Characteristics and Medication Adherence of Patients Initiating Injectable Cabotegravir for HIV Treatment or Prevention

POSTER
EPH49

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Background

Existing knowledge

- Injectable cabotegravir/rilpivirine is a long-acting alternative for HIV treatment, while injectable cabotegravir is approved for pre-exposure prophylaxis (PrEP).
- Assessing medication adherence patterns to injectable cabotegravir/rilpivirine (for treatment) or cabotegravir (for prevention) regimens is essential for successful implementation.
- Identifying specific patient characteristics associated with medication adherence can help tailor strategies to improve outcomes.

Objective

- To evaluate adherence to injectable cabotegravir for HIV treatment and prevention among new initiators and identify associated patient characteristics.

Methods

Data

- A subset of Truveta Data was used; Truveta Data is comprised of real-world US electronic health record (EHR) data, which is aggregated, normalized, and de-identified from US health care systems comprising clinics and hospitals.
- Data included conditions, medication requests (e.g., prescriptions), medication dispensing (e.g., fills), laboratory values, and demographics.

Population

- Treatment Cohort (N = 1,226): Adults (≥18 years) initiating injectable cabotegravir/rilpivirine for HIV treatment between January 2021 and June 2024, with an HIV diagnosis prior to initiation.
- Prevention Cohort (N = 831): Adults (≥18 years) initiating injectable cabotegravir for HIV prevention (PrEP) between December 2021 and June 2024, with no prior diagnosis for HIV.
- Any outpatient visit within a year before the first injection.
- Followed up for six months after the first injection.

Measurements & statistical analysis

- Adherence outcomes:
  Dropout (did not complete two initiation injections in the first 2 months).
  Non-adherent (missed scheduled injections post-initiation).
  Adherent (followed injection schedule, including planned oral bridging therapy):
  - Treatment cohort: every 2 months or once monthly (depending on the regimen).
  - Prevention cohort: every 2 months.

- Analyzed covariates: Age, sex, region, race/ethnicity, education, and Elixhauser Comorbidity Index.

- Statistical methods: Descriptive statistics used to summarize the prevalence of drop-out, non-adherence, and adherence to injectable cabotegravir/rilpivirine and cabotegravir.

Figure 1: Prevalence of drop-out, non-adherence, and adherence by cohort.

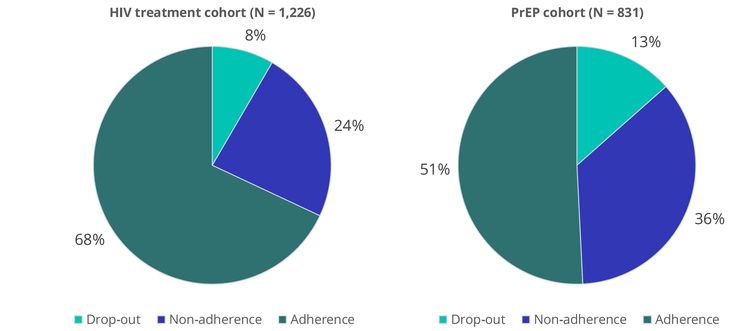

Table 1: Percentage of drop-out, non-adherence, and adherence by selected demographic characteristics.

	HIV treatment cohort			PrEP cohort		
	Drop-out (N = 103)	Non-adherence (N = 289)	Adherence (N = 834)	Drop-out (N = 112)	Non-adherence (N = 297)	Adherence (N = 422)
	N (row %)					
Age Group						
18-34	27 (8.5%)	92 (29.0%)	198 (62.5%)	61 (17.4%)	136 (38.7%)	154 (43.9%)
35-49	31 (8.1%)	73 (19.1%)	279 (72.8%)	33 (10.3%)	112 (35.0%)	175 (54.7%)
50-64	36 (8.7%)	102 (24.5%)	278 (66.8%)	13 (10.1%)	42 (32.6%)	74 (57.4%)
65+	9 (8.2%)	22 (20.0%)	79 (71.8%)	5 (16.7%)	6 (20.0%)	19 (63.3%)
Sex						
Female	21 (7.5%)	73 (26.2%)	185 (66.3%)	23 (22.1%)	29 (27.9%)	52 (50.0%)
Male	82 (8.7%)	214 (22.7%)	647 (68.6%)	88 (12.2%)	263 (36.5%)	370 (51.3%)
Race						
White	46 (9.2%)	106 (21.1%)	350 (69.7%)	61 (13.3%)	158 (34.4%)	240 (52.3%)
Asian	0 (0.0%)	5 (33.3%)	10 (66.7%)	5 (13.9%)	13 (36.1%)	18 (50.0%)
Black	36 (7.1%)	130 (25.5%)	344 (67.5%)	23 (12.2%)	67 (35.4%)	99 (52.4%)
Other	10 (9.3%)	22 (20.6%)	75 (70.1%)	12 (23.5%)	19 (37.3%)	20 (39.2%)
Ethnicity						
Non-Hispanic	72 (7.3%)	232 (23.6%)	677 (69.0%)	84 (13.9%)	210 (34.7%)	311 (51.4%)
Hispanic	24 (12.9%)	43 (23.1%)	119 (64.0%)	24 (14.3%)	60 (35.7%)	84 (50.0%)
Education						
Less than college	51 (9.6%)	119 (22.4%)	362 (68.0%)	26 (11.7%)	76 (34.2%)	120 (54.1%)
College or above	35 (5.8%)	143 (23.9%)	421 (70.3%)	71 (13.3%)	191 (35.8%)	272 (50.9%)
Elixhauser index						
0	14 (10.4%)	48 (35.6%)	73 (54.1%)	35 (18.2%)	82 (42.7%)	75 (39.1%)
1	24 (8.3%)	82 (28.3%)	184 (63.4%)	23 (11.1%)	63 (30.4%)	121 (58.5%)
2	15 (8.7%)	33 (19.2%)	124 (72.1%)	19 (11.9%)	62 (39.0%)	78 (49.1%)
3+	50 (7.9%)	126 (20.0%)	453 (72.0%)	35 (12.9%)	89 (32.7%)	148 (54.4%)
Index year						
2021	4 (8.7%)	14 (30.4%)	28 (60.9%)	1 (25.0%)	1 (25.0%)	2 (50.0%)
2022	23 (5.3%)	158 (36.1%)	257 (58.7%)	18 (15.8%)	52 (45.6%)	44 (38.6%)
2023	45 (9.3%)	97 (20.1%)	341 (70.6%)	43 (10.0%)	177 (41.0%)	212 (49.1%)
2024	31 (12.0%)	20 (7.7%)	208 (80.3%)	50 (17.8%)	67 (23.8%)	164 (58.4%)

Results

HIV treatment cohort:

- 8% did not complete initiation injections.
- 68% were adherent and followed injection schedule.

Outcome	Factors Associated with Higher Occurrence
Higher Drop-Out	• Hispanic adults • Those with less than college degree • Adults with no comorbidities • Those initiating in more recent years
Higher Adherence	• Adults ages 35 and older • Non-Hispanic adults • Those with a college degree or above • Those with more comorbidities • Those initiating in more recent years

PrEP cohort:

- 13% failed to complete initiation injections.
- 51% were adherent.
- Drop-out was higher and adherence was lower than the HIV treatment cohort.

Outcome	Factors Associated with Higher Occurrence
Higher Drop-Out	• Younger adults (18-34 years) • Women • Those without comorbidities
Higher Adherence	• Older adults (65+ years)

Conclusions

- High adherence rates were observed for injectable cabotegravir/rilpivirine (treatment) and cabotegravir (prevention), suggesting their potential in HIV management and prevention.
- A sizeable proportion of individuals did not complete initiation injections, indicating a need for strategies to support patients during this phase.
- Higher number of comorbidities and increasing age were identified as factors linked to adherence levels.
- Younger individuals and those with fewer comorbidities may require more intensive follow-up and education to ensure adherence
- The findings highlight the importance of tailored support and interventions for specific patient groups to optimize treatment outcomes.

Injectable cabotegravir/rilpivirine and cabotegravir show promise for HIV treatment and prevention with high adherence rates, though a notable proportion of individuals did not complete initiation.