OPEN
JAIDS Journal of Acquired Immune Deficiency Syndromes Publish Ahead of Print
DOI: 10.1097/QAI.0000000000003889

Long-acting injectable cabotegravir HIV PrEP uptake, adherence, and persistence in two large US integrated healthcare systems

Authors

Michael W. Traeger, PhD MSc[1,2,3], Wendy A. Leyden, MPH[4], Lindsay G. Eberhart, MHS[8], Jonathan E. Volk, MD MPH[5], Michael J. Silverberg, PhD MPH[4,6,7], Michael A. Horberg, MD MAS[6,8], Teaniese L. Davis, PhD, MPH[9], Kenneth H. Mayer, MD[10,11,12], Douglas S. Krakower, MD[1,10,11,12], Jessica G. Young, PhD[1,11], Samuel M. Jenness, PhD[13], Julia L. Marcus, PhD MPH[1,10,11]

Affiliations

1. Department of Population Medicine, Harvard Pilgrim Health Care Institute, Boston, MA, USA
2. Burnet Institute, Melbourne, Australia
3. School of Public Health and Preventive Medicine, Monash University, Melbourne, Australia
4. Division of Research, Kaiser Permanente Northern California, Pleasanton, CA, USA
5. Department of Infectious Diseases, Kaiser Permanente San Francisco, San Francisco, CA, USA
6. Department of Health Systems Science, Kaiser Permanente Bernard J. Tyson School of Medicine, Pasadena, CA, USA
7. Departments of Epidemiology and Biostatistics, University of California, San Francisco, San Francisco, CA, USA
8. Kaiser Permanente Mid-Atlantic States, Mid-Atlantic Permanente Medical Group, Washington, District of Colombia, USA
9. Centre for Research and Evaluation, Kaiser Permanente Georgia, Atlanta, GA, USA
10. The Fenway Institute, Fenway Health, Boston, MA, USA
11. Harvard Medical School, Harvard University, Boston, MA, USA
12. Division of Infectious Diseases, Beth Israel Deaconess Medical Center, Boston, MA, USA
13. Department of Epidemiology, Rollins School of Public Health, Emory University, Atlanta, GA, USA

Corresponding author:

Michael Traeger
Michael_Traeger@hphci.harvard.edu
Department of Population Medicine
Harvard Pilgrim Health Care Institute
401 Park Drive, Suite 401 East
Boston, MA 02215
United States

Running word count: 2931

Conflicts of interest disclosures

Dr Traeger reports speaker's honoraria and investigator-initiated research grants unrelated to this work from Gilead Sciences, Inc. Dr Mayer reports unrestricted research grants to the institution from Gilead Sciences, Merck, and ViiV Healthcare to study antiretroviral PrEP and participation on scientific advisory boards for each of these companies. Dr Krakower reports unrestricted research grants to the institution from Gilead Sciences and Merck to study antiretroviral PrEP and funds to develop medical education content on HIV prevention for Medscape and UpToDate, Inc., and he has received travel support from PrEP4All to attend a conference on a national PrEP plan. No other disclosures were reported.

Funding

This research was supported by the National Institutes of Health (R01 AI174862 to JLM).

ABSTRACT

Background: Long-acting cabotegravir (CAB-LA) was approved as HIV pre-exposure prophylaxis (PrEP) in the U.S. in December 2021, but data are limited on uptake, adherence, and persistence in clinical practice.

Methods: We extracted electronic health records of adults receiving oral or injectable PrEP during December 2021-June 2024 at Kaiser Permanente (KP) Northern California and Mid-Atlantic States, two large integrated healthcare systems. We used chi-square tests to compare characteristics of CAB-LA users and oral-PrEP-only users. Among CAB-LA users, we assessed adherence to bimonthly injections after lead-in doses (weeks 0 and 4) and used Kaplan-Meier methods to estimate persistence.

Results: Among 23,311 individuals accessing oral or injectable PrEP, 180 (0.8%) received CAB-LA, with 23.9% having no documentation of prior PrEP use at KP. Compared with oral-PrEP-only users, a

lower proportion of CAB-LA users were commercially insured (82.2% vs 89.2%; *P*=0.014) and a higher proportion were Black (18.9% vs 10.2%) or Hispanic (34.4% vs 23.6%; *P*<0.001 across race/ethnicity categories). Of 688 non-lead-in CAB-LA injections, 90.4% were administered within 8 weeks +7 days after the prior injection. Persistence on CAB-LA was 87.9% and 74.9% at 6 and 12 months, respectively. There were no incident HIV infections during CAB-LA use.

Conclusions: CAB-LA is engaging new users, including populations traditionally underrepresented in PrEP uptake, and adherence and persistence are high in clinical practice. However, uptake of CAB-LA is extremely low, suggesting population impact will be limited without efforts to expand implementation and use.

INTRODUCTION

Oral pre-exposure prophylaxis (PrEP) for HIV prevention is highly effective when used as prescribed and has been available for over a decade in the United States. Nevertheless, the US Centers for Disease Control and Prevention (CDC) has estimated that of the 1.2 million people in the US who would have benefited from PrEP in 2022, only 36% were prescribed it.[1] Inequities in unmet need for PrEP by race, ethnicity, gender, and geographic region[2] are driven by structural and individual-level barriers to PrEP use, such as stigma and challenges associated with daily pill taking.[3] Long-acting injectable PrEP formulations offer an additional option with the potential to address many of these barriers, thereby increasing PrEP uptake, adherence, and persistence and narrowing disparities across the PrEP care continuum.

Long-acting cabotegravir (CAB-LA) was the first injectable formulation approved as HIV PrEP in the US in December 2021. Two large phase III clinical trials among cisgender women[4] and gay and bisexual men and transgender women[5] showed that CAB-LA injections every 8 weeks were superior to daily oral tenofovir with emtricitabine in preventing new HIV infections. As of 2021, CDC's PrEP prescribing guidelines recommend the use of CAB-LA, particularly for individuals who face challenges with taking oral PrEP.[6]

Although CAB-LA may overcome some barriers to oral PrEP use, it has also introduced new barriers, such as those related to drug costs and delivery.[7] As a result, national claims data suggest that CAB-LA uptake has been extremely limited in the US, reaching only 2.5% of PrEP users in 2023.[8] However, prior analyses have not included data from closed healthcare systems, such as Kaiser Permanente, where patterns of PrEP prescribing may differ. Moreover, there have been few reports on the sociodemographic characteristics of CAB-LA users compared with oral PrEP users, limiting our understanding of whether CAB-LA is expanding PrEP use in underserved populations. Finally, data are limited on CAB-LA adherence and persistence outside of clinical trials.[9]

With the approval of twice yearly lenacapavir as long-acting PrEP in June 2025, it is critical to understand the scope, challenges, and promise of long-acting injectable PrEP implementation to-date. In this study, we evaluated implementation of CAB-LA in two large integrated healthcare systems. We aimed to (1) describe CAB-LA uptake, including sociodemographic characteristics of early adopters of CAB-LA, (2) assess adherence to CAB-LA injection schedules and persistence on CAB-LA over time, and (3) estimate the incidence of HIV and sexually transmitted infection (STI) diagnoses among individuals who initiated CAB-LA.

METHODS

Study setting and population

The study settings were Kaiser Permanente (KP) Northern California (KPNC) and Kaiser Permanente Mid-Atlantic States (KPMAS), which collectively provide comprehensive medical services to a diverse population of over 5.4 million members across Northern California, Maryland, Northern Virginia, and Washington, D.C.[10]

CAB-LA was implemented at KPNC in May 2022 and at KPMAS in March 2023. Patients who met CDC's indications for PrEP were eligible for CAB-LA.[11] The decision to initiate CAB-LA was individualized, with eligibility for CAB-LA typically requiring recent negative HIV testing, engagement in care with willingness to attend regular injection visits, and at least one of several criteria including intolerance to oral PrEP, frequent missed doses, medical contraindications (e.g., renal impairment or osteoporosis), repeated need for non-occupational post-exposure prophylaxis, structural or individual-level barriers to pill-taking, or prior gastric bypass surgery. This retrospective cohort study included all adult KPNC and KPMAS members dispensed HIV PrEP from December 2021 (the date of CAB-LA approval) through June 2024, including members dispensed oral PrEP and/or prescribed CAB-LA PrEP. Individuals were followed until disenrollment from the health plan or the end of the study period), whichever occurred first.

This study was approved by the KPNC Institutional Review Board (IRB), with the KPMAS IRB ceding to the KPNC IRB. The study received a waiver of informed consent because this research used existing clinically derived data and involved no more than minimal risk.

Data collection

We extracted data from the KPNC and KPMAS electronic health records. Sociodemographic characteristics included age, race, ethnicity, sex, and health insurance status. We used pharmacy dispensing data to identify oral PrEP use and clinical encounter records to identify CAB-LA injections. We extracted data on diagnoses of hypertension, diabetes, osteopenia, and osteoporosis, as these may affect clinical decision-making about PrEP formulation. Laboratory data included tests and results for HIV (including antibody/antigen and RNA tests [copies/mL]), chlamydia, gonorrhea, and syphilis. Testing for HIV and STIs was conducted routinely as part of KP PrEP programs. Individuals using CAB-LA were tested for HIV with both antibody/antigen combination assay and RNA testing at CAB-LA initiation and all follow-up visits. Testing for urogenital, pharyngeal, and rectal chlamydia and gonorrhea was conducted using dual nucleic acid amplification tests. Testing at each anatomic site was recommended based on sexual exposures. New cases of syphilis were identified by the study team using laboratory results and a previously used algorithm consistent with the reverse sequence testing approach used at KP sites.[12,13]

Statistical analysis

We compared baseline characteristics of individuals prescribed CAB-LA at least once to characteristics of individuals dispensed only oral PrEP during the study period. Baseline was defined as the date of first CAB-LA prescription for the CAB-LA group and as the date of first oral PrEP pharmacy fill for the oral-PrEP-only group.

Analyses of adherence to the CAB-LA injection schedule and persistence on CAB-LA were based on the International Antiviral Society-USA guidelines for CAB-LA prescribing.[14] We assessed adherence to the recommended CAB-LA injection schedule by computing the proportion of CAB-LA injections administered within the recommended target intervals. We classified CAB-LA injections as lead-in doses (the first injection received), first follow-up doses (the first injection received after a lead-in dose), or subsequent follow-up doses. First follow-up doses were defined as on-time if administered within 4 weeks +/-7 days after the lead-in dose, and subsequent doses were defined as on-time if they were administered within 8 weeks +/-7 days after the previous non-lead-in dose. Late injections were defined as those that occurred more than 7 days, but within 8 weeks, of the target date.

We estimated the cumulative probability of persisting on (i.e., not discontinuing) CAB-LA through 12 months after starting CAB-LA using the Kaplan-Meier survival estimator with corresponding 95% confidence intervals (CI). We classified individuals as having discontinued CAB-LA if there was a 12-week period after the initial lead-in dose without a follow-up dose, or more than 16 weeks after a non-lead-in dose without a follow-up dose. Date of discontinuation ("time to failure") was defined as the end of the 12- or 16-week period with no follow-up dose, as clinical guidelines recommend restarting CAB-LA with a 'reloading' dose if injections are more than 8 weeks late.[14] Among individuals who discontinued CAB-LA, we determined the proportion subsequently prescribed oral PrEP.

Among people prescribed CAB-LA, we computed HIV and STI incidence after starting CAB-LA using repeat testing methods. For incidence calculations, individuals were followed from their first test (for the respective outcome) on or after the date of their first CAB-LA injection until their last test during the study period or until they were censored at CAB-LA discontinuation. Upper CIs for zero rates were calculated using the Poisson exact method.

All analyses were performed using STATA Version 17 (StataCorp, Texas).

RESULTS

Study population and CAB-LA uptake

A total of 23,311 people received HIV PrEP across the two Kaiser Permanente regions during the study period. Overall, the mean age was 39.4 years, 5.9% were female, and 10.7% were publicly insured. Among all PrEP users, 10.2% were Black or African American, 15.6% Asian, 41.5% White, 0.6% Native Hawaiian or other Pacific Islander, 0.4% American Indian or Alaska Native, 1.3% multiracial, and 23.7% Hispanic.

Of the 23,311 PrEP users, 180 (0.8%) were prescribed CAB-LA at least once (141 at KPNC and 39 at KPMAS). Of the 180 CAB-LA users, 43 (23.9%) had never previously been dispensed oral PrEP at KPNC or KPMAS. Compared with those dispensed only oral PrEP, individuals prescribed CAB-LA were slightly older (mean age, 39.1 vs 37.4 years, *P*=0.042) and a higher proportion were publicly insured (17.8% vs 10.8%, *P*=0.014)(Table 1). A higher proportion of CAB-LA users compared with those dispensed only oral PrEP were Black (18.9% vs 10.2%) or Hispanic (34.4% vs 23.6%; *P*<0.001 for the comparison across all race and ethnicity categories). Compared with people dispensed oral PrEP only, a higher proportion of CAB-LA users had a history of hypertension (22.2% vs 13.3%) and bacterial STI diagnosis ever at KP (45.0% vs 28.0%). We did not observe differences by sex between CAB-LA users and those only dispensed oral PrEP.

Adherence to CAB-LA injection schedule

Among the 180 people prescribed CAB-LA, there were a total of 868 CAB-LA injection records during the study period. Excluding the 180 initial lead-in doses, there were 688 follow-up doses included in adherence analyses, with 158 first follow-up doses (target injection date of 4 weeks since lead-in dose) and 530 subsequent follow-up doses (target injection date of 8 weeks since previous dose).

Overall, 596 (86.6%) injections were administered on time, 26 (3.8%) were administered early, and 66 (9.6%) were administered late. The proportion of injections administered late was higher for first follow-up injections (16.5%) compared with subsequent follow-up injections (7.5%) (Figure 2).

Persistence on CAB-LA

Of the 180 patients prescribed CAB-LA, the cumulative proportion who persisted on CAB-LA at 6 and 12 months was 87.9% (95% CI: 81.3-92.1) and 74.9% (95% CI: 66.3-81.6), respectively (Figure 1). There were 35 individuals classified as having discontinued CAB-LA during the first 12 months after initiation. Of those, 12 (34.3%) were dispensed oral PrEP after their last CAB-LA injection, with a range of 114 to 295 days from the date of last recorded CAB-LA injection to the first subsequent pharmacy fill for oral PrEP, and 8 (22.9%) restarted CAB-LA before the end of the study period. Of the 103 individuals which were censored prior to 12 months of follow-up, 12 were censored due to disenrollment from their KP healthcare plan and 91 were censored as the end of the study period was before 12 months of follow-up; none were censored due to death(Figure 3).

HIV and STI incidence among CAB-LA users

Among the 180 CAB-LA users, there were a total of 342 HIV testing events over 96.5 person-years of follow-up, with zero HIV infections (incidence rate 0.0 per 100 person-years; upper limit of one-sided 97.5% CI: 4.5). For STI analyses, there were 8 chlamydia diagnoses and 25 gonorrhoea diagnoses over 92.6 person-years, and 1 syphilis diagnosis over 92.5 person-years. Individual STI incidence rates were 8.6 per 100 person-years (95% CI: 4.3 – 17.3) for chlamydia, 26.9 per 100 person-years (95% CI: 18.2 – 39.9) for gonorrhea, and 1.1 per 100 person-years (95% CI: 0.2 – 7.7) for syphilis. Incidence of any STI during CAB-LA use was 36.6 per 100 person-years (95% CI: 25.4-51.3).

DISCUSSION

In this cohort of more than 23,000 individuals accessing HIV PrEP across two large integrated healthcare systems in the US, less than 1% of PrEP users initiated long-acting injectable PrEP during the study period. Compared with individuals who were dispensed only oral PrEP, higher proportions of those who initiated CAB-LA were Black, Hispanic, and publicly insured, and nearly 1 in 4 had no prior documentation of oral PrEP use. Among those who initiated CAB-LA, more than 90% of injections were delivered during the recommended target windows and three-quarters persisted on CAB-LA at 12 months. Our results suggest that CAB-LA is engaging new PrEP users, including groups traditionally underrepresented in PrEP uptake,[15,16] with high adherence and persistence among those who initiate. However, extremely low uptake of CAB-LA will substantially limit its impact on both HIV incidence and disparities in PrEP use.

The minimal uptake of CAB-LA we observed was consistent with low national estimates of uptake and widespread reports of barriers to implementation.[8] Although we were not able to measure interest in CAB-LA in our cohort, low uptake of CAB-LA both nationally and in our study setting differs substantially from prior estimates of interest in long-acting PrEP. A large national survey among men who have sex with men in the US found high interest in long-acting injectable PrEP, with 73% of respondents indicating a preference for that modality compared to daily oral PrEP.[17] Other US studies have also shown that long-acting injectable PrEP is a preferred PrEP option among transgender women[18] and some cisgender Black women.[19]

The gap between interest in use of long-acting injectable PrEP and actual use of CAB-LA may be partly explained by systemic barriers to implementation. A recent policy paper from the Infectious Diseases Society of America and HIV Medicine Association identified numerous barriers to CAB-LA implementation reported by providers across diverse healthcare settings, including challenges related to staffing and administrative support, insurance processes, and drug costs, acquisition, and delivery.[7] Within Kaiser Permanente, CAB-LA is available to members who meet clinical indications

for PrEP, but generic oral PrEP remains the first-line option given its equivalent efficacy with substantially lower cost. Early uptake of CAB-LA may also have been limited by high out-of-pocket costs for some members. As policies and operational processes related to CAB-LA have evolved, uptake among members has increased since the end of the study period. Despite uptake remaining low during the study period, almost one-quarter of people who initiated CAB-LA had no history of oral PrEP use at KP, and while some may have accessed PrEP prior to joining KP, our findings suggest that CAB-LA may be engaging new PrEP users and could expand PrEP coverage if systemic barriers were addressed. We found that a higher proportion of people who initiated CAB-LA were Hispanic, Black, or publicly insured compared with those who only used oral PrEP, consistent with prior studies demonstrating higher willingness to use long-acting injectable PrEP among Hispanic compared with non-Hispanic individuals.[17,20,21] In one study among Black sexual and gender minority persons, while PrEP-related stigma was associated with lower willingness to use long-acting injectable PrEP, 54% still reported willingness to use this PrEP modality.[20] Although we did not have data on individual provider- or patient-level decision-making processes, the sociodemographic characteristics of CAB-LA users in our setting could reflect consideration of structural barriers to oral PrEP use in patient-provider discussions about CAB-LA initiation. Our study reinforces that CAB-LA has the potential to narrow racial and ethnic disparities in PrEP use, but uptake of CAB-LA and emerging injectable PrEP modalities must reach far higher levels to have a meaningful impact on these disparities. Qualitative research among CAB-LA users and providers across KP regions is currently underway and will further explore provider- and patient-level decision-making about CAB-LA use.

Mathematical modelling has suggested that the impact of long-acting injectable PrEP formulations will depend on both expanded PrEP coverage and improved adherence and persistence.[22] Indeed, higher adherence and persistence with CAB-LA likely contributed to its higher efficacy compared with oral PrEP in clinical trials. However, few studies have measured CAB-LA adherence or

persistence in real-world settings. One study from San Francisco exploring CAB-LA uptake in an urban safety-net clinic found that among 111 patients who initiated CAB-LA, 85% of injections were on-time and 83% of CAB-LA users persisted on CAB-LA at 6 months. In our setting, we found that more than 90% of injections were administered on time, with a higher proportion of first follow-up injections (i.e., the injection after the initial lead-in dose) delivered late compared with subsequent follow-up injections, suggesting that patients may need more support for appointment scheduling and attendance during early CAB-LA use. Strategies such as proactive scheduling, reminder systems, and patient navigation may optimize adherence to recommended CAB-LA injection timing.

Among the 180 patients who initiated CAB-LA in our cohort, less than 25% discontinued within the first 12 months of CAB-LA use. Persistence on CAB-LA in our cohort was higher than global estimates of oral PrEP persistence; a meta-analysis of 59 observational studies found that 35-41% of oral PrEP users discontinued in the first 12 months.[23] Although measurement of persistence varies across PrEP modalities and studies, limiting inference from direct comparisons, our data are consistent with the hypothesis that longer-acting formulations of PrEP will facilitate longer duration of use and therefore greater population-level impact on HIV incidence. The availability of twice-yearly injections of lenacapavir may further improve persistence on PrEP and subsequent impact on new HIV infections.

Although no HIV infections occurred during follow-up, the substantial burden of bacterial STIs indicates ongoing HIV exposure risk and reinforces the importance of maintaining consistent PrEP coverage. Long-acting PrEP modalities have the potential to support sustained engagement in HIV prevention among individuals with ongoing risk. Given high rates of bacterial STIs in this population, additional STI prevention strategies such as doxycycline post-exposure prophylaxis (doxyPEP) should be integrated into PrEP care. A previous analysis of PrEP users at KPNC demonstrated high uptake of doxyPEP in the first 12 months of availability, with corresponding declines syphilis and chlamydia. [24]

Strengths and limitations

This study has several strengths. First, we used data from one of the largest PrEP providers in the US, with over 20,000 PrEP users that are not included in the claims datasets that are typically used for PrEP surveillance. Second, our study represents some of the first estimates of real-world CAB-LA adherence and persistence. Third, by using high-quality data from integrated healthcare systems, we were able to capture sociodemographic characteristics, prior PrEP use, and laboratory tests and results in a large cohort of PrEP users across multiple regions in the US. We also used pharmacy dispensing data for oral PrEP, providing a more robust measure of PrEP use than prescription data alone.

This study also has several limitations. First, data on gender identity were not readily available in electronic health records, limiting our ability to evaluate CAB-LA use in transgender individuals. Data on sexual orientation were also not available, though individuals using HIV PrEP at KPNC have been previously described as primarily gay and bisexual men.[25] Second, although our sample was diverse with respect to race, ethnicity, and insurance type, all individuals in our cohort had some form of health insurance, limiting generalizability to uninsured populations and other individuals with more limited access to care. As Kaiser Permanente is a closed, integrated healthcare system that operates as both a health care provider and payer, CAB-LA uptake and barriers to access may differ among members compared with uninsured individuals or patients in fee-for-service settings, where insurance coverage processes, medication acquisition, and cost-sharing may vary. Third, our analysis of persistence on CAB-LA relied on the assumption of independent censoring with individuals censored if they disenrolled from their KP health plan as we did not have data reason for disenrollment. Fourth, we did not examine uptake by individual KP site and therefore could not assess whether utilization differed in more urban or demographically diverse clinics.

Conclusions

In this large cohort study of PrEP users accessing care across four US states, uptake of CAB-LA was low. However, among those who initiated CAB-LA, adherence and persistence over 12 months of CAB-LA use was high. In our cohort, CAB-LA engaged new PrEP users, including individuals from populations traditionally underrepresented in PrEP uptake data, highlighting the potential for new PrEP options to narrow disparities in uptake. Although long-acting injectable PrEP modalities that require fewer visits, such as twice-yearly lenacapavir,[26] may further improve PrEP coverage and persistence, systemic barriers to implementation will need to be addressed for the full potential of longer-acting formulations to be realized.

FIGURES

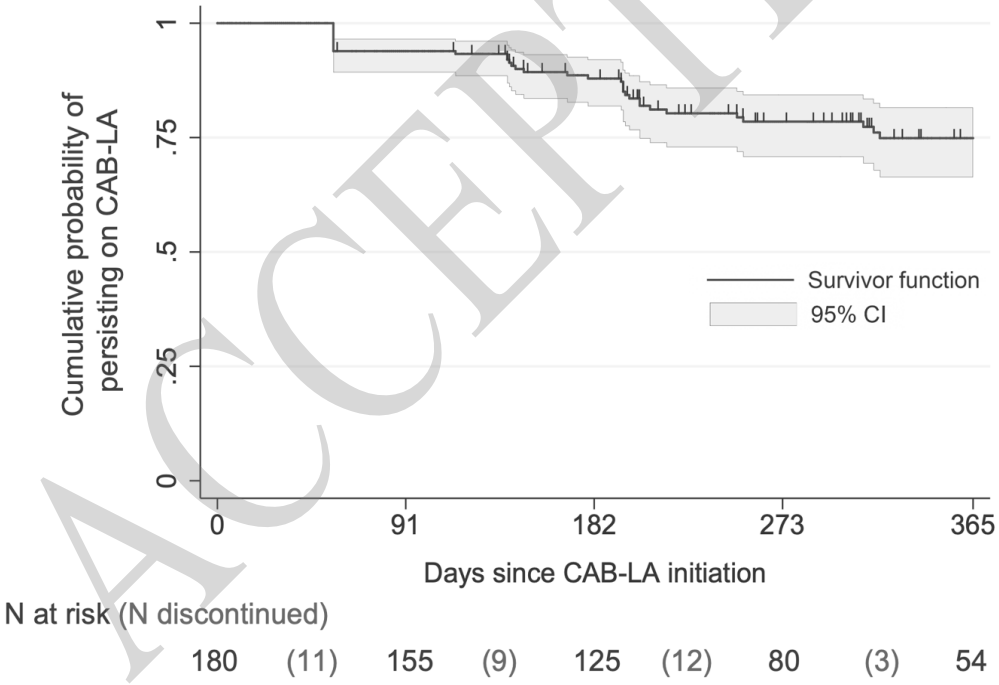
Figure 1: Cumulative probability of persisting on long-acting injectable cabotegravir PrEP during the first year following initiation (n=180)

Footnote:
Vertical lines represent individuals censored
* Individuals censored at disenrollment from health plan or end of study period (30 Jun 2024)

Figure 2: Proportion of long-acting cabotegravir PrEP follow-up injections administered early, on time, or late

Figure 3. Flow diagram of cohort inclusion, censoring and discontinuation for the CAB-LA persistence analysis.

Figure 1: Cumulative probability of persisting on long-acting injectable cabotegravir PrEP during the first year following initiation (n=180)



Footnote:
Vertical lines represent individuals censored
* Individuals censored at disenrollment from health plan or end of study period (30 Jun 2024)

Figure 2: Proportion of long-acting cabotegravir PrEP follow-up injections administered early, on time, or late

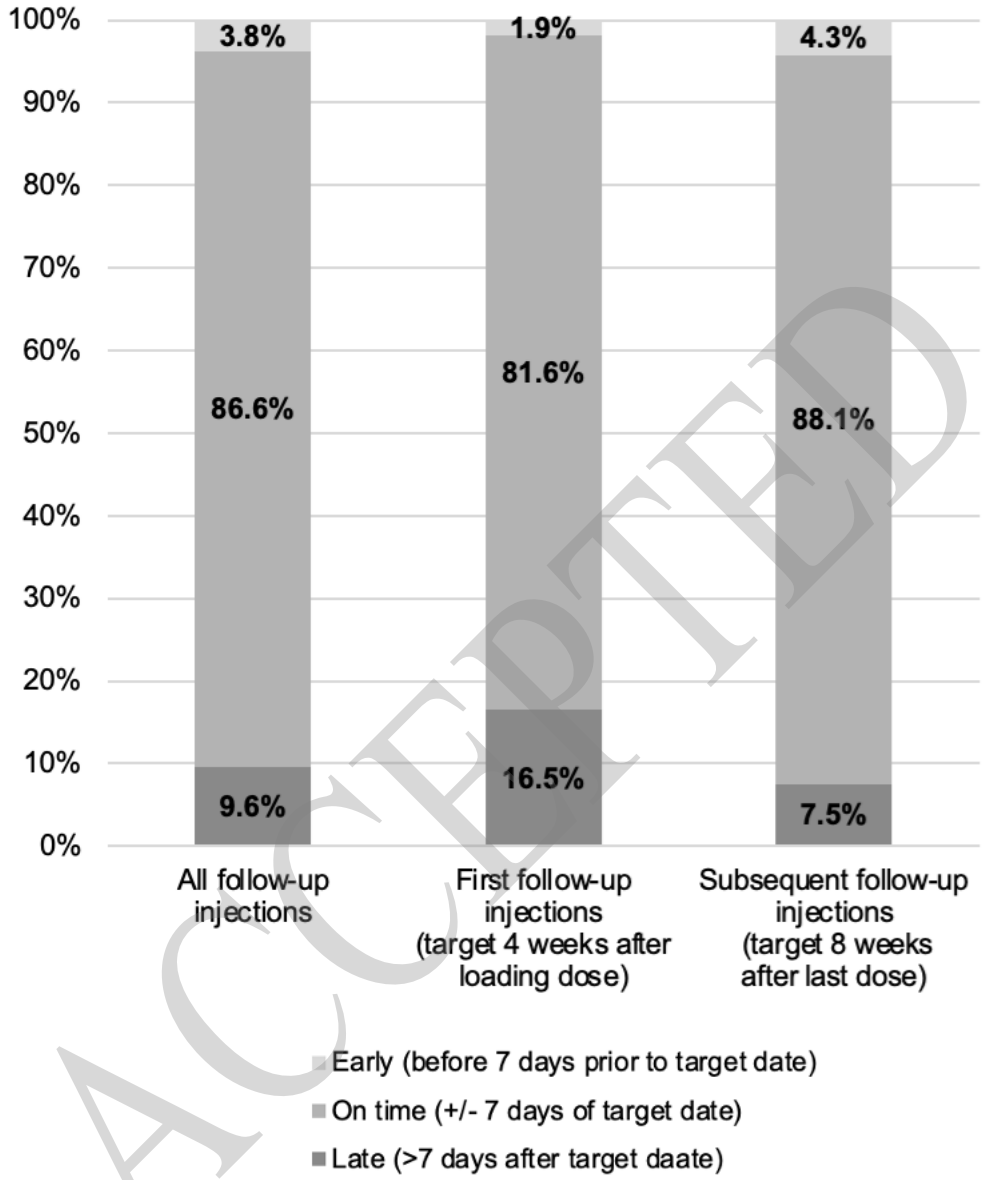
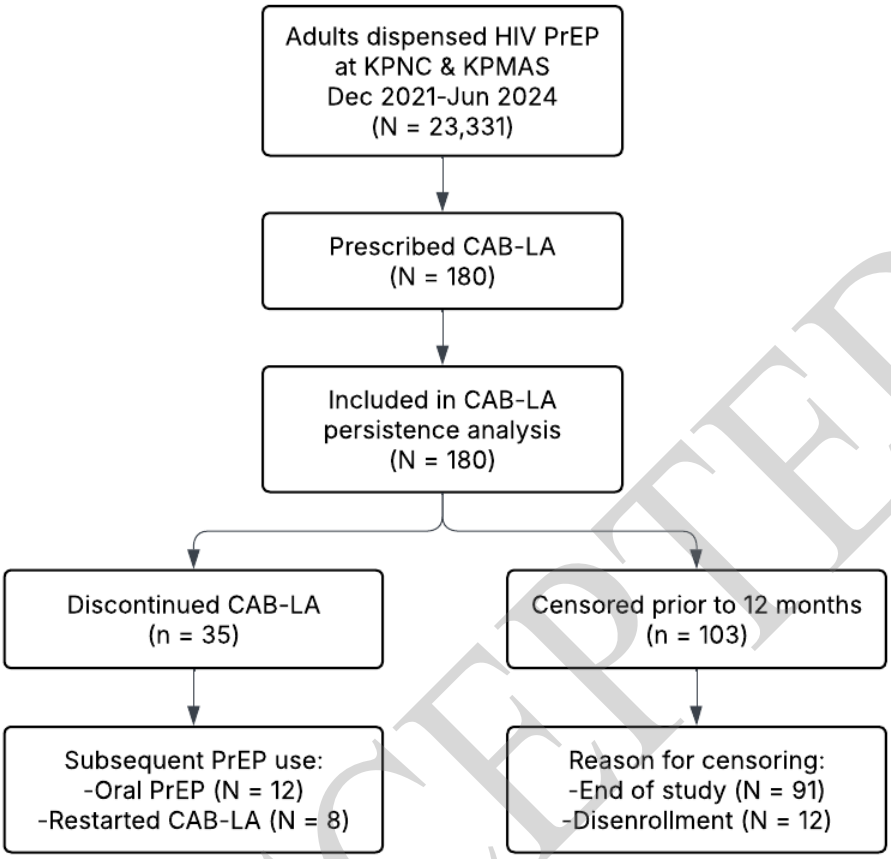


Figure 3. Flow diagram of cohort inclusion, censoring and discontinuation for the CAB-LA persistence analysis.



TABLES

Table 1: Characteristics of HIV PrEP users who did and did not initiate long-acting injectable cabotegravir PrEP, Kaiser Permanente, December 1, 2021-June 30, 2024

Characteristic at baseline	Dispensed oral PrEP only (N=23,131)	Prescribed CAB-LA (N=180)	P-value [a]
Age, years, mean (SD)	37.4 (11.6)	39.1 (11.5)	0.042
Insurance type			0.014
Commercial	20630 (89.2)	148 (82.2)	
Medicaid	1848 (8.0)	27 (15.0)	
Medicare	586 (2.5)	5 (2.8)	
Other	67 (0.3)	0 (0.0)	
Race and ethnicity			<0.001
White alone, non-Hispanic	9627 (41.6)	54 (30.0)	
Asian alone, non-Hispanic	3620 (15.7)	17 (9.4)	
Black or African American alone, non-Hispanic	2354 (10.2)	34 (18.9)	
Native Hawaiian or other Pacific Islander alone, non-Hispanic	140 (0.6)	2 (1.1)	
American Indian or Alaska Native alone, non-Hispanic	297 (1.3)	1 (0.6)	
Multiracial, non-Hispanic	90 (0.4)	0 (0.0)	
Unknown, non-Hispanic	1548 (6.7)	10 (5.6)	
Hispanic	5455 (23.6)	62 (34.4)	
Sex			0.761
Female	1372 (5.9)	13 (7.2)	
Male	21612 (93.4)	166 (92.2)	
Unknown	147 (0.6)	1 (0.6)	
History of bacterial STI prior to baseline			
Any STI	6471 (28.0)	81 (45.0)	<0.001
Syphilis	3707 (16.0)	52 (28.9)	<0.001
Gonorrhea	2366 (10.2)	33 (18.3)	<0.001
Chlamydia	2341 (10.1)	28 (15.6)	<0.001
History of diagnoses prior to baseline			
Hypertension	3064 (13.3)	40 (22.2)	<0.001
Osteopenia	129 (0.6)	1 (0.6)	0.977
Osteoporosis	48 (0.2)	1 (0.6)	0.310
Diabetes	1216 (5.3)	12 (6.7)	0.399
History of oral PrEP fill prior to CAB-LA initiation	-	137 (76.1)	

[a] P-values derived from t-tests for continuous variables and chi-square tests for categorical variables.

PrEP = preexposure prophylaxis; STI = sexually transmitted infection