MAYO CLINIC

Human Immunodeficiency Virus: What Primary Care Clinicians Need to Know

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CME Activity

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Learning Objectives: On completion of this article, you should be able to (1) recognize when testing for acute and chronic HIV is indicated, (2) evaluate and select appropriate testing for a patient newly diagnosed with HIV infection, and (3) recognize the important role of primary caregivers in comanaging HIV-infected patients on stable antiretroviral therapy.

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Abstract

Human immunodeficiency virus (HIV) has evolved from an illness that consistently led to death to a chronic disease that can be medically managed. Primary care clinicians can provide beneficial care to the individual patient and potentially decrease the transmission of HIV to others through appropriate HIV screening and recognition of clinical clues to both chronic and acute HIV. Most patients who take combination antiretroviral therapy experience immune reconstitution and resume normal lives. These patients benefit from the care of an experienced primary care clinician in addition to a clinician with HIV expertise. Primary care clinicians have expertise providing preventive care, including counseling regarding healthier lifestyle choices and managing cardiovascular risk factors, osteoporosis, hypertension, and diabetes, all of which have become increasingly important for individuals with HIV as they age. This article reviews the many important roles of primary care clinicians with regard to the HIV epidemic and care of patients with HIV.

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Human immunodeficiency virus (HIV) infection in the United States has morphed over the past 3 decades from an untreatable illness that predictably led to death to a chronic disease in which life expectancy for many patients is similar to that for the general population. This change has led to new challenges and opportunities for primary care clinicians who are on the front line of preventing, recognizing, and diagnosing HIV infection. Primary care clinicians have expertise in managing chronic medical problems and are increasingly comanaging patients with HIV alongside the HIV specialist. This article follows a primary care physician through a busy month of clinic work and highlights HIV-related issues pertinent to primary care clinicians.

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Dr Smith's clinic has recently added appropriate HIV screening as a quality measure. She reviews the appointment schedule and makes a note as to which patients should have screening.

WHO SHOULD BE SCREENED FOR HIV?

Since 2006, the Centers for Disease Control and Prevention (CDC) has recommended that everyone between the ages of 13 and 64 years be screened for HIV infection at least once by using an opt-out approach, and high-risk patients be screened at least annually. An *opt-out approach* is defined by the CDC as notifying the patient that HIV screening will be performed, presuming consent, and providing screening unless the patient specifically declines.[1] The US Preventive Services Task Force also recommends HIV screening of all adolescents and adults aged 15 through 65 years, younger adolescents and older adults at increased risk of infection, and pregnant women.[2] The HIV Medicine Association and the American Geriatric Society have issued a joint statement that recommends screening of all adults 65 years and older.[3]

Dr Smith's second patient, Mr C, is a 42-year-old man with a painful rash consistent with shingles. His medical history is unremarkable except for recurrent genital herpes. He denies risk factors for HIV infection and reports having a negative HIV test result about 7 years ago.

WHAT SIGNS AND SYMPTOMS SHOULD RAISE CONCERN FOR CHRONIC HIV?

Table 1 lists common signs and symptoms of chronic HIV infection.[4] Many patients are reluctant to admit to high-risk behaviors for acquiring HIV infection because of the stigma attached to these behaviors, so patients with the conditions mentioned in Table 1 should be screened even in the absence of known risk factors for HIV. Mr C should be screened for HIV despite his history of a negative test result and denial of risk factors.

Dr Smith's fourth patient, Ms E, is a 34-year-old woman who would like to have screening for sexually transmitted diseases. She had multiple sexual encounters using a condom over the past year with a partner who is HIV infected but did not use a condom 3 weeks ago. She reports that an over-the-counter HIV test result was negative the previous week and asks whether she should be retested.

HOW SHOULD PATIENTS BE SCREENED FOR HIV, AND WHAT IS THE ROLE OF RAPID HIV TESTS?

In 2013, 3 methods are available for HIV screening: traditional laboratory testing obtained at a health care facility, rapid HIV testing obtained at patient point of care, and home testing with an over-the-counter HIV test. Screening for HIV in the clinical setting is usually performed with a serum antibody test, an enzyme immunoassay (EIA), or a chemiluminescence immunoassay. Results are typically available in 1 to 4 days. Rapid HIV antibody testing is convenient in many settings, including community screening events, emergency departments, and during labor and delivery when the HIV status of the mother is unknown. One available rapid test uses an oral fluid sample, whereas other rapid tests use whole blood obtained from a finger prick. The body fluid sample is placed on a test strip, and results are available within 30 minutes, indicated by a color or symbol change on the test strip.[5] The US Food and Drug Administration (FDA) approved the first over-the-counter rapid HIV screening test, the OraQuick in-home oral HIV test, in 2012. Individuals collect an oral fluid sample by swabbing their gums and obtain results within 20 to 40 minutes in the privacy of their homes.[6] Another in-home option is a kit that requires a finger-prick blood sample that is mailed to a laboratory for traditional antibody testing.

All positive screening test results must be confirmed with a more specific test, usually the Western blot antibody test, regardless of which initial test is used. Ms E reports a negative home screening test result the previous week, so she does not need to be retested that day. She reports not using a condom 3 weeks ago, and a negative antibody test result is expected during the "window period" before seroconversion. Seroconversion usually occurs 3 to 6 weeks after infection but can remain negative up to 12 weeks and rarely longer. Ms E's negative test result 2 weeks after exposure to an infected partner is helpful as a baseline, but it does not provide any information