REAL-WORLD EFFECTIVENESS OF RETREATMENT FOR REINFECTION AND VIROLOGICAL FAILURE AMONG PEOPLE WHO INJECT DRUGS IN THE REACH-C COHORT

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Background:
Retreatment occurred in 6% receiving direct-acting antivirals (DAAs) for hepatitis C virus (HCV) through Australia’s unrestricted access scheme during 2016-2019. However, retreatment reasons and outcomes, including among people who inject drugs (PWID), were unknown.

Methods:
Real-world effectiveness of antiviral therapy in chronic HCV (REACH-C) is an observational study representing 14% DAA initiations in Australia across 33 diverse sites between March 2016-June 2019. Retreatment data were collected until October 2020. Reinfections were documented at SVR (treated/untreated) and post-SVR (treated only).

Results:
Of those commencing DAAs (n=10843), 16% (n=1775) were PWID (injected drugs last six-months), 65% (n=7007) non-PWID, and 19% (n=2061) unknown-PWID. Compared to non-PWID, PWID were younger (median age 43 vs 53), male (76% vs 67%), opioid agonist recipients (44% vs 11%), and incarcerated (11% vs 5%). Per-protocol SVR for initial treatment was lower in PWID vs non-PWID (93.5% vs 95.2%; p=0.015). Among those with treatment failure, reinfection accounted for 19% (n=17/88) and 1% (n=3/302) among PWID and non-PWID. Retreatment uptake for treatment failure among PWID and non-PWID was similar (56% vs 58%).

Overall, retreatment occurred more in PWID than non-PWID (7% vs 3%; p<0.001). Reinfection accounted for 60% (n=73/122) retreatments in PWID vs 4% (n=7/183) non-PWID. Most retreated reinfections among PWID (89%) occurred post-SVR. PWID were retreated mostly in primary care (47%; 58/122) or prison (34%; 41/122). Non-PWID were retreated mostly in tertiary care (80%; 147/183). There was no significant difference in per-protocol SVR for retreated reinfection (94% vs 100%; p=1.000) or virological failure (87% vs 79%; p=0.573) in PWID vs non-PWID. There was no significant difference in per-protocol SVR for PWID retreated in primary, tertiary or prison settings (93% vs 95% vs 82%; p=0.088).

Conclusion:
Retreatment among PWID is effective and can be delivered in non-tertiary settings. Continued efforts to enhance retreatment uptake among PWID are needed for HCV elimination.

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