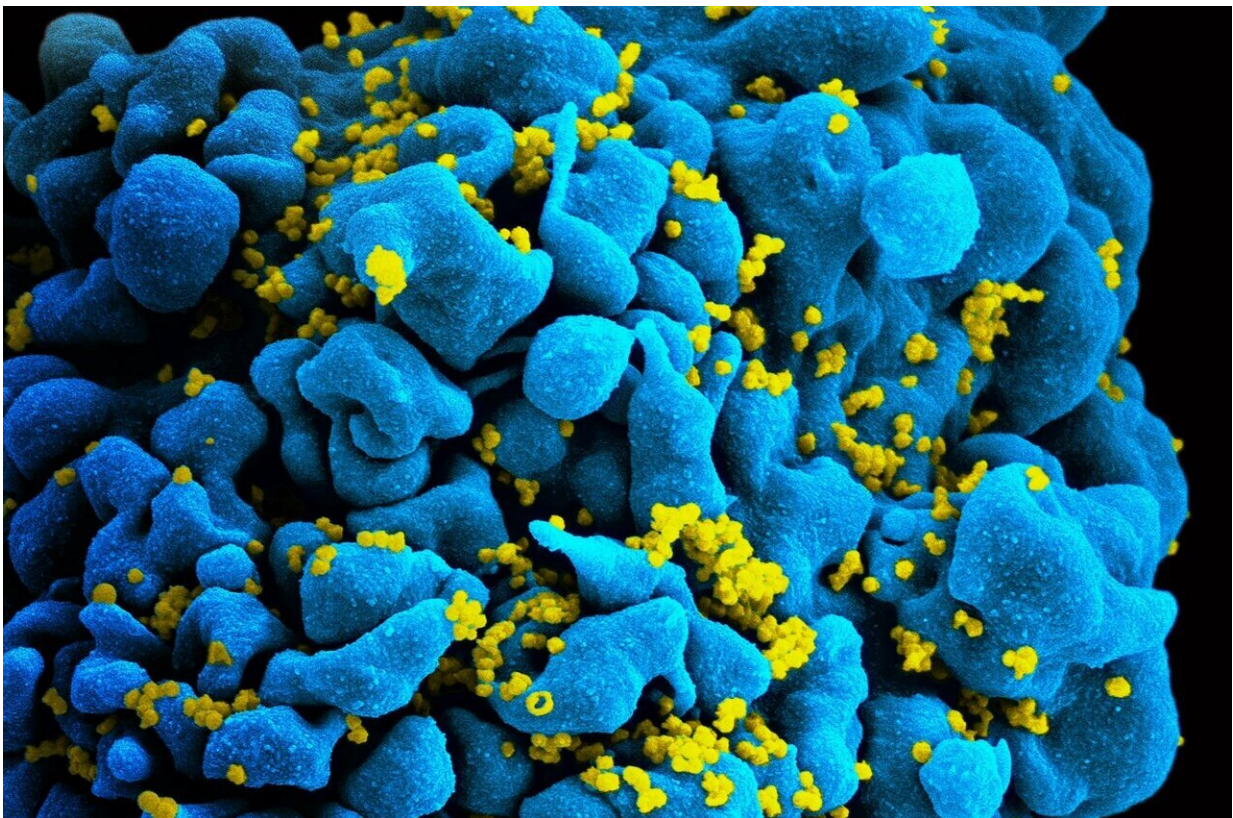


Review of test cases suggests near zero possibility of transmitting HIV when viral loads are low

July 24 2023, by Bob Yirka



Scanning electromicrograph of an HIV-infected T cell. Credit: NIAID

A trio of infectious diseases specialists with Global Health Impact Group, working with a doctor from Switzerland, has found evidence

suggesting that people infected with the HIV virus who have a viral load below 1,000 cpy/mL have a low likelihood of transmitting the disease to a sexual partner.

In their study, reported in *The Lancet*, Laura N. Broyles, Robert Luo, Debi Boeras and Lara Vojnov, analyzed several studies designed to learn more about the likelihood of transmitting HIV to a [sexual partner](#) over a 12-year period. Philip Smith, Linda-Gail Bekker and Ntobeko A B Ntusi have published a Comment piece in the same journal issue describing the impact of the controversial claim by the Swiss National AIDS Commission back in 2008 that HIV patients adhering to standard antiretroviral therapy do not pose a risk of transmission of the disease—they also discuss the work done by the team on this new effort.

During the early days of the HIV/AIDS epidemic, contracting the disease was almost always fatal. Since that time, medical scientists have developed a variety of drugs to treat people with HIV—it is still not curable, but it is survivable. The current treatment is called [antiretroviral therapy](#) (ART) and its goal is to reduce the [viral load](#)—those with a low load experience few to no symptoms.

But questions have remained regarding whether or not they are infectious. In this new effort, the research team analyzed the results of eight studies conducted to determine the level of risk involved for sexually active couples in which one partner is infected and the other is not. The studies were done over the years 2010 to 2022 and involved 7,700 couples living in 25 different countries.

In their analysis, the researchers found that there were 323 instances of infections, though 80% of them involved infected partners with load levels of at least 10,000 cpy/mL. But just two of those instances involved patients with load levels below 1,000 cpy/mL. None occurred where the infected partner had a load level below 200 cpy/mL.

The research team suggests that there is very little risk of transmission by people with loads between 200 and 1,000 cpy/mL and no risk for people below 200 cpy/mL.

More information: Laura N Broyles et al, The risk of sexual transmission of HIV in individuals with low-level HIV viraemia: a systematic review, *The Lancet* (2023). [DOI: 10.1016/S0140-6736\(23\)00877-2](https://doi.org/10.1016/S0140-6736(23)00877-2)

Linda-Gail Bekker et al, HIV is sexually untransmittable when viral load is undetectable, *The Lancet* (2023). [DOI: 10.1016/S0140-6736\(23\)01519-2](https://doi.org/10.1016/S0140-6736(23)01519-2)

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