

## The HIV epidemic is not over

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In recent days I read some papers about HIV and by coincidence and causality I heard at least five more times about HIV as a matter of conversation. In another occasion, my peers and I were discussing random subjects, and someone asked about clinical laboratory procedures, and for some reason we finished discussing about HIV. The particular question was, is there any treatment for people that has contact with a needle used in an HIV patient? My rapid answer was not, but someone else exclaimed "I do not believe you". A reasonable respond, since in science there are not absolute truths and we must always be open to rethink and challenge the veracity of the knowledge. Later the same day, I heard a distinguished professor to mention that he was informed about several HIV patients in the university in a period of just a week, so he was concerned about the disinformation that our society has about the subject, even in an university community with access to a great amount of open information.

To answer the question, I have to say that there are some recommended procedures to follow for people who is in risk of exposure to HIV. These are divided in two groups: pre-exposure prophylaxis, which included the ingest of some drugs mainly antiretrovirals to reduce the risks of infection when a person is exposed to patients with HIV. For example, in couples who have sexual contact these treatments might reduce the risk of contagious. The second group is the post-exposure prophylaxis, this is used to reduce the risk of HIV infection after the contact with HIV patients, fluids or contact with objects like syringes, yet the cases have to be evaluated before recommending initiating the treatment. For example, it can be used for cases of sexual violations, contact with a needle potentially infected during the use of drugs, but must be avoided after 72 hours post contact, or when the risk of infection is low. These methods of prophylaxis are correlated with the reduction of HIV infection on animal trials and some human meta-analyses, but there is paucity of their total effectiveness. Some reasons can be that HIV is still

a taboo in our actual societies, so many data are not reported or recorded, another reason could be that many of the studies are difficult to follow and maintain since they can be long and expensive.

It is clear that the scientific community is worried about the impact that HIV has in the world population, so is frequent to see articles about HIV in the most recognized scientific journals. For example, the article about a second case of a patient cured from HIV recently came to light. This is a significant study that will undoubtedly guide to new treatments, but it is not a current treatment to cure HIV. This second and the first patient as well that claim to be cured of HIV were under a peculiar dangerous procedure. The patients had a type of blood cancer, thus they needed a transplant of hematopoietic stem-cells, but instead of use any healthy donor, the physicians used a donor that have a double mutation of the CCR5 gen that provide resistance to HIV. Although, the first cured patient remains still without signs of the virus infection, it is unclear whether the infection can reappear. Patients, under current medical HIV treatments are able to have a life expectancy even equal as a non-infected person, so does the procedure is really worth it? Should an HIV patient risk his life?...

With contemporary advances in technology and communications, people have become more aware about the social problems and is able to make decisions based in evidence. Nevertheless, it is as well more frequent to see news titles such as "End to Aids in sight as huge study finds drugs stop HIV transmission" or "Scientists made a huge leap towards eliminating HIV after an 8-year drug study found 'effectively zero' risk of transmitting the virus", which I think are used for some people to attract the reader's attention, although I do not think that justify the overinterpretation of an study. We have access to a great amount of information but at the same time we suffer with a lack of capacity to asses between real and fake information, which make us vulnerable to fall out in quackery.

There is an increasing believe that HIV can be cured, or that we have alternatives of treatments that can help us to get rid of the virus. There are not such alternatives, and even the effectiveness of the prophylaxis methods are not totally proved or efficient. So, we have to maintain educating the new generations about it and inform them about the alternatives, causes and consequences of this pandemic that every day takes the life of many people.

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