Long acting lenacapavir in people with multi-drug resistant HIV-1: Week 52 results

Griffiths L[8], Onyema O[1], Segal- Maurer S[2], Brinson C[3], Chetchotisakd P[4], McGowan J.P[5], Workowski K[6], Wang H[7], Margot N[7], Dvory-Sobol H[7], Rhe M.S[7], Baeten J[7], Molina J.M[9]

[1]Yale University, School of Medicine, New Haven, CT, US, [2]New York Presbyterian Queens, Flushing, NY, US, [3]Central Texas Clinical Research, Austin, TX, US, [4]Srinagarind Hospital, Khon Kaen, Thailand, [5]North Shore University Hospital, Manhasset, NY, US, [6]Emory University, Atlanta, GA,[7]Gilead Sciences, Inc., Foster City, CA, [8]Gilead Sciences, Pty Ltd, Melbourne AUS, [9]Hopital Saint Louis, Paris, France

Background: Lenacapavir (LEN), a first-in-class capsid inhibitor, is in development for treatment and prevention of HIV-1 infection. CAPELLA is an ongoing, phase 2/3 study in heavily treatment experienced (HTE) people with HIV-1 (PWH).

Methods: In the randomized cohort (Cohort 1), participants were assigned (2:1) to add oral LEN or placebo to their failing regimen followed by subcutaneous (SC) LEN at D15 every 6 months. Randomized participants initiated an OBR at D15. In the non-randomized cohort (Cohort 2), participants started OBR concurrent with LEN \ We report the secondary endpoint of W52 efficacy by FDA-snapshot in cohort 1 and additional available efficacy and safety from both cohorts.

Results: 72 participants were enrolled:36 in each cohort. Overall, 19% had VL>100kc/mL, 64% had CD4<200 cells/μL, 46% had HIV-1 resistant to all 4 major classes, 17% had no fully active agents. In Cohort 1 and 2 at W26, 81% (29/36) and 81% (29/36) achieved VL<50c/mL. At W52, in Cohort 1, 83% (30/36) had VL< 50 c/mL; most in Cohort 2 have not reached W52 yet. CD4 count increased by a median 74 cells/μL , 8 participants had emergent LEN resistance (4 in each cohort); other than 1 who died at W10 (previously reported), all had evidence of poor adherence to the OBR (n=4) or did not have any fully active agents in the OBR (n=3).

One participant discontinued LEN at W52 due to a Grade 1 injection site nodule. LEN-related injection site reactions (ISRs) occurred in 63% (45/72) and were mostly mild or moderate (43/45). The most common non-ISR AEs were nausea and diarrhea (13% each) and COVID-19 (11%).

Conclusion: LEN in combination with OBR led to high rates of virologic suppression and immunologic recovery in HTE PWH and was well tolerated. These results support the ongoing evaluation of LEN for treatment of multi-drug resistant HIV-1 infection.

Disclosure of Interest

Lindsey Griffiths is an employee of Gilead Sciences.

Acknowledgement of Funding

This study was funded by Gilead Sciences.