City Health Information

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REVISED

HIV Prevention and Care

- **Offer HIV testing as a routine part of medical care to all patients aged 13 to 64 years.**
- **For patients who test positive:**
  - **Provide medical care and support. For patients on antiretrovirals, stress the importance of medication adherence. If you do not have experience treating patients with HIV, refer to an HIV specialist.**
  - **Counsel on consistent condom use and reducing number of partners to prevent the transmission of HIV and other sexually transmitted infections.**
  - **Explain and emphasize the importance of partner notification.**
  - **Screen for and treat other sexually transmitted infections and immunize against key vaccine-preventable illnesses.**
  - **Routinely assess risky behavior, screen for alcohol use, drug use, and mental health status; refer when appropriate.**

New York City (NYC) remains the epicenter of HIV/AIDS in the United States (US). One in 77 New Yorkers—1.3% of the population—have been diagnosed with HIV/AIDS.[1] More than 100,000 New Yorkers are known to be living with HIV/AIDS,[1] yet 30% of patients do not follow up with a medical provider for an initial visit within 3 months of diagnosis.[2]

Approximately 21% of HIV-infected patients in the US are not aware of their HIV status and may be unknowingly transmitting the infection to their partners.[3] These individuals do not receive treatment, resulting in poorer health outcomes and increased transmission. Ensuring that everybody gets tested for HIV/AIDS and that HIV-infected individuals do not transmit the disease to others are public health priorities.

Primary care providers (PCPs) have a major role in testing for HIV and preventing transmission of the virus. PCPs with experience and expertise in HIV treatment also have a major role in treating HIV-infected patients. All PCPs should:

- Routinely test all adolescent and adult patients for HIV infection.[4]
- Promote prevention among HIV-positive patients with a care program called prevention with positives, or PWP (see page 2), to prevent further transmission of HIV.
- Monitor the health of HIV-infected individuals and emphasize the importance of adherence to care and medications.

HIV/AIDS DISPARITY

There is a large racial disparity in HIV infection rates and HIV/AIDS-related deaths in NYC:

- Blacks and Latinos make up 51% of the population in NYC, but account for more than 75% of HIV-infected individuals.[1,5]
- In 2008, more than 80% of new HIV/AIDS diagnoses and deaths were among blacks and Latinos.[1]

TESTING FOR HIV/AIDS

Routine HIV testing in primary care is important because risk-based assessments often miss patients with HIV infection.[6] With limited exceptions, New York State (NYS) law requires health care professionals to offer a voluntary HIV test to all patients between the ages of 13 and 64 years who are receiving treatment for a non-life-threatening condition in a hospital, emergency department, or primary care setting such as a doctor's office or outpatient clinic. Documentation of oral or written consent for HIV testing is required in New York State, but there is no certification required to initiate counseling and testing.[7]

Test all individuals aged 13 to 64 years, and repeat at least annually if they are engaged in any ongoing risk behavior associated with HIV infection, including unprotected sex (see Frequency of HIV Testing box, page 3). Extensive HIV prevention counseling and a complete sexual history are not required; explaining that you are administering an HIV test and obtaining patient consent are required. HIV infection should be diagnosed with a rapid test on site or an enzyme-linked immunosorbent assay (ELISA), and confirmed by Western blot or indirect immunofluorescence assay.[8] For patients who test positive, initiate care immediately (see Primary Care for HIV-Infected Patients, page 4).

If you do not provide HIV primary care, link the patient to an HIV primary care provider (to find a provider, go to www.aahivm.org) and follow up with the HIV provider to make sure that the patient kept the appointment. Enlist a case manager to assist patients with engagement and retention in care and referrals for social and support services (see Care Coordination box, page 6).

Reassure patients that adherence to antiretroviral (ART) medications can allow them to live a long and productive life. The belief that HIV infection quickly leads to death can hinder patients' motivation to change high-risk behaviors such as unsafe sex and needle sharing.

Acute HIV infection

Suspect acute HIV infection in patients who present with flu-like illness and a history of recent high-risk behaviors. Patients may not tell you about recent high-risk behaviors unless they are asked in a nonjudgmental way. If there are signs of acute HIV (see Frequency of HIV Testing box, page 3), immediately test for plasma HIV RNA (viral load) and HIV antibodies. Typically, individuals with acute HIV infection will have a negative or indeterminate HIV antibody test (rapid or conventional test) and a positive HIV RNA test.

Acute HIV infection can be diagnosed with the Aptima test (HIV-1 RNA Qualitative Assay) or by measuring an HIV-1 RNA viral load with subsequent serologic testing to document seroconversion.[8] Because of the delayed appearance of HIV antibodies in recently infected individuals, HIV-seronegative patients at high risk should have serologic testing repeated at 6, 12, and 24 weeks. For more information on treating HIV patients, see Primary Care for HIV-Infected Patients, page 4.

PREVENTION WITH POSITIVES

Managing HIV infection can be further complicated by factors such as discrimination, substance use, and poverty. HIV-infected individuals may not have the tools to protect themselves and their sex and needle-sharing partners from disease transmission and illness.

Prevention with positives emphasizes prevention of transmission by HIV-infected individuals, focusing on[9]:

- Offering brief interventions aimed at reducing HIV transmission risk behaviors, such as unprotected sex and needle-sharing practices (see Modifying Risky Behaviors, page 3).
- Providing HIV care and treatment, including mental health and substance use services; initiating ART, when indicated, to lower viral load.
- Screening for sexually transmitted infections (STIs).
- Facilitating partner notification.

FREQUENCY OF HIV TESTING

- **Ages 13-64 years**: The CDC recommends screening all patients and then repeating annually if they are engaged in any ongoing risky behavior associated with HIV infection, including unprotected sex.
- **Patients with risk factors listed below**: The NYC Health Department recommends that the following patients be tested at least every 6 months:
  - Injection-drug users and their sex partners
  - People who exchange sex for money or drugs
  - Sex partners of HIV-infected individuals
  - Men who have sex with men, or heterosexual individuals who have had, or whose sex partners have had, more than one sex partner since their most recent HIV test
- **Patients with tuberculosis**: Test all patients initiating TB treatment. Test annually, unless they are engaged in one of the above risk behaviors.
- **Patients seeking treatment for sexually transmitted infections (STIs)**: Test all patients seeking STI treatment, including those seeking treatment at sexually transmitted diseases (STD) clinics.
- **Patients with symptoms and signs of acute HIV infection:**[a] Test all patients presenting with a recent history of high-risk behavior and flu-like symptoms, including:
  - Fever
  - Malaise
  - Rash
  - Pharyngitis
  - Lymphadenopathy
  - Aseptic meningitis
- **Pregnant patients**: Test as early as possible during pregnancy (ie, initial prenatal panel) *and* repeat screening in the third trimester.[1]

[a]A plasma HIV RNA assay should be used in conjunction with an HIV-1 antibody test when acute HIV infection is suspected.

Based on Branson BM, Handsfield HH, Lampe MA, et al. Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings. *MMWR*. 2006;55(RR-14):1-17. www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm.

Preventing HIV transmission

To prevent HIV transmission, PCPs and other health care professionals should routinely ask about and discourage high-risk behavior, including unprotected sex and needle sharing.

Ask patients about HIV transmission risk factors, introducing the subject in a nonjudgmental way (see Asking HIV-Positive Patients About Transmission box, page 4). Display motivational posters in your waiting area and provide educational material to help HIV-infected individuals reduce risky behavior (eg, pamphlets, posters, and videos) (**Resources—New York State Dept. of Health**).

Modifying risky behaviors

Emphasize the importance of safe sex and demonstrate the proper way to use condoms (**Resources**). Have free male and female condoms in the waiting areas and examination rooms.[10] (Free NYC condoms are available from the Health Department. To obtain them, visit www.nyc.gov/condoms and click on the "WHERE" button, or call 311.)

Remind patients to seek care immediately if a urethral/vaginal discharge or ulcer develops. Tell patients that having an STI increases the risk of transmitting HIV to their sex partners.

Ask about injection drug use[9] (**Resources—Alcohol/Substance Use**). Counsel those who are unable or unwilling to stop injecting substances on safer injection practices and harm reduction (eg, not sharing needles, using sterile syringes, overdose prevention). Remind patients that syringes can be purchased from a pharmacy without a prescription. Emphasize the importance of, and refer patients to, syringe-exchange programs (SEPs)[9] and provide NYC locations of SEPs (**Resources**).

Because alcohol and other drug use can increase risk-taking sexual behavior,[11] screen for substance use by asking a brief series of questions using the NIDA-Modified ASSIST (**Resources—CHI: Improving the Health of People Who Use Drugs**). Refer patients who are unable to stop substance use or problem drinking to substance-use treatment and/or harm reduction programs (syringe exchange, risk-reduction education, support groups). Offer a list of agencies that provide drug treatment services, harm reduction programs, and substance abuse counseling (**Resources—Designated AIDS Centers**).

ASKING HIV-POSITIVE PATIENTS ABOUT TRANSMISSION

Open-ended questions by clinician, for example:

- What are you doing now that might be a risk for transmitting HIV to a partner?
- Tell me about the people you've had sex with recently.
- Tell me about your sex life.

Screening questions:[a]

1. Since your last checkup, have you had sex?
   ❑ Yes ❑ No

   If yes:
   - Have you had vaginal or anal intercourse without a condom? ❑ Yes ❑ No

   If yes:
   - Were any of your partners HIV-negative, or are you unsure about their HIV status?
     ❑ HIV-negative ❑ Status not known
2. Have you had a genital sore or discharge, or anal burning or itching? ❑ Yes ❑ No
3. Have you been diagnosed or treated for a sexually transmitted infection this year?
   ❑ Yes ❑ No
4. Have you shared drug-injection equipment (needles, syringes, cotton) with others?
   ❑ Yes ❑ No
5. Have you shared medication vials with others?
   ❑ Yes ❑ No

   If yes to either question 4 or 5:
   - Were any of these people HIV-negative, or are you unsure?
     ❑ HIV-negative ❑ Status not known
6. Are your sex and/or needle-sharing partners aware of your HIV status?
   ❑ Yes ❑ No

   If no:
   - What are some of the reasons you aren't disclosing your HIV status to others?

[a] If any answers indicate risky behaviors, discuss ways to limit these behaviors.

Adapted from CDC. Revised guidelines for HIV counseling, testing, and referral. *MMWR*. 2001;50(RR-19):1-24.

Partner notification

Discuss partner notification with HIV-infected patients,[12] obtain the names and contact information of sex and needle-sharing partners, screen for domestic violence risk to the patient from each of these partners, and report all known partners to the NYC Health Department.[13]

Offer the patient the following options for partner notification:

- Notification by the patient with the provider calling the partner to verify.
- Joint notification by provider and patient in the clinical setting or another location.
- Anonymous notification by the Health Department's Contact Notification Assistance Program (CNAP).

Providers are required to report known partners to the NYC Health Department by calling CNAP at 212-693-1419 or 311 or by filling out a Provider Report Form. The form is available at www.nyc.gov/html/doh/html/dires/hcpreporting_how.shtml. If outside NYC, call the NYS Department of Health's Partner Notification Assistance Program (PNAP) at 1-800-541-2437.

CNAP can assist providers with partner elicitation and notification. Patients can also call CNAP directly for assistance with anonymous notification of their partners. Patients can also notify their partners about exposure to HIV and STIs using an anonymous online service called inSPOT NYC, www.inspot.org/newyorkcity (**Resources**).

Reinforce partner notification, stress the importance of consistent condom use, and deliver safe-sex behavior messages during all nonacute visits. Emphasize that HIV transmission can occur even when patients have undetectable viral loads.[9]

PRIMARY CARE FOR HIV-INFECTED PATIENTS

Both HIV specialists and PCPs should know how to evaluate HIV-infected patients and should develop a rapport with patients to improve adherence to care and treatment. If necessary, PCPs should consult with an HIV specialist when initiating or changing antiretrovirals and when interpreting resistance tests.[14] To find an HIV specialist, contact a Designated AIDS Center or the American Academy of HIV Medicine (**Resources**).

Medical assessment

Perform a comprehensive medical and psychosocial evaluation during the initial visit. For patients who present for care without documentation of HIV status, perform an HIV test to confirm the diagnosis before beginning any antiviral treatment.[8]

The medical evaluation of an HIV-positive patient should include the following:

- Full history and physical, HIV exposure category, recent viral load and CD4 count (if known to patient), history of opportunistic infections such as thrush or *Pneumocystis jiroveci* pneumonia (formerly known as *Pneumocystis carinii*), history of ART, and adverse drug reactions.
- Testing for resistance to antiviral drugs (genotypic testing) is indicated at baseline, regardless of whether ART will be initiated.[8]
- Tuberculosis history and possible recent exposure; screen for TB annually.
- Screen for hepatitis A, B, and C.
- Review the patient's vaccination history and immunize for hepatitis A and B, Td/Tdap, pneumococcus, and influenza.
- Assess patients' smoking status and promote smoking cessation; cigarette smoking is highly prevalent among HIV-infected individuals.[15]
- Integrate PWP behavior assessment (see Asking HIV-Positive Patients About Transmission box, page 4) into your initial visit. Continue to screen for behavioral risk at all subsequent visits.
- Include a careful inspection of the anogenital area for ulcerative lesions, genital warts, and other STI symptoms (discharge, burning, swollen lymph nodes). Screen for syphilis, chlamydia, and gonorrhea, which may be asymptomatic.
- Refer all HIV-infected women for a Pap test.

Assessing mental health

An HIV diagnosis can adversely impact an individual's mental health: co-occurring mental illnesses are common among HIV-infected patients.[16] Ask about domestic violence (**Resources—Intimate Partner Violence CHI**) and screen for depression using the PHQ-2 (**Resources—Depression CHI**). Be alert to signs of other mental health issues, such as anxiety and posttraumatic stress disorder. Refer patients to mental health providers if these issues need to be addressed further.

Antiretroviral treatment adherence

Medication adherence is crucial in treating HIV/AIDS because poor adherence typically results in:

- Rising HIV-1 RNA viral load and an increased risk of progression to AIDS.
- Increased likelihood of generating drug-resistant strains of HIV.
- Increased risk of infecting others.[17,18]

Adherence to ART of 95% or greater optimizes virologic outcomes.[19] To increase ART adherence support, use pillboxes, phones, or beeper reminders, and educate patients about the importance of adherence. Assess ongoing adherence at each visit (**Resources—Adherence CHI**). Inquire about any barriers to adherence (such as housing, medication side effects, and lack of privacy). If necessary, refer your patients who struggle with adherence to a medication adherence program or a care coordination program at your medical facility or in the community. Many NYC Designated AIDS Centers offer treatment adherence programs that provide adherence support (**Resources**).

For the new Department of Health and Human Services Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents, see http://aidsinfo.nih.gov/contentfiles/AdultandAdolescentGL.pdf.

CARE COORDINATION

The NYC Health Department has launched its Ryan White Care Coordination program. Care coordination provides an expanded form of HIV medical case management, including:

- Ensuring that people living with HIV infection are linked to care in a timely manner.
- Developing a patient-centered care plan that emphasizes continuous adherence to care and antiretroviral treatment.
- Assisting patients in obtaining needed social services, including accompanying patients to appointments if necessary, and maintaining patients in care via coordination of medical and social services.
- Using care coordinators to assist patients with accessing HIV care, communicating with providers, and finding needed resources.[20]
- Providing ongoing health education, including prevention with positives.
- Coaching (a form of active health promotion and counseling) patients to become self-sufficient so that they can manage their medical and social needs autonomously.

For more information on where care coordination services are provided, contact the NYC Health Department's Bureau of HIV/AIDS Prevention and Control Care, Treatment and Housing Program at 212-788-3447.

Source: NYC Department of Health and Mental Hygiene. Bureau of HIV/AIDS Prevention and Control.

HIV case management and care coordination

Patients who need assistance with housing, benefits, insurance status, social support, and legal issues should be referred to HIV case managers. If a case manager is not available on site, refer to a HIV case management program, eg, at a Designated AIDS Center (**Resources**), a Medicaid-funded case management program, or a Ryan White Care Coordination program.

SUMMARY

Testing all individuals for HIV/AIDS and preventing the transmission of HIV/AIDS are public health priorities. Offer HIV testing to all adolescents and adults aged 13 to 64 years. Connect patients who test positive for HIV to HIV primary medical care and verify that they have kept their scheduled appointments. Assess HIV transmission risk at all nonacute encounters, recommend that HIV-positive patients use condoms at every sexual encounter, and counsel HIV-positive patients on safe needle-sharing behavior. Make free condoms available at every visit. Discuss the importance of partner notification and obtain names and contact information of sex and needle-sharing partners. Work to ensure that HIV-positive patients are adhering to their medication regimens. ◆

RESOURCES

- Alcohol/substance use:
  www.hivguidelines.org/clinical-guidelines/hiv-and-substance-use/screening-and-ongoing-assessment-for-substance-use/
- American Academy of HIV Medicine Find a Provider (in New York):
  www.aahivm.org/index.php?option=com_comprofiler&task=usersList&listid=4&action=search
- Centers for Disease Control and Prevention national HIV testing locator:
  www.hivtest.org

  CDC patient educational materials:
  www.cdcnpin.org/scripts/campaign/pic.asp
- Designated AIDS Centers in New York City:
  www.nyc.gov/html/doh/downloads/pdf/csi/hivtestkit-hcp-aidscenters-guide.pdf
- New York City Department of Health and Mental Hygiene:
  City Health Information. Detecting and treating depression in adults:
  www.nyc.gov/html/doh/downloads/pdf/chi/chi26-9.pdf

  City Health Information. Intimate partner violence: encouraging disclosure and referral in the primary care setting:
  www.nyc.gov/html/doh/downloads/pdf/chi/chi27-suppl2.pdf

  City Health Information. Improving the health of people who use drugs:
  www.nyc.gov/html/doh/downloads/pdf/chi/chi28-3.pdf

  City Health Information. Improving medication adherence:
  www.nyc.gov/html/doh/downloads/pdf/chi/chi28-suppl4.pdf

  NYC condom distribution site:
  www.nyc.gov/html/doh/html/condoms/condoms.shtml

  NYC VacScene:
  www.nyc.gov/html/doh/downloads/pdf/imm/NYC-VacScene-2009-Schedules.pdf
- New York State Department of Health

  HIV/AIDS patient educational materials:
  www.health.state.ny.us/diseases/aids/docs/consumer_order.pdf

  HIV Consent and Authorization Forms:
  www.health.state.ny.us/diseases/aids/forms/informedconsent.htm

  Medical Provider HIV/AIDS Partner Report Form:
  212-442-3388
- Partner Notification Programs
  Internet Sexuality Information Services inSPOT Web site:
  www.inspot.org/newyorkcity

  New York City Department of Health and Mental Hygiene Contact Notification Assistance Program:
  212-693-1419
  www.nyc.gov/html/doh/html/std/std3.shtml

  New York State Department of Health Partner Notification Assistance Program:
  1-800-541-2437
  www.health.state.ny.us/diseases/aids/docs/9300.pdf
- Primary care guidelines for the management of persons infected with human immunodeficiency virus: 2009 update by the HIV Medicine Association of the Infectious Diseases Society of America. *Clin Infect Dis*. 2009;49(5):651-681.
  www.journals.uchicago.edu/doi/full/10.1086/605292
- Syringe Exchange Programs (SEPs) in New York City:
  www.nyc.gov/html/doh/downloads/pdf/basas/syringe_exchange.pdf

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