Real-World Effectiveness of Sofosbuvir-based Regimens for Treatment of Hepatitis C Genotypes 1-3: BC Hepatitis Testers Cohort (BC-HTC)

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Introduction

About 71 million people have chronic hepatitis C (HCV) worldwide and the majority of individuals with chronic infection are at high risk of liver-related morbidity (e.g. cirrhosis and hepatocellular carcinoma) and mortality.

Introduction of sofosbuvir-based regimens from December 2013, such as sofosbuvir/ledipasvir (SOV/LEDV) combination therapy against HCV genotypes 1 and 4/5, and sofosbuvir/ribavirin (SOV/RBV) combination therapy against HCV genotype 3 resulted in high sustained virological response (SVR) rates.

Despite the high efficacy of sofosbuvir-based regimens in trials, multiple factors namely treatment duration, viral load, and patient’s characteristics such as presence of cirrhosis and history of previous HCV treatment could affect SVR rate.

The current evidence is mainly from trials and limited population-based real-world data is available. In this study, we used data from the BC Hepatitis Testers Cohort (BC-HTC) to evaluate the real-world effectiveness of sofosbuvir-based regimens against HCV genotypes 1 (GT1, 2, 3), and 3 (GT3) among a diverse HCV-infected population.

Methods

The BC Hepatitis Testers Cohort (BC-HTC) includes all individuals registered for HCV treatment at the BC Centre for Disease Control and all cases of HCV, HIV, and active tuberculosis reported by public health since 1999. Linked with BC Ministry of Health administrative data (medical visits, hospitalizations, prescription drugs), cancer diagnosis and death, and US data using linked personal health number.

Population and baseline characteristics: the cohort included patients who file at least one prescription for HCV treatment until June 31, 2017 in Victoria, British Columbia in British Columbia in British Columbia in British Columbia and had at least 24 months of follow-up in themselves to assess treatment completion and 11 months of follow-up to assess SVR.

Heals: patients who met all eligibility criteria for each genotype were included.

GT1: sofosbuvir/ledipasvir (SOV/LEDV), ledipasvir/sofosbuvir/ribavirin (SOV/LEDV/RBV), and sofosbuvir/ribavirin (SOV/RBV) as rescue therapy.

GT3: sofosbuvir/ribavirin (SOV/RBV), SOV/PEG/RBV, and SOV/PEG/ribavirin (SOV/PEG/RBV).

Chronic hepatitis B (CHB) and hepatitis C (HCV) patients were included. However, patients with liver cirrhosis were excluded from the analysis.

Statistical methods: logistic regression was used to identify factors that were associated with SVR rate.

Figure 1. BC Hepatitis Testers Cohort (BC-HTC).

Results

Table 1. Baseline characteristics of study participants by genotype and treatment regimen.

Table 2. Predictors of SVR in multivariate analysis.

Conclusions

In this real-world cohort, high SVR rates with LDV/ASV + RBV among GT1, and SOV/PEG/RBV among GT3 and GT2 patients in a real-world setting, and high SVR with SOF/RBV and SOF/PEG/RBV among GT1, GT2 and GT3 are similar to the data reported from clinical trials and other real-world cohorts.

Male gender, presence of cirrhosis, and treatment duration mainly less than 12 weeks were significant negative predictors of SVR.

Those data confirm the high effectiveness of LDV/ASV among GT1 and SOF/VEL among GT2 and GT3 patients in a real-world setting, and highlight the high optimum of SVF/ROVBF and SOF/PEG/RBV for GT1, GT2, and GT3.

Disclosure

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Purpose

Peers4Wellness is an Indigenous peer-led community research study. This work explores the feasibility and acceptability of peer navigation as a psychosocial support system for Indigenous Peoples with mental health and substance use disorders.

Background

The rates of Hepatitis C virus (HCV) are five times higher among First Nations, Inuit, and Metis (FNIM) people than non-Indigenous peoples of Canada, compared to the general Canadian population. Furthermore, FNIM people are under-represented in HCV health care programs. Peer navigation is emerging as a promising practice to promote health care engagement in a number of health care settings (including HIV and other health care settings), the United Kingdom, and Canada. Peer navigation is a peer-led, community-based practice that provides support, advocacy, and education to individuals and families to enhance their access to and use of health care services. Peer navigation is a peer-led, community-based practice that provides support, advocacy, and education to individuals and families to enhance their access to and use of health care services.

Rationale

The current landscape of peer navigation research in this field has led to a number of studies that have explored the potential of peer navigation in enhancing health care access and use among marginalized populations, including FNIM communities. These studies have shown that peer navigation can improve access to health care services, increase patient satisfaction, and improve health outcomes. However, there is a need for more research on the effectiveness of peer navigation in improving health care access and use in FNIM communities. This study is the first to examine the impact of peer navigation on health care access and use among FNIM communities.