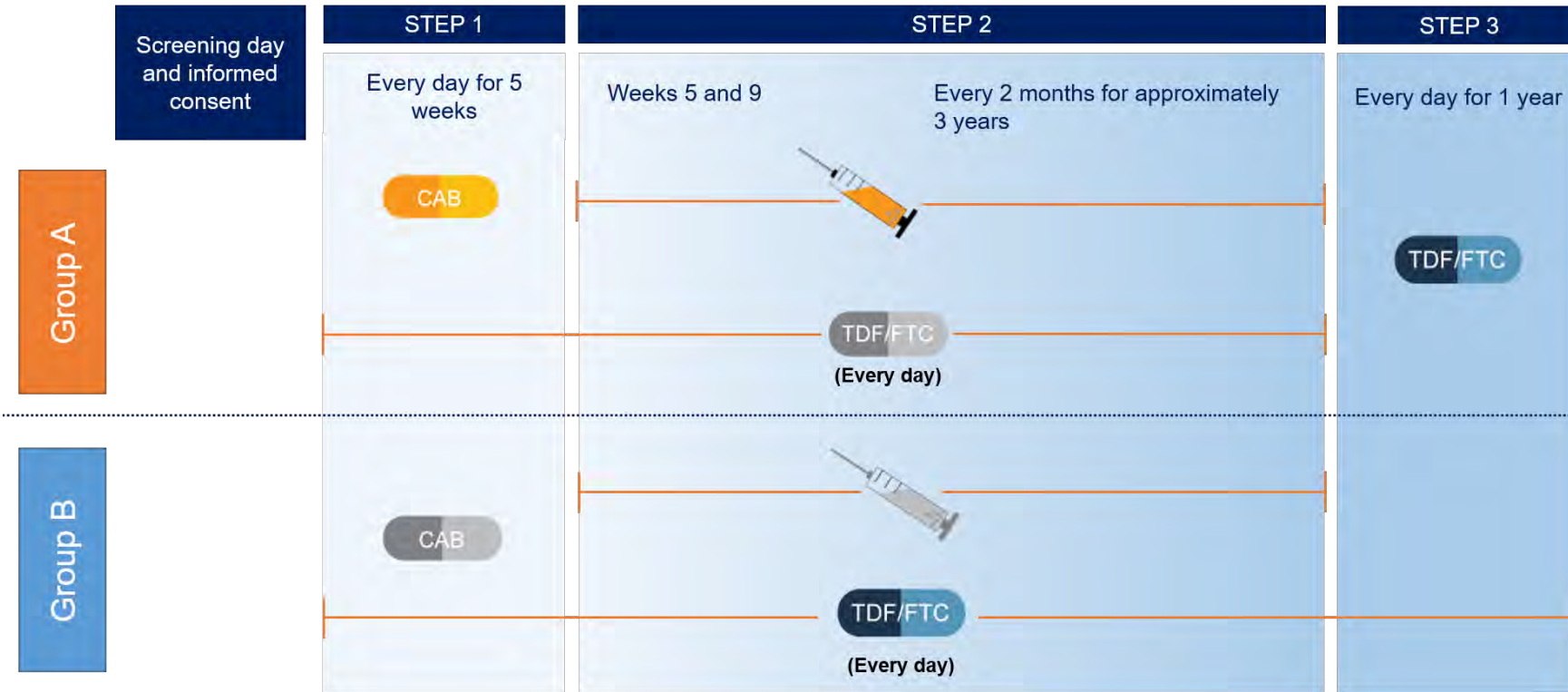
SELECTED PREP EFFICACY TRIALS (EXPAND)

Trial	Population	Medication	Efficacy
iPrEX	MSM	TDF/FTC	44% reduction
Partners PrEP	Heterosexual men/women	TDF/FTC	75% reduction
TDF2	Heterosexual men/women	TDF/FTC	62% reduction
Ipergay*	MSM	TDF/FTC in 2-1-1	86% reduction

MSM: men who have sex with men

TDF/FTC: tenofovir disoproxil fumarate/emtricitabine

COMING DOWN THE PIPELINE



TDF/FTC pill
 Cabotegravir (CAB) injection
 Placebo for TDF/FTC pill
 Placebo for cabotegravir (CAB) injection
 Cabotegravir (CAB) pill
 Placebo for cabotegravir (CAB) pill

THE PATIENT HEARD THAT YOU CAN TAKE PrEP DIFFERENTLY. WHAT IS 2-1-1?

- A new dance craze which originated on a PrEP commercial
- A phone number you can call when you've missed a PrEP dose
- The number of doses you can miss before you're at risk for HIV
- An alternative dosing schema for taking PrEP

IPERGAY: On-Demand PrEP (2-1-1)

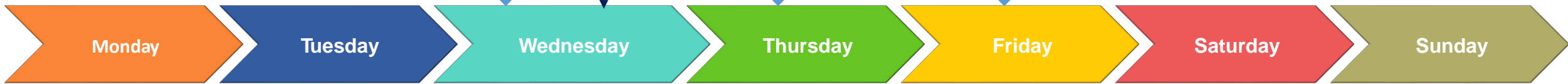
Dosing Schedule: 1 Sexual Event

2 tabs (TDF/FTC or PBO)
w/food 2-24 hours
before sex

Sexual
Event

1 tab (TDF/FTC
or PBO) 24
hours later

1 tab (TDF/FTC or
PBO)
48 hours later



Total tablets = 4 tablets for HIV prophylaxis

“On-demand” regimen constitutes:

- 2 TDF/FTC or PBO 2 - 24 hours with food before sexual exposure
- 1 TDF/FTC or PBO 24 hours and 48 hours after first dose
- Multiple exposures: one tablet daily until the last exposure, then last 2 tablets
- If <1 week between exposures, LD=1 tablet only

- **CDC recommends daily PrEP dosing for all**
- **IAS-USA 2018 endorses 2:1:1 for MSM only**

THE PATIENT IS INTERESTED, BUT CONCERNED ABOUT POTENTIAL EFFECTS ON HORMONES. WHAT DO YOU TELL THEM?

- Don't worry – not a problem
- Need to change to different PrEP therapy
- Need to wait for cabotegravir
- Sorry, can't take PrEP due to interactions with hormones

PREP AND HORMONE THERAPY

- There is no impact of TDF/FTC on hormone levels
- Reduced plasma TDF/FTC concentrations with estradiol/cyproterone acetate (anti-androgen)

TDF ↓ 12-27% and FTC ↓ 24%

- What is the implication?
 - Unclear clinical significance
 - On-demand PrEP may not be appropriate
 - Emphasize importance of adherence

OTHER PREP DRUG INTERACTIONS

Class	Effect	Management
Hepatitis C agents (sofosbuvir/velpatasvir, sofosbuvir/velpatasvir/voxilaprevir, ledipasvir/sofosbuvir)	↑ Tenofovir	Monitor for adverse effects
Anticonvulsants (carbamazepine, oxcarbazepine, phenytoin)	↓ Tenofovir alafenamide	Consider alternative anticonvulsant, counsel on risk
Antimycobacterials (rifabutin, rifampin, rifapentine)	↓ Tenofovir alafenamide	Not recommended
St. John's Wort	↓ Tenofovir alafenamide	Not recommended

PATIENT ASKS, “HOW LONG AFTER I START TAKING PREP WILL IT PROTECT ME?”

- As soon as you start taking it
- After taking at least 4 doses
- After taking at least 7 doses
- It depends

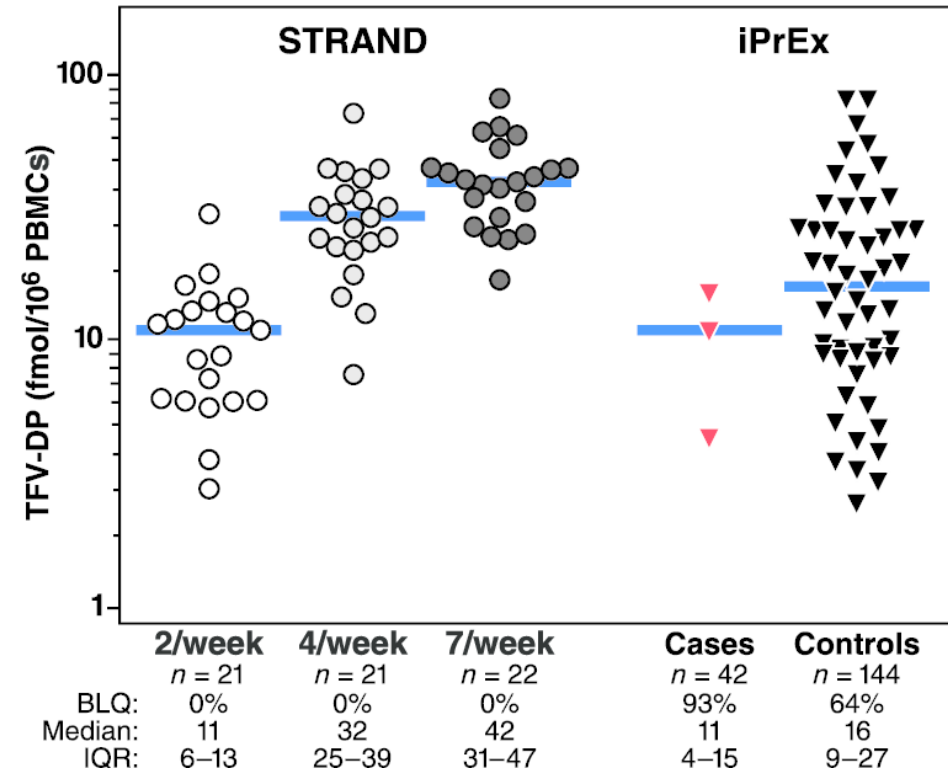
CONTINUUM OF RISK, PROTECTION, ADHERENCE

- Which site trying to cover
 - Rectum
 - Vagina
- How much drug taken (e.g. how often)
 - Adherence translation to drug levels
 - Unclear if pattern also has an influence (maybe)

Adherence to PrEP

United States clinical studies & cohorts (MSM and TGW)

- Self-reported adherence = 62 - 95%
- Pill count = 72% - 90%

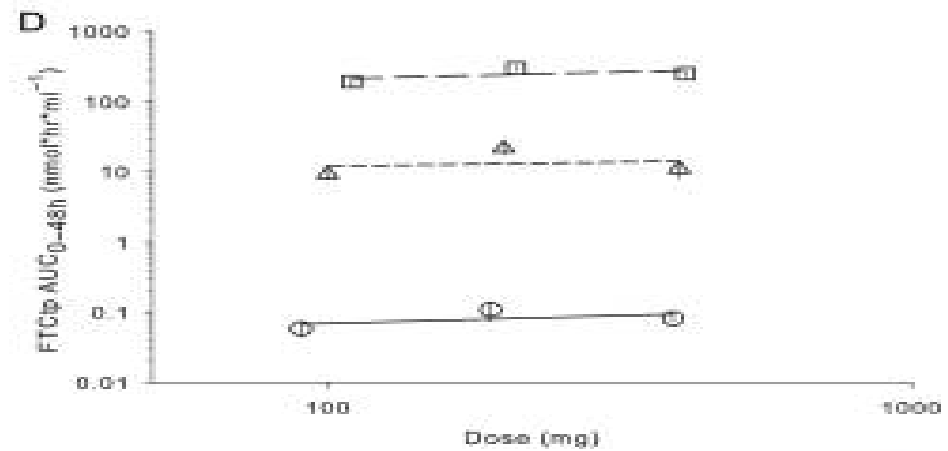
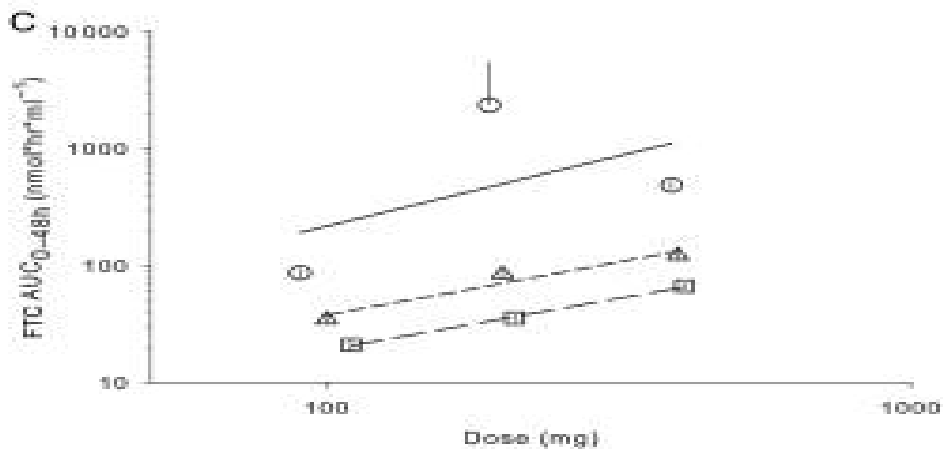
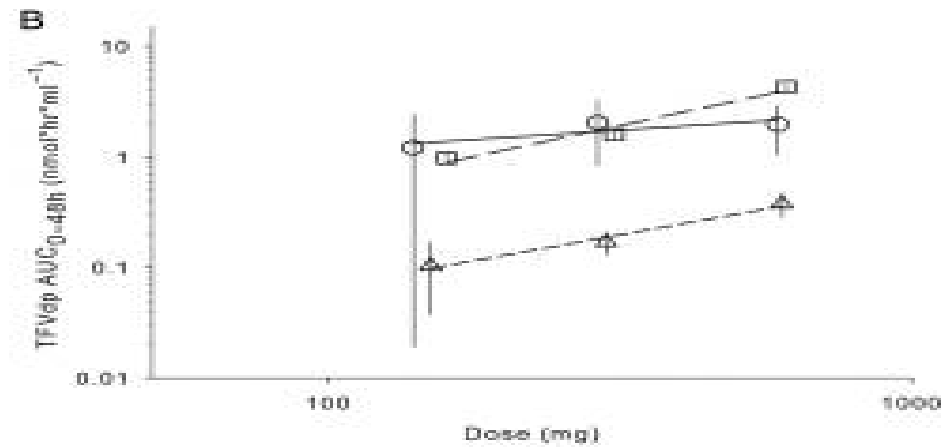
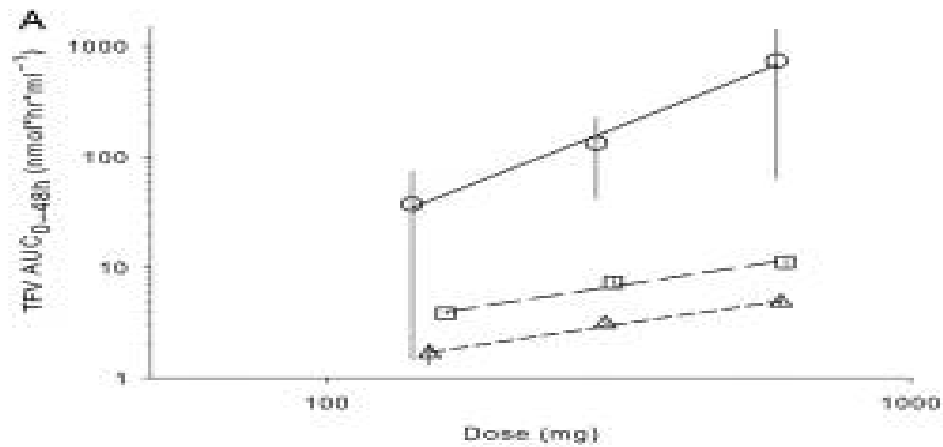


Sidebottom D, Ekström AM, Strömdahl S. *BMC Infect Dis.* 2018 Nov 16;18(1):581

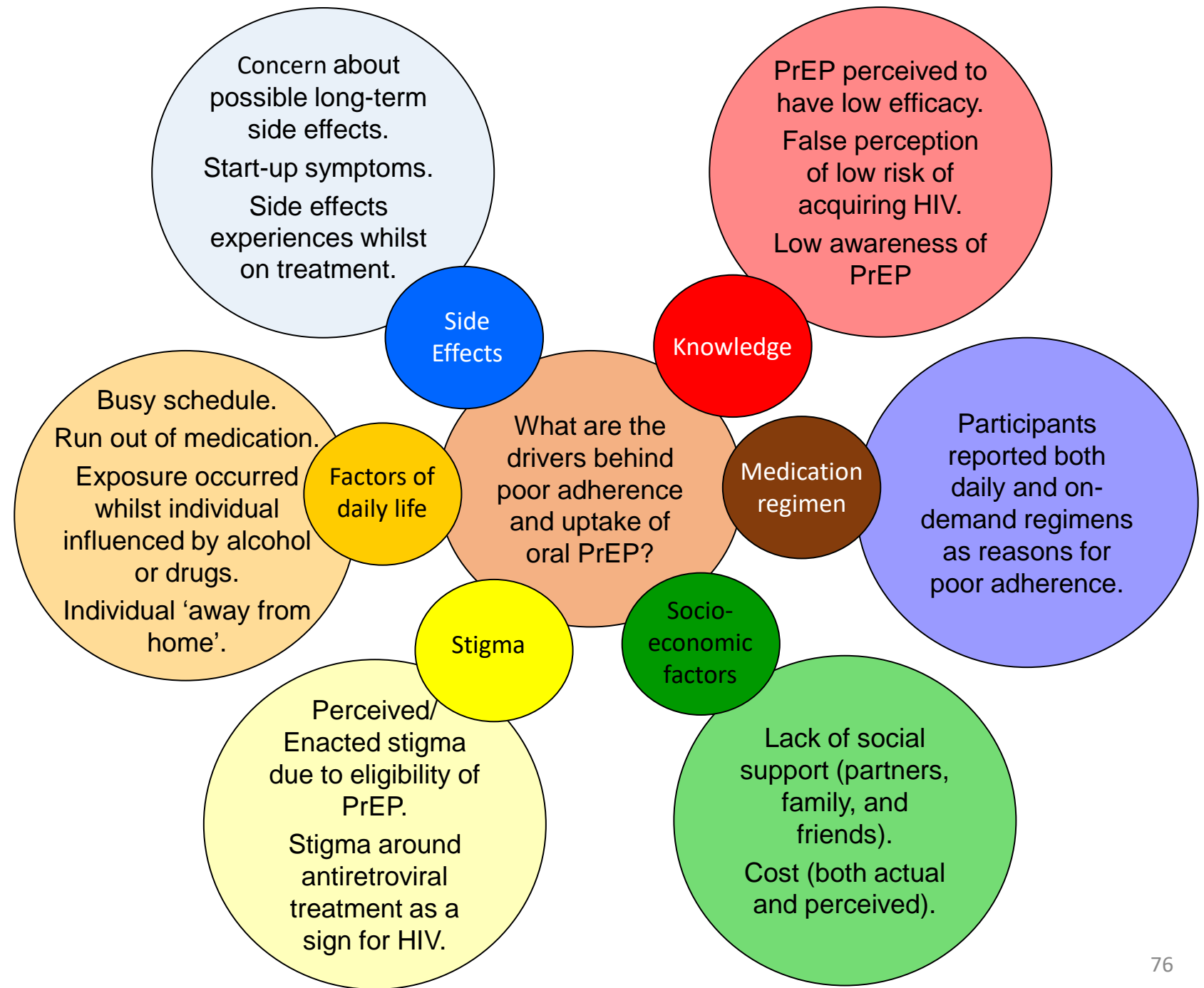
Mayer, K et. Al

https://www.researchgate.net/profile/Kenneth_Mayer/publication/230843437/figure/fig1/AS:393552950513667@1470841743666/TFV-DP-concentrations-in-the-STRAND-and-iPrEx-trials-The-values-observed-in-the-STRAND.png

PREP PHARMACOKINETICS AND SITE OF INFECTION



Barriers to PrEP Adherence



Recreated from:
Sidebottom D, Ekström AM,
Strömdahl S. *BMC Infect Dis.* 2018 Nov 16;18(1):581.



WHAT SHOULD YOU COVER DURING PREP COUNSELING?

Counseling

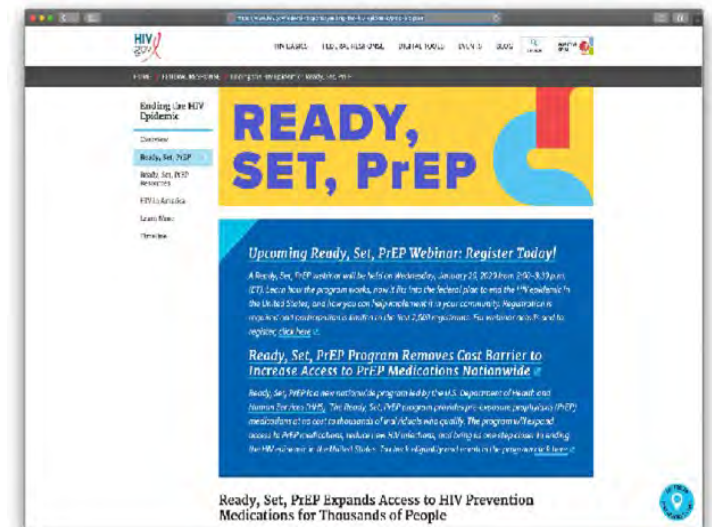
- Protection against STIs (barrier/condom)
- HIV+ partners and undetectable viral loads (U=U)
- Signs and symptoms of acute HIV
 - Fever
 - Rash
 - Lymphadenopathy
 - Malaise
- Medication counseling
 - Directions
 - Adverse effects (headache, nausea, flatulence)
 - When to follow up
 - How to get refills
 - Importance of adherence
 - Time to protection
 - Blood = 20 days
 - Rectal tissue = 7 days
 - Vaginal tissue = 20 days

THE PATIENT HAS INSURANCE BUT IS WORRIED THEY CAN'T AFFORD PrEP. WHAT RESOURCE SHOULD BE EXPLORED?

- Copay card
- California Office of AIDS PrEP-AP
- Ready, Set, PrEP Program
- Advancing Access MAP

PrEP: MEDICATION ASSISTANCE PROGRAMS

- PrEP Assistance Program (PrEP-AP)
 - Supported by CA Department of Public Health
 - Covers PrEP and all PrEP-related services (labs/STI treatment/office visits)
 - Covers PrEP-related immunizations
 - Income based
- Ready, Set, PrEP (HHS)
 - Provides assistance for coverage of PrEP
 - Basic information about the program at www.hiv.gov
 - Call center: 885-447-8410





PrEP-AP

The State of California's **assistance program** for the prevention of HIV helps cover medical costs related to getting pre-exposure prophylaxis (PrEP)

You may qualify if you are

- A California resident
- Aged 18 or older
- HIV negative
- Have a modified adjusted gross income of \$62,450 or less for a household of one, or \$84,550 or less for a household of two
- Not fully covered by Medi-Cal or other third party payers
- Enrolled in one of Gilead's assistance program (if eligible)

What PrEP-AP Covers*

- ✓ Co-pays for Truvada®
- ✓ Out of pocket costs for PrEP-related medical services such as HIV testing and STI screening
- ✓ Costs for prescriptions (Rx's) on the PrEP-AP formulary

*Not all enrollees qualify for the benefits listed here. For more information see "What to Expect" below.

How to Enroll

- **Find a PrEP-AP enrollment site** near you and schedule an appointment with a certified enrollment worker.
- Bring all **required documents** to your appointment. Your enrollment worker will assist you with enrolling into PrEP-AP and the Gilead assistance program that is right for you (if you are eligible).
- You may be referred to see a medical provider in the **PrEP-AP Provider Network** for a clinical assessment or HIV testing. These services are provided at no cost to you. Your enrollment worker will assist you with finding a PrEP-AP provider nearby, or help you schedule an appointment with PlushCare, PrEP-AP's online service provider.
- After your clinical assessment, fax, mail, or e-mail any outstanding enrollment documents to your enrollment worker. Your clinical provider may be able to assist you with this.

What to Expect

- *If you are not insured, or if you have Medicare without Rx drug coverage:* You will be co-enrolled in PrEP-AP and the **Gilead Patient Assistance Program**. Gilead will pay for your Truvada®. PrEP-AP will pay for PrEP-related medical costs and for all other Rx's on the PrEP-AP formulary.
- *If you are insured:* You will be co-enrolled in PrEP-AP and the **Gilead Co-Payment Assistance Program**. Gilead will cover up to \$7200 per calendar year for your Truvada® co-pays. Once you exhaust this benefit, PrEP-AP will cover your Truvada® co-pays. PrEP-AP will also pay co-pays for all other Rx's on the PrEP-AP formulary and assist with PrEP-related medical costs.
- *If you have Medi-Cal with a share of cost:* PrEP-AP will cover your Truvada® co-pays and the cost for all other Rx's on the PrEP-AP formulary up to your Medi-Cal share of cost amount.
- *If you have Medicare with Rx coverage or if you are in the Medicare coverage gap ("donut hole"):* You are not eligible for assistance through Gilead. However, PrEP-AP will cover PrEP-related medical costs and co-pays for prescriptions on the PrEP-AP formulary, including Truvada®. If you are in the Medicare coverage gap, PrEP-AP will pay the full cost for all formulary drugs, including Truvada®.



A Few Things to Consider



- You must apply for PrEP-AP at a certified enrollment site.
- If you are not insured you must see a doctor within the PrEP-AP network who may be different from your current doctor and may or may not be located near you.
- If you have insurance, Medi-Cal or Medicare, you must see a provider in your health plan network.
- You must re-enroll into PrEP-AP every 12 months. You will receive a re-enrollment reminder via the United States Postal Service 45 days prior to your re-enrollment date.
- If you are not insured or have Medicare without Rx coverage, it may take 2-5 business days for Gilead to process your Patient Assistance Program application. Gilead will not cover the cost of your Truvada® until your application is approved. To check the status of your pending application call Gilead at 1-800-226-2056.
- If your insurance status changes while using PrEP-AP, you must notify your enrollment site.
- PrEP-AP uses a company called Magellan Rx to provide prescriptions to you. You can obtain your medication(s) at any of their 4000+ pharmacies. To find a PrEP-AP pharmacy, use the **pharmacy locator found here**.
- For more information about PrEP-AP please visit the California Department of Public Health (CDPH) **PrEP-AP webpage located here**, or contact CDPH at 1-844-421-7050.

<https://www.pleaseprepm.org/ca-prep-ap>

(7.22.2019)

PREP: GILEAD ASSISTANCE PROGRAMS

- Gilead's Advancing Access[®] Program
 - <https://www.gileadadvancingaccess.com/copay-coupon-card>
 - Covers up to \$7,200 per year (monthly max benefit of \$300)
 - Helps individuals with paying their insurance copay (coupon program)
 - Challenges with copay accumulator not counting towards deductible
 - Not eligible – government healthcare programs (Medicare Part D, Medicaid, TRICARE, or VA)
- Gilead's MAP (through Advancing Access[®])
 - Provides free PrEP (Truvada)
 - Requires household incomes up to 5x the US Federal Poverty level



PREP FINANCIAL RESOURCES

- Department of Health and Human Services partnering with Gilead Sciences
- 2.4 million bottles of Truvada or Descovy annually through 2030 through Ready, Set, PrEP program
- For persons who “lack” prescription drug coverage
- Get prescription first, then enroll through “GetYourPrEP.com” or call 855-447-8410

Ending the HIV Epidemic: Ready, Set, PrEP



Pre-exposure prophylaxis (or PrEP) medications are prescription medications that people take daily to significantly reduce their risk of acquiring HIV through sex. PrEP can stop HIV from taking hold and spreading throughout the body. Two medications are FDA-approved for use as PrEP: TRUVADA and DESCOVY. When taken daily, PrEP is highly effective for preventing HIV from sex.

The *Ready, Set, PrEP* program makes PrEP medication available at no cost for qualifying recipients. To receive PrEP medication through this program, you must:

- Lack prescription drug coverage
- Be tested for HIV with a negative result
- Have a prescription for PrEP

Talk to your healthcare provider or find a provider at [HIV.gov Locator](https://www.hiv.gov/locator) to find out if PrEP is right for you.

If PrEP is a good option for you, see below to apply online or download and print the enrollment form (available in [English](#) or [Spanish](#))

PATIENT RETURNS FOR REFILL ONE MONTH LATER. ASKS IF THEY NEED TO DO LABS LIKE HIV AND STI TESTING TO GET THEIR REFILL.

- Yes, they need to repeat all the pertinent labs
- Yes, but they only need to repeat the HIV test
- Yes, but they only need to repeat STI testing
- No, they do not need repeat labs at this time

PREP LABORATORY TESTS

Tests	Baseline	At 3-month visit	At 6-month & 9-month visits	At 12-month visit
HIV-1/2 Ag/Ab Immunoassay	√	√	√	√ (Q3 months)
Hepatitis B serology (HBsAg, anti-HBs, anti-HBc)	√	---	---	√
Hepatitis C antibody	√	---	---	√
Syphilis serology	√	√	---	√
Gonorrhea & Chlamydia [urine, rectal, oral (based on exposure)]	√	√	√	√ (Q3 months)
Pregnancy	√‡	√‡	√‡	√‡
BUN/SCr	√	---	√	√

BARRIERS TO PREP IN CLINICAL PRACTICE

Healthcare Providers

Unaware of intervention

Uncertainty about complexity and monitoring time involved

Uncomfortable assessing sexual risk

HIV providers have expertise, but primary care providers have the appropriate patients

Patients

Lack of awareness

- Risk of HIV
- PrEP availability
- How to access it

Lack of or delayed access to preventive care

Uninsured; cannot afford

Adherence problems

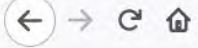
Concerned about disclosure

Stigma

Difficulty finding providers who will prescribe PrEP

THE PATIENT RETURNS TO YOUR PHARMACY. THEY RECEIVED PrEP FROM YOU VIA SB 159, BUT THEY DO NOT HAVE A PCP. THE REFILL IS COMING UP SOON.
WHAT SHOULD THEY DO?

- Go to another pharmacy to get another two months of PrEP
- Share with a friend
- Buy off the streets
- Find a provider



https://pleaseprepme.org



Search



Español

- Stay HIV Negative ▾
- How Much Are PrEP & PEP?
- Where Can I get PrEP/PEP? ▾
- About ▾

For Providers & Navigators ▾

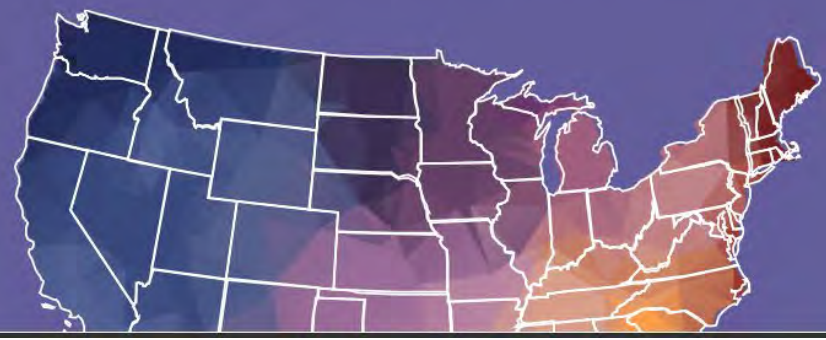
A pill that can help you stay HIV negative

PrEP works for women, men, people of transgender experience, people of all gender identities and sexual orientations, youth, and people who inject drugs.



Learn more

Find a PrEP Provider



**SESSION CODE:
TBA**



**PHARMACY
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