

Treatments available for hiv aids in modern medicine



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Treatments For HIV/AIDS Among Different Types Of Population

HIV is the disease that had been link to human and it is also known as the disease of the century. According to avert. org, the first case of HIV in human was found in 1959 form a man in the Democratic Republic of Congo.

Evidences shown that it was started in Africa. HIV is a dangerous virus that destroys human immune system which help to prevent illnesses. It is even more dangerous because there is no cure or vaccines available for this fatal disease. Once someone is infected by this disease, it is almost impossible to return to who they were before and they will get weaker and easy to catch sickness since their immune systems are weakened. People can die from HIV virus if left untreated but there are treatments out there that is proven effective in treating HIV and AIDS. There are many ways that the disease can be transmitted form one person to another. Unfortunately, the number of cases caught with HIV disease This paper explores the facts of this disease such as what are HIV and AIDS, origin, ways to expose, and treatments available for different types of population in society in North America.

What Is HIV? What is AIS?

HIV is also known as Human Immunodeficiency Virus. It is a deadly virus because it attacks the immune system which help prevent illnesses and give the bodies the abilities to fight back against other diseases. There is misunderstanding that people tend to think HIV and AIDS are the same because they go together. But HIV and AIDS are actually different from each other. Based on the above definition, HIV is the virus. According to avert. org, AIDS in order words which is Acquired Immune Deficiency Syndrome and

also known as the advanced HIV infection or late stage HIV. It is a set of symptoms caused by HIV virus. It is the last stage of HIV and when the infection is advanced, death can occur if left unthreatened.

According to HIV. gov, millions people are living with HIV in the Unites States, but 15% percent of the number which mean every 1 out of 7 people are unaware that they are infected with the virus. Based on the data recorded in 2016, an estimation of 38, 700 Americans is become newly infected with HIV virus. This mean that the number of case that is infected with HIV increase everyday due to many activities and factor that can contribute to the infection. Based on CDC. gov, in 2017, roughly 21% of the new HIV diagnoses in the United States are youth from age 13 to 24. In the age group of 13 to 24, about 87% are young men and 13% are young women which mean the number of HIV infection is likely more in young male compare to young women. In 2016, an estimation of 17% of new diagnoses are people from age 50 and older. In the population of people 50 years and older, 42% are African American, 37% White American, 18% Hispanic/ Latinos and 4% for the other races.

How Do Someone Contract HIV Virus?

HIV is an unusual virus because it isn't contagious in which it cannot be contract easily from one person to another. HIV is only contracted through specific activities and the most common that most cases that got transmitted are through sexual behaviors, syringe or needle sharing. There are certain body fluids that contribute to the spread of HIV virus such as semen, blood, vaginal fluids, rectum fluids, breast milk, pre-cum, semen...

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These body fluids must come in contact with damage tissues such as a tear or mucous membrane to infect HIV viruses. It is usually injected through the bloodstream for the spread to happen. Mucous membranes are usually found in mouth, vagina, penis. HIV are mainly spread in the United States by having sexual intercourse (anal or vaginal sex) without using a condom or HIV prevention medications such as PrEP or TasP. When having sexual behaviors without using

protection, a person is at risk of infecting HIV virus. HIV can be transmitted through syringe or needle sharing because it comes to blood contact and that is when it is the easiest route

for HIV virus to travel into one's bloodstream and start developing signs and symptoms of the immune system being impacted. HIV virus is not easy to be transmit but once it had developed then it became a dangerous disease with no medication that can get rid it. If left untreated it will soon lead to AIDS.

What are the symptoms?

Based on Mayo Clinic, in the first few week of the HIV virus infection, one may have some flu like symptoms such as cold, sore throat, fever, and fatigue may occur. The disease sometimes doesn't show any signs until it progressed to the AIDS which is the last stage and a person may have signs of weight loss, fatigue, recurrent infections, night sweat, ... During the HIV infection, the person may experience extreme fatigue, pain in abdomen, dry cough, and find it hard to swallow, diarrhea, vomiting, ... The latter stage of the HIV infection usually has signs such as skin rashes, swollen glands, bleeding in anus, vagina...It is hard to know if one is infected with HIV virus <https://assignbuster.com/treatments-available-for-hiv-aids-in-modern-medicine/>

because there are no definite specific signs or physical abnormal that confirm one's infection status. The best way to fight against the virus is know the status by going through blood testing. HIV is commonly tested by using blood or saliva. HIV home kit testings are also available. One can use the kit by dropping a drop of blood or saliva and if the test shows positive, one must immediately see a doctor to confirm the status of HIV. There are also testing centers for HIV. Some may have the result at the spot but some take time for the result to come back so make sure if one believes that they are exposed to HIV they must get tested right away to get the result quickly and more accurate. It is important to know the status of HIV to get the treatment as soon as possible. The early stage is usually having a higher risks of spreading. If one is negative to HIV, one can explore prevention ways to keep them protected. It is the most accurate way and help detect disease and prevent spreading because of lack of knowledge about the infection status. HIV doesn't kill someone immediately but it is a silent killer by taking time to kill them by attacking their immune system and let sickness happen to them. That is why everyone should take it seriously by understanding HIV and the risks of it.

Is There A Cure to HIV/ AIDS?

HIV is a silent but extremely dangerous virus that is a fear for mankind since the destructive is massive to a person health and life. Since more and more people are infected by HIV virus these days that is why finding a cure is very important but unfortunately there is no cure for HIV or AIDS because not every disease have a cure. HIV and AIDS seems scarier by the name of it since there is no "going back" to who they used to be. There is no procedure <https://assignbuster.com/treatments-available-for-hiv-aids-in-modern-medicine/>

that ever been proven scientifically that can eliminate HIV virus or reverse the damage that the virus has cause for human immune system. In recent years, there are many new developments of medicine and health which contain advanced treatments and also therapies that help to improve the life of a HIV patient. When we think of HIV or AIDS, we may likely think of death, pain, horrible but more and more people are living with HIV and they may still have a normal life thanks to new and advanced medical treatments available today.

Treatments Available For HIV/ AIDS

Before jumping right into the treatments, a person must go over several tests and those include such as CD4 T Cell Count. According to Mayo Clinic, this test is use to determine the number of white blood cell being destroyed by HIV virus. AIDS which is the late stage of HIV will be transform when the white blood cell count is below 200. Other test such as viral load to determine the number of HIV virus in bloodstream and the higher the virus the more serious or progress of the disease. Some strain of HIV often resists to the medication so drug resistance test is to determine the specific virus. These tests are very important because its confirm the HIV status of a person from their treatments are being introduce with my option for patients. HIV can be a nightmare because there is no 100% cure to this disease, however, there are treatments out there that are available and somehow help fight the disease and reduce the risk of infecting so that person can live a normal and better life. Antiretroviral therapy or also ART is a type of medication which help block the spread of HIV virus in different ways. The medication is now widely used for HIV treatment and can be used <https://assignbuster.com/treatments-available-for-hivaid-in-modern-medicine/>

for everyone even the one with high CD4 count. Mayo Clinic and webmd.com show the medications that are available for HIV patients:

Nucleoside Or Nucleotide Reverse Transcriptase Inhibitors (NRTIs)

Nucleotide reverse transcriptase inhibitors (NRTIs) is an anti-HIV classes that help block the reverse of HIV enzyme and stop the spreading of the disease. Examples such as abacavir (ABC/Ziagen), Didanosine (ddI/ Videx), Stavudine (

Non-nucleotide Reverse Transcriptase Inhibitors (NNRTI)

According to AIDSinfo.com, this treatment is similar to the above. It binds protein and block the reverse of HIV and prevent HIV to replicate.

Protease inhibitors (PIs)

This process inactive the protease which is a type of protein which contribute to the copies of HIV virus. Examples are: Lopinavir + ritonavir (LPV/r), Nelfinavir (NFV/ Viracept), ...

Integrase inhibitors

A protein is called integrase, which the virus uses to insert its genetic material into CD4 T cell, will be disable in the treatment. Examples includes: Dolutegravir (DTG/ Tivicay), Raltegravir (RAL/ Isentress), ...

Fusion Inhibitors

This treatment is different than other treatment since the others have effect on infected cell, this treatment cures the healthy cell first to prevent it from being destroy. Examples are: Enfuvirtide (ENF/ Fuezon), Maraviroc (Selzentry).

According to catie. ca, studies had shown that Antiretroviral therapy (ART) had tremendously successful in treating for HIV patients and relief. But it is the only treatment that is FDA approved and popular for the disease. The modern advance antiretroviral therapy also helps the HIV population expectancy to increase significantly. Based on the information betablog. org provided, from 1996 until 2010, the life expectancy for people living with HIV virus had increase to about 10 more years of life. It also added that for example of a 20-year-old who had been infected with the virus when apply the antiretroviral treatment, the life expectancy increase to 78 years of age which is almost the average lifetime of a normal people in today society. But it is not always the fact that the treatment will always bring

miracle to save the lives of the patients. There are a lot of people who died their first year of starting ART. A study had been conducted based on betablog. com, 2, 106 people had died within the first year of treatment which took up 2% the total participants. Studies showed that the people who started treatments after 2008 will less likely die compare to the ones that started before 2008. It is because of the advance medication and effectiveness had been proven. Emily Land said: " Mortality in the first year of HIV treatment was " strongly influenced" by people starting treatment very late in their HIV infection (who are already severely

immunocompromised)." The mortality rate for second and third year is more <https://assignbuster.com/treatments-available-for-hiv-aids-in-modern-medicine/>

dramatic in declining. Emily Land also added that: “ Improvements in survival during the second and third years of ART are probably caused by increased viral suppression, declining rates of viral failure, and increasing treatment options. People who inject drugs can have a higher mortality rate.”

Overall, everyone should get their treatment as soon as possible after being diagnosed. It is important because the earlier one start the therapy, the higher life expectancy. Antiretroviral therapy is for everyone, go see a medical provider and they will help that person to choose the medicine that is best for them and their budget.

Prevention

“ Disease control priority in developing countries” is a book that mentioned the ways of preventing HIV:

Information, education, communication:

This way is to help educate public by includes facts and education for the uses of condoms through advertising, pamphlets. The more information going to people there will be a change in the number of HIV cases we faced. Educate also inform the public of the risks of HIV and lead humanity to a brighter future. School based sex education is being brought to schools and institutions to guide students from the risks. It is important to know what it is and how it work first in order to prevent it.

Condoms promotions and distribution:

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This intervention indicate that the program will help lower the case of transmitted disease through sexual intercourse and proven their effectiveness. The information that proven to public their effectiveness is very little and social marketing given low cost condoms with high efficiency. Condoms should be more popular and proven for less infected disease such as STI, other cancer and unwanted pregnancies,...

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