

primary infection

The first few months after an individual becomes infected with HIV are known as primary HIV infection, or acute HIV infection. When HIV first enters the body the immune system is unprepared to attack it, so HIV can reproduce at very high levels. A viral load test at this stage will usually show extremely high levels of HIV in the blood – often higher than at any other stage of HIV infection.

Levels of HIV in semen, breast milk and vaginal fluids may also be very high. This may mean that the risk of transmitting HIV to other people may also be greatest during primary infection.

It takes several weeks after infection for the body to generate immune cells that can recognize and destroy HIV-infected cells and to produce antibodies against HIV. The time at which antibodies to HIV appear is called seroconversion. When these immune responses against HIV develop, viral load drops to a much lower level known as the set point, which varies from person to person. Infection with HIV is lifelong. Neither the immune system, nor currently available medical care are able to eradicate HIV once it has a person is infected.

Symptoms of primary infection

The high levels of HIV reproduction and immune activation can cause a range of symptoms, which can be very similar to the flu or other common viral illnesses. These symptoms are sometimes called seroconversion illness, or acute retroviral syndrome, and usually only last for one or two weeks.

The symptoms may include fever, rash, swollen glands, sore throat, mouth or throat ulcers, and aching muscles or joints. At least 50% of newly infected people are thought to experience some such symptoms, and the true figure may be higher. Many people do not experience symptoms at seroconversion and it is not possible to diagnose HIV infection without an HIV test. Several studies suggest that the more serious and prolonged the symptoms an individual experiences during primary infection, the faster he or she is likely to develop AIDS.

Treating primary infection

Many doctors are now interested in offering a relatively short-course (three months) of three or four antiretroviral drugs to people who have recently contracted HIV as a means of limiting the spread of HIV in the body and strengthening the immune system's response to HIV. Clinical trials have shown that treatment during primary infection results in significantly lower viral load and less viral infection in the lymphoid tissue. Treatment during primary infection also appears to reverse the drop in CD4 count which is often experienced at this time. However, it is not known how this will affect people's long-term prognosis.

There is some encouraging evidence that early treatment may alter and improve the body's immune response to HIV. Research has found that treatment during primary infection, particularly if given as soon as possible after seroconversion and at most within six months, can protect and sustain the immune cells which the body creates to fight HIV which are usually infected by the virus and lost. Other research suggests that the CD4 counts of people who have received treatment in primary infection are significantly greater after a year than those who have not.

During primary infection the large amounts of HIV present in the blood and genital fluids mean that the risk of transmission is higher than later in the course of infection. Early treatment has the potential to reduce this first peak of viral load and the risk of passing on HIV.

However, studies of treatment in primary infection continue, and there is still no definitive answer about its benefits. Some doctors question if the benefits of early treatment will be sustained in the long-term or even after treatment is withdrawn. In some cases, people have gone on to develop the symptoms of acute HIV disease once early treatment is stopped. Arguments in favour of early treatment need to be set against the risks of long-term side effects of antiretroviral medication. Lipodystrophy, a disturbance in the way the body processes, uses and stores fat, and other metabolic disorders have been seen in people who have taken early treatment. There may be other long-term health effects which are still unknown.

Finding out that you have HIV can be a very distressing, upsetting and confusing time. It may be that you have enough issues to cope with in the first few weeks and months following your diagnosis without deciding to take treatments. It is important to be fully committed to taking anti-HIV medication as it has to be taken very rigorously to avoid the emergence of drug resistant virus. Opting for early treatment could increase the chances of developing drug resistance in the short to medium term and therefore the using up of the best available treatment options before symptoms develop.

There are a number of clinical trials looking at the benefits of treating primary infection, with experimental vaccines and/or other immune based treatments as well as antiviral drugs and you may wish to consider joining one. One of the goals of these trials is to find out more about the possibility of effective long-term control of HIV infection without continuing medication.

please photocopy and pass on

copyright © NAM 2006
all rights reserved

NAM publishes a wide range of publications on treatment for HIV

for details write to NAM
Freepost LON 17995
London SW9 6BR

tel
+44 (0) 20 7840 0050
web
www.aidsmap.com