

**2019 Alert # 15**  
**An “On-Demand” Dosing Schedule for PrEP to Prevent HIV**

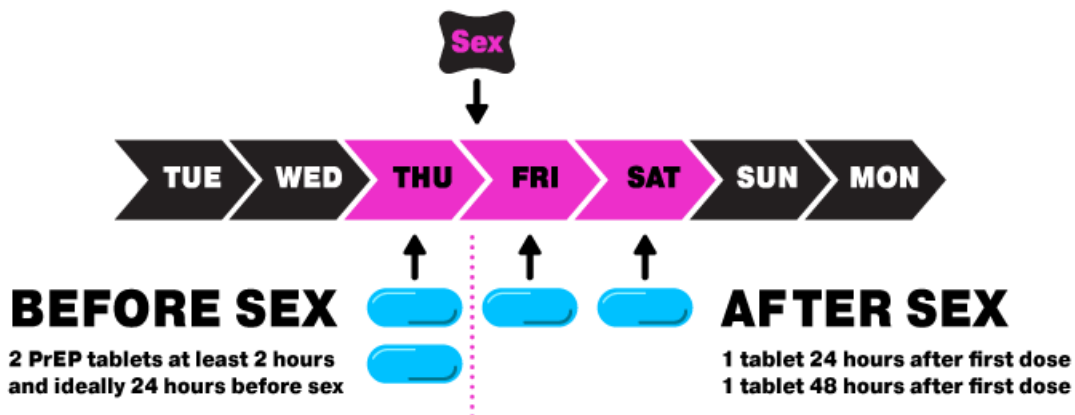
- The New York City Health Department recommends daily pre-exposure prophylaxis (PrEP) as a safe and effective strategy to prevent HIV.
- While daily use is the only approved dosing schedule for PrEP in the United States, robust data support the use of intermittent or “on-demand” PrEP by cisgender gay, bisexual, and other men who have sex with men (MSM).
- This Pride season, [we offer guidance](#) on using PrEP on demand with a “2-1-1” dosing schedule as an off-label alternative for MSM.

June 28, 2019

Dear Colleagues,

In 2012, the U.S. FDA approved the daily use of tenofovir disoproxil fumarate/emtricitabine (Truvada™) as HIV pre-exposure prophylaxis. Some New York City medical providers, supported by clinical studies and guidelines, have begun offering MSM patients the option of using PrEP “on demand” around the time of sexual activity rather than on a daily schedule. This off-label dosing schedule (also known as “2-1-1” or “event-driven” PrEP) can expand PrEP access to patients unable or unwilling to take PrEP every day. **To better inform practice, we offer guidance on this innovative, evidence-based approach.**

**Recommended dosing for “PrEP 2-1-1.”** The International Antiviral Society (USA) [endorses](#) the use of on-demand PrEP for gay, bisexual, and other men who have sex with men, using a “2-1-1” schedule in which individuals take 2 tablets 2 to 24 hours before sex, 1 tablet 24 hours after the first dose, and another tablet 24 hours later. If they have sex again before the end of this 48-hour period, they continue to take PrEP once every 24 hours until 48 hours after their last sexual episode. The next time they anticipate having sex, they should take a new pre-exposure dose of 2 pills – unless they last took PrEP at some point in the prior 7 days, in which case they can initiate on-demand PrEP with a 1-pill loading dose.



If sexual activity continues, take 1 PrEP tablet every 24 hours until 48 hours after last sex. (Adapted from i-Base.info.)

*Figure 1: Dosing schedule for PrEP 2-1-1*

**Evidence of the efficacy of PrEP 2-1-1.** The [IPERGAY](#) randomized placebo-controlled clinical trial found that taking PrEP on a 2-1-1 schedule reduced risk of HIV infection by 86 percent in men who have sex with men; a [sub-study](#) confirmed high efficacy among men with less-active sex lives who took doses of PrEP on demand fewer than 3 times per week on average. A subsequent open-label study mainly among men who have sex with men, [Prévenir](#), documented zero HIV infections over 361 person-years of follow-up. Participation in IPERGAY by men who were the insertive partner in anal sex suggests that 2-1-1 PrEP provides effective protection during receptive *and* insertive anal sex.

**Who can benefit from PrEP 2-1-1.** Taking PrEP on demand has only been studied and endorsed for cisgender men who have sex with men. PrEP 2-1-1 may be indicated for men who experience periods of sexual inactivity; who use condoms during sex in many but not in all situations; who cannot afford daily PrEP; or who otherwise do not want to commit to continuous daily therapy.

**Counseling around daily PrEP versus PrEP 2-1-1.** Counsel patients who are considering PrEP on demand that daily PrEP is preferred but PrEP 2-1-1 also protects against HIV. Patients should know that taking 2 PrEP pills 24 hours before sex provides the best protection, but dosing as little as 2 hours before sex also reduces HIV risk. Encourage patients to take PrEP daily or on demand under a doctor or nurse’s ongoing care, to ensure that the medicine is working correctly and that they do not have undiagnosed HIV or other STIs.

While we celebrate this historic Pride season, we are grateful to providers who are helping to expand access to PrEP – a primary pillar of [local](#) and [national](#) strategies to end the epidemic of HIV. Providing guidance to patients who want to use PrEP on demand – or who are already doing so – can help further reduce barriers to accessing highly effective HIV prevention. [Visit this webpage](#) for further guidance on prescribing PrEP on demand.

Sincerely,



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