

HIV screening: Latest testing guidelines

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Substance use and high-risk sexual behaviors are common among persons with severe mental illness and make them vulnerable to human immunodeficiency virus (HIV) infection.¹⁻³ The prevalence of HIV is 3 times higher among these patients compared with individuals who are not mentally ill. This article reviews risk factors for HIV transmission, HIV screening recommendations, and current testing options, including the fourth-generation HIV test.

According to the World Health Organization, in 2009:

- 33 million people were infected with HIV
- there were 2.6 million new infections
- 1.8 million people died from causes related to acquired immune deficiency syndrome (AIDS).⁴

In the United States, approximately 1 million people are living with HIV; 55,000 new cases were diagnosed in North America in 2009.⁵ The demographics of those infected with HIV in the United States have changed substantially. Most newly infected individuals are African American, and younger adults have higher rates of new infections.⁶ With the introduction of standardized antiviral medication combinations and federal programs to provide universal access to medications in the mid 1990s, the number of AIDS cases and mortality dropped, but

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Table

HIV transmission risk factors

Intravenous drug use
Nonintravenous cocaine use
Sex without barrier protection, especially in patients with multiple partners
Sex trade or sex work
HIV: human immunodeficiency virus
Source: References 1,2

there have not been similar gains in the past decade.⁶

In countries with access to antiviral medications, medical advances in HIV treatment have transformed an infection with a high mortality rate into a chronic illness. However, the rate of new cases has not changed significantly in the past 10 years. Early detection and treatment initiation reduces high-risk behavior and subsequent transmission in patients with HIV. Evidence suggests that detecting HIV in the acute phase of the illness, when the viral load is high, reduces HIV transmission.^{1,5,6}

Practice Points

- Patients with mental illness are at **elevated risk for HIV infection.**
- **Fourth-generation (p24) HIV testing** allows accurate, office-based screening during the period of highest infectivity.
- Psychiatrists may be uniquely able to **discuss and alter patients' high-risk behaviors** related to HIV transmission and treatment.

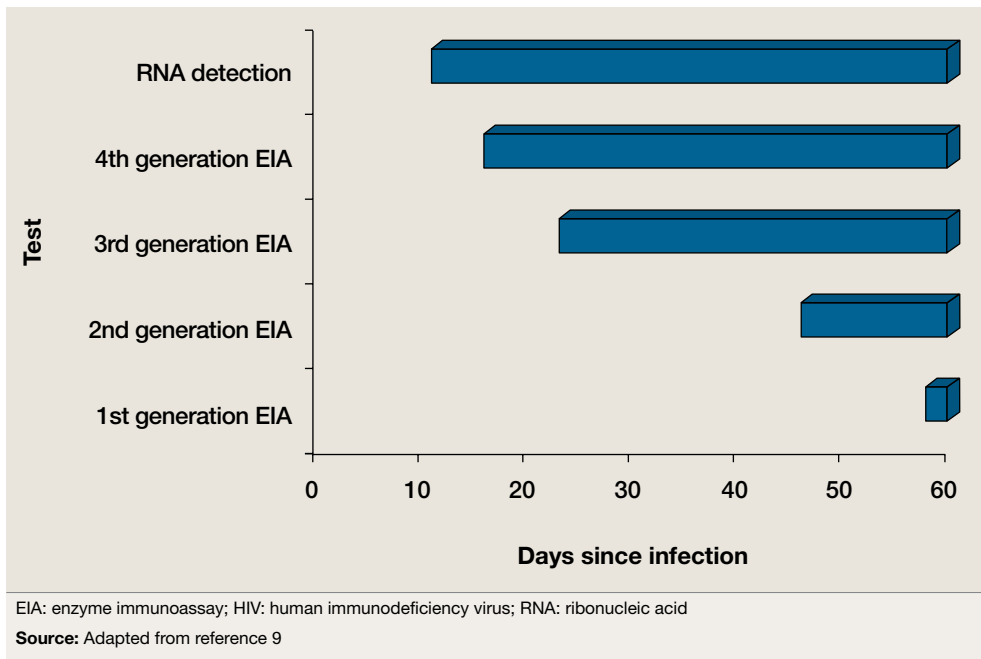


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continued

Figure

When can HIV tests detect the virus?



Clinical Point

The gold standard for HIV screening is the enzyme-linked immunosorbent assay antibody test followed by a western blot

HIV screening

HIV screening should be part of routine psychiatric practice, especially in community and forensic settings. We recommend that all psychiatrists understand HIV screening guidelines from the Centers for Disease Control and Prevention (CDC)⁷ and the American College of Physicians (ACP).⁸ The CDC (2006)⁷ and ACP (2009)⁸ guidelines recommend HIV screening for:

- all patients age 13 to 64, unless the prevalence of undiagnosed HIV infection in your patients has been documented to be <0.1%⁷
- all patients seeking treatment for sexually transmitted diseases, including each visit for a new complaint⁷
- all pregnant women⁷
- any patient who received a blood transfusion between 1978 and 1985.⁸

Rescreening frequency is determined on an individual basis, taking into consideration the patient's risk of contracting HIV. The ACP guidelines recommend using rapid tests when available.⁸ Although the false positive rates are higher with rapid tests, the benefits of early detection and reducing transmission outweigh the cost of confirming positive tests.⁸

The fourth-generation test

The gold standard for HIV screening is the enzyme-linked immunosorbent assay antibody test followed by a western blot.⁸ This has a high sensitivity and specificity but there is a window of time between infection and detectable antibodies in serum during which patients have high virus levels (*Figure*).⁹ The combined antibody and antigen p24 test is a fourth-generation screening tool that detects HIV in the acute phase of the illness without requiring expensive ribonucleic acid viral tests.¹⁰ The fourth-generation test's capacity to detect infection during the antibody-negative window when infectivity is highest may help decrease HIV transmission.¹¹

Psychiatrists' role

Because psychiatrists routinely interact with patients who have an increased risk of HIV, they may be uniquely qualified to help these individuals. Psychiatrists often are comfortable discussing patients' sexual and substance use history, which allows them to uncover and effectively address high-risk behaviors with appropriate testing and counseling. If testing confirms

HIV infection, psychiatrists also can discuss altering high-risk behaviors (*Table, page 45*),^{1,2} which has significant implications not only for patients, but also for public health.

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Related Resource

- Centers for Disease Control and Prevention. HIV/AIDS. www.cdc.gov/hiv.

Disclosure

The authors report no financial relationship with any company whose products are mentioned in this article or with manufacturers of competing products.

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CDC guidelines recommend HIV screening for all patients seeking treatment for sexually transmitted diseases

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