EDITORIAL

# Ten things primary care physicians should know about HIV/AIDS

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***Patients with HIV/AIDS are living longer and will need a long-term relationship with a primary care physician who will treat them similar to other patients, keeping in mind their unique needs.***

Thanks to the dramatic success of highly active antiretroviral therapy (HAART) over the past 6 years, human immunodeficiency virus (HIV) infection is no longer a fatal disease for most persons but instead a chronic, manageable illness. Although many may eventually develop acquired immunodeficiency syndrome (AIDS) the overall number of AIDS diagnoses continues to decline. Still, the number of newly infected persons has remained steady since the early 1990s, hence, many will require long-term care. Because of a shortage in infectious disease experts or in primary care physicians who, like me, devote the majority of their practice to the care of HIV-positive patients, it is imperative that primary care physicians maintain an adequate knowledge base of this disease, as we head into the third decade of this pandemic.

## 1. What is the global status of HIV/AIDS?

Currently, 36 million people are living with AIDS worldwide. Since the beginning of this pandemic in 1981, 22 million people have died. During 2000, 5.3 million new infections and 3.1 million AIDS-related deaths occurred. Thus, 13.2 million children have been orphaned, and this number continues to grow, especially in sub-Saharan Africa.[1] In the United States, more than 753,000 AIDS cases were reported between 1982 and December 2000. Of these, 442,206 resulted in AIDS-related deaths. Between 800,000 and 1 million Americans are now infected with HIV, and about 40,000 new infections occurred annually between 1991 and 1999.[2] Exact numbers are not known, for lack of mandatory HIV case reporting in many states.

## 2. What are the common modes of transmission?

The most common means of transmission is illicit intravenous (IV) drug use, followed by heterosexual transmission. Male-to-male transmission has declined over the past 6 years, but recent data from San Francisco and New York City now suggest an unfortunate reversal of this trend. A sharp increase in infected women reflects the transmission from their male partners' IV drug use. Overall, the demographics of the US epidemic have shifted, with most new infections occurring among Hispanic and African Americans. Transmission to health care workers and through blood transfusions remain rare.

## 3. Who should be tested?

HIV testing is currently recommended for the following subgroups:[3]

- Injection drug users;
- Men who have sex with men;
- Persons with multiple sex partners;
- Those who exchange sex for drugs or money;
- Those diagnosed with a sexually transmitted infection;
- Those who have had contact with an HIV-infected person or are at high risk;
- Patients with AIDS-defining illnesses—Pneumocystis carinii pneumonia, Toxoplasma infections, histoplasmosis;
- Diseases that often signal HIV infection, including oral candidiasis, unexplained generalized lymphadenopathy, community-acquired pneumonia, recurrent vulvovaginal candidiasis, and varicella zoster.

In general, we need to have a very low threshold for suggesting HIV testing to patients and to ensure pre- and posttest counseling.

### 4. What is the acute retroviral syndrome?

The primary or acute stage of HIV infection is when the virus first enters the body. This is often accompanied by an acute retroviral syndrome (ARS), which occurs from 5 days to several weeks after initial exposure, and may last from a few days to 10 weeks. Most common signs and symptoms are fever, fatigue, rash, headache, lymphadenopathy, pharyngitis, and myalgias. Patients are often misdiagnosed with "flu," a viral syndrome, or mononucleosis. Because symptoms are nonspecific, consider ARS in patients with any high-risk behavior, or in any sexually active patient.[4] If ARS is suspected, initiate testing immediately; results from HIV-ELISA will be negative during the acute period, and the diagnosis must be established by an HIV-RNA (viral load) level or by P24 antigen testing.[5] Antiretroviral therapy is now recommended for all persons diagnosed with ARS.

### 5. What is the status of HIV in pregnancy?

Strongly encourage HIV testing for all pregnant patients. With the 1994 introduction of zidovudine (AZT®) therapy in pregnancy, the mother-to-infant transmission rate declined from about 30% to 8%. Now that HAART is the standard of care, the rate has decreased to about 2%. Maintaining a low or undetectable maternal viral load, with or without elective cesarean section, should help reduce transmission rate to 0%.[6]

### 6. How is HIV infection treated in 2001?

The standard of care is three-or-four drug combination therapy. The three recommended treatment regimens include two nucleoside reverse transcriptase inhibitors (NRTIs) and one protease inhibitor (PI); two NRTIs and one non-NRTI; or two NRTIs and two PIs. Drs Tan and Glatt discuss this topic in detail in this issue.

Patient compliance is key. Many studies have shown a correlation between poor adherence and failure to achieve below-detection viral load. Predictors of patient compliance include a good support system, understanding that poor adherence leads to resistance, realizing the need to take all doses, and feeling comfortable taking medications in front of people.[7]

### 7. When to initiate antiretroviral therapy?

The new treatment guidelines have significantly changed the approach to treatment, as Drs Tan and Glatt discuss. Major changes involve decreasing the CD4+ cell count threshold for starting treatment from 500/mm$^3$ to 350/mm$^3$, and increasing the viral load from 30,000 copies/mL HIV-RNA to 55,000 copies/mL. Treatment is recommended in all patients with AIDS and/or opportunistic infections.

### 8. What is the status of opportunistic infections?

The use of HAART has significantly reduced the incidence of HIV-associated opportunistic infection. However, initial prophylaxis is still very important in patients with low CD4+ cell counts. Most common infections and their respective drug regimens include:

**Pneumocystis carinii pneumonia.** For patients with CD4+ T-lymphocytes of less than 200/mL or a history of oropharyngeal candidiasis, standard treatment is oral trimethoprim-sulfamethoxazole (TMP/SMZ).

**Toxoplasmic encephalitis.** For patients with CD4+ counts of less than 100/mL, TMP/SMZ is very effective. Alternative therapies include dapsone combined with either pyrimethamine or atovaquone.

**Mycobacterium avium complex.** In patients with CD4+ cell counts of less than 50/mL, use clarithromycin or azithromycin for primary prophylaxis.

Once the desired CD4+ level is reached, primary prophylaxis may be discontinued. Newer data also support the discontinuation of secondary prophylaxis for most opportunistic infections.[8]

### 9. What is a patient's prognosis?

Before HAART, post-HIV infection survival was 10 to 12 years, depending on disease progression. Current data suggest that survival rates of 30 to 35 years are possible. Although in reality survival period remains indeterminate, we should inform patients about the likely survival rate, to encourage them to seek and maintain treatment.[9]

### 10. How important is health maintenance for people living with HIV?

If we accept the precept that HIV/AIDS is a "chronic, manageable disease" for most patients, we should peform recommended preventive screening tests, including mammograms, Pap smears, and colorectal cancer screening at appropriate intervals. Also screen for lipid and glucose levels, and immunize for influenza, pneumonia, tetanus-diphtheria, and hepatitis A and B. Offer normal and disease-specific counseling on diet, exercise, smoking, and safe sex.

### Primary care objectives

Patients with HIV/AIDS are living longer and are dealing with many of the same issues seen in other chronic

diseases. They will need a long-term relationship with a primary care physician who will treat them similar to other patients, keeping in mind their unique needs. Lest we become complacent, let us remember that this epidemic is far from over. Counsel all patients in your practice, young and old, about HIV prevention.

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