**Human Immunodeficiency Virus Disease**

**Abstract**

This paper involves choosing and discussing a global health issue that in this case is the Human Immunodeficiency Virus disease (HIV). The virus attacks immune system mainly CD4 (T) cells which aid the body in fighting infections. Statistics show that more than 1.1 million Americans are living with HIV but one in seven does not know their status. The discussion reveals that there were 37,600 new cases of HIV infection in 2014 and 39,782 in 2016. And globally, by end 2016, almost 36.7 million people were HIV positive with 2.1 million of them being children. Data from WHO shows that there have been 70 million infections since the epidemic began and close to 35 million people have died due to the virus. The discussion is divided into: introduction covering HIV prevalence in the U.S. and globally, contributing factors, prevention strategies, signs and symptoms, diagnostic tests, advanced practice nursing role and management strategies, medical/pharmacological management, follow-up care and conclusion.

**Introduction**

Human Immunodeficiency Virus (HIV) is a virus that attacks the immune system mainly the CD4 (T) cells which aid the body in fighting off infections (CDC, 2018). This weakens the immune system thus making a person more prone to any infectious diseases. There are over 1.1 million Americans who are HIV positive, yet one in seven are unaware they have the virus. It is stated that there were 37,600 new cases of HIV infection in 2014 and 39,782 in 2016 (HIV.gov, 2017). Global statistics show that by the end of 2016, nearly 36.7 million people were living with HIV and 2.1 million of these were children. The WHO (2018) reveals that 70 million people have ever been infected since the epidemic began and close to 35 million have died of the virus.

**Contributing factors**

Lack of anti-retroviral therapy (ART) – drug therapy that foils or inhibits growth of the virus – facilitates the progression of HIV. The rate of development differs from one person to another and is based on a number of factors such as age, genetic inheritance, ability of the body to resist the virus and the existence of other infections (HIV.gov, 2017). Hence the contributing factors to HIV are unprotected sexual intercourse (i.e. vaginal, anal or oral) with an infected party, perinatal transmission (i.e. during pregnancy, delivery or breastfeeding) and blood transfusion (although this factor is very minimal in developed nations due to the presence of careful screening and safeguards).

**Prevention strategies**

Healthcare professionals suggest the following methods as the strategies through which HIV can be prevented:

1. *Refraining from unprotected sex:* Abstaining from unsafe sex reduces the risks of contracting the virus and even other sexually transmitted infections – STIs. People are warned against sharing of sex toys with an infected person; instead they are advised to use protection e.g. condoms in every act of sex (HIV.gov, 2017).
2. *Avoidance of drug injection and sharing of needles:* According to medical experts, people should desist from intravenous drug use and needle sharing (without cleaning) so that they are not exposed to HIV and other viruses like hepatitis C (CDC, 2018).
3. *Pregnancy:* HIV positive mothers should be put on effective treatment plan, since some ARVs could be harmful to the unborn baby, so that the virus is not passed from the mother to the child. Precautions to ensure safety of the baby could be delivering via the cesarean section and putting the child on other alternative feeding methods other than breast milk (HIV.gov, 2017).
4. *Reducing body fluid exposure:* HIV can be prevented by adopting safety measures to lower the dangers of exposure to contaminated blood (HIV.gov, 2017). This implies regular, serious and immediate washing of the hands in case of coming into contact with blood or any bodily fluids. Also, health workers ought to adopt barriers such as masks or gloves in appropriate settings to keep the chances of HIV infection at minimal.
5. *Education:* Teaching people about the dangers of irresponsible sexual behaviors is also another means for preventing the spreading of HIV infection (WHO, 2018).

**Signs and symptoms**

Early signs and symptoms of HIV are joint pains, fever, muscle aches, chills, sore throat, red rashes, sweating especially during the night, tiredness, inflamed glands, inadvertent weight loss, thrush and weakness. Usually, after the first signs fade away comes the asymptomatic HIV, the stage where there are no visible signs for a certain period yet the virus continues progressing and destroying the immune system and other organs. The late-stage HIV infection (mostly known as AIDS and which is a result of lack of treatment in the early phase) is characterized by the following symptoms: dry cough, unclear vision, night sweats, persistent or chronic diarrhea, severe fever, dyspnea (shortness of breath), permanent tiredness, weight loss, white spots in the mouth or tongue and swollen glands (HIV.gov, 2017) and victims could be at danger of developing other life-threatening diseases at this stage.

**Diagnostic tests**

HIV is majorly diagnosed via blood test and if screening reveals the presence of the virus, the test outcome will be positive. It is stated that early detection of HIV is very important as it raises chances of successful treatment of the virus (CDC, 2018). Home testing kits can also be used in detecting the virus. Now, re-testing can always be done severally because the virus can take between three weeks and six months after HIV infecting to show up during testing.

**Advanced practice nursing role and management strategies**

Being infected with HIV is usually distressing, and people develop feelings of anxiety with some even falling into depression. In this case, advanced practice nursing (APN) play very critical roles especially in counseling the victims to keep their hopes alive and educating them on responsible living despite having the virus. Moreover, strategies of managing the virus include: adherence to medication as prescribed for an effective treatment plan; improved general health through regular exercises, healthy eating and staying away from cigarettes; and taking extra precautions to avert any exposure to other infections (CDC, 2018).

**Medical/pharmacological management**

While there is no current cure for HIV or AIDS, timely treatments stop the virus from progressing and victims have a chance for relatively longer and healthier lives. This is because the right vaccine helps in reducing the HIV viral load to undetectable levels and medical experts state that there is no danger of passing the virus onto another person if an individual has no detectable viral load (CDC, 2018). There is also HIV emergency pill (post-exposure prophylaxis - PEP), a medication that is taken immediately a person comes into contact with the virus to stop its infection. PEP should be taken within 72 hours (3 days) and it lasts for 28 days (4 weeks) but virus monitoring continues even after the treatment elapse. The widely known HIV treatment is ARVs (antiretroviral drugs) which fights the virus and lower its rate of spreading in the body.

**Follow-up care**

Since HIV is a long-term condition, people living with the virus are advised to be in constant touch with healthcare workers (WHO, 2018). This is good for regular review of their status and general well-being and learning how to cope up with any form of stigmatization; this is an important aspect which is greatly achieved through the APN role.

**Conclusion**

HIV remains incurable and people should abstain from from irresponsible living such as sexual immoral lifestyles to avoid contracting the virus or transmitting it others. The early detection and treatment of HIV and eating healthily can boost the quality of life, prolong the life expectancy and lower the risk of transmission of the virus.

**References**

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