

Increased Screening for Sexually Transmitted Infections and HIV Surrogate Marker Testing Among Long-Acting Injectable Versus Daily Oral ART Antiretroviral Therapy Users in the OPERA Cohort

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OPERA[®]
The Longitudinal Cohort

AIDS 2024
22–26 July

Background

- Despite clear guidelines for primary and preventive healthcare for PWH,¹ screening is often suboptimal
- According to the 2020 Medical Monitoring Project,² less than half of PWH received gonorrhea, chlamydia, and syphilis testing in the 12 months prior to interview
- Frequent interactions with the healthcare system may provide opportunities to improve both HIV and primary care, as well as health outcomes

Objective

Describe the potential ancillary benefits of increased patient engagement associated with long-acting antiretroviral therapy injection visits

Methods

Study Population

- OPERA[®] observational cohort: Prospectively captured, routine clinical data from EHRs in the US
- Inclusion criteria
 - Treatment-experienced PWH
 - ≥ 18 years old
 - Initiated CAB+RPV LA injections or new oral ART between 21JAN2021 and 30JUN2022
 - Virologically suppressed (VL < 50 copies/mL)

Study Design

- Prospective cohort with matched groups
- Each PWH initiating CAB+RPV LA injections was matched to up to 3 PWH initiating new oral ART on:
 - Age (18-29, 30-49, 50-64, ≥ 64 years)
 - Sex (male, female)
 - Location (same state within same healthcare system)

Censoring Events

- Matched groups followed until the first of:
 - Regimen discontinuation
 - CAB+RPV LA: > 69 days (monthly) or > 127 days (every 2 months) without injection
 - Oral ART: > 45 days without ART or switch to CAB+RPV LA injections
 - Loss to follow-up (12 months after last contact)
 - Death
 - End of study (30JUN2023)

Descriptive Analyses

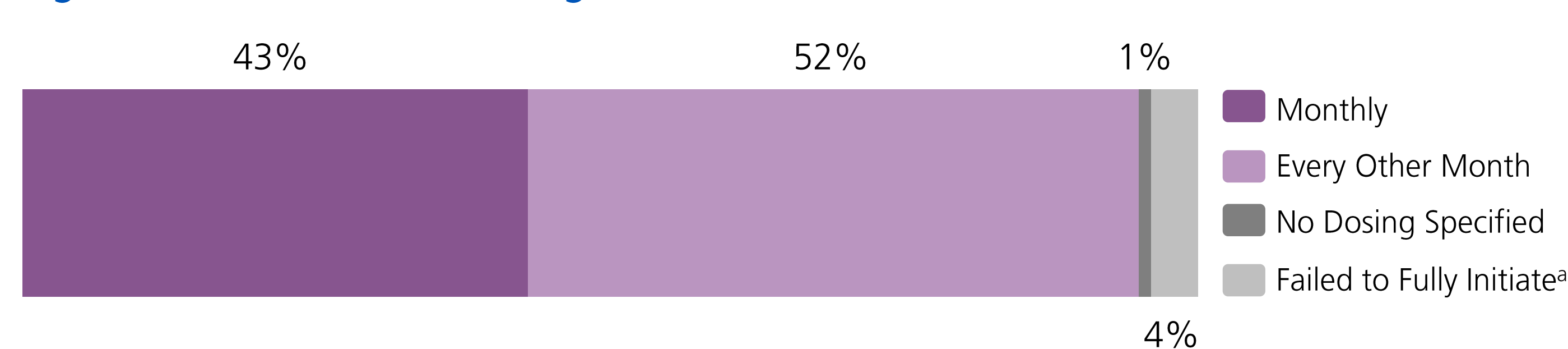
- Baseline: Start date of ART regimen of interest
- Proportions of PWH receiving testing over follow-up described among PWH due for the test
- Proportions of PWH retained in care, per CDC definition, described among PWH with ≥ 12 months of follow-up

Results

Table 1. Baseline demographic and clinical characteristics

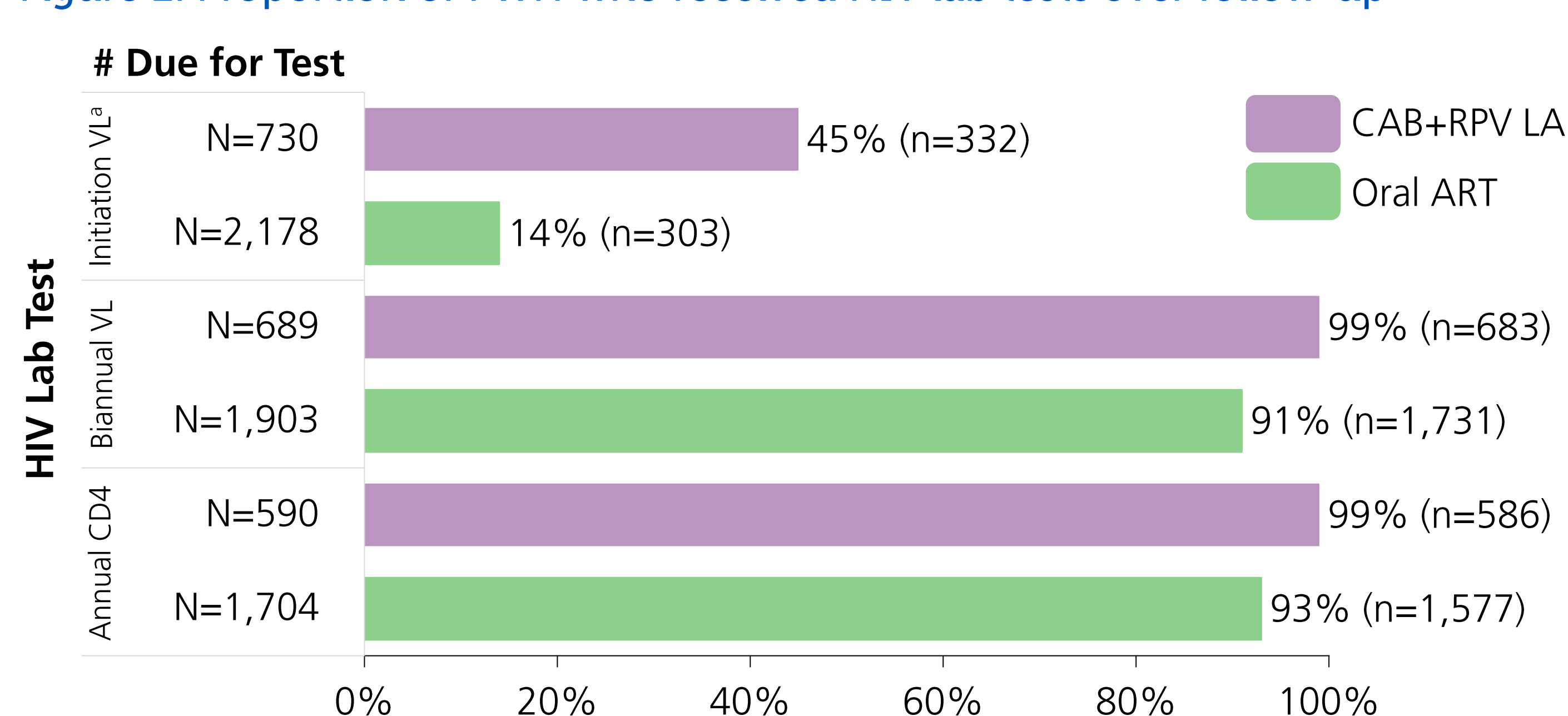
	CAB+RPV LA n = 730	Oral ART n = 2,178
Age in years, median (IQR)	40 (33, 53)	42 (33, 53)
Female sex, n (%)	117 (16)	348 (16)
Black race, n (%)	289 (40)	869 (40)
Hispanic ethnicity, n (%)	207 (28)	594 (27)
US geographic region South, n (%)	421 (58)	1,275 (59)
Years since HIV diagnosis, median (IQR)	7 (4, 14)	8 (4, 16)
Years since first OPERA visit, median (IQR)	4 (2, 7)	5 (3, 8)
CD4 cell count (cells/μL), median (IQR)	669 (486, 882)	682 (511, 907)
History of syphilis, n (%)	329 (45)	916 (42)
Had ≥ 1 visit with HCP in past 12 months	729 (> 99)	2,154 (99)

Figure 1. CAB+RPV LA dosing schedule, n=730



^a Received only the first CAB+RPV LA injection

Figure 2. Proportion of PWH who received HIV lab tests over follow-up



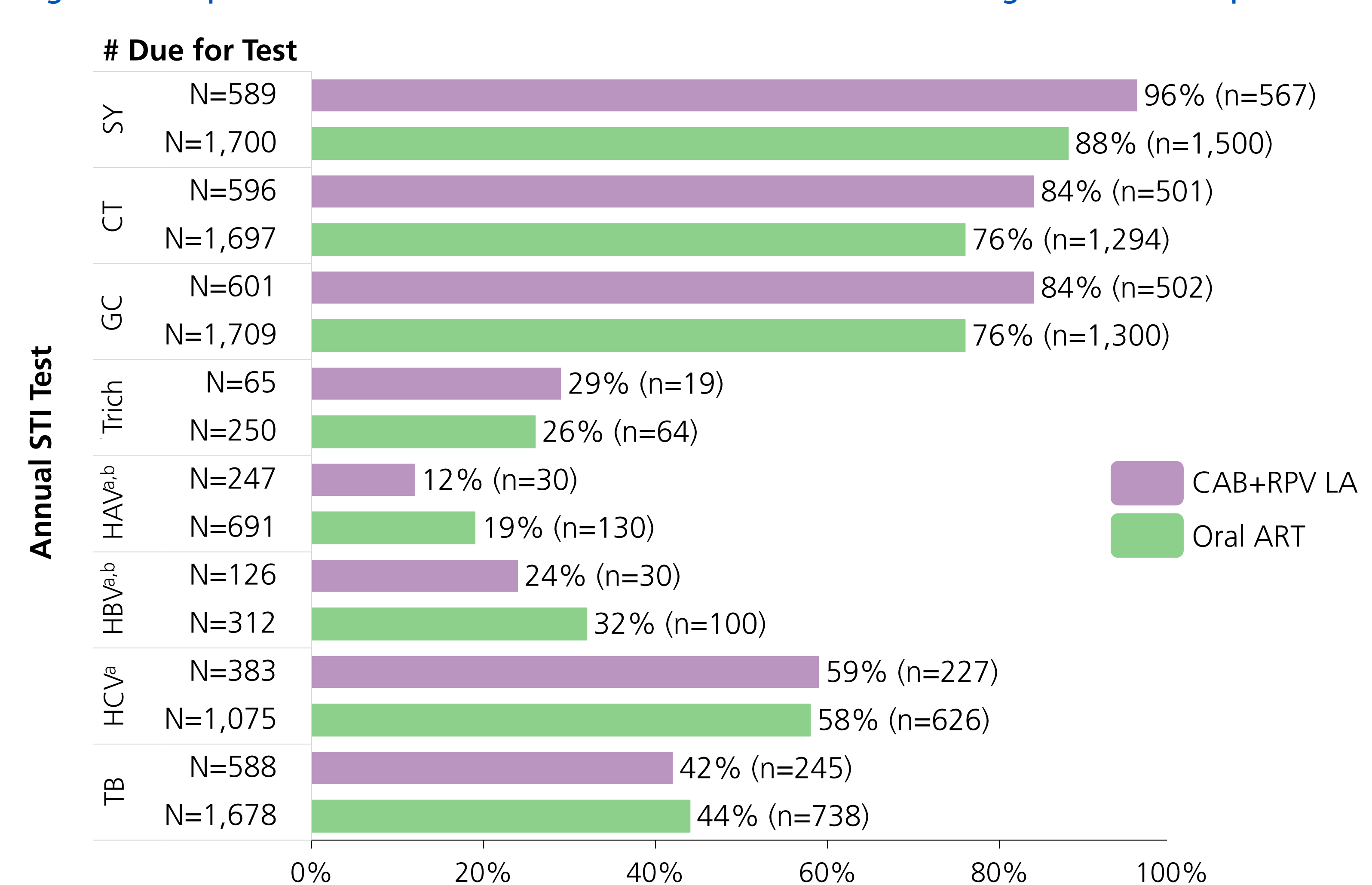
^a A viral load test is recommended within 4 to 8 weeks after starting a new ART regimen³

Table 2. HIV retention in care over follow-up among PWH with ≥12 months of follow-up

	CAB+RPV LA n = 551	Oral ART n = 1,599
Months of follow-up, median (IQR)	15 (13, 18)	20 (16, 25)
Viral load or CD4 cell count tests, n (%)	---	---
0 tests	0 (0)	89 (6)
1 test	6 (1)	120 (8)
≥ 2 tests	545 (99)	1,390 (87)
Met CDC's definition of retained in care ^a	515 (93)	1,298 (81)

^a HIV retention in care is defined as two or more VL or CD4 tests per year, ≥ 3 months apart

Figure 3. Proportion of PWH who received annual STI or TB testing over follow-up



^a Limited to individuals without HCV infection who are (a) men who have sex with men, (b) transgender women, or (c) people who inject drugs

^b Limited to unvaccinated individuals

Abbreviations

AIDS, acquired immuno-deficiency syndrome; ART, antiretroviral therapy; CAB+RPV LA, cabotegravir plus rilpivirine long-acting; CDC, Centers for Disease Control; CT, chlamydia trachomatis; EHR, electronic health record; GC, Neisseria gonorrhoeae; HAV, hepatitis A virus; HBV, hepatitis B virus; HCP, healthcare provider; HCV, hepatitis C virus; HIV, human immunodeficiency virus; IQR, interquartile range; mL, milliliter; n, number; OPERA, Observational Pharmaco-Epidemiology Research and Analysis; PWH, people with HIV; STI, sexually transmitted infection; SY, syphilis; TB, tuberculosis; Trich, trichomoniasis; μL, microliter; US, United States; VL, viral load

Discussion

- Baseline characteristics were comparable between groups (Table 1)
- A higher proportion of PWH on CAB+RPV LA than oral ART:
 - Received VL test within 4-8 weeks of regimen start (Figure 2)
 - < 25% of PWH, however, received this recommended test
 - Received biannual VL and annual CD4 cell counts tests (Figure 2)
 - Received annual SY, CT, and GC testing (Figure 3)
- Among PWH with ≥ 12 months of follow-up, 93% and 81% of those taking CAB+RPV LA or oral ART, respectively, met the CDC's definition for HIV retention in care (Table 2)
- Testing for Trich, HAV, HBV, and TB was received by < 50% of PWH (Figure 3)

Key Findings

- Most HIV labs & STI tests were received by a larger proportion of PWH receiving CAB+RPV LA than oral ART
- Frequent clinic visits for CAB+RPV LA injections have the potential to lead to earlier detection of STIs and HIV progression
- A larger proportion of PWH receiving CAB+RPV LA were retained in care than PWH receiving oral ART

References

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- Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents with HIV. Department of Health and Human Services. Last accessed (6/18/2024) [Table 3].

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