

## HIGH RATES OF HCV REINFECTION AND RETREATMENT IN A COHORT OF PWID WITH HCV CURE: 3.5 YEAR FOLLOW UP DATA FROM THE ANCHOR COHORT

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**Background** People who inject drugs(PWID) with HCV, opioid use disorder(ODU), and ongoing injection drug use(IDU) who achieve sustained virologic response(SVR) remain at risk of reinfection. In HCV modeling data, retreatment of reinfected individuals is critical to elimination. We sought to evaluate the rate of reinfection and retreatment in a cohort of high-risk patients over a follow-up period up to 3.7 years.

**Methods** ANCHOR was a prospective cohort study evaluating PWID with chronic HCV, OUD, and IDU, set in a syringe service program in the US. Patients who achieved SVR were tested for reinfection, defined as a genotype switch or detectable viral load after SVR, and retreatment was initiated as per standard of care. Patients were administered surveys at each visit to assess for ongoing risk behaviors and MOUD status.

**Results** 82 individuals achieved SVR and were followed for 134.4 person-years, median 86.4weeks(range 12.9-192.7weeks). Subjects were predominantly male(76%), black(93%), middle-aged(median 58 years), and non-cirrhotic(69%). Twelve individuals(14.6%) were reinfected a median of 66.5weeks(range 21-102.9weeks) after HCV treatment, a rate of 8.9/100 person-years. Self-reported reasons for reinfection included IDU equipment(33%) or straw(22%) sharing, sex(11%), or combination(33%). Reinfection was not associated with opioid use, cocaine use, IDU, stable housing, MOUD engagement, or ad-hoc composite score of these factors measured at the time of reinfection(all > p.10). Of the 12 reinfected individuals, 11(91.7%) initiated HCV re-treatment a median of 23 weeks after detection(range 3-73weeks), with 8 achieving SVR, 1 on-treatment, and 2 deaths.

### Conclusions

In this cohort of high-risk PWID, we found high rates of HCV reinfection which were not associated with MOUD or drug use at the time of detection. Rates of retreatment uptake were high, with high rates of SVR. These data highlight the need for longitudinal follow-up in high-risk individuals to facilitate retesting, retreatment, and HCV elimination.

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