

## REAL-WORLD EFFICACY OF SALVAGE THERAPIES FOR THE TREATMENT OF CHRONIC HEPATITIS C VIRUS INFECTION IN TREATMENT EXPERIENCED PEOPLE WHO INJECT DRUGS (PWID)

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**Background:** Despite the high cure rates achieved with currently available direct-acting antiviral HCV therapy, treatment failure can occur in as many as 10% of individuals – associated with resistance associated substitutions (RASs). Little is known about the real-world efficacy of currently available salvage options, particularly among vulnerable populations such as PWID. The aim of this analysis was to evaluate the efficacy of sofosbuvir/velpatasvir/voxilaprevir (SVV) and glecaprevir/pibrentavir + sofosbuvir (GPS) as retreatment options.

**Methods:** A retrospective analysis was performed among all HCV-infected PWID who were initiated on salvage therapy at our centre between 06/17-04/19. Re-infections were not included. Samples underwent sequencing to assess for the presence of RASs. All subjects were enrolled in a multidisciplinary model of care, addressing medical, psychological, social and addiction-related needs. The primary outcome was SVR12 (undetectable HCV RNA 12 weeks after the end of treatment).

**Results:** 13 individuals were included in this analysis, mean age 56 years, 77% male, 77% Caucasian, 62% homeless, 58% actively using drugs during treatment (75% opiates, 50% amphetamines) and 46% on opiate substitution therapy. Characteristics include 46% GT1a, 31% GT3a, 8/10 patients where sequencing data were available demonstrated RASs conferring NS5A and/or NS3 resistance. The outcome of initial therapy was true virologic relapse after end-of treatment response (n = 10) or non-response (n = 3); 11 patients received SVV while 2 received GPS. SVR12 was documented in all 13 patients.

**Conclusion:** Even with effective therapy for HCV infection, some patients still fail therapy and require retreatment. This may prove challenging, especially among PWID. We have demonstrated that even in this challenging population, the delivery of salvage therapy with either SVV or GPS in the context of a multidisciplinary model of engagement in care is highly successful. These data provide further support for initiation of HCV therapy in PWID, even among individuals having failed first line DAA therapy.

**Disclosure of Interest:** NIL