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Session: **KP4**: Saturday May 2 – 11:00:12:30 – Sexual and Gender Minorities

Track: Clinical Sciences
Subject: STDs (Chlamydia, gonorrhea, syphilis)
Presentation Type: Oral
Title of Abstract: **Preliminary results of the Dual Daily HIV and Syphilis Pre-Exposure Prophylaxis (DuDHS) Trial.**

Authors and Affiliations: Tessa Lawson Tattersall¹, Saira Mohammed², Joshua Edward¹, Aidan Ablona¹, Mark Hull², Troy Grennan^{1, 3}
1. Clinical Prevention Services, BC Centre for Disease Control, Vancouver, BC, Canada, 2. BC Centre for Excellence in HIV/AIDS, Vancouver, BC, Canada, 3. Department of Infectious Diseases, University of British Columbia, Vancouver, BC, Canada

Abstract

Background: The incidence of syphilis is rising and HIV is overrepresented among men who have sex with men (MSM). Daily doxycycline has shown promising results as syphilis pre-exposure prophylaxis (PrEP); however, little is known about the feasibility of combined syphilis and HIV PrEP. A pilot study assessed the feasibility of dual daily syphilis and HIV PrEP use among MSM in Vancouver.

Methods: The DuDHS trial is a randomized controlled trial to determine the feasibility of combined HIV and syphilis PrEP among MSM. From May 2018 to June 2019, HIV-negative MSM with at least one prior diagnosis of syphilis in the past 36 months were recruited through sexual health clinics. Participants received emtricitabine/tenofovir and were randomized (1:1) to immediate or deferred (by 24 weeks) daily doxycycline (100mg) for 48 week follow-up. Incidence rates for sexually transmitted infection (STI), drug side effects, and adverse events in the first 24 weeks of follow-up are reported.

Results: Of the 52 participants enrolled, 20 cases of STIs were reported in 24 weeks of follow-up; 16 (139.8 per 100 person-years) in the deferred arm and 4 (33.9 per 100 person-years) in the immediate arm. Compared to the immediate arm, the deferred arm experienced increased incidence of syphilis (8.74 vs. 0 per 100 person-years), chlamydia (69.9 vs. 0 per 100 person-years), and gonorrhea (61.2 vs. 33.9 per 100 person-years). No HIV seroconversions were observed. Gastrointestinal side effects were reported in 4 (15.3%) deferred arm participants and 11 (42.3%) in the immediate arm. 6 (52.4 per 100 person-years) and 2 (16.9 per 100 person-years) cases of adverse events were reported in the immediate and deferred arm, respectively.

Conclusions: In combination with HIV PrEP, participants taking daily doxycycline experience decreased incidence of syphilis and chlamydia as well as increased prevalence of side effects in comparison to deferred doxycycline participants.