HIV Pre-Exposure Prophylaxis (PrEP)

4/18/2024

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Conflict of Interest Disclosure Statement

Speakers have nothing to disclose.

Learning Objectives

Learn why PrEP is important

• Identify who can benefit from PrEP

Describe guidelines for prescribing PrEP

• Understand models of PrEP care

Ending the HIV Epidemic



Diagnose all people with HIV as early as possible.

Treat people with HIV rapidly and effectively to reach sustained viral suppression.



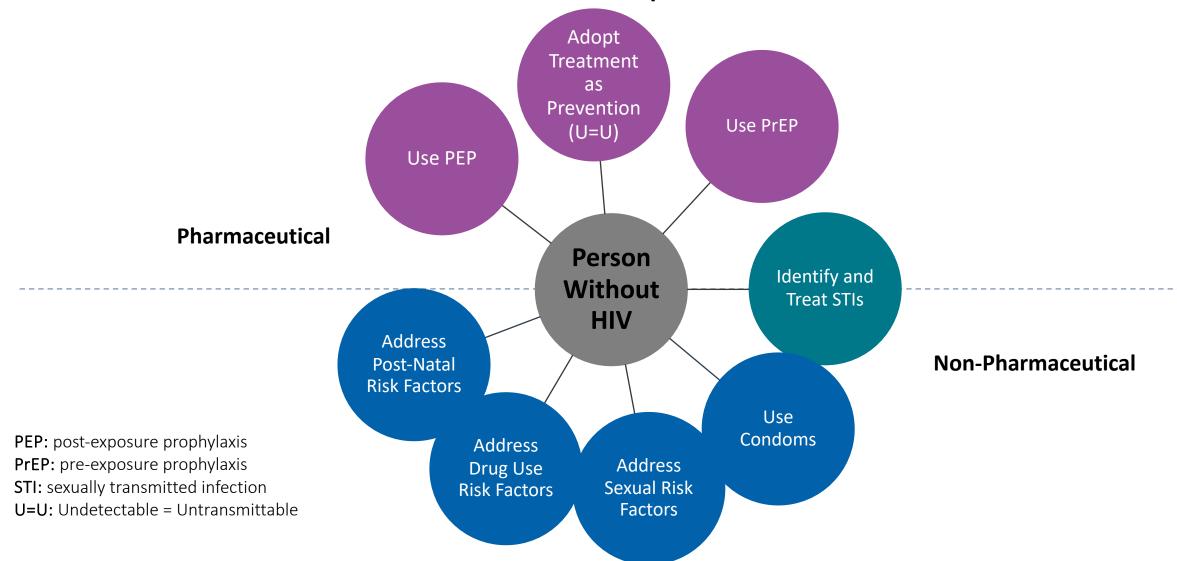


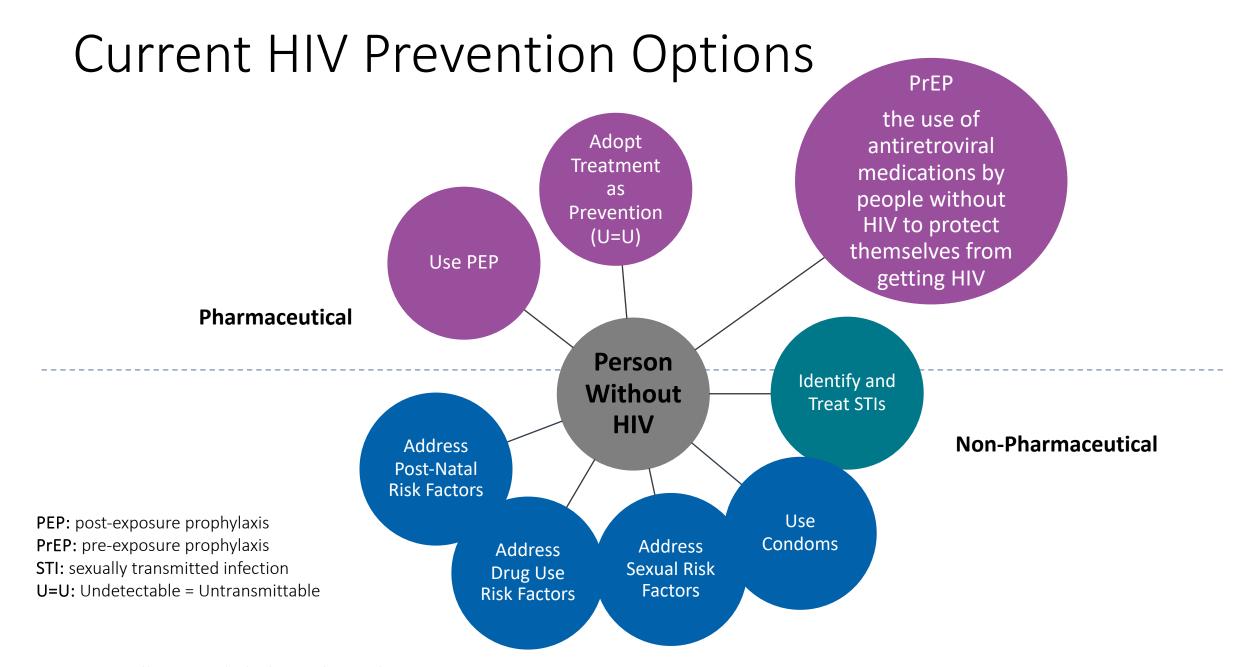
Prevent new HIV transmissions by using proven interventions, including pre-exposure prophylaxis (PrEP) and syringe services programs (SSPs).

Respond quickly to potential HIV outbreaks to get needed prevention and treatment services to people who need them.



Current HIV Prevention Options





Efficacy of PrEP

Multiple studies have demonstrated that PrEP is highly effective when taken as prescribed

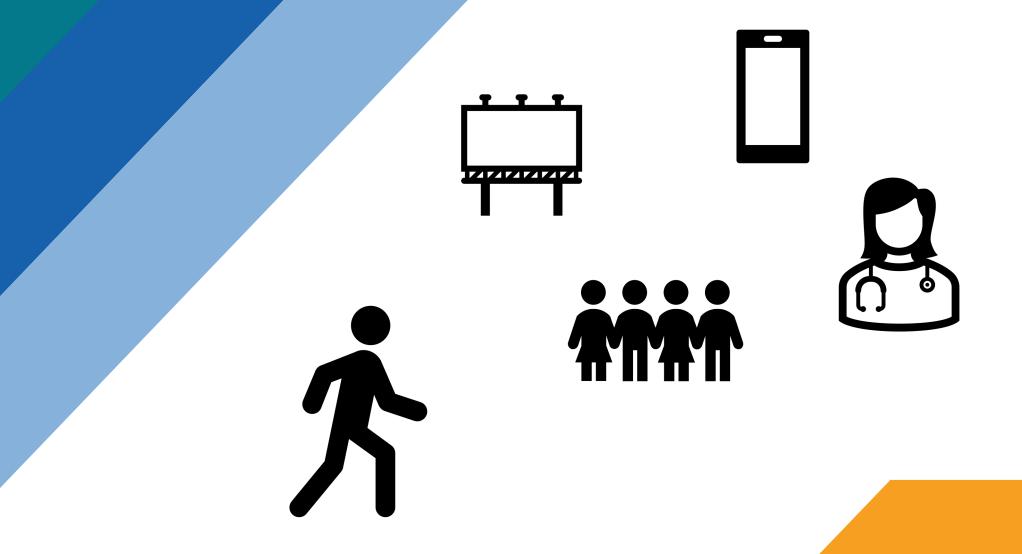
Transmission	Effectiveness	
Route	Estimate	Interpretation

Sexual	~99%	Very high levels of adherence to PrEP provide maximum effectiveness
Injection	at least	This estimate is based on tenofovir alone and not necessarily when taken daily
drug use	74%	The effectiveness may be greater for the two-drug oral therapy and if used daily

¹ Centers for Disease Control and Prevention. Effectiveness of prevention strategies to reduce the risk of acquiring or transmitting HIV. Updated June 17, 2022. Accessed January 20, 2023. https://www.cdc.gov/hiv/risk/estimates/preventionstrategies.html

² Centers for Disease Control and Prevention, US Public Health Service. *Preexposure prophylaxis for the prevention of HIV infection in the United States—2021 update—a clinical practice guideline*. Published December 2021. Accessed January 20, 2023. https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf

Who can benefit from PrEP?



Knowledge About PrEP

Example of PrEP Conversation

First, start the conversation: Inform all adult and adolescent about PrEP Then, assess behavior:

Sexual Behavior:

- ? In the past 6 months, how many partners have you had sex with?
- ? What are the genders of your sexual partners?
- ? Do you use condoms consistently?
- ? Did any of your partners have HIV?

Drug Injection Behavior:

Pave you ever injected drugs that were not prescribed for you?

If YES:

- ?) When did you last inject drugs?
- Po you ever inject using works that were used by another person?

Indications for PrEP

Sexually Active People

- Sexual partner(s) living with HIV with a detectable or unknown viral load
- Sexual partner(s) unaware of their HIV status
- Bacterial STI in past 12 months
- History of inconsistent or no condom use with sexual partner(s)

People who Inject Drugs

- Injecting partner(s) living with HIV with a detectable or unknown viral load
- Injecting partner(s) unaware of their HIV status
- History of sharing injection equipment with injecting partner(s)

Indications for PrEP

Sexually Active

- Sexual partner(s) living with HIV with a detectable or unknown viral load
- Sexual partner(s) unaware of their HIV status

If someone asks for it

injecting partner(s)

Guidelines for prescribing PrEP

	Tenofovir disoproxil fumarate/emtricitabine (Truvada, F/TDF)
Dosing	1 tab daily
Patients	All
Crcl	≥ 60
HepB status	Important
Potential side effects	More bone and renal considerations than TAF
Medication interactions	

	Tenofovir disoproxil fumarate/emtricitabine (Truvada, F/TDF)	Tenofovir alafenamide/ emtricitabine (Descovy, F/TAF)
Dosing	1 tab daily	1 tab daily
Patients	All	Not if risk from receptive vaginal sex
Crcl	≥ 60	≥30
HepB status	Important	Important
Potential side effects	More bone and renal considerations than TAF	More weight and lipid concerns than TDF
Medication interactions		

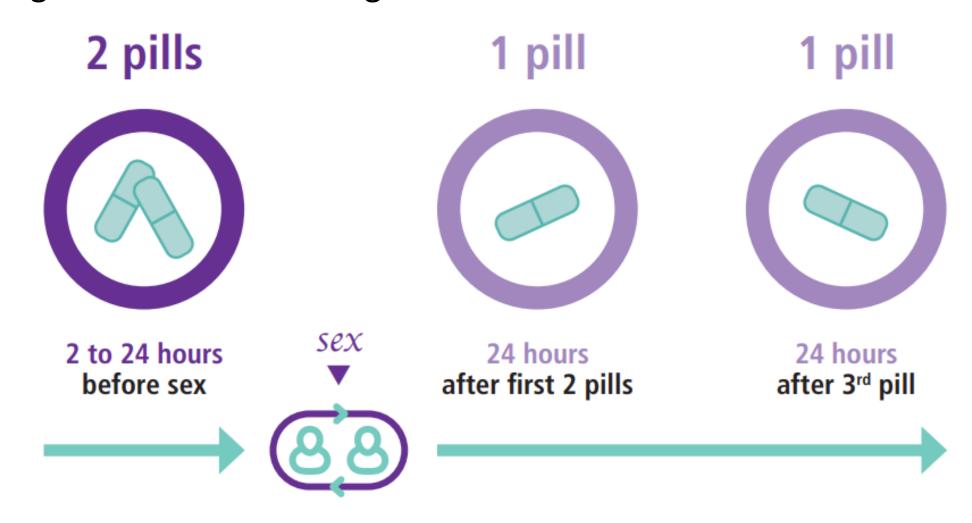
	Tenofovir disoproxil fumarate/emtricitabine (Truvada, F/TDF)	Tenofovir alafenamide/ emtricitabine (Descovy, F/TAF)	Cabotegravir (Apretude, CAB)
Dosing	1 tab daily	1 tab daily	Injection every other month (can start with oral lead-in or monthly injection x2)
Patients	All	Not if risk from receptive vaginal sex	All
Crcl	≥ 60	≥30	N/A
HepB status	Important	Important	Not as relevant
Potential side effects	More bone and renal considerations than TAF	More weight and lipid concerns than TDF	Injection site reactions
Medication interactions			Carbamazepine, oxcarbazepine, phenobarbital, phenytoin, rifampin, and rifapentine

Preferred Regimen
On national core formulary

	Tenofovir disoproxil fumarate/emtricitabine (Truvada, F/TDF)	Tenofovir alafenamide/ emtricitabine (Descovy, F/TAF)	Cabotegravir (Apretude, CAB)
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On-Demand/Event-Driven PrEP

Cisgender men and transgender women who have sex with men



	Tenofovir disoproxil fumarate/emtricitabine (Truvada, F/TDF)		Tenofovir alafenamide/ emtricitabine (Descovy, F/TAF)	Cabotegravir (Apretude)
Dosing	1 tab daily	2-1-1 On-demand, event- driven	1 tab daily	Injection every other month (can start with oral lead-in or monthly injection x2)
Patients	All	Not if at risk from receptive vaginal sex or through IDU	Not if at risk from receptive vaginal sex	All
Crcl	≥ 60		≥30	N/A
HepB status	Important		Important	Not as relevant
Potential side effects	More bone and renal considerations than TAF		More weight and lipid concerns than TDF	Injection site reactions
Medication interactions				Carbamazepine, oxcarbazepine, phenobarbital, phenytoin, rifampin, and rifapentine

Baseline Evaluation

- 1. Any signs/symptoms of acute HIV in the past 4 weeks (flu-like symptoms, rash, swollen lymph nodes): if present, test for acute HIV, consider deferring HIV PrEP until test results back
- 2. Offer PEP if potential HIV exposure in past 72 hours, then can bridge to PrEP
- 3. Assess for history of renal or bone disease

HIV test: - antigen/antibody(negative within 7d or pending)- HIV viral load if recentPEP/PrEP use

Kidney Function

F/TDF: CrCl>60 mL/min

F/TAF: Crcl>30 mL/min

CAB: Not required

Hepatitis B screening (F/TDF and F/TAF) if not known to be immune to hep B

Lipid profile for F/TAF

STI tests for chlamydia, gonorrhea, and syphilis, hepatitis C
Pregnancy test if applicable

F/TDF: emtricitabine/tenofovir disoproxil fumarate (Truvada), F/TAF: emtricitabine/tenofovir alafenamide (Descovy) CAB: cabotegravir (Apretude)

Baseline Evaluation

Offer mpox vaccine Discuss doxyPEP

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Ongoing Assessments for People Using Oral PrEP

Every 3 months

- HIV antigen/antibody test and HIV viral load
- STI testing based on risk
- Provide support, answer questions, refill med

Every 6 months

- CrCl for patients who are ≥50 years or had an CrCl <90 mL/min when they started oral PrEP
- STI testing based on risk

Every 12 months

- CrCl for all patients
- If on F/TAF: triglyceride, cholesterol and weight
- STI testing for everyone

Ongoing Assessments for People Using Injectable PrEP

After 1st visit and every 2 months

- HIV antigen/antibody test and HIV viral load
- Provide support, answer questions

Every 4 months

STI testing based on risk

Every 12 months

STI testing for everyone

Discontinuing PrEP

Discuss how to safely discontinue and restart PrEP use, both when someone starts using PrEP and when they discontinue it



Oral PrEP

- Protection from HIV will wane over 7-10 days
- Assess ongoing HIV risk factors
- Discuss other prevention methods if HIV exposure is anticipated (e.g., PEP)



Injectable PrEP

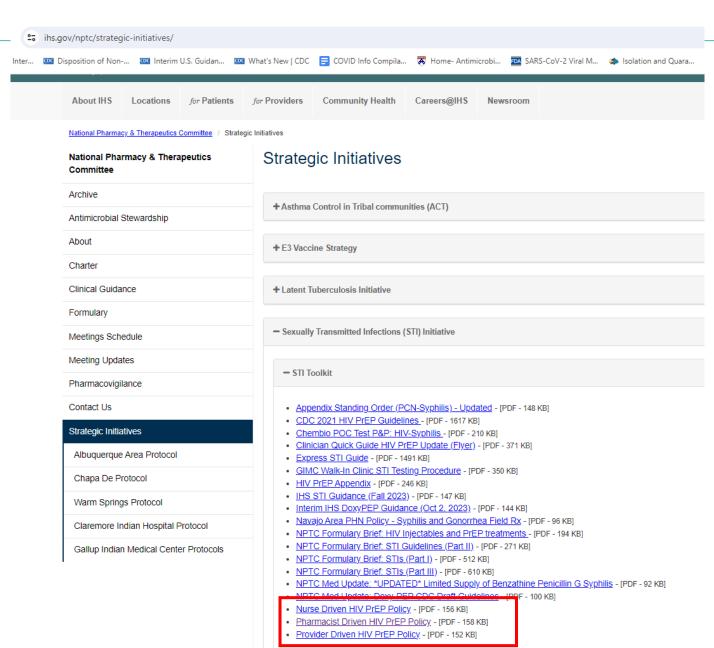
- CAB levels slowly wane over many months, known as the "tail phase"
- Counsel on risk of developing drugresistant HIV during the tail phase
- Assess ongoing HIV risk and prescribe daily oral PrEP or other prevention methods if HIV exposure is anticipated
- Continue follow-up visits quarterly for 12 months and conduct HIV testing

New I.H.S. PrEP Policies

• Nurse-Driven

Pharmacist-Driven

Provider-Driven



Chinle Experience

Examples of Tools for PrEP

RESOURCES RCIS (REFERRALS BY PROVIDER) PATIENT CHART LOCAL EHR HELP ED DASHBOARD **RPMS**

Internal External Resources



Communication

One Note Workbooks:

IM/FP Orientation Guide Pediatric One Note ED/UC One Note

Web Conferencing:

Diabetes

DM Folder

IHS Webex

COVID-19 Resp. Clinic One Note

COVID-19 Vaccines COVID-19 Treatments

List of Community Resources COVID19 - Community Resources COVID19 - Chinle Isolation Guide

Mask Fitting

COVID-19:

SDT / Emails

Outlook IHS Email **IHS Secure Data Transfer Service** Direct Messaging Directory (RPMS)

Direct Messaging (RPMS)

Phone Listing:

CSU PHN Phone Listing Case Manager Phone Listing Interpreter Services

Online Tools:

Intranet Webcident

Personal Health Record Video

Decision Support

Calculators

MD+ CALC

Pediatric Emergency Drug / Fluid Calculator

IM/FP Clinic Resources

ALTCS Application

SUD Treatment

Buprenorphine for OUD OUD Buprenorphine Handout **Clinical Decision Support Tools**

HTN Decision Support Osteoporosis Decision Support Weight Loss Algorithm & Provider List Weight Management Decision Support Tool

Power Point for Weight Management

General Reference

Dynamed Familydoctor.org MedAbbrev Medline Up-to-date

NIH Library

Infectious Diseases **CSU Monkeypox Guidance

**CSU Monkeypox OPD Flowchart & Guidance

CSU Monkeypox/Jynneos Step-by-Step Vaccination Guide

CSU COVID-19 Testing Protocol

CSU COVID-19 Inpatient Guidance

CSU COVID-19 Outpatient Guidance

CSU COVID-19 Vaccine Guidance CSU COVID-19 Post COVID Guidance

CSU COVID-19 Newborn Protocol

CSU COVID-19 Testing More Than 90 Days

CSU COVID-19 Community Resource Guide

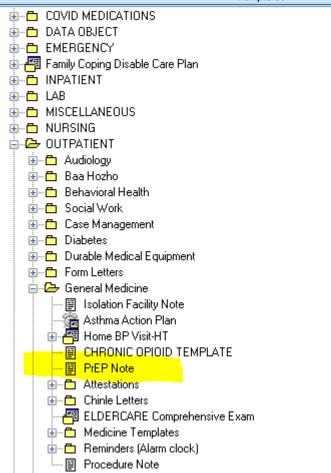
Pulse Ox Handout Antibiogram Folder

Infection Treatment Guidelines

PrEP Information

Examples of Tools for PrEP

4 Templates



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#Contact/exposure to HIV
- Patient is a good candidate for PrEP- will order 30d w 2 refills
- Pt has been counseled on how PrEP works, how to take it, potential
side effects, to not stop and restart without seeing provider, that will
need screening every 3 months
- Will send HIV Ag/Ab test (if pt has received any PEP or PrEP medications
in the past 3mo will also send HIV-1 RNA assay), BMP, HepB sAq,
HepB sAb, HepB cAb Total, RPR, HCV Ab, GC/CT urine
(and based on sexual practices: will send GC/CT rectal swab and
pharyngeal swab), lipid screen
- Obtained good contact information for patient in case of results
that prohibit PrEP use (ie positive HIV test, CrCl <60 for TDF/FTC or < 30
for TAF/FTC)
- Will vaccinate for HepB if not immune
- Advised condom use at least until PrEP has reached protective levels
(for TDF/FTC 7 days for rectal tissue, 20 days for blood or vaginal
tissue) and preferable continued condom use even in the setting of PrEP to protect
from other STIs
- Patient informed that he will need to return in 12 weeks to assess
for side effects, medication adherence and repeat STI screening/HIV test
in order to have refill of emtricitabine/tenofovir prescription
- For follow-up patient will need HIV Aq/Ab test and HIV-1 RNA assay
every 3 months, bacterial STI testing every 3-6 months (RPR,
urine GC/CT, pharyngeal GC/CT, rectal GC/CT), HCV Ab every year,
Cr check q6 months if age over 50 and/or Crcl<90 at baseline,
otherwise Cr check every year and lipid panel yearly if on TAF/FTC
- Consider anal pap screening for immunocompetent MSM age greater than 40 y/o.
# Follow-up:
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Examples of Tools for PrEP

4 ▷

New Patient

Hepatitis B Surface Ag
Hep B Core Ab Total

Hepatitis B Surface Ab

GC/Chlamydia Pharynx

GC/Chlamydia Rectal

HΙV

HIV1 Qnt RT PCR (Viral Load)

GC/Chlamydia Urine (>14 Years Old ONLY)

RPR Chinle

HCV Ab Screen

BMP

Follow Up

GC/Chlamydia Urine (>14 Years Old ONLY)

GC/Chlamydia Pharynx

GC/Chlamydia Rectal

HIV

HIV1 Qnt RT PCR (Viral Load)

RPR Chinle

BMP

*****CHECK HIV AG/AB AND HIV VL EVERY 3 MONTHS

*****ORDER BOTH HIV LABS ON ORDER SET

* Renal function should be checked every 6 months

for patients 50 or older or who have

CrCl <90ml/min at PrEP initiation

for everyone else can be done yearly.

* Bacterial STI screening for MSM and transgender women who have sex with men (GC and CT pharyngeal rectal and urine) RPR every 3 months

* Bacterial STI screening for all sexually active patients GC and CT pharyngeal rectal and urine

Chinle Experience

Increase in HIV diagnoses the past 2 years

- PrEP retention in care was low
 - 63% picked up meds within 3 months versus 91% viral suppression of HIV patients

Developed PrEP Case Management Consult

PrEP Case Management Consult

PUBLIC HEALTH/CULTURAL/ENVIRONMENTAL/EDUCATION

Community Health Rep.(CHR)

Lactation Education

Native Medicine

Office of Environmental Health (OEH)

Public Health Nursing

Family Spirit

Wellness Center

Youth Lifestyle Management "Yeigo"

Inpatient Carseat Consult

PrEP Case Management Consult

- By putting in this referral the following will happen:
 - 1 week and 1 month: patient will be called to see how patient is doing on PrEP and answer any questions
 - Monthly: chart will be checked as labs are due or med refills are due to be picked up and if overdue, case manager will reach out to patient (and provider, if needed, for orders)
- Your responsibility as the provider
 - Ensure patient knows they will be called by the PrEP case manger
 - You are still primarily responsible for the PrEP prescribing for this patient including ordering the medication, ordering labs and giving the patient the lab results (if not, place ID consult to have PrEP prescribing taken over by another provider)
- If patient declines this referral then best practice has been to use E.H.R. notifications every 2-3 months to make sure HIV test has been done and patient is still engaged in PrEP care

Chinle Experience

Chinle Service Unit

Chinle Comprehensive Health Care Facility
Public Health Nursing Department
Pre-Exposure Prophylaxis (PrEP) Customer Satisfaction Survey

Example question:

Do you have any challenges to taking PrEP medication?
[] Yes
[] No
If yes can you please identify?
[] Relationship status
[] College/School involvement
[] Forgetting to take medication
[] Substance use (alcohol, meth, cannabis)
[] Side effects
[] Keeping PrEP medication private from others

Lessons learned from ongoing survey

- Medication adherence
- Transportation
 - 90 days at a time would be helpful
- Consolidate visits of lab and med pickup
- Interest in injectable PrEP

Chinle Experience

- Recommendations based on our experience
 - Encourage and support prescribers to offer PrEP to patients
 - Review PrEP retention in care
 - Can be pharmacy-led, provider-led, nursing-led or multidisciplinary team
 - Discuss with patients about potential barriers
 - Consider setting reminders to check in with patients

Gallup Experience

Gallup Experience

Referral from all departments in the hospital (ER, IMC, FMC, PHN, WIPCC)

 PrEP clinic will follow up with patients discussing about the program, clinic policy, risks and benefits, and schedule their first visit

 PrEP clinic attempts to contact patient within the first week of receiving the referral

Challenges

- Transportation difficulty
- Lack of awareness
- Schedule conflict
- Multiple appointments
- Medication adherence

Overcome the Challenges

- Schedule follow up appointment in clinic prior to discharge
- Provide appointment letter in person or mail
- Pharmacy MSA assists with reminding patients to go to lab the week prior to their appointments
- Medication mail out program
- Tele-visit available per request
- Long-acting injectable medication available

Summary



HIV PrEP should be considered as part of a comprehensive HIV-prevention plan and can be provided by any licensed prescriber

When taken as prescribed, HIV PrEP is well tolerated and reduces the risk of getting HIV from sex by about 99% and from injection drug use by at least 74%

Three forms of HIV PrEP available:

- Oral F/TAF (Descovy[®])
- 2. Oral F/TDF (Truvada® or generic equivalent)
- Injectable CAB (Apretude[®])

PrEP can be prescribed to any adult or adolescent patient who asks for it, even if they don't report specific risk factors for HIV

References

- Centers for Disease Control and Prevention, US Public Health Service.
 Preexposure prophylaxis for the prevention of HIV infection in the United
 States—2021 update—a clinical practice guideline. Published December 2021.
 Accessed January 20, 2023. https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf
- Centers for Disease Control and Prevention. Effectiveness of prevention strategies to reduce the risk of acquiring or transmitting HIV. Updated June 17, 2022. Accessed January 20, 2023.

https://www.cdc.gov/hiv/risk/estimates/preventionstrategies.html

Questions?

• How is PrEP working at your site?

• Any advice about overcoming barriers to PrEP care?

• Any recommendations for increasing PrEP uptake?