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The Role of Critical Techniques for Preventing HIV Transmission and Acquisition

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DESCRIPTION

According to the Joint United Nations Programme on HIV/AIDS (UNAIDS) 2022 global update, global progress against Human Immunodeficiency Virus (HIV) stalled during the coronavirus disease 2019 (COVID-19) pandemic, with new HIV infections declining only 3.6% between 2020 and 2021, the smallest annual reduction in global HIV incidence since 2016 [1]. A study states that young women (ages 15-24 years) are at a higher risk of HIV infection and are three times as likely to get HIV than young males. The White House's National HIV/AIDS Strategy for 2022-2025 focuses on increasing and enhancing the implementation of safe and effective preventative interventions, Syringe Services Programmes (SSPs), and the development of innovative prevention alternatives in the United States of America. For the following three years, the White House hopes to boost coverage among individuals who need Pre-Exposure Prophylaxis (PrEP) to 50%, up from 25% in 2020. Although new HIV infections have decreased in the United States of America, health inequalities exist, with Black, Hispanic or Latinx, and White homosexual and bisexual men, as well as Black heterosexual women, bearing the biggest responsibility of new HIV infections [2-5].

Treatment as Prevention (TasP), Pre-Exposure Prophylaxis (PrEP), and Post-Exposure Prophylaxis (PEP) are all critical techniques for preventing HIV transmission and acquisition. TasP refers to Persons Living With HIV (PWH) who are receiving Anti-Retroviral Medication (ART) to prevent HIV transmission via sexual contact. TasP is also often referred to by the idea of undetectable equals untransmittable (U=U) from many clinical trials, which established that if PWH remained undetectable with HIV RNA 200 copies/mL, HIV could not be transferred sexually to a partner who did not have HIV. TasP relies on the spouse with HIV to stay on ART and have an undetectable viral level. PrEP, on the other hand, allows the partner who does not have HIV to protect oneself by taking medicine on a long-term basis to avoid contracting HIV through sex or Injectable Drug Use (IDU). There are now two oral PrEP options: Emtricitabine/Tenofovir Disoproxil Fumarate (FTC/TDF) or Emtricitabine/Tenofovir Alafenamide (FTC/TAF); one injectable option, Long-Acting Cabotegravir (CAB-LA);

and one Vaginal Ring, Dapivirine (DPV-VR). Nevertheless, not all of these have been authorised by the US Food and Drug Administration (FDA) for all patient populations. PEP entails a person without HIV taking ART after a known or suspected percutaneous or mucous membrane HIV exposure to prevent infection, however it is dependent on timely drug access to be effective. Moreover, expanding HIV testing should act as a gateway to prevention and treatment by identifying new HIV infections and encouraging discussions about PrEP in individuals who test negative [6-9].

TasP, PrEP, and PEP work together to reduce new HIV infections globally. With progress towards ending the HIV pandemic stalled, increasing access to prevention is critical. UNAIDS has identified key groups to avoid further HIV acquisition. In these groups, selecting appropriate PrEP must take into account clinical data, pharmaceutical availability and cost concerns, and patient characteristics like as renal function, co-infection status, and concurrent medicines and illness conditions. To boost PrEP adoption, PrEP should be delivered routinely by physicians regardless of therapeutic context and should not be dependent on patient enquiry. To enhance access, retention in care, and adherence to prevention, providers should customize PrEP to individual preferences. Pharmacist expertise and accessibility are keys to addressing health disparities and increasing access to HIV prevention services. With multiple HIV prevention methods available and in the pipeline, personalizing prevention to the patient can further address disparities in new HIV infections and help end the HIV epidemic [10].

Expertise and accessibility of pharmacists are critical in reducing health inequities and expanding access to HIV preventive programmes. With numerous HIV preventive techniques available and under development, tailoring prevention to the patient can help resolve inequities in new HIV infections and contribute to the end of the HIV epidemic.

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