

Acute HIV Infection – An Opportunity to Enhance Primary Prevention

Some experts consider acute HIV infection a public health emergency. Persons with acute infection are highly infectious and may cause large numbers of new infections.

The acute phase occurs directly after transmission of HIV. The length of the acute phase varies among individuals, but lasts on average 2 months.

Biological Characteristics of Acute HIV

Persons newly infected with HIV have high viral titers in the blood and viral shedding in the genital tract. The acute phase may be associated with higher transmission rates, per exposure, when compared with later phases of HIV.

During the acute phase:

- HIV viral levels can rise from zero to millions of copies.
- The immune system has not begun to control the virus (no antibodies).
- Individuals are “biologically hyper-infectious.”
- Sex during acute infection is 8-10 times more likely to result in transmission than during the chronic phase of HIV.

Estimates indicate that up to half of all HIV transmissions may stem from contact with individuals who are acutely infected, highly infectious and unaware of their disease status

Social Characteristics of Acute HIV

The social networks of acutely infected persons may increase the probability of exposures during the short but highly infectious acute phase.

- Newly infected persons, who have yet to change behavior, are more likely to repeat high risk behavior during the acute phase of disease.
- Acutely infected persons are more likely to be connected to high risk networks, whose members also exhibit high risk behavior.

These characteristics can increase the probability of exposure during the short, but highly infectious phase of the disease.

Acutely infected individuals are unique.

Acutely infected individuals represent an opportunity in HIV prevention.

- They represent susceptible populations given that they were recently infected.
- They represent populations in which transmissions are actively occurring.

By understanding who acutely infected persons are and where they meet partners, public health officials can tailor HIV prevention programs to meet the current needs of their communities.

An acute phase approach to prevention

A limited number of state and local public health agencies are incorporating acute HIV screening into existing HIV testing programs.

Screening for acute HIV in these agencies enables the identification of actively occurring transmissions and assisting state and local public health agencies in:

- Identifying recent risk venues (Internet sites/ bars/ clubs, etc)
- Eliciting contact information for recent sex partners in the past 30 days
- Informing recent sex partners of possible exposure
- Evaluating partners for current HIV infection

The urgent nature of acute HIV may provide a useful platform for behavior modification programs. State and local public health agencies without the means to screen for acute cases of HIV may want to consider including evidenced-based acute HIV risk information in education and prevention messages.

For further information and a list of references related to the acute phase of HIV and the implications of the acute phase in prevention programs, please refer to the March 2006 ASTHO Issue Report titled, *Acute HIV Infection-An Opportunity to Enhance Primary Prevention*.

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