Poster #1028

Factors Impacting Appropriate HIV/STI Screening and PrEP Persistence in Primary Care

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Introduction

- As PrEP expands, sufficient monitoring and maintenance while on preventive strategy is important
- Regular STD and HIV screening
  - -Prevents HIV and STI resistance
  - -Allows for detection and treatment of asymptomatic STIs
- Although PrEP uptake is increasing, persistence on PrEP is required to:
  - Decrease HIV acquisition rates
  - Ensure disparities are not worsened

Objectives

1) **Measure adherence to HIV and STI testing guidelines in the San Francisco Primary Care Clinics (SFPCC), a large primary care network with 15 clinics**

2) **Identify factors associated with provider's HIV and STI test ordering during PrEP starts and follow-up**

3) **Determine factors associated with PrEP persistence and discontinuation in the SFPCC**

Methods

- Performed chart abstraction for demographics, prescriptions, PrEP indication and visits for 403 PrEP patients seen 1/1/13-7/31/17 in the SFPCC
- Examined factors associated with ordering:
  1. baseline HIV testing (within 30 days before initial Rx);
  2. baseline STI testing (within 90 days before initial Rx);
  3. follow-up HIV testing [measured over active 4 month intervals (to account for scheduling delays despite quarterly CDC recommendation)];
  4. follow-up STI testing (measured over 6 month intervals)
- Measured factors associated with PrEP persistence using a Cox proportional-hazards model

Results

Table 1: Characteristics of SFPCC PrEP Users (N=403)

Age; Median (IQR)		34 (28-46)
Female sex at birth		15%
Race/ethnicity:	African-American	13%
	Asian	8%
	Latino	26%
	White	36%
	Other	17%
Primary PrEP Indication:	High-risk heterosexual	5%
	Injection drug use	1%
	Men having sex w/ men	66%
	Sero-different relationship	15%
	Transwoman having sex w/ M	13%
PrEP users/yr (N):	2013/2014	75
	2015	177
	2016	313

Table 2: Test-ordering, STIs , and Persistence

Testing ordered:	Initial HIV testing w/i 30 days	77%
	Initial STI testing w/i 90 days	81%
	Follow-up HIV testing	68%
	Follow-up STI testing	67%
Incidence per 100 person-yrs:	HIV	0.3 (0.5% of users)
	Any STI	24 (19% of users)
Median PrEP Persistence		6.3 months

Table 3: Factors associated with ordering initial/follow-up HIV/STI testing

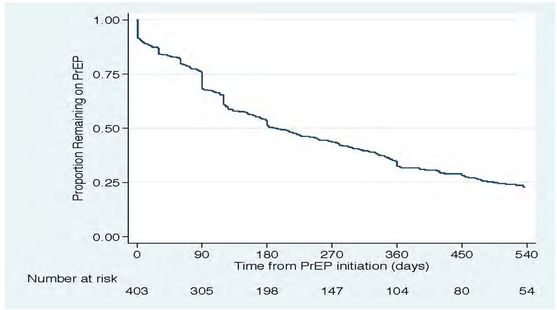
Factors	Initial HIV AOR 95% CI	Initial STI AOR 95% CI	Follow-up HIV AOR 95% CI	Follow-up STI AOR 95% CI
Patient age per 10 years	**0.7 (0.6-0.9)**	**0.6 (0.4-0.7)**	**0.8 (0.7-1.0)**	**0.7 (0.6-0.9)**
Female vs. Male at birth	0.7 (0.3-1.6)	2.1 (0.6-6.6)	**2.1 (1.1-3.8)**	1.1 (0.4-2.9)
Race/ethnicity vs. White:				
African-American	1.5 (0.6-3.8)	2.6 (0.8-9.1)	0.6 (0.3-1.1)	**0.5 (0.2-0.9)**
Asian	0.9 (0.4-2.4)	1.1 (0.5-2.3)	0.6 (0.3-1.0)	0.8 (0.4-1.8)
Latino	0.8 (0.4-1.4)	1.5 (0.4-5.0)	0.8 (0.5-1.3)	1.0 (0.6-1.9)
PrEP indication vs. MSM:				
Transwoman sex w/ M	0.8 (0.3-1.9)	1.6 (0.4-5.9)	1.3 (0.7-2.4)	2.9 (0.8-10.3)
Sero-diff. relationship	0.9 (0.4-1.9)	0.6 (0.3-1.5)	0.8 (0.5-1.2)	**0.4 (0.2-0.8)**
Other	2.2 (0.5-2.1)	0.7 (0.1-3.3)	0.7 (0.2-1.9)	0.6 (0.2-2.2)
Panel management	1.5 (0.7-3.3)	**4.2 (1.1-15.9)**	**2.2 (1.3-3.7)**	2.0 (1.0-3.9)

- **HIV/STI testing performed in ~80% at baseline and ~2/3 of follow-up intervals**
- **Older patient age associated with lower HIV/STI test-ordering**
- **African-American vs. White race associated with lower follow-up STI testing**
- **Panel management program associated with higher initial STI testing and follow-up HIV testing**

Table 4: Factors associated with PrEP discontinuation

Factors	Adjusted HR (95% CI)
Patient age per 10 years	0.9 (0.8-1.0)
Female vs. Male at birth	0.8 (0.5-1.2)
Race/ethnicity vs. White:	
African-American	**1.8 (1.2-2.7)**
Asian	0.9 (0.6-1.5)
Latino	1.0 (0.7-1.4)
PrEP indication vs. MSM:	
Transgender woman having sex w/ men	**1.9 (1.3-3.0)**
Sero-different relationship	1.2 (0.8-1.7)
IDU	2.4 (0.8-7.0)
PrEP prescription duration ≤30 days	**1.5 (1.1-2.2)**
Panel management program	0.9 (0.7-1.2)

Figure 1: K-M curve of time to PrEP discontinuation



- **African-American vs. White race associated with shorter persistence**
- **Transgender women having sex with men vs. MSM associated with discontinuation**
- **PrEP prescriptions ≤30 days associated with shorter persistence**

Limitations

- Inability to account for STI, HIV testing outside the network
- Data limited by what is documented in medical record
- Limited generalizability to populations not within a primary care safety net setting

Conclusions

- PrEP users in safety-net clinics such as SFPCC are a growing and diverse population
- HIV/STI testing performed in only ~2/3 of follow-up visits, and median PrEP persistence just 6 months
- Panel management strategies can be used to ensure appropriate HIV/STI testing
- Despite African-Americans having highest HIV incidence in San Francisco and transgender women at high risk, lowest rates of PrEP persistence in these groups
- Case management, mobile health technologies, and flexible visit strategies should be studied for their impact on persistence

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