

# Late initiation of combination antiretroviral therapy in Canada: a call for a national public health strategy to improve engagement in HIV care

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## Objective

This study aimed to identify factors associated with delayed start of HIV treatment.

## Importance of this Study

- HIV treatment decreases risks of death, poor health outcomes, and HIV transmission but HIV continues to be diagnosed and treated later than recommended.
- There is a gap in understanding of trends in the timing of beginning HIV treatment across Canada.
- Identifying factors that influence the timing of starting treatment is important for improving strategies for engaging individuals in HIV care.

## 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.
- Timing of beginning treatment was analyzed based on CD4 cell count (a measurement of immune system strength), with delayed treatment defined as a CD4 count below 200 cells/mm<sup>3</sup> or an AIDS-defining illness before beginning treatment
- Factors that were studied for association with delayed treatment included age, gender, province, ethnicity, HIV risk factors, Hepatitis C co-infection, viral load (measures blood level of HIV virus) and year of starting treatment.

## Study Results

- 48% of study participants began treatment late, but as time went on there was a shift towards beginning treatment earlier.
- Delayed start of HIV treatment was more common for women, non-MSM (participants who did not identify as men who have sex with men), older individuals, participants from Ontario or BC (compared to Quebec), people with a history of injection drug use, and people who started their treatment in earlier years.

## Implications

- Although CD4 cell counts at the start of HIV treatment have risen over time for Canadians, CD4 counts at start of treatment are still below the recommended level.
- Strategies are needed for engaging people in HIV care earlier in order to improve treatment outcomes.

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