

1,534  
HIV-Positive Men  
tested for HCV  
between 2000 and 2010

## The question we asked

Between 2000 and 2010, what was the rate of diagnosis with Hepatitis C virus (HCV) among HIV-positive gay and other men who have sex with men with no history of injection drug use?

## The answers we found using OCS data

The rate of HCV infection among HIV-positive gay and other men who have sex with men (MSM) was about five new diagnoses per 1000 men each year. This rate is about 15 times higher than in the general population. The rate did not appear to change over the decade.

Men who had been diagnosed with syphilis at some point following their HIV diagnosis were more likely to be diagnosed with HCV. Men who were taking antiretroviral treatment were less likely to be diagnosed with HCV.

## Why is this issue important?

Outbreaks of HCV infection among HIV-positive gay and other men who have sex with men have been reported internationally, even among men who don't report injection drug use (which is the main route of HCV transmission). There is growing evidence that HCV can be transmitted sexually, particularly among MSM who are living with HIV. Although sexual transmission of HCV occurs rarely during vaginal sex, researchers think that it could occur through blood-to-blood contact during anal sex, during sexual activities such as fisting or during any sexual encounter if there are sores present (such as those caused by syphilis).

The finding that HCV infection can occur among men long after an HIV diagnosis means that occasional HCV testing may be important for HIV-positive men who have sex with men. Timely HCV diagnosis may prevent the further spread of HCV. Diagnosis is also important to guide treatment and care decisions, since co-infection with HCV may complicate HIV therapy.

## What else did we learn?

The rate of HCV diagnosis that we observed in Ontario is similar to that seen in other countries. The chances of being diagnosed with HCV did not differ greatly between younger and older men, between men of different ethnic backgrounds or between men in different regions of Ontario. Men diagnosed with HCV had similar CD4 cell counts compared to men who were not diagnosed with HCV.

Because we did not have information about men's sexual behaviour, we could not conclude for certain that men in the study had acquired HCV sexually. However, the higher risk for gay men and other MSM with a past syphilis infection suggests that at least some sexual transmission of HIV may be occurring in Ontario. This possibility was further supported by the fact that the rate of HCV diagnosis was two times higher among gay and other men who have sex with men than among female and heterosexual male cohort participants.

## How was the study conducted?

We analyzed data from 1,534 HIV-positive men who participated in the OCS between 2000 and 2010. We obtained information about participants' HCV testing and diagnosis from the Public Health Ontario Laboratories. To be included in the analysis, men had to have had a negative HCV test. We then looked at how many men then went on to have a positive HCV test, indicating that they were infected with HCV after they had been diagnosed with HIV.

## What's next?

Periodic HCV testing among HIV-positive gay and other men who have sex with men is now recommended in national guidelines. Testing is particularly important for men who report high-risk sexual behaviour and/or for men who have been diagnosed with another sexually transmitted infection. Patient education and safer sex counseling can also help men living with HIV reduce the risk of getting other sexually transmitted infections.

## Want to know more?

This study will be published in the Canadian Journal of Infectious Diseases & Medical Microbiology in spring 2015.

### Full title

*Hepatitis C virus seroconversion among HIV-positive men who have sex with men with no history of injection drug use: Results from a clinical HIV cohort*

Burchell AN, Gardner S, Mazzulli T, Manno M, Raboud J, Allen VG, Bayoumi AM, Kaul R, McGee F, Millson P, Remis RS, Wobeser W, Cooper C, Rourke SB, on behalf of the OHTN Cohort Study Team.