

# Relationship of Chronic Hepatitis C Infection to Rates of AIDS-Defining Illnesses in a Canadian Cohort of HIV Seropositive Individuals Receiving Highly Active Antiretroviral Therapy

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## Objective

This study compared the rates of AIDS-defining illnesses (ADIs) between hepatitis C (HCV) co-infected and HIV mono-infected individuals.

## Importance of this Study

- Co-infection with hepatitis C is common among HIV positive individuals.
- Research surrounding the impact of HCV co-infection on the risk, timing, and type of ADIs is inconclusive.
- HCV co-infected individuals are at an increased risk of developing ADIs due to poor immunological status.
- The hepatitis C virus has a compounding, adverse impact on the immune system that can drive HIV disease progression.

## How this Study was Conducted

- Data was analyzed from the CANOC collaboration, an interprovincial collaborative cohort of HIV-positive individuals on antiretroviral therapy in Canada.
- CANOC compiled HIV clinical, virological, immunologic, and demographic data from 8 cohorts across British Columbia, Ontario, and Quebec.
- 2,706 participants from the CANOC collaboration were included in this analysis.
- ADIs were classified into six different groups: non-Hodgkin lymphoma, viral infection, bacterial infection, HIV-related disease, protozoal infection, and mycotic infection.

## Study Results

- HCV co-infected participants were more likely to be female, be from BC, have a history of injection drug use, and have had a longer period of time since HIV diagnosis.
- HCV co-infected participants were at increased risk of developing ADIs.
- After taking treatment interruptions into account, HCV only remained significantly associated with an increased rate of mycotic infections, suggesting that variables associated with HCV, and not HCV itself, are mainly responsible for higher rates of ADIs among co-infected individuals.

## Implications

- Clinicians caring for HCV co-infected individuals should ensure patient access to structural and psychosocial supports that promote adherence to HIV treatment.
- This study exemplifies the need for HIV treatment programs to consider the unique vulnerability of HCV co-infected individuals and establish support to ensure timely initiation of antiretroviral therapy.

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