Starting PrEP Is Tied to 21% Rise in STI Rate in Gay and Bi Australians

Researchers came to this figure after taking into account the men's increased STI testing rate.

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A large group of Australian men was diagnosed with sexually transmitted infections (STIs) at a 21 percent higher rate after starting Truvada (tenofovir disoproxil fumarate/emtricitabine) as pre-exposure prophylaxis (PrEP), aidsmap reports. Researchers came to this figure after taking into account the higher rate of STI testing that the men engaged in after beginning PrEP.

A second U.S.-based study found that men who have sex with men (MSM) engaged in much more condomless sex while taking Truvada for HIV prevention compared with periods when they were off of PrEP.

Out of the 4,275 participants in the PrEPX implementation study in Melbourne, researchers analyzed data on 2,981 individuals who participated through a clinic that conducted enhanced surveillance of the study members.

Findings were presented at the International AIDS Conference in Amsterdam (AIDS 2018).

Ninety-eight percent of the participants included in the analysis were MSM. They had a median age of 34. Forty-eight percent of them reported having condomless sex during the three months prior to enrolling in the study. Twenty-eight percent reported using PrEP before enrolling.

The study members were followed for a bit more than a year. During that time, 48 percent were diagnosed with an STI. Twenty-five percent of the participants were diagnosed with at least two STIs; 76 percent of the diagnoses in the study group as a whole were among these individuals. Thirteen percent of the participants were diagnosed with at least three STIs; 53 percent of the diagnoses in the study were among these individuals.

Overall, the STI diagnosis rate was 91.9 per 100 cumulative years of follow-up, meaning that if 100 of the participants were followed for one year, they would be diagnosed with about 92 STIs among them.

The researchers also analyzed data on 1,378 of the participants who had been receiving services from the same clinic prior to their enrollment in the PrEPX trial.

Among the men who were on PrEP before starting the PrEPX trial, the STI diagnosis rate per 100 cumulative years of follow-up was 92.4 diagnoses before starting the study and 104.1 diagnoses during the study. This difference was not statistically significant, meaning it could have been driven by chance.

As for the men who began PrEP for the first time during the PrEPX trial, their STI diagnosis rate per 100 cumulative years of follow-up increased by 71 percent after starting PrEP, from 55.1 diagnoses before starting the trial to 94.2 diagnoses during the trial. Because these individuals increased their STI testing frequency by 48 percent during the PrEPX trial, the study authors adjusted the data to account for this influence on their STI diagnosis rate. They concluded that starting PrEP was associated with a 21 percent increase in these participants' STI diagnosis rate, a difference that was statistically significant.

The study authors found that factors associated with an increase in STI diagnoses were reporting having more sexual partners and having more frequent group sex. Reported changes in condom use rates were not associated with changes in STI diagnoses.

The U.S.-based study is called One Thousand Strong and is following a group of MSM over time. Unlike many studies that are primarily PrEP-focused (this one was not), this study did not purposefully seek out men at high risk for HIV. The study members are mostly white and affluent.

The study has run three surveys of its participants, one each year after they enrolled. Three percent of the men were taking PrEP upon enrollment (which took place between 2014 and 2015). This figure rose to 8 percent by the first survey (2015 to 2016), 14 percent by the second survey (2016 to 2017) and 21 percent by the third survey (2017 to 2018).

A total of 313 of the 1,071 participants reported using PrEP in at least one of their surveys. Reporting on their sexual behavior during the three months prior to their surveys, the men reported an average of 2.79 condomless sex acts in the surveys when they were not using PrEP, 7.13 such acts in the surveys when they were using PrEP and 2.09 such acts in the surveys after they stopped PrEP. As for reported rates of engaging in receptive condomless sex (being the bottom) with HIV-positive partners, the respective corresponding rates were 0.19, 0.94 and 0.12 such acts for periods before, during and after taking PrEP.

The men had a 7 percent STI diagnosis rate before starting PrEP, a 10 percent diagnosis rate while on PrEP and a 2 percent diagnosis rate after stopping PrEP.

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