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Is Long-Acting Injectable Cabotegravir Likely to Expand PrEP Coverage Among MSM in the District of Columbia?

Matthew E. Levy, PhD^{a,b}, Anya Agopian, PhD, MPH^a, Many Magnus, PhD, MPH^a, Anthony Rawls, HS^a, Jenevieve Opoku, MPH^c, Michael Kharfen, BA^c, Alan E. Greenberg, MD, MPH^a, Irene Kuo, PhD, MPH^a

^aDepartment of Epidemiology, Milken Institute School of Public Health at the George Washington University, Washington, DC

^bWestat, Rockville, MD

^cDistrict of Columbia Department of Health, HIV/AIDS, Hepatitis, STD, and TB Administration, Washington, DC

INTRODUCTION

HIV incidence in the United States (US) remains disproportionately high among men who have sex with men (MSM), particularly among younger and Black or Hispanic MSM.¹ Pre-exposure prophylaxis (PrEP) is a critical biomedical prevention tool that could curb the HIV epidemic among MSM. Although oral PrEP utilization has increased significantly over time,² this intervention remains underused, especially among Black and Hispanic MSM.³

Recent results from the HIV Prevention Trials Network 083 trial revealed that long-acting injectable (LAI) cabotegravir is not only safe and highly efficacious for preventing HIV infection in cisgender MSM and transgender women who have sex with men, but is also superior to daily oral tenofovir/emtricitabine,⁴ likely primarily because of lower adherence to daily oral tenofovir/emtricitabine rather than because of pharmacological differences. A majority of MSM in previous studies have reported high willingness to use LAI PrEP and even a preference for LAI PrEP versus daily oral PrEP.⁵⁻¹¹ In order for LAI PrEP to have a substantial impact on HIV incidence at the population level, its availability would need to expand the PrEP user base, beyond the expectation that many current oral PrEP users would switch to LAI PrEP.¹² The extent to which interest in LAI PrEP differs based on one's history of oral PrEP use among racial/ethnic subgroups of MSM remains uncertain. We assessed interest in LAI PrEP among a diverse sample of MSM with current, previous, and no previous oral PrEP use.

METHODS

As part of the Centers for Disease Control and Prevention National HIV Behavioral Surveillance,¹³ we recruited MSM using venue-based sampling in Washington, DC.

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Sampling occurred at randomly selected venues attended by MSM during specified days/times between July–December 2017.¹⁴ Eligibility criteria included 18 years old, born and identifying as a male, and reporting oral or anal sex with a male partner in the last 12 months. For this analysis, we included participants who tested HIV-negative at study entry (Determine HIV-1/2 Ag/Ab Combo; Alere, Waltham, MA). The study protocol was approved by the DC Department of Health and George Washington University Institutional Review Boards. All participants provided informed consent.

Participants completed an interviewer-administered behavioral survey. Interest in LAI PrEP was measured as follows: (1) “if an anti-HIV injection or shot that you had to take every 2–3 months existed that would prevent you from getting HIV and cost was not an issue, how likely would you be to take it?” (“extremely likely,” “likely,” “unsure,” “unlikely,” or “extremely unlikely”) and (2) “if you had the choice between taking a once-daily anti-HIV oral pill or an anti-HIV injection once every 2–3 months, which one would you prefer, assuming that cost was not an issue?” (daily oral PrEP, LAI PrEP, neither, or do not know). Participants were considered interested in using LAI PrEP if they were both likely/extremely likely to use it and preferred it to daily oral PrEP. We estimated proportions interested in LAI PrEP based on oral PrEP experience, age group, and race/ethnicity using exact binomial 95% confidence intervals (CIs) and calculated adjusted odds ratios using multivariable logistic regression.

RESULTS

Among 303 MSM, 31% currently used daily oral PrEP (of whom 93% reported missing 5 doses in the last month), 10% previously used but discontinued oral PrEP, and 59% never used oral PrEP (Table 1). Only 24% of non-Hispanic Black men, compared with 52% of non-Hispanic white men and 48% of Hispanic men, had ever used oral PrEP ($\chi^2 = 19.7$; $P < 0.001$) (data not shown).

Overall, 62% (95% CI: 56 to 67) were interested in LAI PrEP, that is, either likely (25%) or extremely likely (59%) to use LAI PrEP (84% total) and also preferring it to daily oral PrEP (67%) (Table 1). Interest in LAI PrEP was similar among men who currently (65%; 95% CI: 54 to 74), previously (76%; 95% CI: 56 to 90), and never (58%; 95% CI: 50 to 65) used oral PrEP. Interest was also high across demographic subgroups. Among participants with no previous oral PrEP use, 59% (95% CI: 48 to 69) of non-Hispanic Black men, 48% (95% CI: 34 to 63) of non-Hispanic white men, and 69% (95% CI: 48 to 86) of Hispanic men were interested in LAI PrEP (data not shown).

DISCUSSION

In this study conducted several years before LAI PrEP was found to be efficacious, a majority of both MSM currently using and not currently using oral PrEP expressed interest in LAI PrEP and would prefer it to daily oral PrEP. With similarly high levels of interest among younger, non-Hispanic Black, and Hispanic men, we expect that the availability of cabotegravir as LAI PrEP will facilitate increased PrEP coverage among MSM subpopulations at greatest risk of HIV. Notably, non-Hispanic Black MSM were least likely

to have tried oral PrEP, yet reported equally high levels of interest in LAI PrEP versus other races/ethnicities, highlighting a potential expansion in PrEP coverage among non-Hispanic Black and Hispanic MSM. However, previously reported barriers to PrEP access for these populations must be overcome for substantial expansion of overall PrEP coverage to be achieved, even after LAI PrEP becomes available.¹⁵⁻¹⁷ Finally, most men currently using daily oral PrEP reported preferring LAI PrEP, suggesting that previously reported adherence challenges experienced by many oral PrEP users could be mitigated once the option to switch to LAI PrEP is provided. Our findings provide support that both oral PrEP-experienced and nonexperienced MSM across racial/ethnic subgroups intend to use LAI PrEP as the most recent addition to the HIV prevention toolkit.

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Participant Characteristics and Interest in Long-Acting Injectable Pre-exposure Prophylaxis Among Men Who Have Sex With Men (n = 303)

TABLE 1.

| | All | | Interested in LAI PrEP | | Interested in LAI PrEP (vs. Not Interested) | |
|---------------------------|------------|-----|------------------------|---------------------|---|--|
| | N (%) | n | Row % (95% CI) | aOR (95% CI) * | | |
| Overall | 303 (100) | 187 | 61.7 (56.0 to 67.2) | — | | |
| By oral PrEP experience | | | | | | |
| Current oral PrEP use | 94 (31.0) | 61 | 64.9 (54.4 to 74.5) | 1.44 (0.84 to 2.47) | | |
| Previous oral PrEP use | 29 (9.6) | 22 | 75.9 (56.5 to 89.7) | 2.22 (0.88 to 5.59) | | |
| No previous oral PrEP use | 180 (59.4) | 104 | 57.8 (50.2 to 65.1) | 1.00 (—) | | |
| By age group | | | | | | |
| <30 yrs old | 133 (43.9) | 86 | 64.7 (55.9 to 72.8) | 1.21 (0.75 to 1.96) | | |
| 30 yrs old | 170 (56.1) | 101 | 59.4 (51.6 to 66.9) | 1.00 (—) | | |
| By race/ethnicity | | | | | | |
| Non-Hispanic Black | 119 (39.3) | 73 | 61.3 (52.0 to 70.1) | 1.22 (0.70 to 2.14) | | |
| Non-Hispanic White | 104 (34.3) | 62 | 59.6 (49.5 to 69.1) | 1.00 (—) | | |
| Hispanic | 50 (16.5) | 34 | 68.0 (53.3 to 80.5) | 1.43 (0.70 to 2.95) | | |
| Others | 30 (9.9) | 18 | 60.0 (40.6 to 77.3) | 0.99 (0.43 to 2.29) | | |

* Adjusted for oral PrEP experience, age group, and race/ethnicity.
aOR, adjusted odds ratio.