

1: The natural history of HIV infection

Today, HIV (human immunodeficiency virus), remains one of the largest pandemics in the world. HIV is the same virus that can lead to AIDS (acquired immunodeficiency syndrome). Researchers found.

This post outlines the historical timeline, the events of its origin and the epidemic status since its discovery till the hopelessness, man still experiences today. Today, there is still no cure in sight. The virus is very evasive. Treatment can only control the virus and prevent further damage. But, the virus will stay in your body throughout life. He gets symptoms only when AIDS develops, which takes years. During those symptomless years, he becomes a danger because he keeps on passing the virus to others, rapidly spreading it. This is what has made the HIV an epidemic. What is its early history? Where did it originate from? And how did it infect man after all these years? All these theories and facts about the virus and the disease are now well founded through expert research and make interesting reading. History The virus originated in Africa – Central Africa to be precise. It spread across the continents of the world, made its entry into the United States and killed its reportedly first victims there in HIV history in the United States It was that year of that five young gay men in Los Angeles, United States, died of pneumonia due to seemingly harmless viruses, which the body normally easily fights off. But, in these cases, the body could not do it and those five young men died. Again that year, more people died of diseases, which the doctors treating them considered harmless. It was also the year when IBM made the first personal computer. An eventful year at that! The death toll rose from these seemingly harmless viruses and the scientists scrambled to find the cause. Such deaths were found to affect homosexual men and drug users and the people of the country of Haiti. On June 5, the U. On June 6, the San Francisco Chronicle covers the same story. Within days, doctors from across the country send reports of similar incidences to the CDC. This disease started rising to alarming proportions and it was in September of , that the CDC first used the word Acquired Immunodeficiency Syndrome AIDS for these confusing diseases, which resulted in deaths. A year after the scientists identified AIDS in to be precise , they discovered the cause: In December, the CDC acknowledged that even heterosexuals could get this disease as there were reports of similar deaths of four heterosexual hemophiliacs. In , AIDS breaks the record to become the leading cause of death worldwide. Where did HIV come from? Today, it is generally accepted that the HIV has its origin in Africa. Scientists, while researching, identified a particular species of chimpanzee in Central Africa as the source of HIV infection in humans. The virus exists in the chimpanzee as a simian immunodeficiency virus SIM. In humans, the virus mutated and got transformed into HIV. HIV historical timeline s: HIV attains epidemic proportions in the United States. More than half of these carriers do not know that they are infected and remain an ignorant and dangerous source of spreading the infection to others. It reduced the death rates by 47 percent. HIV diagnosis history The U. It provided results in 20 minutes with an accuracy of

2: History of HIV/AIDS - HIV/AIDS - www.enganchecubano.com

KEY POINTS: The history of the HIV and AIDS epidemic began in illness, fear and death as the world faced a new and unknown virus. However, scientific advances, such as the development of antiretroviral drugs, have enabled people with access to treatment to live long and healthy lives with HIV.

HIV stands for human immunodeficiency virus. It is the virus that can lead to acquired immunodeficiency syndrome or AIDS if not treated. So once you get HIV, you have it for life. Untreated, HIV reduces the number of CD4 cells T cells in the body, making the person more likely to get other infections or infection-related cancers. These opportunistic infections or cancers take advantage of a very weak immune system and signal that the person has AIDS, the last stage of HIV infection. No effective cure currently exists, but with proper medical care, HIV can be controlled. If it stays undetectable, they can live long, healthy lives and have effectively no risk of transmitting HIV to an HIV-negative partner through sex. Today, someone diagnosed with HIV and treated before the disease is far advanced can live nearly as long as someone who does not have HIV. Where did HIV come from? Scientists identified a type of chimpanzee in Central Africa as the source of HIV infection in humans. They believe that the chimpanzee version of the immunodeficiency virus called simian immunodeficiency virus, or SIV most likely was transmitted to humans and mutated into HIV when humans hunted these chimpanzees for meat and came into contact with their infected blood. Studies show that HIV may have jumped from apes to humans as far back as the late s. Over decades, the virus slowly spread across Africa and later into other parts of the world. We know that the virus has existed in the United States since at least the mid to late s. What are the stages of HIV? Medicine to treat HIV, known as antiretroviral therapy ART , helps people at all stages of the disease if taken as prescribed. Treatment can slow or prevent progression from one stage to the next. Acute HIV infection Within 2 to 4 weeks after infection with HIV, people may experience a flu-like illness, which may last for a few weeks. When people have acute HIV infection, they have a large amount of virus in their blood and are very contagious. If you think you have been exposed to HIV through sex or drug use and you have flu-like symptoms, seek medical care and ask for a test to diagnose acute infection. During this phase, HIV is still active but reproduces at very low levels. People may not have any symptoms or get sick during this time. As this happens, the person may begin to have symptoms as the virus levels increase in the body, and the person moves into Stage 3. People with AIDS have such badly damaged immune systems that they get an increasing number of severe illnesses, called opportunistic illnesses. Without treatment, people with AIDS typically survive about 3 years. Common symptoms of AIDS include chills, fever, sweats, swollen lymph glands, weakness, and weight loss. People with AIDS can have a high viral load and be very infectious. The only way to know for sure whether you have HIV is to get tested. Knowing your status is important because it helps you make healthy decisions to prevent getting or transmitting HIV. Some people may experience a flu-like illness within 2 to 4 weeks after infection Stage 1 HIV infection. But some people may not feel sick during this stage. Flu-like symptoms include fever, chills, rash, night sweats, muscle aches, sore throat, fatigue, swollen lymph nodes, or mouth ulcers. These symptoms can last anywhere from a few days to several weeks. During this time, HIV infection may not show up on an HIV test, but people who have it are highly infectious and can spread the infection to others. Each of these symptoms can be caused by other illnesses. But if you have these symptoms after a potential exposure to HIV, see a health care provider and tell them about your risk. You can also use a home testing kit, available for purchase in most pharmacies and online. Is there a cure for HIV? No effective cure currently exists for HIV. But with proper medical care, HIV can be controlled.

3: HIV Statistics & Resources | The Damien Center

AIDS is caused by a human immunodeficiency virus (HIV), which originated in non-human primates in Central and West Africa. Various sub-groups of the virus acquired human infectivity at different times, the global pandemic had its origins in the emergence of one specific strain - HIV-1 subgroup M - in Léopoldville in the Belgian Congo (now Kinshasa in the Democratic Republic of the Congo).

From through 1980, the average life expectancy for people diagnosed with AIDS was 18 months. The family members, loved ones, and health care professionals who witnessed, died, or survived the early years of the AIDS epidemic in the United States experienced an unimaginable holocaust. Hundreds of young people died each week. It was a time and system that lacked the medical, ethical, technical, and spiritual resources to soften the blow of so many young people dying of so mysterious an illness. Since and as of January 1987, about 1.5 million people have died from AIDS. According to the National Institutes of Health NIH, HIV infections are increasing more rapidly among women, who contract the virus primarily through unprotected sex with an infected male partner. AIDS cases among women increased threefold from 1985 to 1990. Though the rate of HIV infections continues to increase in the United States, the number of AIDS cases has fallen dramatically since 1990, when antiretroviral drugs came onto the market. HIV-related infections and cancers are much less common and much easier to treat with the potent combination antiretroviral therapy. AIDS is the fourth leading cause of death worldwide, the 1st cause of death due to infectious disease, and has surpassed malaria as the 1st killer in Africa. There are more than 25 million people living with HIV. More than 16 million people have died from AIDS. Because of its incredible toll on human life, the United States formally identified AIDS as a threat to world security, expecting it to have catastrophic long-term consequences in sub-Saharan Africa, South Asia, and the former Soviet Union. In 1990, nearly 70 percent of the 5.5 billion people in the world were unaware of HIV and AIDS. Through extensive education efforts, approximately 90 percent of the population has awareness about HIV and AIDS, and many people have adopted safe sex practices. The epidemic is made grimmer by the fact that most Africans cannot afford the antiretroviral drugs that are the cornerstone of AIDS care in the United States and other Western nations. Further, the strict regimen that the drugs demand requires a drastic change in lifestyle that may be difficult for many people. Perhaps even more basic than medicine, many HIV-infected Africans are undernourished and hungry. Getting food to the people may be even more important than providing drugs. HIV began its spread in Asia in the early to mids. With a population of nearly 3 billion, India has more people infected with HIV than any other country in the world; 3.5 million. HIV was first reported in Thailand in the mids and increased dramatically to 1.5 million in 1990; prevention programs have stabilized its prevalence. In Bangladesh, transmission is increasing among injectable drug users and sex workers. The highest rate of HIV infection in Asia is in Cambodia, where the primary mode of transmission is heterosexual contact.

4: Where did HIV come from? | The AIDS Institute

One of the first celebrities to advocate on behalf of people living with HIV and AIDS, Taylor was the founding national chairman of amfAR (American Foundation for AIDS Research), a nonprofit organization that supports AIDS research, HIV prevention, treatment education, and advocates for AIDS-related public policy.

HIV-1 from chimpanzees and gorillas to humans[edit] Scientists generally accept that the known strains or groups of HIV-1 are most closely related to the simian immunodeficiency viruses SIVs endemic in wild ape populations of West Central African forests. Exactly when the zoonosis occurred is not known. Some molecular dating studies suggest that HIV-1 group M had its most recent common ancestor MRCA that is, started to spread in the human population in the early 20th century, probably between and Sample analyses resulted in little data due to the rarity of experimental material. The researchers, however, were able to hypothesize a phylogeny from the gathered data. They were also able to use the molecular clock of a specific strain of HIV to determine the initial date of transmission, which is estimated to be around 1930. They all seem to derive from independent transmissions from sooty mangabeys to humans. Groups C and D have been found in two people from Liberia , groups E and F have been discovered in two people from Sierra Leone , and groups G and H have been detected in two people from the Ivory Coast. These HIV-2 strains are probably dead-end infections , and each of them is most closely related to SIVsmm strains from sooty mangabeys living in the same country where the human infection was found. The resulting exposure to blood or other bodily fluids of the animal can result in SIV infection. Since rural Africans were not keen to pursue agricultural practices in the jungle, they turned to non-domesticated meat as their primary source of protein. This over-exposure to bushmeat and malpractice of butchery increased blood-to-blood contact, which then increased the probability of transmission. A study published in 1996 also discussed that bushmeat in other parts of the world, such as Argentina, may be a possible location for where the disease originated. The primary point of entry, according to researchers, is somewhere in the jungles of Argentina or Brazil. This suggests that the zoonotic transmission of the virus may have happened in this area. However these relationships do not explain more detailed patterns of biogeography, such as why epidemic HIV-2 groups A and B only evolved in the Ivory Coast , which is one of only six countries harboring the sooty mangabey. All of them propose that the simultaneous epidemic emergences of four HIV groups in the late 19th-early 20th century, and the lack of previous known emergences, are explained by new factors that appeared in the relevant African regions in that timeframe. These new factors would have acted either to increase human exposures to SIV, to help it to adapt to the human organism by mutation thus enhancing its between-humans transmissibility , or to cause an initial burst of transmissions crossing an epidemiological threshold, and therefore increasing the probability of continued spread. Sharp , and their colleagues proposed that "[the epidemic emergence of HIV] most likely reflects changes in population structure and behaviour in Africa during the 20th century and perhaps medical interventions that provided the opportunity for rapid human-to-human spread of the virus". A largely masculine labor force was hastily recruited to work in fluvial and sea ports, railways, other infrastructures, and in plantations. This disrupted traditional tribal values and favored casual sexual activity with an increased number of partners. In the nascent cities women felt relatively liberated from rural tribal rules [26] and many remained unmarried or divorced during long periods, [11] [27] this being rare in African traditional societies. Michael Worobey and colleagues observed that the growth of cities probably played a role in the epidemic emergence of HIV, since the phylogenetic dating of the two older strains of HIV-1 groups M and O , suggest that these viruses started to spread soon after the main Central African colonial cities were founded. Several historical sources support the view that bushmeat hunting indeed increased, both because of the necessity to supply workers and because firearms became more widely available. Later research established these theories were mostly correct: HIV-1 groups M and O started to spread in humans in late 19th-early 20th century. This theory was later dubbed "Heart of Darkness" by Jim Moore, [33] alluding to the book of the same title written by Joseph Conrad , the main focus of which is colonial abuses in equatorial Africa. Unsterile injections[edit] In several articles published since 1980, Preston Marx, Philip Alcades, and Ernest Drucker

proposed that HIV emerged because of rapid serial human-to-human transmission of SIV after a bushmeat hunter or handler became SIV-infected through unsafe or unsterile injections. This process favors the accumulation of adaptive mutations more rapidly, therefore increasing the odds that a better adapted viral variant will appear in the host before the immune system suppresses the virus. They argued that a serial passage chain of 3 or 4 transmissions between humans is an unlikely event the probability of transmission after a needle reuse is something between 0. They concluded that trypanosomiasis, leprosy, yaws, and syphilis were responsible for most intravenous injections. Schistosomiasis, tuberculosis, and vaccinations against smallpox represented lower parenteral risks: They suggested that all these parenteral risks caused not only the massive spread of Hepatitis C but also the spread of other pathogens, and the emergence of HIV. These diseases increase the probability of HIV transmission dramatically, from around 0. Each HIV group necessarily crossed to humans between this time and the time when it started to spread the time of the MRCA, because after the MRCA certainly all lineages were already in humans, and before the split with the closest simian strain, the lineage was in a simian. The colonial authorities recruited men to work in railways, fluvial and sea ports, and other infrastructure projects, and most of these men did not bring their wives with them. Then, the highly male-biased sex ratio favoured prostitution, which in its turn caused an explosion of GUD especially syphilis and chancroid. Female genital mutilation[edit] Uli Linke has argued that the practice of female genital mutilation i. Then, they estimated the circumcision frequencies of the Central African cities over time. The reason is that many ethnic groups not performing circumcision by that time gradually adopted it, to imitate other ethnic groups and enhance the social acceptance of their boys colonialism produced massive intermixing between African ethnic groups. This correlation was strong for HIV. The simulations used parameters of sexual transmission obtained from the current HIV literature. The simulations let the parameters city size, proportion of people married, GUD frequency, male circumcision frequency, and transmission parameters vary, and explored several scenarios. Each scenario was run 1, times, to test the probability of SIV generating long chains of sexual transmission. The authors postulated that such long chains of sexual transmission were necessary for the SIV strain to adapt better to humans, becoming an HIV capable of further epidemic emergence. The main result was that genital ulcer frequency was by far the most decisive factor. For the lower GUD levels existing in the same city in the late s see above, they were much less likely. City size was not an important factor. The authors propose that these findings explain the temporal patterns of HIV emergence: Male circumcision had little to moderate effect in their simulations, but, given the geographical correlation found, the authors propose that it could have had an indirect role, either by increasing genital ulcer disease itself it is known that syphilis, chancroid, and several other GUDs have higher incidences in uncircumcised men, or by permitting further spread of the HIV strain, after the first chains of sexual transmission permitted adaptation to the human organism. One of the main advantages of this theory is stressed by the authors: By proposing factors that only appeared in Central and West Africa after the late 19th century, they seek to explain why all HIV groups also started after that. The theories centered on the role of parenteral risks, such as unsterile injections, transfusions, [18] [29] [36] [37] or smallpox vaccinations [29] are accepted as plausible by most scientists of the field. Comparison of the gene sequence of SIV with HIV should, therefore, give us information about the factors necessary to cause disease in humans. History of spread[edit] Main article: David Carr[edit] David Carr was an apprentice printer usually mistakenly referred to as a sailor; Carr had served in the Navy between and from Manchester, England who died August 31, , and was for some time mistakenly reported to have died from AIDS-defining opportunistic infections ADOIs. Following the failure of his immune system, he succumbed to pneumonia. Doctors, baffled by what he had died from, preserved 50 of his tissue samples for inspection. In , the tissues were found to be HIV-positive. However, in , a second test by AIDS researcher David Ho found that the strain of HIV present in the tissues was similar to those found in rather than an earlier strain which would have mutated considerably over the course of 30 years. Robert Rayford[edit] Main article: In researchers at Tulane University School of Medicine detected "a virus closely related or identical to" [49] HIV-1 in his preserved blood and tissues. The doctors who worked on his case at the time suspected he was a prostitute or the victim of sexual abuse, though the patient did not discuss his sexual history with them in detail. Arvid Noe[edit] Main article: The sailor had

first presented symptoms in , eight years after he first spent time in ports along the West African coastline. A gonorrhoea infection during his first African voyage shows he was sexually active at this time. In , retroactive testing of the frozen blood serum indicated that antibodies to a virus related to HIV were present in 50 of the children. The virus eventually entered male gay communities in large United States cities, where a combination of casual, multi-partner sexual activity with individuals reportedly averaging over 11 unprotected sexual partners per year [61] and relatively high transmission rates associated with anal intercourse [62] allowed it to spread explosively enough to finally be noticed. Canadian flight attendant theory[edit] Main article: William Darrow of the Centers for Disease Control. He was incorrectly called "Patient Zero" because at least 40 of the people known to be infected by HIV in had had sex with him, or with someone who had sexual intercourse with him. Homeless people and intravenous drug users in New York[edit] Further information: The people in question had such precarious access to health care that news of their death was never communicated to public health authorities.

AIDS Timeline. The life expectancy of Americans with HIV is higher than ever, almost reaching the life expectancy of the general population -- age

CCR5 antagonists, also known as entry inhibitors integrase strand transfer inhibitors Treatment regimens The U. This combination helps prevent HIV from forming resistance to medications. Resistance means the drug no longer works to treat the virus. Many of the antiretroviral medications are combined with others so that a person with HIV typically takes only one or two pills a day. A healthcare provider will help a person with HIV choose a regimen based on their overall health and personal circumstances. These medications must be taken every day, exactly as prescribed. Blood testing will help determine if the regimen is working to keep the viral load down and the CD4 count up. Side effects and costs Side effects of antiretroviral therapy vary and may include nausea, headache, and dizziness. These symptoms are often temporary and disappear with time. Serious side effects can include swelling of the mouth and tongue and liver or kidney damage. If side effects are severe, the medications can be adjusted. Costs for antiretroviral therapy vary according to geographic location and type of insurance coverage. Some pharmaceutical companies have assistance programs to help lower the cost. Learn more about the drugs used to treat HIV. However, taking certain steps can help prevent the spread of HIV. Safer sex The most common way for HIV to spread is through anal or vaginal sex without a condom. A person concerned about their risk of HIV should: Get tested for HIV. Get tested for other sexually transmitted infections STIs. If they test positive for one, they should get it treated, because having an STI increases the risk of contracting HIV. Limit their sexual partners. They should have one sexual partner with whom they have an exclusive sexual relationship. Take their medications as directed if they have HIV. This lowers the risk of transmitting the virus to their sexual partner. Other prevention methods Other steps to help prevent the spread of HIV include: Avoid sharing needles or other drug paraphernalia. HIV is transmitted through blood and can be contracted by using contaminated materials. A person who has been exposed to HIV should contact their healthcare provider about obtaining post-exposure prophylaxis PEP. It consists of three antiretroviral medications given for 28 days. PEP should be started as soon as possible after exposure, but before 36 to 72 hours have passed. If taken consistently, it can lower the risk of contracting HIV. PrEP is a combination of two drugs available in pill form. Healthcare providers can offer more information on these and other ways to prevent the spread of HIV. Check here for more information on STI prevention. The most important thing is to start antiretroviral treatment as soon as possible. By taking medications exactly as prescribed, people living with HIV can keep their viral load low and their immune system strong. Other ways people living with HIV can improve their health include: Make their health their top priority. Steps to help people living with HIV feel their best include: They could consider seeing a licensed therapist who is experienced in treating people with HIV. Use safer sex practices. Talk to their sexual partner s. And use condoms every time they have vaginal or anal sex. Surround themselves with loved ones. When first telling people about their diagnosis, they can start slow by telling someone who can maintain their confidence. They can join an HIV support group, either in person or online, so they can meet with others who face the same concerns they have. And their healthcare provider can steer them toward a variety of resources in their area. Know the facts In the s, a year-old person with HIV had a year life expectancy. By , a year-old person with HIV could expect to live another 53 years. With proper treatment, many people with HIV can expect a normal or near normal lifespan. Of course, many things affect life expectancy for a person with HIV. CD4 cell count serious HIV-related illnesses, including hepatitis infection drug use access, adherence, and response to treatment other health conditions age Where a person lives also matters. People in the United States and other developed countries may be more likely to have access to antiretroviral therapy. In , about Life expectancy statistics are just general guidelines. People living with HIV should talk to their healthcare provider to learn more about what they can expect. Learn more about life expectancy and long-term outlook with HIV. Is there a vaccine for HIV? Currently, there are no vaccines to prevent or treat HIV. Research and testing on experimental vaccines are ongoing, but none are close to being approved for general use. HIV is a complicated

virus. It mutates changes rapidly and is often able to fend off immune system responses. Only a small number of people who have HIV develop broadly neutralizing antibodies, the kind of antibodies that can fight a range of HIV strains. The experimental vaccine is an updated version of one used in a trial that took place in Thailand. The study involves 5, men and women from South Africa. The results of the study are expected in

6: HIV/AIDS - Wikipedia

HIV and AIDS History and Origin by Dr Sanjiv Khanse | Diseases and Conditions | In just a few decades, HIV (Human Immunodeficiency Virus) is responsible for the largest epidemic in the world piling all those infamous epidemics and pandemics of Influenza, Plague, the Zika virus, Ebola and more.

7: HIV and AIDS Timeline | National Prevention Information Network

The AIDS epidemic was first recognized in the United States in the spring of 1981, the virus that causes AIDS, was not isolated until 1984. From 1981 through 1989, the average life expectancy for people diagnosed with AIDS was 18 months.

8: HIV and AIDS History and Origin | Health Vigil

The history of HIV is filled with triumphs and failures as the world faced what would become the greatest global epidemic of modern times. What began with but a handful of infections grew to a pandemic that today affects over 36 million people worldwide.

9: History of HIV/AIDS - Wikipedia

HIV/AIDS is a relatively newly discovered illness. Other infections like malaria, plague, leprosy, tuberculosis, measles and cholera have affected vast majorities of humanity over centuries. HIV.

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