Identifying gaps in the treatment of hepatitis C in patients co-infected with HIV in Edmonton, Alberta, Canada

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Introduction

- ~20% of people living with HIV are co-infected with hepatitis C virus (HCV), and have a greater risk of severe liver disease, hepatocellular carcinoma (HCC), and death compared to those with HCV monoinfection[1,2,3]
- Direct-acting antiviral (DAA) therapy has been available in Canada since 2012 to patients who met eligibility requirements, and available to all HCV infected individuals regardless of liver fibrosis since April 2018[4]
- The Alberta Health Services Northern Alberta HIV program (NAHP) is a multi-disciplinary program that provides care to patients living with HIV, and currently provides support for 2,417 HIV positive individuals
- NAHP has made it a priority to assess the HCV status of their HIV patients and link them to care, which aligns with the World Health Organization's (WHO) goal to eliminate hepatitis by 2030[5]

Objectives

- To assess the occurrence of HCV co-infection among HIV positive patients, determine whether they had received treatment for HCV, and identify patients who are currently viremic so they can be linked to care.
- To assess the social determinants of HIV-HCV coinfected patients who remain HCV viremic in order to better understand the barriers to HCV treatment

Methods

- NAHP patients from 2010 to 2019 were linked to their HCV antibody, RNA, and genotyping laboratory testing data from January 1, 2000 to December 31, 2019 as well as HCV medication dispensation data.
- Patient's current and previous state of HCV infection and treatment status was assessed.
- Chart reviews were conducted for patients presently HCV viremic to assess their HIV care and social determinants.

Results

- Of the 2,417 NAHP patients, 392 (16.2%) were identified as having been co-infected with HCV at some point between January 1, 2000 to December 31, 2019 and meeting the inclusion criteria.
- 198 (50.5%) of the HIV-HCV co-infected patients had received HCV treatment and 232 (59.2%) were no longer viremic at their most recent HCV RNA test.
- 99 (69.2%) of the 143 HCV viremic patients had a suppressed HIV infection suggesting they are active in their HIV care and good candidates for HCV treatment.

Table 2. Characteristics of HIV-HCV co-infected patients from the NAHP with an active HCV infection (n=143)

	Patients with Active Infection (n=143)
APRI Score >1.5[a]	N (%)
Yes	8 (5.6)
No	109 (76.2)
Unknown	26 (18.2)
Failed HCV Treatment	2 (1.4)
ARV Therapy	126 (88.1)
HIV Viral Load <200 copies/mL	99 (69.2)
Opioid Use Disorder	125 (87.4)
Alcohol Use Disorder	20 (14.0)
Under-housed	23 (16.1)
Currently Incarcerated	103 (72.0)
Highest Education Level	
Incomplete High School	41 (28.7)
High School	12 (8.4)
Post-Secondary	6 (4.2)
Unknown	84 (58.7)
Ethnicity	
Black	2 (1.4)
Caucasian	43 (30.0)
Indigenous	85 (59.4)
Asian	1 (0.7)
Unknown	12 (8.4)

Conclusion

- The NAHP successfully treated 50.5% of HIV-HCV co-infected patients for their HCV infection; compared to the general population in Alberta where 12% with HCV monoinfection were prescribed DAAs resulting in 3.4% being cured within 2 years of diagnosis
- Despite the high relative rate of treatment compared to the general population, there remain a significant number of people living with HIV who are viremic with HCV.

Key Points

- Treating HCV in HIV-HCV coinfected individuals is a priority to prevent morbidity and mortality
- We identified a group of individuals who have an HIV viral load <200 copies/ml that would likely be good candidates for HCV treatment based on their ability to adhere to HIV therapy
- The quality improvement aspect of this study is that the HIV treating physicians of these HIV-HCV co-infected individuals will be notified and encouraged to assist in getting them linked to HCV care and treatment.

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