

History of the immune system health and social care essay



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\n[/[toc](#)]\n \nAcute HIV infectionAsymptomatic HIV infectionEarly symptomatic HIV infectionAIDS-(acquired immune deficiency syndrome) is the final stage of HIV infection, which causes severe damage to the immune system. The HIV epidemic remains a major global public health challenge, with more than 34 million people living with HIV worldwide. Since the beginning of the epidemic, more than 60 million people have been infected with the HIV virus and approximately 30 million people have died of AIDS. Facts about HIV by WHO in 2011 report: 34 million people are living with HIV consisting of 3. 3 million children < 15 years and 16. 7 million women. 2. 5 million new infections of HIV in year 20111. 7 million people died of AIDS in 2011Each day almost 7000 new infections of HIV occur and 3950 more people are on anti retroviral therapy. Sub Saharan Africa is worst affected by HIV, 23. 5 million people have HIV infection.

Causes

HIV has been found in saliva, tears, nervous system tissue and spinal fluid, blood, semen (including pre-seminal fluid), vaginal fluid, and breast milk.
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However, only blood, semen, vaginal secretions, and breast milk has been shown to transmit infection to others. The human immunodeficiency virus (HIV) can spread by the following:

- Through sexual contact: including any of oral, vaginal, or anal sex
- Through blood: through blood transfusions, or needle sharing
- From mother to child: a pregnant woman can pass on the virus to her fetus through connected blood circulation, or a nursing mother can pass it to her baby through her breast milk

Rare ways the virus may be spread include:

- Accidental needle injury
- Artificial insemination with infected semen
- Organ transplantation with infected organs

It is mandatory for blood banks and organ donor programs to screen donors, blood, and tissues thoroughly for preventing the risk of infection. It is impossible to transmit HIV in blood or organ donor as they are not in direct contact with receiver. HIV infection is NOT spread by:

- Casual contact such as hugging
- Mosquitoes
- Participation in sports
- Touching items that were in contact with a infected person

People at highest risk for getting HIV include:

- Drug users who share needles
- Infants born to mothers with HIV who didn't receive HIV therapy during pregnancy
- People who have unprotected sex, especially with those who have other high-risk behaviors/ activities such as injection drug use or anal sex , those are HIV-positive, or those who have AIDS

Symptoms

People who become infected with HIV may not have any symptoms for up to 10 years, but they can still pass the infection to others. After infection with the virus, it can take up to 3 months for a blood test to recognize infection of HIV. Symptoms related to HIV are usually due to a different infection in the body. Some symptoms related to HIV infection include:

Diarrhea Fatigue Fever Frequent vaginal yeast infections Headache Mouth sores, including yeast infection (thrush) Muscle stiffness or aching Rashes of different types, including seborrheic dermatitis and psoriasis Sore throat Swollen lymph glands Many people have no symptoms when they are diagnosed with HIV.

Exams and Tests

The HIV ELISA and HIV Western blot tests detect antibodies against HIV virus in the blood. Both tests must be positive to confirm an HIV infection. If the test is negative (no antibodies found) and person have risk factors for HIV infection, he should be tested again in 3 months. If the HIV ELISA and HIV Western blot tests are positive, other blood tests can be done to determine quantity of HIV infection. A complete blood count (CBC) and white blood cell differential may also show abnormalities. A lower-than-normal CD4 cell count may be a sign that the virus is damaging patient's immune system.

Treatment

Doctors usually recommend medicine for patients who are committed to taking all their medications and have a CD4 count below 500 cells/mm³ (which is a sign that of a weakened immune system). Some people, including pregnant women and people with kidney or neurological problems related to HIV, may need treatment regardless of their CD4 count. Antiretroviral therapy suppresses the replication of the HIV virus in the body. A combination of several antiretroviral drugs, called highly active antiretroviral therapy (HAART), has been very effective in reducing the number of HIV particles in the bloodstream. This is measured by the viral load - free virus present in blood. Preventing the virus from replicating can <https://assignbuster.com/history-of-the-immune-system-health-and-social-care-essay/>

improve T-cell counts and help the immune system recover from the HIV infection. It is extremely important for people with HIV to take all doses of their medications; otherwise the virus may become resistant to the drugs. Therapy always involves a combination of antiviral drugs. Pregnant women with HIV infection are treated to reduce the chance of transmitting HIV to their babies.

Prognosis

HIV is a chronic medical condition that can be treated, but not yet cured. There are effective ways to prevent complications and delay progression to AIDS. Almost all people infected with HIV can develop AIDS if not treated. However, there is a small group of people who develop AIDS very slowly, or never at all. These patients are called long-term nonprogressors.

Possible Complications

Cancers
Chronic weight loss from HIV infection
HIV dementia
HIV lipodystrophy
Opportunistic infections
Bacillary angiomatosis
Candidiasis
Cytomegalovirus infection
Cryptococcal infection
Cryptosporidium enterocolitis (or other protozoal infections)
Mycobacterium avium complex (MAC) infection
Pneumocystis jiroveci pneumonia (previously called Pneumocystis carinii pneumonia or PCP)
Salmonella infection in the bloodstream
Toxoplasmosis
Tuberculosis (in the lungs or spread throughout the body)
Viral infection of the brain (progressive multifocal leukoencephalopathy)

Prevention

Avoid sharing needles or syringes. Always use new needles. Avoid oral, vaginal, or anal contact with semen from HIV-infected people. Always use condoms if sex partner has multiple sex partners, if his sexual practice is unsafe or unknown, if he injects drugs through injections. Avoid unprotected anal intercourse, as it causes small tears in the rectal tissues. From these tears infected partner's semen containing HIV may enter directly into the other partner's blood. People with AIDS or who have had positive HIV antibody tests can pass the disease on to others. They should not donate blood, plasma, body organs, or sperm. They should not exchange genital fluids during sexual activity.