

REINFECTION FOLLOWING SUCCESSFUL HCV DAA THERAPY AMONG PEOPLE WITH RECENT INJECTING DRUG USE OR CURRENT OPIOID SUBSTITUTION THERAPY

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Background: HCV direct acting antiviral (DAA) therapy is effective in people who inject drugs however, little is known about HCV reinfection following DAA therapy among people who have recently injected drugs and/or people on opioid substitution therapy (OST).

Methods:

SIMPLIFY and D3FEAT are international open-label, single-arm multicentre studies which recruited participants with recent injecting drug use (previous six months; SIMPLIFY, D3FEAT) or current OST (D3FEAT) between March 2016 and February 2017 in eight countries (25 sites). Participants received sofosbuvir/velpatasvir (SIMPLIFY) or paritaprevir/ritonavir, ombitasvir, dasabuvir (D3FEAT) for 12 weeks. This analysis assessed HCV recurrence from end of treatment response (ETR) through to 24 weeks post treatment.

Results: Overall, 179 participants (27% female, median age 48 years) had an ETR and at least one subsequent follow-up visit in SIMPLIFY (n=97) and D3FEAT (n=82). At treatment initiation, 80% (n=144) reported injecting drug use in the past 6 months, 54% (n=97) reported injecting drug use in the past month, and 60% (n=108) were receiving OST. Injecting drug use between ETR and follow-up was reported in 69% (n=124). HCV recurrence was observed in nine participants including three cases of HCV relapse and six cases of reinfection. Over 168 person-years (py) of follow-up, the incidence of reinfection was 3.6/100 py (95% CI 1.6-7.9). There were no cases of reinfection among those who did not report ongoing injecting drug use after ETR. The incidence of reinfection in those with ongoing injecting after ETR (124 py of follow-up) was 4.8/100 py (95% CI 2.2-10.7/100 py) overall and 8.9/100 py (95% CI 3.7-21.4 cases/100 py) among those who reported injecting daily or greater after ETR.

Conclusion: HCV reinfection can occur following HCV DAA therapy among people with ongoing injecting drug use following DAA therapy. Particularly high rates of reinfection were observed among people with frequent injecting drug use.

Disclosure of Interest Statement:

The authors recognise the considerable contribution that industry partners make to professional and research activities. We also recognise the need for transparency of disclosure of potential conflicts of interest by acknowledging these relationships in publications and presentations.