# Pre- and post-sexual exposure prophylaxis of HIV: An update

Sir,

We read with great interest the recent article titled "Pre- and post-sexual exposure prophylaxis of HIV: An update" published in your esteemed journal.<sup>[1]</sup> With reference to it, we would like to comment on the following points:

- The World Health Organization (WHO) in 2016 recommended that oral preexposure prophylaxis (PrEP) containing tenofovir disoproxil fumarate (TDF) should be offered as an additional prevention choice for people at substantial risk of HIV infection as part of combination HIV prevention approaches.<sup>[2]</sup> It was based on 12 trials done on the effectiveness of oral PrEP among serodiscordant couples, heterosexual men, women, men who have sex with men, people who inject drugs, and transgender women
- Defining "substantial risk": Substantial risk of HIV infection is provisionally defined by the WHO as HIV incidence ≥3/100 person-years or higher in the absence of PrEP

- Issue of risk compensation: The authors state that PrEP implementation is highly likely to result in risk compensation, but there is no evidence to indicate that PrEP led to risk compensation in sexual practices, such as decreased condom use or more sexual partners<sup>[3,4]</sup>
- The authors state that time from the initiation of daily oral doses of TDF/FTC to maximal protection against HIV infection is unknown, but a study concluded that PrEP reaches protection after seven doses and full protection may require four doses for anal sex and seven doses for vaginal sex<sup>[5,6]</sup>
- The National AIDS Control Organization (NACO) revised the guidelines for initiation of antiretroviral therapy (ART) in people living with HIV (PLHIV) in May 2017. As per the revised guidelines, all PLHIV should be treated with ART irrespective of CD4 count, clinical stage, age, or population. The NACO still does not endorse PrEP.

## **Financial support and sponsorship** Nil.

## **Conflicts of interest**

There are no conflicts of interest.

#### Gulnaz Fatima Siddiqui, Shahid Akhtar Siddiqui, Prabha Verma, Rahul Jaiswal, Aishvarya Adhaulia

Department of Pediatrics, MLN Medical College, S N Children Hospital, Allahabad, Uttar Pradesh, India

#### Address for correspondence:

Dr. Shahid Akhtar Siddiqui, Department of Pediatrics, MLN Medical College, S N Hospital, Allahabad - 211 001, Uttar Pradesh, India. E-mail: sha.akht@yahoo.com

REFERENCES

- Marfatia YS, Jose SK, Baxi RR, Shah RJ. Pre- and post-sexual exposure prophylaxis of HIV: An update. Indian J Sex Transm Dis AIDS 2017;38:1-9.
- World Health Organization. Consolidated Guidelines on the use of Antiretroviral Drugs for Treating and Preventing HIV Infection: Recommendations for a Public Health Approach. Geneva: World Health Organization; 2016. Available from: http://www.apps.who. int/iris/bitstream/10665/208825/1/9789241549684\_eng.pdf. [Last accessed on 2017 Jul 18].
- Marcus JL, Glidden DV, Mayer KH, Liu AY, Buchbinder SP, Amico KR, *et al.* No evidence of sexual risk compensation in the iPrEx trial of daily oral HIV preexposure prophylaxis. PLoS One 2013;8:e81997.
- Guest G, Shattuck D, Johnson L, Akumatey B, Clarke EE, Chen PL, et al. Changes in sexual risk behavior among participants in a prEP HIV prevention trial. Sex Transm Dis 2008;35:1002-8.
- 5. Seifert SM, Glidden DV, Meditz AL, Castillo-Mancilla JR,

Gardner EM, Predhomme JA, *et al.* Dose response for starting and stopping HIV preexposure prophylaxis for men who have sex with men. Clin Infect Dis 2015;60:804-10.

 Cottrell ML, Yang KH, Prince HM, Sykes C, White N, Malone S, et al. Predicting effective Truvada® PrEP dosing strategies with a novel PK-PD model incorporating tissue active metabolites and endogenous nucleotides (EN). R4P, Cape Town, South Africa, 28–31 October 2014. AIDS Res Hum Retroviruses 2014;30 Suppl 1:A60.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

| Access this article online |                                   |
|----------------------------|-----------------------------------|
| Quick Response Code:       | Website:                          |
|                            | www.ijstd.org                     |
|                            | DOI:<br>10.4103/ijstd.IJSTD_75_17 |

**How to cite this article:** Siddiqui GF, Siddiqui SA, Verma P, Jaiswal R, Adhaulia A. Pre- and post-sexual exposure prophylaxis of HIV: An update. Indian J Sex Transm Dis 2019;40:184-5.

 $\circledast$  2019 Indian Journal of Sexually Transmitted Diseases and AIDS  $\mid$  Published by Wolters Kluwer - Medknow