



PrEP for HIV Prevention

Purpose of the PrEP Guideline

- Raise awareness of PrEP among healthcare providers in New York State.
- Increase PrEP use in NYS in support of ETE.
- Provide the recommendations clinicians need to successfully start and manage patients on PrEP.
- Promote the use of TDF/FTC as a central component of the NYS standard of care for prevention of HIV.

Standard of Care

→ KEY POINTS

- In NYS, use of TDF/FTC as PrEP is a central component of the standard of care for prevention of HIV acquisition in those at high risk.
- A comprehensive HIV prevention plan includes PrEP, along with safer sex and safe injection practices.
- PrEP is an effective option to prevent HIV infection and to supplement behavior change in high-risk populations.

Summary of PrEP Benefits

- Highly effective in reducing risk of HIV acquisition when used as prescribed:
 - >90% effective in reducing risk through sexual activity when blood levels show >90% adherence
 - >70% effective in reducing risk through injection drug use when patients were observed taking their medication
- Regimen is one tablet, once per day: Tenofovir disoproxil fumarate 300 mg/emtricitabine 200 mg (TDF 300 mg/FTC 200 mg fixed dose tablet; brand name Truvada)
- TDF/FTC has a good safety profile in people who do not have HIV infection and have used PrEP for up to 3 years
- Minimal side effects, most of which resolve fairly quickly and/or can be managed
- Appears to be safe for use during attempts to conceive and during pregnancy

**See guideline for references*

Summary of PrEP Risks

- Not safe for individuals with impaired kidney function
- Requires 7 to 20 days of daily use to build protective blood levels
- Protection may be reduced without adherence to daily medication regimen
- No protection against sexually transmitted infections other than HIV
- Potential for risk compensation (i.e., more condomless sex)
- May be associated with reversible osteopenia in younger individuals
- Continued use after HIV infection is acquired may result in development of drug-resistant virus
- Requires careful monitoring in patients with chronic HBV

**See guideline for references*

Candidates for PrEP

✓ RECOMMENDATIONS

- Clinicians should recommend PrEP for individuals, including adolescents, who (AI):
 - Do not have HIV infection and are at high risk of acquiring HIV and
 - Have adequate renal function.
- For patients who are completing a course of nPEP, clinicians should recommend initiation of PrEP immediately after completion of nPEP. (AIII)

Candidates for PrEP

→ KEY POINTS

- PrEP should not be withheld from people of any age group who are at risk of HIV acquisition.
- Education regarding the importance of, and strategies to support adherence may improve adherence to the daily PrEP regimen and recommended monitoring.
- For those who are unable to adhere to a daily medication regimen or recommended monitoring, alternative methods of HIV prevention should be explored and reinforced.

Who Should Be Offered PrEP?

Adults *and adolescents* who are at risk of acquiring HIV infection and:*

- Engage in unprotected anal or vaginal intercourse with partners whose HIV status is unknown, have untreated HIV, or who do not have undetectable viral load while on treatment for HIV
- Engage in unprotected anal or vaginal intercourse with partners who have HIV and undetectable viral load but wish to be on PrEP for additional protection (see the discussion of U=U in the guideline).
- Are receiving nPEP and demonstrate continued high-risk behavior or have used multiple courses of nPEP.
- Self-identify as being at risk, without disclosing specific risk behaviors.
- Acknowledge the possibility of or anticipate engaging in risk behaviors in the near future.
- Have, or whose partners may have, multiple or anonymous sex partners.
- Engage, or whose partners may engage, in sexual activity at sex parties or other high-risk venues.

*See guideline for references

Who Should Be Offered PrEP? (con't)

Adults *and adolescents* who are at risk of acquiring HIV infection and:*

- Are involved, or whose partners may be involved, in transactional sex, such as sex for money, drugs, or housing, including commercial sex workers and their clients.
- Have been diagnosed with at least one sexually transmitted infection in the previous 12 months.
- Report recreational use of mood-altering substances during sex, such as alcohol, methamphetamine, cocaine, and ecstasy.
- Report injecting substances, or have partners who inject substances, including illicit drugs and hormones.

*See guideline for references

Who Should Be Offered PrEP? con't

- Individuals attempting to conceive with an HIV-infected partner.
- Individuals ongoing risk of acquiring HIV during pregnancy.
 - Ongoing risk for serodiscordant couples during pregnancy includes inconsistent condom use, incomplete viral suppression in the partner with HIV infection, or both.

*See guideline for references

Who Should Be Offered PrEP? con't

- PrEP also may be appropriate for individuals who do not currently meet or acknowledge the risk criteria noted above.
- Such individuals include those who self-identify as at risk without disclosing any specific risk behaviors and individuals who acknowledge the possibility of or anticipate engaging in risk behaviors in the near future.

Use of PrEP

→ KEY POINTS

- PrEP is an effective method for enhancing protection during periods when people are at greatest risk of acquiring HIV.
- Duration of use will depend on the length of time an individual remains at high risk for HIV infection.
- The 2-drug PrEP regimen is not adequate as treatment for HIV infection and should be discontinued if HIV infection is confirmed.
- As part of informed consent, clinicians should ensure that individuals understand that PrEP is not 100% effective in protecting against acquisition of HIV.
- If HIV is diagnosed, antiretroviral therapy (ART) should be recommended for immediate initiation.

Contraindications to PrEP

- TDF/FTC (Truvada) as PrEP is *contraindicated* for individuals:
 - With documented HIV infection. (AI)
 - With a creatinine clearance <60 mL/min. (AI)

Candidates for PrEP

✓ RECOMMENDATIONS

Clinicians *should not withhold PrEP* from candidates who:

- Use other risk reduction practices inconsistently (AIII)
- Report substance use (AI)
- Have mental health disorders (AIII)
- Report intimate partner violence (AIII)
- Have unstable housing or limited social support (AIII)

Counseling and Assessment

✓ RECOMMENDATIONS

Clinicians should:

- Assess the individual's health literacy and ensure that he or she understands the purpose, benefits, and risks associated with PrEP. (AIII)
- Individualize the decision to initiate PrEP by weighing the benefit of reducing a patient's personal risk of acquiring HIV infection against the potential adverse effects of the medication. (AIII)
- Make clear that PrEP efficacy is highly dependent on daily adherence, assess for readiness and willingness to adhere to PrEP and recommended follow-up care, and assess for barriers to adherence. (AIII)
- Ask whether the individual has a sex partner (or partners) with known HIV infection; if yes, ask if partner's viral load status is known. (BIII)

Counseling and Assessment (con't)

✓ RECOMMENDATIONS

Clinicians should:

- Counsel serodiscordant couples who are considering using PrEP during attempts to conceive about the utility, safety, and possible risks of the medications and about other approaches to safer conception. (AIII)
- Obtain a thorough sexual history and drug use history, identify risk-taking behaviors, encourage safer sex practices, and, if applicable, safer drug injection techniques. (AII)
- Perform a psychosocial assessment and refer for appropriate social and psychological support services, as indicated, to minimize HIV risk and support maintenance in care. (BIII)
- Perform substance use and mental health screenings. (AIII)

Pre-Rx Evaluation and Labs

✓ RECOMMENDATIONS

Before prescribing PrEP, clinicians should perform a medical evaluation of the candidate that includes the following:

- Laboratory testing (next slide).
- Assessment for symptoms or signs of acute HIV infection, including a febrile, “flu”-, or “mono”-like illness in the previous 6 weeks. (AII)
- Evaluation of concomitant medications to identify nephrotoxic drugs or drugs that have interactions with the PrEP regimen. (AIII)
- Inquiry about the individual’s reproductive plans. (AIII)

Pre-Rx Labs

✓ RECOMMENDATIONS

- HIV test (AI): 4th gen (recommended) or 3rd gen (alternative). Perform HIV RNA testing in patients who have symptoms of acute HIV infection or have a negative antibody test but report condomless anal or vaginal sex in the previous 4 weeks.
- Calculated creatinine clearance (AI); do not initiate PrEP if CrCl <60 mL/min
- Pregnancy test for individuals childbearing potential (AI)
- HBV serologies: HBsAg, anti-HBs, and anti-HBc-IgG or total (AI)
- HAV serology for individuals at high-risk (AI)
- Gonorrhea and chlamydia screening with NAAT (AII)
- STI screening according to your lab's testing algorithm (AII)
- HCV serology (AIII)
- Serum liver enzymes and urinalysis (good practice)

Prescribing PrEP

✓ RECOMMENDATIONS

- Clinicians should prescribe PrEP only after receiving a negative 4th generation (recommended) or 3rd generation (alternative) HIV test within 1 week of planned PrEP initiation. (AIII)
- If the HIV test result is not available during the patient visit, the clinician should contact the patient to discuss the test result once it is available; if the result is negative, then the clinician should contact the patient's pharmacy to prescribe PrEP. (AIII)

Prescribing PrEP (con't)

✓ RECOMMENDATIONS

The clinician should:

- Initially prescribe only a 30-day supply of PrEP; once adherence and tolerance is assessed a 60-day supply can be prescribed. (AIII)
- Educate patients about the time required to achieve protective concentrations of TDF/FTC (Truvada) for PrEP (All):
 - 7 days of daily PrEP use for protection with receptive anal sex.
 - 20 days of daily PrEP use for protection with receptive vaginal sex, insertive anal or vaginal sex, and injection drug use.

Time to Protection with PrEP

- **PrEP is not immediately protective.**
- Individuals who are using PrEP for HIV prevention must complete 7 to 20 days of daily use to achieve protective concentrations of TDF/FTC:
 - PrEP must be taken daily for 7 days to achieve protection against HIV acquisition through receptive anal sex.
 - PrEP must be taken daily for 20 days to achieve protection against HIV acquisition through other activities (vaginal sex, insertive anal sex, injection drug use).

Follow Up

✓ RECOMMENDATIONS

Upon initiation of PrEP, clinicians should:

- Instruct patients to notify the care provider immediately if they experience side effects. (BIII)
- Follow-up within 2 weeks to ensure the prescription was filled, troubleshoot problems with payment and connect the patient to resources for payment if needed, inquire about side effects and proper use of PrEP (BIII)
- At each visit, *clinicians should* (BIII):
 - Assess adherence and discuss strategies for maintaining adherence.
 - Discuss risk reduction in the context of the individual's sexual health and/or injection drug use needs.
 - Offer condoms, and, if appropriate, syringe access.
 - Manage side effects.

Risk Reduction

✓ RECOMMENDATIONS

The clinician should:

- Offer male and female condoms to all patients, including those using PrEP, at each visit as an approach to decreasing acquisition of HIV and other STIs. (AIII)
- Make referrals for substance use treatment and mental health support as appropriate for patients who inject drugs or misuse mood-altering drugs (AIII); prescribe clean syringes and needles or refer to needle-exchange programs as indicated (AII).
- For patients in serodifferent relationships, discuss at each visit the benefits and risks of treatment as prevention (TasP) alone versus TasP + PrEP strategies for preventing transmission of HIV. (BIII)

Monitoring and Ongoing Labs

✓ RECOMMENDATIONS

- **HIV testing** every 3 months, using 4th gen (recommended) or 3rd gen (alternative) (AIII)
- **HIV serology screening test + HIV RNA testing** when a patient has symptoms of acute HIV or has a negative antibody test but reports condomless anal or vaginal sex in the previous 4 weeks (AII)
- **Serum creatinine and calculated creatinine clearance** 3 months after initiation and every 6 months thereafter while patient is taking TDF/FTC (Truvada) as PrEP (AIII)
- **HCV serology** annually for those at risk (AIII)
- **Urinalysis** annually (BIII)
- **Pregnancy test** for individuals of childbearing potential every 3 months if effective contraception is not in use, and annually when effective contraception is being used (AIII).
- **If new elevation in liver enzymes is present:** HCV RNA; HBV serology, if status is unknown; HBV DNA, if not immune; HAV serology, if unknown (good practice)

STI Screening

✓ RECOMMENDATIONS

- Ask about symptoms at every visit
- Screen for syphilis:
 - Every 3 months for men who have sex with men (MSM) at high risk
 - At least annually for individuals at lower risk
 - On-demand
- Screen for gonorrhea and chlamydia
 - Every 3 months in high-risk individuals
 - Annually for individuals at lower risk
 - On-demand
 - Extragenital screening (rectal, pharyngeal) should be performed for patients at high risk, including MSM and transgender women
- Test and treat all symptomatic patients for STIs

HIV Testing

✓ RECOMMENDATIONS

- Clinicians should obtain a 4th-generation (recommended) or 3rd-generation (alternative) laboratory-based HIV screening test before initiation of PrEP and every 3 months while a patient is using PrEP. (AIII)
- Whenever patients present with symptoms or signs consistent with acute retroviral syndrome, clinicians should perform HIV testing immediately according to guidelines for the evaluation of acute HIV infection. (All)

HIV Testing

→ KEY POINTS

- Routine HIV testing is an integral component of the safe use of PrEP.
- Frequent screening for HIV infection is performed to prevent development of drug-resistant virus and to protect against transmission of HIV.
- Whenever patients present with symptoms or signs consistent with acute retroviral syndrome, clinicians should perform HIV testing immediately according to guidelines for the evaluation of acute HIV infection. Evidence suggests that although rare, HIV genotypic resistance to PrEP can occur when PrEP is initiated during acute HIV infection and with breakthrough infections.
- FTC has been associated with more frequently occurring resistance mutations than TDF.

Renal Function

✓ RECOMMENDATIONS

- At the following intervals, clinicians should perform renal function testing, including creatinine, and calculated glomerular filtration rate (GFR): (BIII)
 - Before initiating PrEP with TDF/FTC.
 - At 3 months after initiation.
 - At least every 6 months for the duration of PrEP.
- If the patient develops a calculated GFR ≤ 50 mL/min on PrEP with TDF/FTC, then PrEP should be discontinued. (All)
- Clinicians should perform urinalysis at baseline and annually. (BIII)

Discontinuing PrEP

✓ RECOMMENDATIONS

- Clinicians should discontinue PrEP in any patient who:
 - Has a confirmed positive HIV test. (AI)
 - Develops a calculated glomerular filtration rate (GFR) ≤ 50 mL/min on PrEP with tenofovir disoproxil fumarate/emtricitabine (TDF/FTC). (AII)
 - Does not adhere to HIV testing requirements. (AIII)
- Clinicians should closely monitor patients who have chronic HBV infection for potential rebound when PrEP with TDF/FTC is discontinued and develop an alternative treatment plan. (AII)
- PrEP should also be discontinued for those no longer at risk of HIV acquisition because they have eliminated the sex or drug use behaviors that put them at risk of acquiring HIV.

HIV Acquisition on PrEP

✓ RECOMMENDATION

- Clinicians should inform patients with suspected acute HIV infection about the increased risk of transmitting HIV during acute HIV infection. (All)

HIV Acquisition on PrEP

✓ RECOMMENDATIONS

For **asymptomatic patients** who receive a reactive HIV screening result while using PrEP, *clinicians should:*

- Discontinue PrEP immediately; if supplemental lab testing does not confirm HIV infection, PrEP may be resumed. (AI)
- In consultation with an experienced HIV care provider, recommend initiation of antiretroviral therapy with at least 3 fully active ARVs. (AI)
- Perform supplemental diagnostic testing according to the CDC HIV testing algorithm. (AI)
- Ask about medication interruption of any duration and identify any access or adherence barriers. (AIII)
- If supplemental lab testing confirms HIV infection: Perform HIV RNA testing, if not already obtained as part of the diagnostic algorithm for suspected acute HIV infection, to measure viral load (AII); perform HIV genotypic resistance testing. Adjustments to the initial ART regimen can be made once genotypic resistance results are available or when considering side effects. (AII)

HIV Acquisition on PrEP

✓ RECOMMENDATIONS

- For **symptomatic patients**, who present with any symptoms of acute retroviral illness and for whom acute HIV infection is suspected, clinicians should perform a plasma HIV RNA assay in conjunction with an HIV screening test (AII). The patient should continue PrEP until results are available, preferably within 1 week (BIII).
- For patients who receive a *nonreactive* screening result with HIV RNA $\geq 5,000$ copies/mL:
 - A clinician can make a presumptive diagnosis of HIV infection. (AII)
 - Recommend ART and perform HIV genotypic resistance testing; adjustments to the initial ART regimen can be made according to genotypic resistance results or side effects. (AII)
- For patients who receive a nonreactive HIV screening result but have detectable HIV RNA with $< 5,000$ copies/mL, repeat HIV RNA to exclude a false-positive result after discontinuation of PrEP; ART may be offered as described above for patients with a nonreactive screening result with HIV RNA $\geq 5,000$ copies/mL while awaiting results from repeat HIV RNA testing. (AII)

Reporting

- Clinicians must report confirmed cases of HIV according to New York State Law.
- Clinicians should offer assistance notifying partners or should refer patients to other sources for partner notification assistance.