

Switch to BIC + LEN in Virologically Suppressed People With HIV on Complex Regimens: Week 96 Outcomes

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Conclusions

- In Phase 2 of the Phase 2/3 ARTISTRY-1 trial, bicitegravir (BIC) and lenacapavir (LEN) maintained high levels of virologic suppression after a longer-term follow-up of 96 weeks in people with HIV (PWH) who switched from complex regimen (CR)
- BIC + LEN and BIC/LEN single-tablet regimen (STR) were generally well tolerated
- These findings support continued evaluation of the combination of BIC and LEN to optimize treatment in PWH with virologic suppression on a CR
- A BIC/LEN STR is being assessed in Phase 3 of ARTISTRY-1 and in ARTISTRY-2

See Oral Presentation 181 and Poster 513 for further details and primary outcomes from Phase 3 of ARTISTRY-1 and ARTISTRY-2

Plain Language Summary

- Some people with human immunodeficiency virus (HIV) need to take more than one tablet a day to treat their HIV because currently available single-tablet treatments either do not work for them or cause side effects
- The study called ARTISTRY-1 is testing if two HIV medicines, bicitegravir (BIC) and lenacapavir (LEN), when taken together, work well and are safe for people with low levels of HIV in their blood and who switch from taking more than one tablet a day
- After almost 2 years of taking BIC and LEN, people with HIV in the study still had low levels of HIV in their blood and had few side effects
- People with HIV who are taking more than one tablet a day to treat their HIV may benefit from switching to a single daily tablet containing both BIC and LEN
 - Based on these results, BIC and LEN combined into a single tablet is being tested as a treatment for HIV in further studies

Introduction

- Once-daily STRs are the guideline-recommended standard of care for HIV treatment.^{1,2} However, many PWH still need to take complex antiretroviral regimens because of antiretroviral resistance, intolerance, contraindications, or drug–drug interactions.^{1,3-5}
- The combination of BIC and LEN could optimize treatment for PWH with virologic suppression who are otherwise unable to take an STR
 - BIC is a guideline-recommended integrase strand transfer inhibitor with a high barrier to resistance^{1,2,6,7}
 - LEN is a first-in-class capsid inhibitor with no documented *de novo* resistance in the absence of prior exposure⁸
- ARTISTRY-1 (NCT05502341) is a randomized, open-label, multicenter Phase 2/3 study of BIC and LEN in PWH with virologic suppression on a CR
 - Data from Phase 2 of ARTISTRY-1 demonstrated that BIC + LEN was well tolerated and was highly effective in maintaining virologic suppression through 48 weeks^{9,10}
 - After Week 48, participants were invited to enter the extension and took BIC 75 mg/LEN 50 mg as a once-daily STR

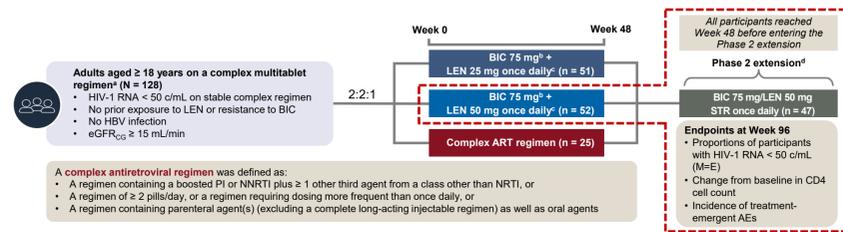
Objective

- To evaluate longer-term efficacy and safety outcomes after switching to BIC 75 mg and LEN 50 mg^a in the 96-week follow-up of Phase 2 of ARTISTRY-1

^aBIC and LEN refer to participants taking BIC 75 mg + LEN 50 mg in the randomized period and participants taking BIC 75 mg/LEN 50 mg STR in the extension period.

Methods

Study Design of the Phase 2 Portion of the Phase 2/3 ARTISTRY-1 Trial



^aDue to viral resistance, intolerance, or contraindication to existing STRs. ^bBIC 75 mg single agent provides exposure consistent with BIC 50 mg as part of B/F/TAF. ^cAll participants taking BIC + LEN took an oral loading dose of LEN 600 mg on Days 1 and 2 of treatment. ^dParticipants who switched from a complex ART regimen in the extension phase took the oral loading doses of LEN. AE, adverse event; ART, antiretroviral therapy; BIC, bicitegravir; B/F/TAF, bicitegravir/emtricitabine/tenofovir alafenamide; c, copies; CD4, cluster of differentiation 4; eGFR_{Cr}, estimated glomerular filtration rate by Cockcroft-Gault equation; HBV, hepatitis B virus; LEN, lenacapavir; PI, protease inhibitor; M = E, missing = excluded; NNRTI, non-nucleoside reverse transcriptase inhibitor; NRTI, nucleoside/nucleotide reverse transcriptase inhibitor; STR, single-tablet regimen.

- ARTISTRY-1 (NCT05502341) is an ongoing, randomized, open-label, multicenter, active-controlled Phase 2/3 trial
- Participants who reached Week 48 and completed the end of randomized treatment visit were invited to enter the extension period and took a once-daily STR of BIC 75 mg/LEN 50 mg

- This analysis includes data from all participants originally randomized to take BIC 75 mg + LEN 50 mg, who either discontinued the study during the randomized period or continued into the extension

Results

Baseline Demographic and Clinical Characteristics

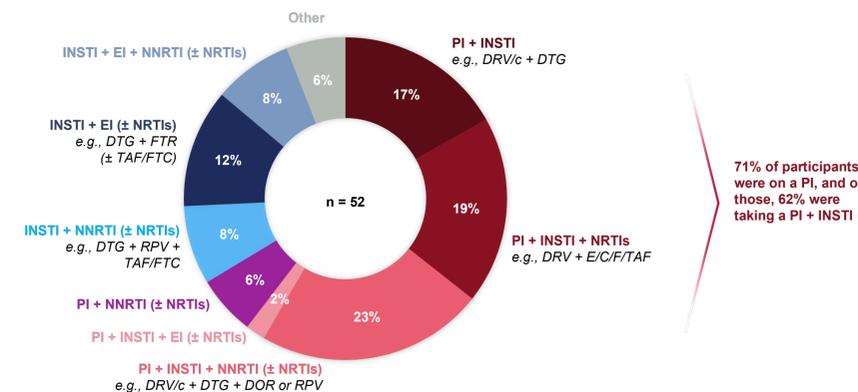
	BIC + LEN (n = 52)
Age, years, median (range)	62 (34-76)
Assigned female at birth, n (%)	7 (13.5)
Race, n (%)	
White	34 (65.4)
Black	16 (30.8)
Asian	2 (3.8)
Hispanic or Latine,^a n (%)	9 (17.6)
CD4 count, cells/μL, median (Q1, Q3)	624 (517, 791)
Past medical history of AIDS, n (%)	10 (19.2)
Duration of HIV treatment, years,^b median (Q1, Q3)	27.0 (18.9, 31.5)
Number of prior ARTs, median (Q1, Q3)	7.0 (3.0, 11.0)
Reasons for taking a complex regimen,^c n (%)	
History of resistance	40 (76.9)
Intolerance to components of STRs	11 (21.2)
Contraindication to STRs	4 (7.7)
Historical resistance mutations,^d n (%)	
INSTI	0
NNRTI	28 (53.8)
NRTI	35 (67.3)
PI	17 (32.7)
Selected comorbidities,^e n (%)	
Dyslipidemia	37 (71.2)
Hypertension	29 (55.8)
New-onset diabetes mellitus or hyperglycemia	16 (30.8)
Chronic kidney disease	12 (23.1)

^an = 51; local regulators did not allow collection of ethnicity information for one participant. ^bDuration of HIV treatment = (first dose date – start date of the first HIV treatment + 1 day)/365.25. ^cCategories are not mutually exclusive. ^dAlternative resistance mutations were available for 48% (INSTI), 91% (NNRTI), 81% (NRTI), and 77% (PI) of participants. ^e(PI) of participants. ^fAcquired immunodeficiency syndrome. ART, antiretroviral therapy; BIC, bicitegravir; CD4, cluster of differentiation 4; INSTI, integrase strand transfer inhibitor; LEN, lenacapavir; MedDRA, Medical Dictionary for Regulatory Activities; NNRTI, non-nucleoside reverse transcriptase inhibitor; NRTI, nucleoside(nucleotide) reverse transcriptase inhibitor; PI, protease inhibitor; Q, quartile; STR, single-tablet regimen.

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- Overall, 52 PWH were originally randomized to take BIC 75 mg + LEN 50 mg once daily
 - Of these, 5 discontinued during the randomized period, and 47 entered the extension period and took BIC 75 mg/LEN 50 mg STR once daily

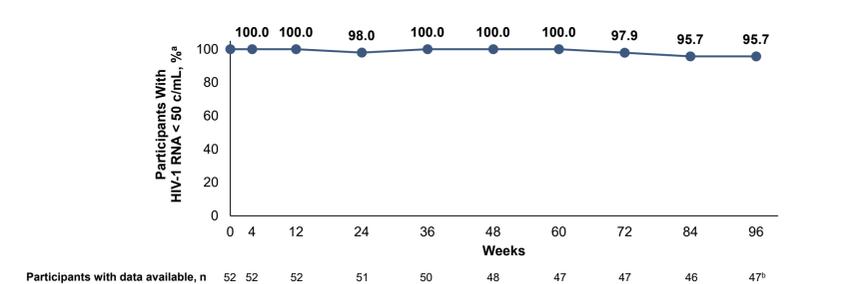
Complexity of ART Regimens in Participants Randomized to BIC 75 mg + LEN 50 mg in Phase 2



n = 52 participants were randomized to take BIC 75 mg + LEN 50 mg. The most common regimen(s) are shown in italics in each regimen category box (e.g., the most common PI + INSTI was DRV/c + DTG); this is not an exhaustive list. Percentages do not sum to 100% due to rounding. ART, antiretroviral therapy; BIC, bicitegravir; C, cobicistat; DOR, doravirine; DRV, darunavir; DRV/c, darunavir/cobicistat; DTG, dolutegravir; EI, entry inhibitor; E, elvitegravir; FTC, emtricitabine; FTR, fostemsavir; INSTI, integrase strand transfer inhibitor; LEN, lenacapavir; NNRTI, non-nucleoside reverse transcriptase inhibitor; NRTI, nucleoside/nucleotide reverse transcriptase inhibitor; PI, protease inhibitor; RPV, rilpivirine; TAF, tenofovir alafenamide.

- At baseline, participants were taking a median (range) of 3 (2-9) antiretroviral tablets per day and 42% were taking antiretroviral tablets twice daily

Virologic Outcomes Through Week 96 (M = E)



- High levels of virologic suppression were maintained through Week 96, with 96% (45/47) of participants with HIV-1 RNA < 50 c/mL (M = E)
- Median (Q1, Q3) change in CD4 count from baseline to Week 96 was -6 (-118, 123) cells/μL

^aBased on the last HIV-1 RNA measurement during each analysis window regardless of whether the participant was taking BIC and LEN during the analysis window or not. ^b5/52 participants had no virologic data at Week 96 as they discontinued the study during the randomized period due to: adverse event, death, lack of efficacy, investigator discretion, participant decision (n = 1 each). BIC, bicitegravir; c, copies; CD4, cluster of differentiation 4; LEN, lenacapavir; M = E, missing = excluded; Q, quartile.

Disclosures: MH reports payment or honoraria for lectures, support for attending meetings and/or travel; and participation on advisory boards from Gilead Sciences, Inc., Merck, and Viiv Healthcare. MB reports payment or honoraria for lectures, speakers' bureaus, or educational events; participation in advisory boards from Gilead Sciences, Inc., GSK, and Viiv Healthcare; and support for attending meetings and/or travel from Gilead Sciences, Inc., and Viiv Healthcare. JMS reports payment or honoraria for lectures, speakers' bureaus, or educational events from Gilead Sciences, Inc., Merck, Thera, and Viiv Healthcare. MR reports consulting fees from Gilead Sciences, Inc., Shionogi, and Viiv Healthcare; and payment or honoraria for lectures, speakers' bureaus, or educational events from AbbVie, Gilead Sciences, Inc., and Viiv Healthcare.

Participants With HIV-1 RNA ≥ 50 c/mL at Week 96

- Both participants who had HIV-1 RNA ≥ 50 c/mL at Week 96 had low-level viremia (HIV-1 RNA < 500 c/mL) and later resuppressed to HIV-1 RNA < 50 c/mL without treatment modification
- One of these participants met the criteria for resistance testing, which was conducted at Weeks 96 and 108 and resulted in assay failures for all genes

AEs Through Week 96 – Overall Summary

Participants, n (%)	BIC + LEN (n = 52)
AE	46 (88.5)
AE of Grade 3 or higher	13 (25.0)
Serious AE	9 (17.3)
Drug-related AE	3 (5.8)
Atrial conduction time prolongation	1 (1.9)
Decreased blood pressure	1 (1.9)
Nausea and vomiting	1 (1.9)
Serious drug-related AE	0
AE leading to premature treatment discontinuation	1 (1.9)
Grade 3 worsening of vomiting ^a	1 (1.9)
Death	1 (1.9)
Coronary artery disease ^b	1 (1.9)

^aIn a participant with pre-existing episodes of nausea and vomiting. ^bConsidered unrelated to treatment. AE, adverse event; BIC, bicitegravir; LEN, lenacapavir.

AEs Through Week 96 (Frequency ≥ 5%)

Participants, n (%)	BIC + LEN (n = 52)
Upper respiratory tract infection	10 (19.2)
COVID-19	9 (17.3)
Hypertension	7 (13.5)
Arthralgia	6 (11.5)
Cough	6 (11.5)
Nasopharyngitis	5 (9.6)
Diarrhea	4 (7.7)
Erectile dysfunction	4 (7.7)
Urinary tract infection	4 (7.7)
Benign prostatic hyperplasia	3 (5.8)
Constipation	3 (5.8)
Flank pain	3 (5.8)
Headache	3 (5.8)
Insomnia	3 (5.8)
Musculoskeletal chest pain	3 (5.8)
Pain in extremity	3 (5.8)
Pyrexia	3 (5.8)
Skin laceration	3 (5.8)

AE, adverse event; BIC, bicitegravir; LEN, lenacapavir.

- Weight remained stable through Week 96, with a median (Q1, Q3) change from baseline of 0.0 (-3.0, 2.7) kg

References: 1. Department of Health and Human Services. <https://clinicalinfo.hiv.gov/sites/default/files/guidelines/documents/adult-adolescent-arv/guidelines-adult-adolescent-arv.pdf> (accessed Nov. 13, 2025). 2. European AIDS Clinical Society. <https://eacs.sanfordguide.com/en/eacs-hiv/art/eacs-initial-regimens-arv-naive-adults> (accessed Nov. 13, 2025). 3. Chang HM, et al. *BMC Infect Dis*. 2022;22:4. 4. Rolle C-P, et al. *J Virus Erad*. 2020;6:100021. 5. Amaral P, et al. *Pharmaceuticals*. 2023;15:2488. 6. Acosta RK, et al. *Antimicrob Agents Chemother*. 2019;63:e02533-18. 7. Gandhi RT, et al. *JAMA*. 2025;333:609-28. 8. Dvory-Sobol H, et al. *Curr Opin HIV AIDS*. 2022;17:15-21. 9. Mounzer K, et al. *Clin Infect Dis*. 2025;80:881-8. 10. Mounzer K, et al. *Open Forum Infect Dis*. 2025;12:ofaf615.

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