

A Lexicon of Intermittent PrEP Possibilities



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The Lexicon



- ONCE-DAILY DOSING
- WEEKLY-BASED DOSING
- EVENT-BASED DOSING
- ROUTINE PLUS EVENT-BASED DOSING
- PERIODIC DOSING

ONCE-DAILY DOSING



- *Tenofovir or Truvada taken orally once daily (as it is current licensed for use as treatment) without regard to the timing of exposure to HIV.*
- Currently, all completed and on-going trials are based upon once-daily dosing strategies.
- Some animal model studies in macaques (a type of primate) and mice have incorporated daily dosing.

WEEKLY-BASED DOSING



- *Tenofovir or Truvada taken orally based on a weekly schedule that might include 1, 2, 3, 4, or 5 doses per week, independent of the timing of exposure to HIV.*
- The optimal strategy for timing the doses is unclear. Undoubtedly, this strategy would attempt to balance cost, adherence, and drug levels, but the optimal balance is not known.
- Small planned pharmacokinetic (PK) studies in seronegative humans and in human tissue-culture models might provide clues to how many weekly doses will provide adequate prophylaxis, if any. Animal model studies have generally followed exposure with a specifically timed post-exposure dose and may not provide relevant information about weekly dosing that is completely independent of exposure.

EVENT-BASED DOSING



- *Tenofovir or Truvada taken orally based on exposure events, whether anticipated or completed (i.e., before sex is anticipated and/or after it happens.)*
- Presumably this strategy would depend upon a single pre-exposure dose and one or more post-exposure doses. Although PrEP use in the community appears to be rare, terms such as “disco dosing” or “Taking a T” probably envision this type of strategy.
- Some experiments in animal models (macaques) provide data relevant to event-based dosing. A “Pocket-PEP” study in Brazil provided data about how well individuals who are at risk can identify or act on significant exposure events by self-administering post-exposure antiretrovirals that are readily available.

ROUTINE PLUS EVENT-BASED DOSING



- *Tenofovir or Truvada taken orally based on a weekly schedule that might include 1, 2, or 3 routine doses, independent of anticipated or completed exposure.*
- *Exposures would be followed by one or more specifically timed post-exposure doses, independent of the routine weekly dose schedule.*
- Small-scale PK studies might be informative. Many animal model experiments have used variably-timed pre-exposure doses with specifically timed post-exposure doses.

PERIODIC DOSING



- *Tenofovir or Truvada taken orally, based on any one or more than one of the dosing strategies above during periods of potential sexual or IV exposures.*
- Disruptions in access to a regular partner or partners, voluntary or involuntary periods of abstinence, carefully planned periods of serosorting, including seroconcordant monogamy, or other life events may effectively reduce or avoid exposure, even among individuals frequently at high risk for exposure to HIV.
- Animal model data may indicate how long before or after exposure prophylactic efficacy is required and may be informative for planning periodic dosing studies.

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