

## **CROI 2019 PRESS CONFERENCE ABSTRACTS**

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#### **HCV REINFECTION AMONG HIV-INFECTED MSM IN NEW YORK CITY**

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#### **Background:**

High HCV re-infection rates of 3-15% have been reported after IFN treatment in HIV-infected MSM in Europe. There are no data on HCV re-infection from similar cohorts in the United States, or among those cured with all-oral direct-acting antiviral (DAA) therapy.

#### **Methods:**

We assessed all HIV-infected MSM from our cohort in New York City (NYC) for clearance of HCV. Clearance was defined as SVR 12 if by treatment; or undetectable HCV VL for  $\geq 12$  weeks if by spontaneous clearance (SC). Re-infection was defined as new HCV viremia after clearance. Clinical onset of re-infection was defined as the date of the 1st-noted ALT elevation or HCV viremia. Observation time was defined as the period between 12 weeks after completion of therapy or SC, and either the clinical onset of HCV re-infection or the last undetectable HCV VL in those not re-infected.

#### **Results:**

We identified 267 HIV-infected MSM with documented clearance of primary HCV infection and  $\geq 4$  weeks follow-up. Median age was 45; 170 (64%) were white, 40 (15%) black, 55 (21%) Hispanic; genotypes (n=258) were 1a in 206 (80%), 1b in 23 (9%), and other in 29 (11%). Median CD4 count was 579 cells/uL; median HIV VL was  $<50$  copies/mL. We found 44 re-infections among 38 (14%) men, onset between 2006 to 2018, a median of 1.5 (IQR 0.8,2.9; range 0.3-11.4) years after clearance; genotypes (n=41) were 1a in 31 (76%), 1b in 3 (7%), and other in 7 (17%). Including the re-infections, follow-up was available for a total of 300 episodes of HCV clearance, with a median follow-up time of 1.8 (IQR 0.8,3.3; range 0.1-11.4) years, and a total of 734 person-years (PY). The overall re-infection rate was 5.7/100PY (95% CI 4.2,7.7), with no significant difference among the 112 (37%), 160 (53%), or 28 (9%) infections cleared with IFN, DAA, or SC, respectively (p=0.52, Fisher exact). Further, time to re-infection did not differ among the groups (p=0.82, log-rank test) (Figure).

#### **Conclusion:**

The high HCV re-infection rate in our large cohort of HIV-infected MSM in NYC was independent of whether clearance was by IFN or DAA treatments, or by SC, and comparable to Europe rates. Most re-infections occurred within the first 2 years, but infections continued to occur for more than 11 years after clearance. These data suggest that long-term surveillance is warranted for all HIV-infected MSM after clearance of HCV infection. Further, strategies to reduce HCV re-infections are needed to meet the goal of eliminating HCV in these men who are at significant risk for HCV infection.