## CHARACTERISTICS AND OUTCOMES OF DAA TREATMENT EXPERIENCED PATIENTS WITH CHRONIC HEPATITIS C UNDERGOING RETREATMENT AT A SAFETY NET HOSPITAL IN THE UNITED STATES

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**Background:** Guidelines recommend rescue treatment with Sofosbuvir/Voxilaprevir/Velpatasvir for 12 weeks (Sof/Vel/Vox) or Glecaprevir/Pibrentasvir for 16 weeks (Gle/Pib16) for patients who failed treatment with direct action antivirals (DAAs), whereas first line regimens like Sof/Vel for 12 weeks, or Gle/Pib for 8 weeks are recommended for reinfection. Frequently, it is difficult to determine if a positive viral load after DAA treatment represents reinfection or treatment failure in people who inject drugs (PWID), and many are treated with rescue medications due to fear of treatment failure despite higher costs. We compared the outcomes of DAA-experienced patients with undetermined reinfection vs. failure status retreated with rescue vs. first line DAAs.

**Methods:** DAA experienced adults undergoing retreatment at Boston Medical Center between January 2016 and May 2022 were included. We extracted clinical variables from electronic records. We used descriptive statistics and compared the outcomes of first line vs. rescue treatment for patients with an undetermined previous treatment outcome using Pearson's Chi-square test.

**Results:** We included 119 DAA-experienced patients in the study. Median age was 55 IQR (41.5-61.5), 79% were male and 42.9% were white, 35.3% African American, and 21.8% Hispanic. Injected drug use was common (80.7%). Previous DAA regimens included Sof/Led 54.6% and Sof/Vel 26.1%. A third (31.1%) of patients had sustained virologic response (SVR), 26.9% failed treatment and 41% had an undetermined outcome, did not complete treatment or were lost to follow-up. Of 18 patients with undetermined outcome, ten received first line medications and 8 received rescue medications. SVR (60 vs. 62.5%), treatment failure (10% vs. 0%) and undetermined outcome/loss to follow up (30% vs. 37.5%) were similar in both groups (Pearson chi2(2) = 0.8795 P-value= 0.644).

**Conclusion:** Outcomes with first line DAAs were comparable to rescue medications for retreatment of DAA-experienced patients with undetermined outcomes. Our findings can help decrease barriers for HCV treatment in PWID.

## **Disclosure of Interest Statement:**

The authors have no conflict of interest to declare.

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