Association of Chronic Conditions and Medication Burden with Patient Preferences for Long-Acting Antiretroviral Therapy in HIV Treatment

Zilin CHENG, Douglas BARTHOLD, Enrique M SALDARRIAGA, Brett HAUBER, Jacinda TRAN, Vincent C MARCONI, Susan M GRAHAM

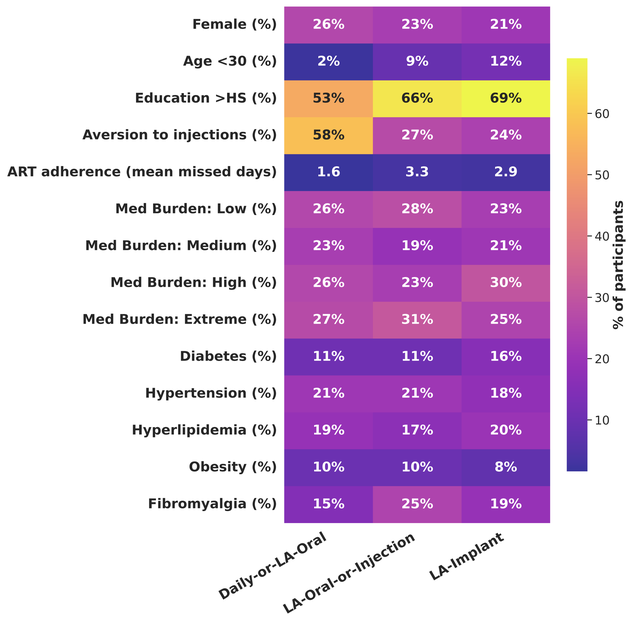
Background:

- Long-acting antiretroviral therapies (LA-ART) offer alternatives to daily oral HIV treatments and may enhance adherence and quality of life.
- LA-ART options include:
  - 💉 Injections → Delivered subcutaneously or intramuscularly; frequency ranges from monthly to every 6 months.
  - 💊 Long-acting oral pills → Swallowed like daily ART but needed less often
  - 💪 Implants → Inserted under the skin in the upper arm, release medication gradually over time
- Treatment characteristics vary by *pain level, setting (home vs. clinic), frequency, and pre-treatment requirements.*
- Understanding how people with HIV (PWH) perceive these modalities is essential for optimizing patient-centered care. The preference patterns can help tailor treatment strategies to support adherence.

Objective:

To assess the associations between chronic conditions, medication burden, and patient preferences for HIV treatment modalities among people with HIV (PWH) in the U.S.

Figure 1. Patient Characteristics by HIV Treatment Preference



Methods:

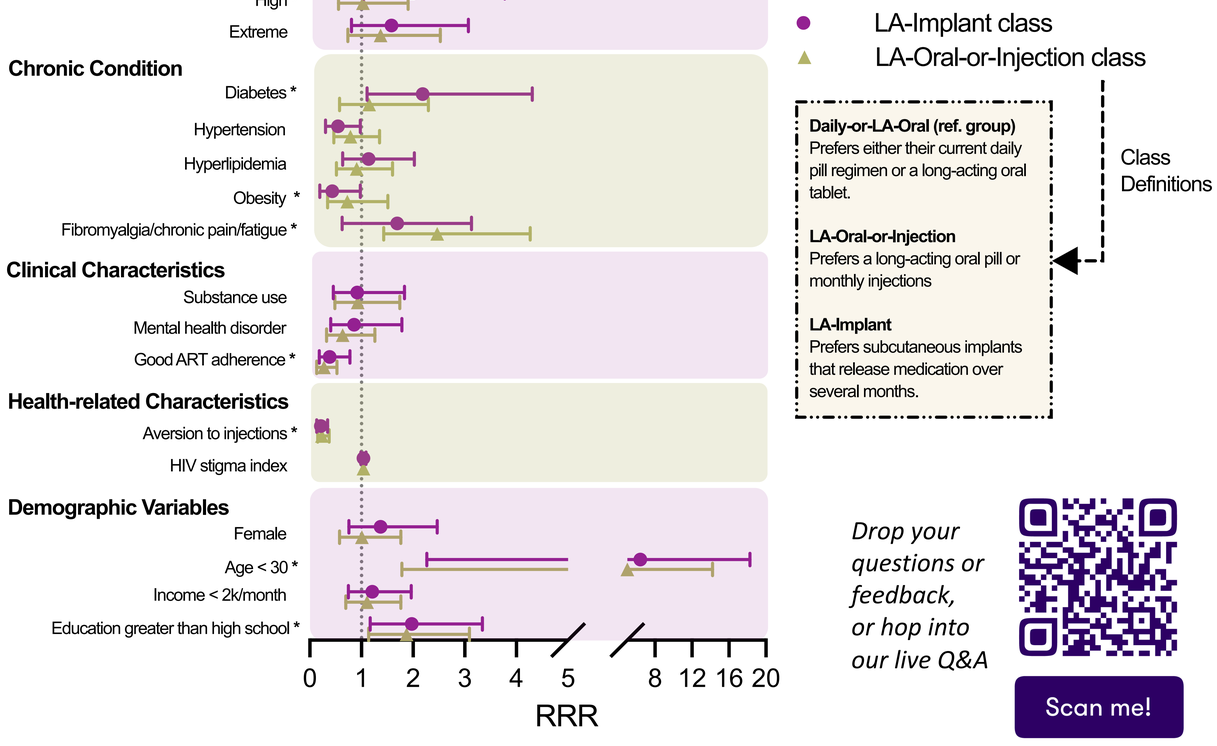
- **Participants:** Conducted *discrete choice experiment* (DCE) among 699 PWH from 2 sites (Seattle=350, Atlanta=349), from March 2021 to June 2022.
- ***Latent-class analysis*** identified three preference groups:
  - LA-Implant (29%)
  - LA-Oral-or-Injection (35%)
  - Daily-or-LA-Oral (36%)
- ***Chronic conditions*** → using ICD-10 codes from chart reviews.
- ***Medication burden*** → assessed by the number of medications from prescription files, and categorized into low, medium, high, and extreme levels.
- **Statistical Analysis:** Adjusted *multinomial logistic regressions* analyzed associations among 647 consenting participants (Seattle n=329, Atlanta n=318).

Conclusions:

Preferences for long-acting ART vary: younger, more-educated patients, those with diabetes, or those with a high medication burden lean toward implant-based therapy over daily-or-LA-oral options. Patients with fibromyalgia or chronic pain favor oral-or-injection modalities, whereas those with hypertension or obesity prefer the daily-oral regimen.

Results:

Figure 2. Multinomial Logistic Adjusted Relative Risk Ratios (RRR) for LA-Implant and LA-Oral/Injection class (ref cat: Daily-or-LA-Oral Class)



Key Takeaways:

- Implant-based LA-ART was favored over daily-or-LA-oral therapy among PWH who were younger, more educated, had high medication burden, or had diabetes.
- People with hypertension and obesity favored oral therapy (Daily-or-LA-Oral) more compared to implant therapy.

Drop your questions or feedback, or hop into our live Q&A

Scan me!