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# LEARN TO RECOGNIZE ACUTE HIV INFECTION

**AS MANY AS 90%** OF PATIENTS WILL EXPERIENCE VIRAL SYMPTOMS ASSOCIATED WITH ACUTE HIV INFECTION WITHIN 1 TO 4 WEEKS OF EXPOSURE TO HIV.

IDENTIFYING INDIVIDUALS DURING ACUTE HIV INFECTION IS A WORTHWHILE PUBLIC HEALTH GOAL.

A patient with substantial risk for exposure to HIV within the last 72 hours (regardless of the presence of symptoms) should be considered for postexposure prophylaxis (PEP).

The presence of symptoms associated with acute HIV infection should be used in combination with an evaluation of potential risk of exposure to HIV to determine whether diagnostic laboratory testing is warranted.

Recommendations for PEP are listed in the Helpful Resources section

## SYMPTOMS<<<

Symptoms most strongly associated with acute HIV infection

- FEVER
- ARTHRALGIA
- MYALGIA
- PHARYNGITIS
- WEIGHT LOSS*
- RASH
- MALAISE
- ORAL ULCERS*
- NIGHT SWEATS

*Weight loss (>2.5kg) & oral ulcers are the most specific symptoms

## RISK<<<<<<<

### HIGH-RISK BEHAVIORS

unprotected receptive anal intercourse
sharing of injection drug equipment

### MEDIUM-RISK BEHAVIORS

unprotected vaginal intercourse
unprotected insertive anal intercourse

### LOW-RISK BEHAVIORS

receptive oral intercourse with a male partner

Other factors such as the serostatus of the partner also can be used to predict exposure to HIV.

## To help determine potential exposure to HIV infection, use open- and closed-ended questions such as these:

### OPEN-ENDED QUESTIONS

- What do you know about HIV transmission?
- Tell me about any sexual activity in the last month.
  - Have you had sex with a main partner?
  - What about occasional or casual sex partners?
- What do you know about the HIV status of each sex partner?
- Tell me about condom use during any sexual activity.
- Tell me about any drug use or needle sharing since your last clinic visit.

### CLOSED-ENDED QUESTIONS

- Have you had sex (vaginal, anal, or oral) with anyone in the last month?
- For each of your partners, do you know if he/she has HIV infection, doesn't have HIV infection, or are you not sure?
- Were there any times in the past month when you (or your partner) did not use a condom the whole time you had sex (including before ejaculation)?
- Have you injected drugs in the last 6 weeks?
  - If so, have you shared drug injection equipment (including needle, syringe, cotton, cooker, water) with anyone?

TEAR OFF AND POST PAGE 1.
KEEP PAGE 2 AS A REFERENCE.

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## CLINICAL RECOMMENDATIONS

### If symptoms and risk warrant diagnostic laboratory tests, obtain HIV antibody test and HIV-PCR.

NOTE: Recent influenza vaccination may produce antibody positive and indeterminate Western Blot. Confirm with PCR.

CLINICIANS SHOULD BE SUSPICIOUS OF ACUTE HIV INFECTION WHEN THE PATIENT REPORTS CHARACTERISTIC SYMPTOMS AND HAS HAD POTENTIAL EXPOSURE TO HIV WITHIN THE LAST 1 TO 6 WEEKS.

### If antibody negative, indeterminate, or with 3 or fewer bands positive on Western blot and PCR positive:

Manage as acute HIV infection.

- Counsel patient (see below)
- Refer patient to experienced HIV provider immediately.

**Explain to patient that this is very early HIV infection.**

- Explain that patient may be highly infectious
- Explain ways to reduce risk of HIV transmission to sex and IDU partners; offer (or refer to) HIV prevention counseling
- Help patient notify recent sex or IDU partners or refer to local health department for assistance with partner notification
- Refer to experienced HIV provider for care immediately

### If antibody and PCR are positive:

Manage as established HIV infection.

- Refer patient to an experienced HIV provider.

NOTE: Seroconversion on current antibody tests typically occurs within 1-4 weeks of the onset of acute HIV symptoms.

**Talk to the patient about his or her new diagnosis.**

- Explain ways to reduce risk of HIV transmission to sex and IDU partners; offer (or refer to) HIV prevention counseling
- Help patient notify recent sex or IDU partners or refer to local health department for assistance with partner notification
- Refer to experienced HIV provider for care

### If antibody negative and PCR negative:

HIV infection cannot be established.

- Recommend an antibody test again at 3 months.

**Counsel patient about risks and encourage reduction in risky behavior.**

- Offer (or refer to) HIV prevention counseling.

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## INTRODUCTION

Appropriate selection of patients for diagnostic testing to identify acute HIV infection is important. Persons with acute HIV infection are highly infectious. In fact, a recent study found that nearly half of all new infections could be attributed to individuals who transmitted the virus during a period when they were in the early stages of infection. Viral load is generally highest at the time of acute infection, with a second peak occurring in advanced stages of disease. Awareness of HIV infection is likely to reduce transmission risk behaviors substantially. Data suggest that early ARV therapy may provide clinical benefits. Early treatment of acute HIV infection with ART has been associated with at least transient control of viremia.

However, the durability of such control has produced mixed results and needs further study. During acute HIV infection, the virus replicates rapidly without a detectable immune response. Although many individuals with acute HIV infection are ill enough to seek medical care, the diagnosis of acute HIV infection is often missed because of its similarity to other viral illnesses, particularly flu. HIV-specific antibodies are not detectable during this early stage of infection. The diagnosis therefore requires a high degree of clinical suspicion, based on clinical symptoms and risk for exposure.

Current diagnostic testing for acute HIV infection has limitations in specificity and can produce false positive results; these errors can be distressing to the patient and may result in inappropriate treatment, and, finally, diagnostic tests are expensive. New testing approaches using nucleic acid amplification testing (NAT), including those that use pooled plasma, decrease costs and, in some cases, increase specificity. These new approaches are likely to become more widely available soon. Please see "References" below for more information.

## RISK

Symptoms most strongly associated with acute HIV infection are listed on the poster. When combined with information about risk for potential exposure to HIV they can be used to determine whether to proceed with diagnostic tests. Estimates of the frequency with which acutely infected patients experience specific symptoms vary in the literature, depending on study design and methodology. Of these, fever and rash are the most sensitive for acute HIV infection, while weight loss *(> 5 lb or 2.5 kg) and oral ulcers are most specific. A patient with fever or rash with oral ulcers, for example, with recent unprotected vaginal sex would warrant diagnostic laboratory tests while a patient with pharyngitis and malaise with unprotected oral sex generally would not. However, the presence or history of sexually transmitted infections (STI) may warrant diagnostic testing for acute HIV infection based on less risky behavior such as oral sex because the presence of an STI increases the chance of HIV transmission several-fold, and a history of STIs suggests a pattern of risky behavior that puts the patient at risk for HIV infection.

## HELPFUL RESOURCES

**Acute Infection and Early Detection Resource Program**
http://www.aiedrp.org

**AIEDRP Clinical Sites**
http://www.aiedrp.org/indexPub.asp

**National HIV Clinicians' Consultation Center**
http://www.ucsf.edu/hivcntr
1-800-933-3413

**"How to Tell Patients They Have (or Do Not Have) HIV" from the HIV InSite Knowledge Base**
http://hivinsite.ucsf.edu/InSite?page=kb-03-01-03

**Guidelines for the Use of Antiretroviral Agents in HIV-Infected Adults and Adolescent**
http://aidsinfo.nih.gov

**Management of Possible Sexual, Injecting-Drug-Use, or Other Nonoccupational Exposure to HIV, Including Considerations Related to Antiretroviral Therapy**
http://aidsinfo.nih.gov

**PEPline**
1-888-HIV-4991

**AIDSInfo**
1-800-HIV-0440

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