Low Prevalence of Hepatitis C Virus Among New York City MSM Initiating PrEP and PEP, 2016-2017

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BACKGROUND

- Hepatitis C virus (HCV) may be sexually transmitted among HIV-positive men who have sex with men (MSM)[1].
- There have been recent reports of elevated HCV prevalence among HIV- negative MSM initiating HIV pre-exposure prophylaxis (PrEP).[2]
- HCV prevalence among MSM attending STD clinics in the United States has not been recently reported.
- New York City (NYC) Sexual health clinics (SHC) began providing HIV post-exposure prophylaxis (PEP) and PrEP to patients at increased risk of HIV infection in September 2016.

OBJECTIVE

- Determine HCV prevalence among HIV negative MSM initiating HIV PEP or PrEP medications at NYC SHC.
- Match HCV cases against the NYC HCV surveillance registry to determine if they were newly diagnosed.

METHODS

- Observation period
  - ❑ Sep 2016- August 2017
- Population of interest
  - ❑ HIV negative MSM initiating PEP/PrEP medications at NYC SHC
  - ❑ If a patient initiated more than one PEP/PrEP during the observation period, data from the first visit was included
- Data source
  - ❑ NYC SHC electronic medical record
- HCV Testing method
  - ❑ HCV Antibody that if positive reflexes to HCV qualitative PCR

ACKOWLEDGEMENTS

- Patients and staff at the eight NYC Sexual Health Clinics
- Dr. Susan Blank and Dr. Ann Winters at NYC Department of Health and Mental Hygiene.

RESULTS

Table 1: Characteristics among PEP and PREP MSM Patients tested by Hepatitis C Serology at NYC SHC [1]

Variable	PEP Patients N (%)	PrEP Patients N (%)
Total	758 (100)	381 (100)
HCV Test Result		
HCV Ab negative	755 (99.6)	381 (100)
HCV Ab positive PCR detected	1 (0.1)	0(0)
HCV Ab positive PCR not detected	2 (0.3)	0 (0)
Age		
Median (Q1, Q3)	29 (25,34)	28 (25,32)
Race/Ethnicity		
Non-Hispanic White	202 (26.6)	126 (33.1)
Non-Hispanic Black	199 (26.3)	91 (23.9)
Non-Hispanic Other	130 (17.1)	46 (12.1)
Hispanic	227 (29.9)	118 (31)
Incident STD [2]		
Yes	170 (22.4)	110 (28.9)
Number of Sex Partners [3,4]		
Median (Q1,Q3)	3 (2.6)	4 (2.6)
IDU/Chem Sex[3,4,5]		
Yes	35 (4.7)	10 (2.7)

[1] Hepatitis C testing done among 99.7% of patients who initiated PEP and PrEP medications during the study period

[2] Incident STD: positive gonorrhea /chlamydia NAAT test and/ or early syphilis diagnosis within 10 days of PEP/PrEP medication initiation visit

[3] Sexual history and substance use history drawn from visit within 7 days of PEP/PrEP medication initiation visit

[4] Missing data : Number of sex partners 3 (PEP), 2 (PrEP); substance use 7 (PEP), 5 (PrEP)

[5] Chem sex: reported use of methamphetamine or gamma- hydroxylbutyrate (GHB)

RESULTS

Table 2: Prevalence of HCV Infection among HIV Negative MSM Initiating PEP /PrEP at NYC SHC

Patient Type	HCV Prevalence	95% CI
PEP and PrEP	0.26 %	0.05-0.77
PEP	0.4%	0.08-1.2
PrEP	0%	0-0.96

- **Match against HCV surveillance registry results:**
  - ❑ Patient 1 : Previously diagnosed HCV active infection with history of IDU.
  - ❑ Patient 2: Newly diagnosed HCV infection spontaneously cleared.
  - ❑ Patient 3: Previously diagnosed and successfully treated.

DISCUSSION

- **Limitations**
  - ❑ HCV testing method in this study might miss acute HCV infections
  - ❑ MSM who initiate PrEP/PEP at NYC SHC may not accurately represent PrEP/PEP MSM patients in NYC.
- **Conclusions**
  - ❑ Prevalence of HCV among this HIV negative MSM cohort is lower than the general population of NYC (2.4%) and the United States (1.3%).[3,4]
  - ❑ SHC will continue to monitor HCV prevalence among MSM initiating PEP or PREP at NYC SHC

References

[1] Hagan et al. *AIDS*. 2015; 29: 2235-2345
[2] Hoornenborg et al. *AIDS*. 2017; 31: 1603- 1610
[3] Balter et al. *Epidemiol. Infect.* 2014; 142: 262-269.
[4] Denniston et al. *Ann Intern Med*. 2014; 160: 293-300.