



Hormone Treatment Tied to Lower Truvada Level in Trans Women on PrEP

PrEP may be less effective among trans women compared with men who have sex with men.

July 24, 2018 By [Benjamin Ryan](#)

Feminizing hormone treatments appear to lower the body's level of one of the drugs in Truvada (tenofovir disoproxil fumarate/emtricitabine) when the combination antiretroviral tablet is used as pre-exposure prophylaxis (PrEP) against HIV among transgender women. Consequently, PrEP may be less effective among trans women taking such feminizing treatments compared with daily Truvada's estimated greater than 99 percent effectiveness among men who have sex with men (MSM).

Presenting their findings at the International AIDS Conference in Amsterdam (AIDS 2018), researchers from the iFACT study enrolled 20 HIV-negative trans women who had never undergone an orchiectomy (surgical removal of both testicles) and had not taken injectable feminizing hormone treatments for six months prior to the study. Enrollment took place between January and March 2018.

The participants had a median age of 21.5 years.

For the first five weeks of the 15-week study, the participants received feminizing hormone treatment (2 milligrams of estradiol valerate and 25 mg of cyproterone acetate). Next, they received no hormone treatments for weeks five through eight. Then at week eight, they received such treatments once again through the end of the study. The participants also received Truvada as PrEP starting at week three through the study's end. This meant the participants received only hormones for three weeks, hormones and PrEP for the next two weeks, only PrEP for the next three weeks and both hormones and PrEP for the remaining seven weeks.

The investigators conducted in-depth analyses of the participants' estradiol (female hormone) and testosterone (male hormone) levels at weeks three and five of the study to assess any of PrEP's possible effects on feminizing hormone treatments. They also conducted intensive analysis of the levels of tenofovir in the participants at weeks five and eight to assess feminizing hormone treatment's possible effects on PrEP.

Feminizing hormone treatment was associated with a 13 percent lower plasma level of tenofovir compared with taking PrEP without hormones. The study authors concluded that this finding

suggests that such hormone treatments may potentially affect PrEP's efficacy among trans women. Further studies are warranted to determine whether this difference in the level of tenofovir is actually associated with a lower PrEP efficacy.

Truvada did not affect estradiol levels.

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