

## DIFFERENCES IN SUSTAINED VIROLOGIC RESPONSE TO DIRECT-ACTING ANTIVIRAL THERAPY FOR CHRONIC HEPATITIS C BY SEX – RESULTS FROM THE CANHEPC RETROSPECTIVE REGISTRY

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### Background:

The Canadian Network on Hepatitis C (CanHepC) retrospective registry project has combined demographic and outcome data on patients with chronic hepatitis C (HCV) who were assessed at 10 academic and community sites across Canada. Understanding sex-specific differences related to HCV acquisition and treatment is essential to inform optimal care models. This study assessed demographic and treatment outcomes by sex for persons treated with direct acting antivirals (DAA) therapy in this cohort.

### Methods:

Individuals with data available on sex, type of HCV treatment and sustained virologic response (SVR) were included in the analysis. Basic means and proportions were calculated to identify crude differences between males and females treated with direct-acting antivirals (DAAs). Odds ratios were calculated for the relationship between sex and SVR using forward stepwise logistic regression.

### Results:

Of 2683 individuals, 1286 had SVR data of which 1000 were known to have been treated with DAAs and included in this analysis (68.3% male, 31.2% female). At baseline, males significantly differed from females only in their current injection drug use (IDU) (11.6% vs. 4.4%,  $p=0.006$ ). There were no significant differences in age distribution ( $p=0.605$ ), Metavir score ( $p=0.517$ ), or proportion with non-genotype 1 infection ( $p=0.517$ ). Overall, 94.9% (95% CI 93.4-96.2) achieved SVR (93.4% male vs. 98.1% female,  $p=0.001$ ). The odds ratio of SVR among females was 3.66 (95% CI 1.54-8.66,  $p=0.003$ ); however once adjusted for IDU status, the OR was 3.53 (95% CI 1.04-11.92,  $p=0.042$ ); 40.7% of patients were excluded due to missing data in IDU.

### Conclusion:

Males undergoing DAA treatment are more likely to report current IDU. Efforts are needed to better understand if there are unique risk factors for females related to HCV infection and response to therapy. Further research is needed on the role sex may play in acquisition, access and outcomes with DAA treatment for HCV.

### Disclosure Statement:

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