

# Optimizing HIV PrEP Persistence: Does Your Pharmacy Matter?

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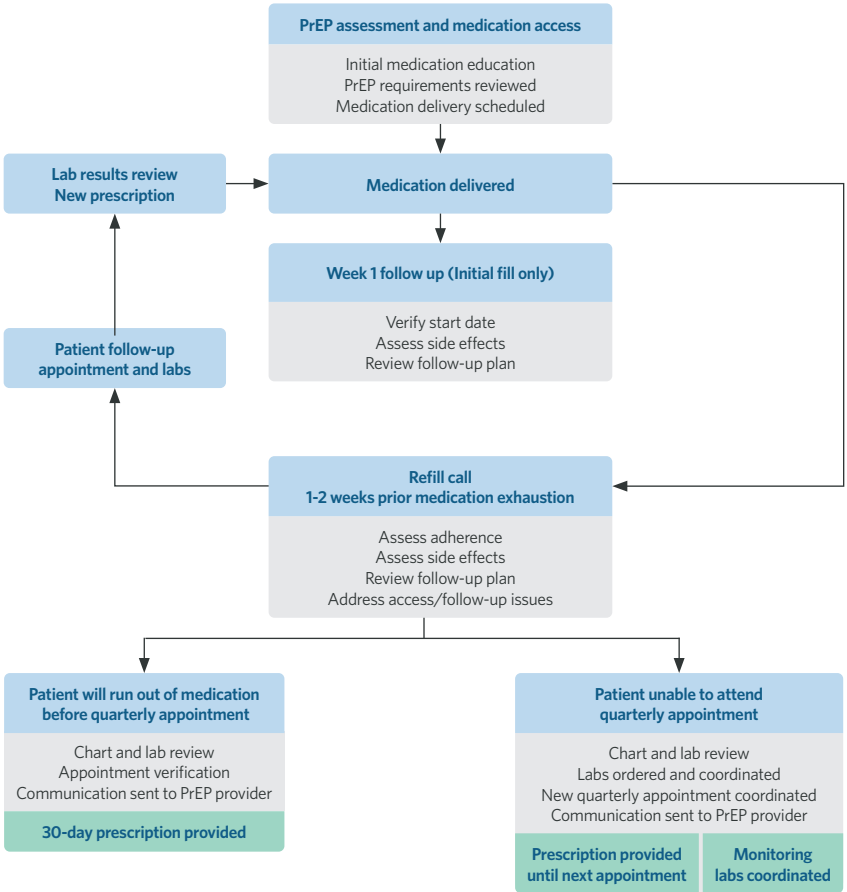
## Quick Facts

Evaluated the **effect of the HSSP care model on PrEP persistence** compared with persistence of patients who use external pharmacy services



Persistence to PrEP was significantly higher in those who filled their medication and received services through VSP when compared to those using non-HSSPs.

### Vanderbilt Specialty Pharmacy Care Model



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**Abbreviations:** HIV = human immunodeficiency virus;  
PrEP = pre-exposure prophylaxis; HSSP = Health System Specialty Pharmacy

# Persistence to HIV pre-exposure prophylaxis filled through an integrated health-system specialty pharmacy compared with external pharmacies

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## Background

Persistence to HIV pre-exposure prophylaxis (PrEP) during times of increased HIV acquisition risk is integral to preventing new HIV acquisitions.

Previous studies have shown real-world PrEP persistence is low and additional insight is needed into PrEP delivery strategies that improve persistence.

**Objective:** To measure persistence to HIV PrEP medication when filled through an integrated health-system specialty pharmacy (HSSP) compared with external pharmacies.

## Methods

**Design** Single-center, retrospective, cohort study comparing HIV PrEP persistence in patients with prescriptions filled by an integrated HSSP to those with prescriptions filled by an external pharmacy

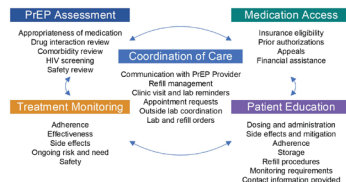
**Sample** Adult patients initiating PrEP with emtricitabine-tenofovir disoproxil fumarate in the Vanderbilt PrEP Clinic

**Study Period** Enrollment 9/1/2016 to 3/31/2019 with outcomes reported through 10/31/2020

**Primary Outcome** Persistence measured as time from first prescription generated to either patient reported discontinuation or last prescription generated plus prescription day supply

**Secondary Outcomes** Proportion of Days Covered (PDC) measured using date prescription refills were prescribed and quantity provided by prescription, reasons for non-persistence, and patient reported reasons for discontinuation

## Figure 1: Vanderbilt Specialty Pharmacy Services

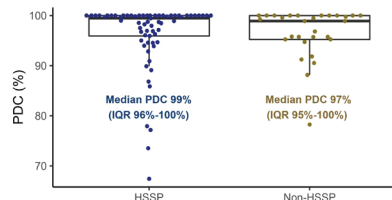


**Table 1: Patient Characteristics at Baseline (n=103)**

| Characteristic (Number (%))                      | HSSP (n=69) | Non-HSSP (n=34) | Total (n=103) |
|--|-------------|-----------------|---------------|
| Age at PrEP start [years; median (IQR)]          | 34 (28, 46) | 32 (29, 42)     | 34 (29, 46)   |
| Gender, male                                     | 66 (96)     | 30 (88)         | 96 (93)       |
| Race   |             |                 |               |
| White  | 56 (81)     | 24 (71)         | 80 (78)       |
| Insurance Type                                   |             |                 |               |
| Commercial                                       | 65 (94)     | 32 (94)         | 97 (94)       |
| Other  | 4 (6)       | 2 (6)           | 6 (6)         |
| Indication for PrEP                              |             |                 |               |
| MSM at High Risk                                 | 53 (77)     | 19 (56)         | 72 (70)       |
| MSM (known serodifferent partner)                | 9 (13)      | 8 (24)          | 17 (17)       |
| Number of sexual partners in the last six months |             |                 |               |
| 0-1  | 21 (30)     | 13 (38)         | 34 (33)       |
| 2-5  | 23 (33)     | 8 (24)          | 31 (30)       |
| >5   | 14 (20)     | 8 (24)          | 22 (21)       |
| Not reported                                     | 11 (16)     | 5 (15)          | 16 (16)       |
| Reported baseline condom use                     |             |                 |               |
| Consistent (100%)                                | 10 (15)     | 6 (18)          | 16 (16)       |
| Inconsistent (<100%)                             | 46 (67)     | 17 (50)         | 63 (61)       |
| No condom use                                    | 5 (7)       | 2 (6)           | 7 (7)         |
| Not reported                                     | 8 (12)      | 9 (27)          | 17 (17)       |

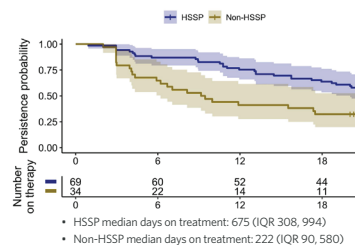
HSSP, health-system specialty pharmacy; IQR, interquartile range; MSM, men who have sex with men; PrEP, pre-exposure prophylaxis

## Figure 2: Adherence

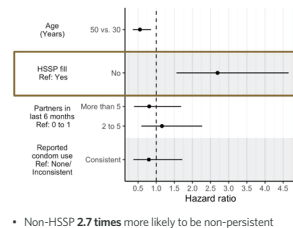


## Results

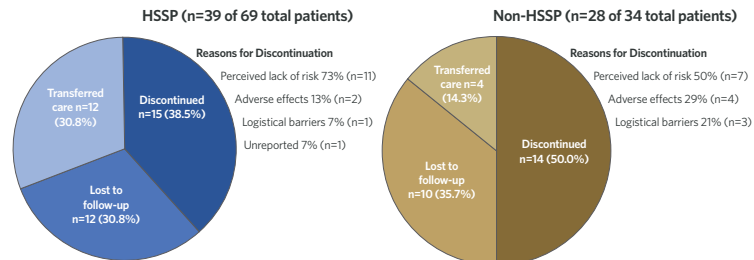
### Figure 3: Persistence



### Figure 4: Risk of Non-persistence



### Figure 5: Non-persistence and Discontinuation Reasons (n=67 of 103 total patients)



## Conclusions

- Patients receiving PrEP in a multidisciplinary clinic with prescriptions filled by the integrated HSSP had significantly higher rates of persistence.
- Patients were better maintained on PrEP therapy when their prescriptions were filled with the integrated HSSP compared to external pharmacies.