

Putting Prevention Into Practice

An Evidence-Based Approach

Preexposure Prophylaxis to Prevent Acquisition of HIV

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Case Study

A 28-year-old woman presents to a community health clinic for sexually transmitted infection (STI) testing. She reports no chronic illnesses, illicit substance use, or symptoms at this time. She has a history of gonorrhea, which was appropriately treated more than one year ago. She also received one dose of injectable cabotegravir at that time but discontinued use due to discomfort with injections. She reports having multiple new male sex partners since her last STI check and engaging in oral, vaginal, and anal intercourse with condom use in three-fourths of all encounters. After further discussion, the patient says she has been engaging in transactional sex and does not know her partners' sexual histories. She requests HIV screening and preexposure prophylaxis (PrEP).

Case Study Questions

1. Which one of the following best describes the U.S. Preventive Services Task Force (USPSTF) recommendation on PrEP to prevent acquisition of HIV?

- A. The USPSTF recommends that clinicians selectively offer PrEP using effective antiretroviral therapy to people who are at increased risk of HIV acquisition.
- B. The USPSTF recommends that clinicians prescribe PrEP using effective antiretroviral therapy to people who are at increased risk of HIV acquisition to decrease the risk of acquiring HIV.
- C. The USPSTF recommends against prescribing PrEP to older adults because they are not at increased risk of HIV acquisition.
- D. The USPSTF concludes that the evidence is insufficient to assess the balance of benefits and harms of prescribing PrEP to decrease the risk of acquiring HIV.
- E. The USPSTF recommends against prescribing PrEP to decrease the risk of acquiring HIV because the harms outweigh the benefits.

2. According to the USPSTF, which one of the following factors makes this patient a candidate for PrEP?

- A. She regularly receives STI screenings.
- B. She has requested screening for HIV.
- C. She has a history of gonorrhea from more than one year ago.
- D. She has inconsistent use of condoms with partners whose HIV status is unknown.
- E. She reports no illicit substance use.

See related USPSTF Clinical Summary in the online version of this issue.

This PPIP quiz is based on the recommendations of the USPSTF. More information is available in the USPSTF Recommendation Statement and supporting documents on the USPSTF website (<https://www.uspreventiveservicestaskforce.org>). The practice recommendations in this activity are available at <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/prevention-of-human-immunodeficiency-virus-hiv-infection-pre-exposure-prophylaxis>.

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CME This clinical content conforms to AAFP criteria for CME. See CME Quiz on page 539.

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3. According to the USPSTF recommendation statement, which of the following statements about the use of PrEP for the primary prevention of HIV in adults are correct?

- A. Oral tenofovir disoproxil fumarate/emtricitabine (TDF/FTC) and injectable cabotegravir are approved for use in at-risk adults and adolescents to reduce the risk of sexually acquired HIV.
- B. In people who inject drugs, oral TDF/FTC, oral tenofovir alafenamide/emtricitabine (TAF/FTC), and injectable cabotegravir are approved for use to reduce the risk of acquiring HIV via injection drug use.
- C. Black people with an indication for PrEP are less likely to have received PrEP than White people with an indication.
- D. Eighty percent of new HIV diagnoses in the United States occur among adolescent and adult men.

Answers

1. The correct answer is B. The USPSTF recommends that clinicians prescribe PrEP using effective antiretroviral therapy to those who are at increased risk to decrease the risk of acquiring HIV.¹ The USPSTF does not recommend selectively prescribing PrEP to people with increased risk of HIV or precluding PrEP for older adults. The USPSTF concludes that there is substantial net benefit from the use of PrEP to reduce the risk of acquisition of HIV in people at increased risk and recommends PrEP for adolescents (weighing at least 35 kg [77 lb]) and adults at increased risk of HIV.

2. The correct answer is D. The USPSTF recommends the following people be considered for PrEP: sexually active adults or adolescents who have engaged in anal or vaginal sex in the past six months with a partner who has HIV; had a bacterial STI in the past six months; or have inconsistently or not used condoms with sex partners whose HIV status is unknown.¹ People who inject drugs and share drug-injection equipment or who have a drug-injecting sex partner who has

HIV should also be considered for PrEP.¹ People who engage in transactional sex (e.g., sex for money, drugs, or housing), including commercial sex workers or people trafficked for sex work, and transgender people should be considered based on the criteria from the recommendation statement.

3. The correct answers are A, C, and D. The U.S. Food and Drug Administration (FDA) has approved TDF/FTC and injectable cabotegravir to reduce the risk of sexually acquired HIV in at-risk adults and adolescents weighing at least 35 kg. TAF/FTC is also approved by the FDA for use in at-risk adults and adolescents weighing at least 35 kg to reduce the risk of sexually acquired HIV, excluding individuals at risk from receptive vaginal sex.¹ No PrEP medications have received FDA approval for the indication of reducing HIV acquisition via injection drug use; however, people who inject drugs and who have increased risk are likely to benefit from PrEP.¹ Clinicians should note that barriers to and disparities in the initiation of PrEP exist; the Centers for Disease Control and Prevention has estimated that the proportion of people with indications for PrEP who received it was 60.5% among White people vs. 7.9% in Black people and 13.8% in Hispanic/Latino people.^{1,2} Additionally, of the more than 30,000 estimated new HIV cases diagnosed in 2020, 80% occurred among adolescent and adult men, whereas 18% occurred among adolescent and adult women.^{1,3}

The opinions and assertions expressed herein are those of the authors and do not reflect the official policy or position of the U.S. Department of Health and Human Services, the Uniformed Services University of the Health Sciences, or the U.S. Department of Defense.

References

1. Barry MJ, Nicholson WK, Silverstein M, et al. Preexposure prophylaxis to prevent acquisition of HIV: US Preventive Services Task Force recommendation statement. *JAMA*. 2023;330(8):736-745.
2. Chou R, Spencer H, Bougatsos C, et al. Preexposure prophylaxis for the prevention of HIV: updated evidence report and systematic review for the US Preventive Services Task Force. *JAMA*. 2023;330(8):746-763.
3. Centers for Disease Control and Prevention. HIV surveillance report: diagnoses of HIV infection in the United States and dependent areas 2020. Published May 2022. Accessed June 28, 2023. <https://www.cdc.gov/hiv/library/reports/hiv-surveillance/vol-33/index.html> ■