

Factors associated with the frequency of monitoring of liver enzymes, renal function and lipid laboratory markers among individuals initiating combination antiretroviral therapy: a cohort study

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Objective

This study examined characteristics associated with frequency of laboratory testing and gaps in measurements of liver enzymes, renal function and lipid tests among individuals receiving HIV treatment.

Importance of this Study

- The successful treatment of HIV means that the average age of people living with HIV is rising.
- It is important to monitor patients for age-related illnesses and negative reactions to HIV medications or the interaction between HIV medications and other medications.
- The study analyzed factors that predict frequency of laboratory tests to find out if there is equal access to these services.
- The study aimed to determine whether differences in measurement practices need to be considered when examining data on HIV and age-related health concerns.

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.
- Participants who were being monitored during time periods and at sites where electronic laboratory data was available were included in the study.
- Laboratory measurements of liver enzymes, renal function and lipid levels were studied because of their importance for detecting age-related illnesses and other health concerns.
- Characteristics including age, sex, province, race, HIV risk factors (such as injection drug use or men who have sex with men), year of first HIV-positive test, co-infection with hepatitis B or C, etc. were examined for their association with frequency of laboratory measurements.

Study Results

- Individuals who were infected with HIV through injection drug use were **less likely to have any measurements** of liver enzymes, renal function and lipid levels.
- Rates of measurements were lower for younger individuals and Indigenous Peoples.
- Individuals with Hepatitis C co-infection who had a history of injection drug use had lower rates of measurement and were more likely to have 12 month gaps between measurements.

Implications

- Challenges engaging individuals with a history of injection drug use in HIV care makes it difficult to follow guidelines for laboratory testing within this population.
- When interpreting data based on laboratory measures, differences in testing frequency and gaps in measurements should be considered.

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