US PATIENT PREFERENCES FOR LONG-ACTING HIV TREATMENT: A DISCRETE CHOICE EXPERIMENT

535

Susan M. Graham,[1] Douglas Barthold,[1] Brett Hauber,[1,2] Aaron T. Brah,[1] Enrique Saldarriaga,[1] Ann C. Collier,[1] Rodney J.Y. Ho,[1] the Emory PREFER Team*,[3] Vincent C. Marconi,[3] Jane M. Simoni[1]
1. University of Washington, Seattle, WA, USA; 2. Pfizer, Inc, New York, NY, USA; 3. Emory University School of Medicine, Atlanta, GA, USA
* Emory PREFER Team: Divine McCaslin, Ana Maria Moldoveanu, Shanil McFarlane-Fuller, Richard Alex Powers, and Erna A. Clyburn

BACKGROUND

- Recent advances in long-acting antiretroviral therapy (LA-ART) could provide new options for HIV treatment and reduce adherence barriers, if regimens are acceptable to patients.
- We elicited preferences for key attributes of potential LA-ART regimens among people with HIV (PWH) in the United States, focusing on four different treatment modalities (oral tablets, subcutaneous and intramuscular injections, and implants), product characteristics, and location of administration.

METHODS

- A discrete choice experiment was conducted among PWH aged ≥18 years recruited from HIV clinics in western Washington State and Atlanta, Georgia from 3/2021 to 6/2022.
- Participants responded to 17 choice scenarios (Figure 1), each with three options: two systematically generated hypothetical LA-ART regimens and a constant opt-out (their current daily oral treatment).
- LA-ART regimen descriptions included delivery mode, pain, dosing frequency, location, pre-treatment time undetectable, pre-treatment negative reaction testing, and late-dose leeway (i.e., flexibility in timing next dose).
- Implant frequency was constrained to be every 6 or 12 months, with mild or moderate pain.
- We used conditional logistic regression, with an interaction between delivery mode and pain, to estimate preference weights for all attribute levels.

Figure 1. Example Choice Set

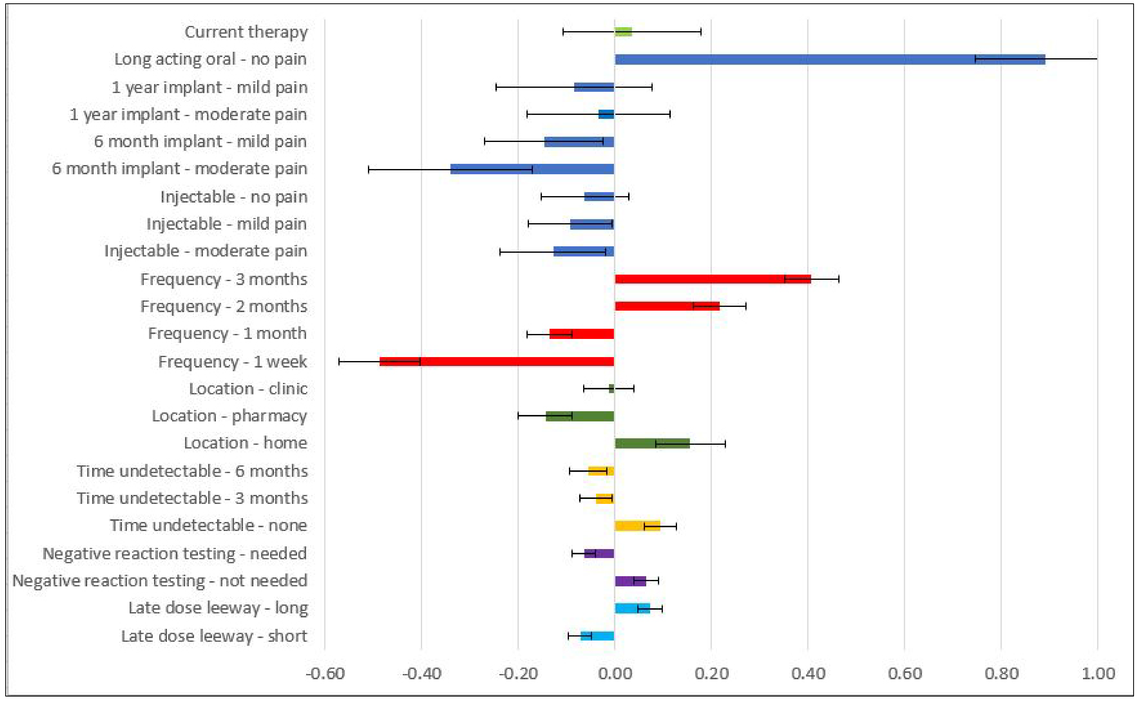
	Option A	Option B	Option C - your current HIV regimen
Treatment type - How do I take this treatment?	Long-acting oral pills 	Injections under the skin 	
Location - Where would I get this treatment?	Home	Local chemist	
Frequency - How often would I get this treatment?	Once a week	Once a month	
Pain - How much pain would I feel?	None	Mild	
Which do you prefer?	○	○	○

Across all participants, ***LA oral tablets*** were the only modality ***preferred over current daily oral treatment,*** with annual implants and injections the next most preferred.

Longer time between doses was preferred, and ***administration at home*** was preferred to clinics, which were preferred to pharmacies.

Site differences (not shown) were notable, with stronger preference for LA oral treatment taken at home in Seattle and stronger preference for current therapy taken at home or injectables received in clinic in Atlanta.

Figure 2. Preference Weights, Both Sites Combined



RESULTS

- Seven hundred participants (350 at each site) enrolled, with median age 51 years (range 23-70)
- Overall, 70% identified as male, 24% as female, and 6% as non-binary/missing
- Preference weights for each attribute level are summarized in Figure 2, with more preferred characteristics having higher preference weights.
- Attributes that impacted preferences less included oral lead-in treatment to achieve viral suppression or test for negative reactions and late-dose leeway around the prescribed dosing interval.

CONCLUSIONS

- PWH in the United States may soon have several options for LA-ART.
- Our results suggest that LA oral tablets will be preferred by many patients over their current treatment, while implants and injections with longer duration may be acceptable to some patients.
- Future research should investigate sources of preference heterogeneity and actual uptake of and retention on products, when available.
- Differences in medication cost, facility charges, and insurance coverage were not included in this study, but are clearly critical factors impacting access to preferred therapy options.

ADDITIONAL INFORMATION

Author Contact Information. grahamsm@uw.edu for Project PREFER

Acknowledgements. We again thank the key informants who were interviewed in our pilot work, as well as participants in our DCE pilot testing work. Special thanks in this article go to our patient participants in Atlanta and western Washington State for their contributions.

Funding. Financial support was provided by National Institutes of Health (NIH) grant R01 MH121424, the University of Washington/Fred Hutch Center for AIDS Research (P30 AI027757), and the Emory University *Center for AIDS Research (P30AI050409).* SMG and JMS were also supported by the University of Washington Behavioral Research Center for HIV (BIRCH), a NIMH-funded program (P30 MH123248). RJYH and ACC are funded in part by NIH grants UM1 AI120176; AI 148055; AI149665 and UNITAID 2020-39-GLAD. The funding agreements ensured the authors' independence in designing the study, interpreting the data, and writing and publishing the report. This project also utilized REDCap electronic data capture, which is supported at the University of Washington by grants UL1 TR002319, KL2 TR002317, and TL1 TR002318 from NCATS/NIH.