Healthcare provider experience of administering long-acting lenacapavir for people with HIV with heavy treatment experience, engaged through a compassionate use program in the United States

Poster EPE0832

Scan for more information

A.N. Herbst[1], J. Fang[1], O. Boiko[2], M.S. Dunbar[3], L. Temme[3], K. Dunn[3], S. Navadeh[3], M. Rhee[3], W.R. Lenderking[1], B. Gaglio[1]

[1]Evidera, Bethesda, United States; [2]Evidera, London, United Kingdom; [3]Gilead Sciences, Inc., Foster City, CA, USA

Key Findings

- Healthcare providers (HCPs) who administered lenacapavir (LEN) on compassionate use valued LEN as an efficacious therapy for heavily treatment-experienced (HTE) people with HIV-1 (PWH)
- This study emphasizes the importance of educating HCPs and PWH to support continued real-world use of LEN

Conclusions

- After initial uncertainty due to the investigational status of LEN, HCPs expressed enthusiasm for LEN for HTE PWH
- Overall, HCPs noted multiple positive characteristics of LEN, including high tolerability, potency, and infrequent dosing, as well as improvements in clinical outcomes and treatment adherence
- Additional educational resources for HCPs and PWH that support identifying appropriate thresholds around the timing of LEN initiation, administration of LEN, and adherence amongst PWH to the optimized background regimen may help to mitigate potential barriers to real-world implementation of LEN

Background

- The need for treatment options for multidrug-resistant HIV-1 is ongoing[1–3]
- LEN is a first-in-class, long-acting HIV-1 capsid inhibitor that interferes with the capsid-mediated nuclear uptake of pre-integration complexes and impairs virion production[4–6]
  - LEN is administered subcutaneously (SC) every 6 months (Q6M)
- LEN is approved in the Australia, Canada, EU, UK, and US for the treatment of multidrug-resistant HIV-1 infection in HTE adults, in combination with other antiretrovirals, based on the results of the Phase 3 CAPELLA trial (NCT04150068):[3,5–9]
  - In the CAPELLA trial, LEN combined with optimized background therapy led to a high rate of virologic suppression in HTE participants with multidrug-resistant HIV-1. At Week 26, a viral load of <50 copies/mL was reported in 81–83% of participants, with mean increases in CD4+ cell count of 75–104 cells/mm^3 [3]
  - No serious adverse events related to LEN were reported[3]
- Prior to regulatory approval, a compassionate use program for LEN was implemented for PWH not eligible for the CAPELLA trial
- To generate insights into the facilitation of real-world implementation of LEN, a qualitative study of HCPs who administered LEN on compassionate use was undertaken

Study Objectives

- To explore HCP experience of administering LEN through a compassionate use program
- To gain insight into the potential barriers and facilitators to real-world use of LEN

Methods

- In this manufacturer-sponsored compassionate use program, 13 US compassionate use requests for individual patients were approved by November 2022
- Interviews with HCPs providing LEN on compassionate use were conducted and analyzed using thematic analyses between December 2022 and January 2023[10] (**Figure 1**)

Figure 1. Qualitative methodology overview

All US-based patient-use providers who administered LEN on compassionate use (N=13) were approached via an introductory email from the manufacturer
Of the 9 HCPs who responded: 6 interviews were completed, 1 interview is pending, and 2 HCPs were not contactable at the time of analysis

Interviews were conducted (45–60-minute in-depth interviews), via telephone or web-based teleconferencing platform, using a semi-structured interview guide

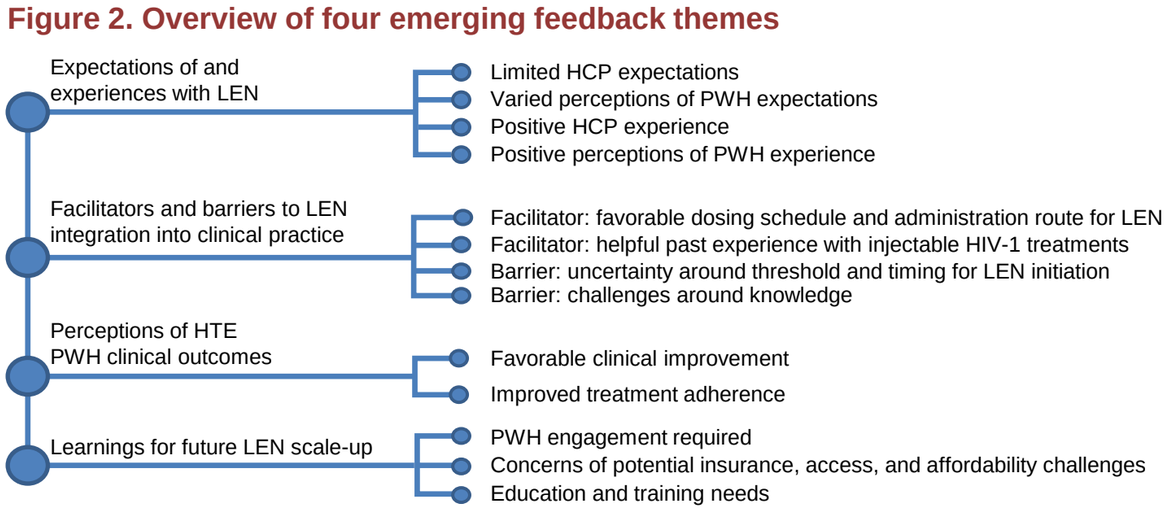
Interviews were audio recorded, transcribed verbatim, and spot checked for accuracy, followed by thematic rapid analysis

HCP, healthcare provider; LEN, lenacapavir

Results

- Six US-based HCPs treated six PWH with LEN for compassionate use in combination with other antiretrovirals:
  - Four PWH received SC LEN injections Q6M following a two-week oral loading period
  - Two PWH received oral LEN weekly, due to a temporary clinical hold on injectable LEN
- Following analysis of the feedback, four themes emerged (**Figure 2**)
- Further details for each theme and relevant quotes are provided in **Table 1**

Figure 2. Overview of four emerging feedback themes



HCP, healthcare provider; HTE, heavily-treatment experienced; LEN, lenacapavir; PWH, people with HIV-1

Results: Findings and Interpretation

Table 1. Details of HCP responses and accompanying quotes across themes

Expectations for and experiences with LEN	Relevant quotes
• **Limited HCP expectations:** Prior to administration, HCPs were hesitant to have any expectations for clinical outcomes due to LEN's investigational status • **Varied perceptions of PWH expectations:** HCPs reported that PWH's understanding of their HIV-1, in terms of resistance and viral suppression, ranged from high to low, and that their expectations of LEN varied from enthusiasm to lack of hope • **Positive HCP experience:** HCPs identified high tolerability, potency, and infrequent dosing as the main positive characteristics of LEN • **Positive perceptions of PWH experiences:** HCPs reported that, for PWH, viral suppression led to positive reinforcement, overall satisfaction with LEN, and optimism; no injection site reactions were reported	*"I did not expect that we were going to suppress him in any meaningful way. But it was just really a shot in the dark and then whatever game we got, I want to take it"* *"We need a Hail Mary here"* *"We didn't know what to expect because. . .This was truly our last option. . .We just had our fingers crossed"*
Facilitators and barriers to LEN integration into clinical practice	**Relevant quotes**
• **Facilitator – favorable dosing schedule and administration route for LEN:** After administering LEN, HCPs highlighted the ease of LEN twice yearly, SC injections, facilitating integration into existing workflows • **Facilitator – helpful past experience with injectable HIV-1 treatments:** Provider sites with experience of injectable HIV-1 treatments did not anticipate additional challenges • **Barrier – uncertainty around threshold and timing for LEN initiation:** HCPs noted that establishing thresholds around the indication and timing for initiation of LEN is a critical challenge • **Barrier – challenges around knowledge:** HCPs highlighted a need for further educational materials for both HCPs and PWH that support identifying appropriate thresholds around the timing of LEN initiation, administration of LEN, and adherence amongst PWH to the optimized background regimen	*""We have facility with injectable-type drugs, and it's kind of already sort of part of our workflow to deal with that kind of situation"* *"…the every six-month administration is huge…less taxing for the clinic as well"* *"…her virus was still responsive to [specific ARVs] …we just maintained that as the anchor… and then just adding on other things kind of as a salvage regimen type of thing"*
Perceptions of HTE PWH clinical outcomes	**Relevant quotes**
• **Clinical improvement:** HCPs highlighted positive outcomes with LEN, including clinical improvement with few adverse events, rapid viral suppression, and controlled viral load • **Better adherence:** HCPs noted that LEN helps with treatment adherence, with the SC administration route helping to overcome pill fatigue. HCPs also reported improved optimized background regimen adherence motivated by LEN-associated treatment success	*"...the fact that [HTE PWH receiving injectable LEN] got to undetectable is, you know, very impressive... and so I think it's a really potent, good drug... [HTE PWH receiving injectable LEN] loves it"* *"All I can say is, I think it's a miracle drug"* *"His T-cell count came back up robustly; I think he plateaued somewhere at 200"*
Learnings for LEN scale-up	**Relevant quotes**
• **PWH engagement requirements:** HCPs were unsure of the level of patient engagement and oversight required for LEN – HCPs tend to initiate LEN with frequent monitoring (e.g., weekly) tapering to more routine monitoring after patients achieve viral suppression • **Insurance, access and affordability challenges:** Some HCPs noted that prior authorization and delays in the addition of LEN to formularies or public assistance programs may potentially present a barrier to real-world LEN use – Billing guides would be helpful • **Education and training needs:** HCPs highlighted the need for further educational materials, such as case presentation scenarios and materials to facilitate conversations about LEN between HCPs and PWH – When should LEN be used? – Which people is LEN suitable for? – What can people taking LEN expect?	*"I think many providers are very hesitant to jump to products like this too soon. But I think that the risk of that outweighs it, that if you wait too long, then you run into this patient where they're resistant to everything. So I think maybe some kind of like cases or example patients of who is this appropriate for"* *"[The manufacturer] can do a lot to alleviate that, the appropriately placed communications and education of how to afford it, when to prescribe it, how to administer it, and how easy it is to get access to if needed"*

ARV, antiretroviral; HCP, healthcare provider; HTE, heavily treatment experienced; LEN, lenacapavir; PWH, people with HIV-1; SC, subcutaneous

Limitations

- The small number of US-based compassionate use providers who administered LEN is a limitation to this study

References: 1. HIV drug resistance report 2019. Geneva: World Health Organization. Available at: https://www.who.int/publications/i/item/WHO-CDS-HIV-19.21 (Accessed July 2023); 2. Surveillance of HIV drug resistance in adults receiving ART (acquired HIV drug resistance). Geneva: World Health Organization. Available at: https://apps.who.int/iris/handle/10665/112801 (Accessed July 2023); 3. Segal-Maurer S, et al. *N Engl J Med* 2022;386(19):1793–1803; 4. Link JO, et al. *Nature* 2020; 584:614–618; 5. Sunlenca® Prescribing Information. Available at: https://www.accessdata.fda.gov/drugsatfda_docs/label/2022/215973s000lbl.pdf (Accessed July 2023); 6. Sunleca® Summary of Product Characteristics. Available at: https://www.ema.europa.eu/en/documents/product-information/sunlenca-epar-product-information_en.pdf (Accessed July 2023); 7. Sunlenca®. UK Electronic Medicines Compendium. Available at: https://www.medicines.org.uk/emc/product/14102/smpc (Accessed July 2023); 8. Sunlenca®. Government of Australia website. Available at: https://www.tga.gov.au/resources/auspmd/sunlenca (Accessed July 2023); 9. Sunlenca®. Government of Canada Website. Available at: https://health-products.canada.ca/dpd-bdpp/info?lang=eng&code=102149 (Accessed July 2023). 10. Hamilton AB and Finley EP. *Psychiatry Res* 2019;280:112516

Acknowledgments: We extend our thanks to the PWH who received injectable LEN, their families, all treating HCPs who completed interviews, and Frank Spinelli. This study was funded by Gilead Sciences, Inc. Medical writing support was provided by Jessica Woods of Ashfield MedComms, an Inizio company, Macclesfield, UK, funded by Gilead Sciences, Inc.

Disclosures: **M.S. Dunbar, L. Temme, K. Dunn, S. Navadeh, M. Rhee**: are all employees and shareholders of Gilead Sciences, Inc.
A.N. Herbst, J. Fang, O. Boiko: are all employees of Evidera, Inc., which is part of Thermo Fisher.
B. Gaglio and W.R. Lenderking are both employees of Evidera, Inc. which is part of Thermo Fisher Scientific, and are shareholders of Thermo Fisher Scientific.