

Spotlight on Health

HIV Screening

An estimated 1.2 million people in the United States are living with human immunodeficiency virus (HIV), and about 20% of them are not aware of their infection.¹ HIV screening allows identification of these people. The sooner they are identified, the sooner treatment and prevention services can be implemented.^{2,3} This is important because most people who transmit HIV are either untreated or do not know that they have the virus (or both).⁴ Thus, screening and treatment can potentially reduce the spread of HIV.³

Recommendations for Screening

The Centers for Disease Control and Prevention (CDC) recommends HIV screening for people aged 13 to 64 years.⁴ They also recommend:

- Patients be notified that a screening test will be performed unless they opt out
- A general consent for medical care be used to document consent for HIV testing
- People at high risk be screened at least annually
- HIV screening be a routine part of prenatal testing for pregnant women
- Repeat HIV screening in the third trimester if there is an increased rate of HIV among pregnant women in the area

The United States Preventive Services Task Force recommends HIV screening for people aged 15 to 65 years, those who are younger or older if at increased risk, and all pregnant women.⁵ Those at very high risk (ie, men who have sex with men and active injection drug users) should be screened annually, whereas others at increased risk should be screened every 3 to 5 years.⁵ People in high-prevalence settings ($\geq 1\%$) should also be considered for repeat screenings. These include people in homeless shelters, correctional institutions, sexually transmitted infection clinics, and tuberculosis clinics.⁵

People at Increased Risk for HIV⁵

- Men who have sex with men
- Injection drug users
- People with another type of sexually transmitted infection (including hepatitis C)
- People who have unprotected vaginal or anal sex
- People whose partner has HIV, is bisexual, or an injection drug user



Facts About HIV^{8,9}

- Certain risk groups account for disproportionately high percentages of new HIV infections:
 - Men who have sex with men: 68%
 - African Americans: 46%
 - Hispanic Americans: 23%
 - Young people (13-24 years of age): 21%
 - Injection drug users: 7%
- 1.5% of prisoners have HIV; this rate is 3 times higher than in the general U.S. population.
- Hepatitis C occurs in 25% of people with HIV, while hepatitis B occurs in 10%.
- Tuberculosis occurs in 6% to 10% of people with HIV.

- People who exchange sex for money or drugs
- People who live in a high-prevalence setting

Benefits of Screening

Screening for HIV allows HIV-positive individuals to be identified, informed of their status, and provided an HIV treatment plan and a strategy for preventing coinfections. HIV treatment reduces viral load, which in turn reduces morbidity and transmission to sexual partners and the fetuses of infected pregnant women.⁵

How to Screen for HIV

The CDC has proposed an HIV testing algorithm that has high sensitivity (>99.7%) and specificity (100%).^{6,7} It is designed to detect early infection, reduce the frequency of indeterminate results on supplemental testing, and differentiate between HIV-1 and HIV-2.⁶ The algorithm begins with a 4th generation screening test, which detects IgM and IgG antibodies and the HIV p24 antigen. The antibody component detects infection post-seroconversion, while the antigen component detects infection in the pre-seroconversion period. As with other screening assays, any reactive result requires confirmation with a supplemental test. The recommended supplemental test is an HIV-1/HIV-2 differentiation assay, which detects antibodies earlier than Western blots.⁶ As the word “differentiation” implies, the HIV-1/HIV-2 immunoassays can detect and identify which virus is responsible for the infection, so the patient is given the appropriate antiretroviral therapy.

Implement HIV Screening in Your Practice

HIV screening can be a routine part of caring for your patients. These steps can help:

- Identify those who have not been screened previously and those who are at increased risk.
- Tell these patients that you are going to order an HIV screen unless they opt out.
- Be prepared to discuss and address a patient’s reasons for declining the test when appropriate.
- Be prepared to offer counseling and education to any patient with a positive result. If your male patient has HIV and has sex with men, encourage him to inform his partner and have his partner tested. If the partner tests negative, discuss options to prevent transmission.
- Consider setting up a yearly call-back for patients at high risk.

References

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