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HIV Surveillance and Protection from HIV

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HIV Surveillance

By focusing at the maximum probable mode of exposure, HIV/AIDS surveillance systems have historically been in large part effective at describing how HIV is acquired in the United States. However, this evaluation demonstrates that using the modern-day Center for Disease Control and Prevention (CDC) hazard hierarchy can be insufficient to explain latest developments in HIV acquisition with the aid of using women, who preserve to make up a greater range and percentage of recent cases of HIV infection and AIDS both in Michigan and nationally [1]. The authors endorse modifications to the cutting-edge hazard hierarchy to increase the accuracy of describing HIV acquisition: (1) a dual injecting drug users/heterosexual category; and (2) a presumed heterosexual category. They additionally suggest that presently accrued statistics be greater very well analysed to higher describe next transmission from HIV inflamed guys to their uninfected woman sex partners [2].

How are you able to get HIV?

HIV is located in the following bodily fluids of a person living with the virus:

- Blood
- Semen and pre-seminal fluid ('pre-cum')
- Rectal fluids/anal mucous
- Vaginal fluids
- Breast milk

For you to get HIV, those bodily fluids need to get into your blood through a mucous membrane (for example, the lining of the vagina, rectum, or the opening of the penis), via shared injecting equipment, or through broken skin (including cuts or sores in the mouth or tears around the anus) [3].

There isn't sufficient HIV virus in other bodily fluids, like saliva, sweat or urine, to transmit it from one person to another.

Someone living with HIV, who has an 'undetectable' viral load, which means effective treatment has lowered the amount of virus in their blood to levels wherein it cannot be detected with the aid of using a normal blood test, can't pass on HIV.

A person living with HIV with a detectable viral load can pass the virus to others whether or not they've symptoms or not [4].

HIV is most infectious in the first few weeks after infection. At this time many people are unaware of their status.

How do I protect myself from HIV?

There are some of approaches you could protect yourself from HIV, including:

- Using a condom whenever you've got vaginal, anal or oral intercourse
- In a few countries PrEP is available. This is a course of HIV drugs which if taken continually as recommended with the aid of using your healthcare professional prevents HIV contamination through sex
- Avoiding sharing needles, syringes and other injecting equipment
- Taking HIV treatment in case you are a new or expectant mother living with HIV, as this could dramatically lessen the hazard of passing HIV on your baby during pregnancy, childbirth and breastfeeding [5]
- Asking your healthcare professional if the blood product you're receiving (blood transfusion, organ or tissue transplant) has been examined for HIV
- Taking precautions in case you are a healthcare worker, consisting of wearing protection (like gloves and goggles), washing arms after touch with blood and other bodily fluids, and safely disposing of sharp equipment
- If you observed you have been exposed to HIV you will be capable of access PEP, a 4-week course of ARV capsules taken after possible HIV exposure to prevent HIV infection. You have to start PEP inside 72 hours of possible exposure to be effective [6].

Diagnosis

HIV/AIDS is diagnosed via laboratory testing and then staged based on the presence of certain signs or symptoms [7]. HIV screening is recommended by the United States Preventive Services Task Force for all people 15 years to 65 years of age, including all pregnant women. Additionally, testing is recommended for those at high risk, which includes anyone diagnosed with a sexually transmitted illness. In many areas of the world, a third of HIV carriers only discover they are infected at an advanced stage of the disease when AIDS or severe immunodeficiency has become apparent [8].

HIV testing

Most people infected with HIV develop specific antibodies (i.e. seroconvert) within three to twelve weeks after the initial infection. Diagnosis of primary HIV before seroconversion is done by measuring HIV-RNA or p24 antigen. Positive results obtained by antibody or PCR testing are confirmed either by a different antibody or by PCR [9].

Antibody tests in children younger than 18 months are typically

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inaccurate, due to the continued presence of maternal antibodies. Thus HIV infection can only be diagnosed by PCR testing for HIV RNA or DNA, or via testing for the p24 antigen. Much of the world lacks access to reliable PCR testing, and people in many places simply wait until either symptoms develop or the child is old enough for accurate antibody testing. In sub-Saharan Africa between 2007 and 2009, between 30% and 70% of the population were aware of their HIV status. In 2009, between 3.6% and 42% of men and women in sub-Saharan countries were tested; this represented a significant increase compared to previous years [10].

References

1. Vogel M, Schwarze-Zander C, Wasmuth JC, Spengler U, Sauer Bruch T et al., (2010). The treatment of patients with HIV. Dtsch Ärztebl Int 107(28-29): 507.
2. Evian C (2006) Primary HIV/AIDS care: a practical guide for primary health care personnel in a clinical and supportive setting. Jacana Media.
3. Hicks CB, MD (2001). Jacques WAJ Reeder's & Philip Charles Goodman, ed. Radiology of AIDS 19.
4. Tom E (2011) Lecture Notes Medical Microbiology and Infection.
5. Blankson J (2010) Control of HIV-1 replication in elite suppressors. Discovery med 9(46): 261-266.
6. Walker BD (2007) Elite control of HIV Infection: implications for vaccines and treatment. Topics in HIV medicine: a publication of the International AIDS Society, USA 15(4): 134-136.
7. Holmes CB, Losina E, Walensky RP, Yazdanpanah Y, Freedberg KA (2003) Review of human immunodeficiency virus type 1-related opportunistic infections in sub-Saharan Africa. Clin Infect Dis 36(5): 652-662.
8. Chu C, Selwyn PA (2011) Complications of HIV infection: a systems-based approach. Am Fam Physician 83(4): 395-406.
9. Mandell, Bennett, Dolan (2010) Chapter 169.
10. Mittal R, Rath S, Vemuganti GK (2013) Ocular surface squamous neoplasia–Review of etio-pathogenesis and an update on clinico-pathological diagnosis. Saudi J Ophthalmol 27(3): 177-186.