Primary Care of the Human Immunodeficiency Virus Patient

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KEYWORDS

• HIV infection • Chronic disease management • Primary care
• Antiretroviral therapy • Preventive care

KEY POINTS

- Human immunodeficiency virus (HIV) is a treatable disease that requires expert care in treatment of the virus.
- Patients with HIV have higher levels of comorbidity than non–HIV infected patients who require management.
- Prevention and early detection of disease is vital in HIV patients, as they tend to have higher rates of infections and cancer.
- Primary care physicians play a vital role in improving access and quality for HIV-infected patients.

INTRODUCTION

The evolution of the approach to the patient with human immunodeficiency virus (HIV) has transitioned in the era of highly effective treatment of the virus. In the early part of the HIV/AIDS epidemic, treatment goals were focused on managing the many opportunistic infections and malignancies that commonly occurred when the HIV patient developed AIDS. The approach to treating HIV-infected persons has changed, as most patients diagnosed with HIV are currently receiving long-term antiretroviral therapy (ART). Given the marked success of ART in suppressing levels of HIV, a diagnosis of HIV can now be considered a chronic illness. This article discusses aspects of care relevant to a primary care physician, with an emphasis on long-term consequences of HIV infection and treatment with ART. Attention to comorbid disease is also discussed.

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MANAGEMENT GOALS

Detection and Screening

The Centers for Disease Control and Prevention (CDC) estimated that in 2012 910,541 persons living in the United States were infected with HIV. Approximately 50,000 new HIV diagnoses are made every year, and it is estimated that 180,900 persons living in the United States have HIV but have yet to be diagnosed.[1] As of 2012, the number of people classified as having AIDS was 27,928.[2] Transmission of the virus still disproportionately affects younger patients, minorities, and men who have sex with men (**Table 1**). However, with the continued success of ART in improving mortality, the number of patients who have HIV in the middle to later years in life continues to increase (**Fig. 1**).

The US Preventive Services Task Force and CDC recommend screening all adults aged 15 to 65 for HIV infection.[3,4] Testing can be done annually or even more frequently in high-risk patients. The most current CDC guidelines also recommend an "opt-out" strategy of testing all patients who interact with the United States health care system to facilitate acceptance in screening and improve HIV detection.[4] However, health care providers must be aware of the state laws regarding HIV screening, which supersede CDC guidelines.[5] A compendium of state laws regarding HIV screening is available at: http://nccc.ucsf.edu/clinical-resources/hiv-aids-resources/state-hiv-testing-laws/.

Until recently, screening was performed using an HIV enzyme-linked immunoassay with confirmation with a Western blot, providing excellent sensitivity and specificity except when patients are in the "window" between acute infection and antibody seroconversion.[3] Recently, the CDC updated their recommended screening test to a combined antigen/antibody screen that can detect an acute infection even in the absence of HIV antibodies.[6] Acute primary HIV infection, or acute retroviral syndrome (ARS), is usually a febrile illness with a variety of nonspecific symptoms. Clinical suspicion for ARS should be high when individuals present with an illness and a diagnosis of infectious mononucleosis is entertained.[5] During ARS, viral loads of HIV are very high, and the risk for transmission is high because of elevated levels of virus and the likelihood that the infected person is unaware of the diagnosis. Detecting HIV early can lead to reduced rates of transmission when treatment begins early.[7]

Goals of Antiretroviral Therapy

The goals of starting HIV-infected patients on ART are to[8]:

- Improve the survival and quality of life

Table 1
Estimated diagnoses of HIV infection, by age, race/ethnicity, and transmission route for 2013

Age (y)	Estimated Number of Diagnoses	Race/Ethnicity	Estimated Number of Diagnoses	Route of Transmission	Estimated Number of Diagnoses
Age 20 to 34	22,327	Black/African American	21,853	Male-to-male sexual contact	31,023
Age 35 to 49	14,905	White	13,105	Heterosexual contact	4021
Age 50 or greater	8793	Hispanic/Latino	10,888	Injection drug use	2051
		Multiple Races	1039	Male-to-male and injection drug use	1284

Data from Centers for Disease Control and Prevention. HIV Surveillance Report, vol. 25. 2013. Available at: http://www.cdc.gov/hiv/library/reports/surveillance/. Published February 2015. Accessed June 22, 2015.