



Patterns of Syphilis Testing in a Large Cohort of HIV Patients in Ontario, Canada, 2000-2009

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The question

What are the patterns of syphilis testing among people in HIV care over the past decade?

The answer

While more people living with HIV tested for syphilis over the course of the study period (from 2000 to 2009), the rise in testing happened mostly before 2005. Since 2005, however, syphilis diagnoses in Ontario have continued to increase while testing remained below recommended rates.

There is an urgent need for new ways to increase syphilis testing among people living with HIV, particularly among HIV-positive gay and other men who have sex with men (MSM), who account for most new syphilis diagnoses.

Why is this question important?

Since 2000, syphilis infections have dramatically risen in Ontario. The population most affected by syphilis is MSM, many of whom are also living with HIV. Being co-infected with HIV and syphilis can cause difficulties in managing one's health. Syphilis may spread more quickly to the brain (neurosyphilis) may happen more quickly, syphilis treatment may be more complicated and HIV may become easier to transmit to partners. For all these reasons it is important for people living with HIV to test regularly for syphilis and be treated in a timely fashion.

How was the study conducted?

The authors analysed data from 4,232 participants who were under study between 2000 and 2009. Syphilis test records came from the Public Health Ontario Laboratories (PHOL), the only lab that does syphilis testing in the province. The researchers were able to study syphilis tests that were ordered by physicians at the participants' HIV clinics, as well as syphilis tests that were ordered by any other health care provider in Ontario, such as sexual health clinics.



What else did we learn?

Over 80% of all OCS participants had a syphilis test at least once between 2000 and 2009. The largest proportion of participants who had undergone syphilis testing were MSM (83%), followed by women (78%) and heterosexual men (75%). Over three-quarters of all syphilis tests were ordered at the same time as an HIV viral load test and most tests (86%) took place at the participant's HIV clinic, rather than sexual health clinics or other care providers.

In 2000, only 3% of the participants in the OCS tested for syphilis in that year. By 2009, more than half (55%) of all OCS participants underwent testing for syphilis in that year. Most of the increase in the proportion tested each year happened in the first half of the decade (from 2000 to 2005).

Syphilis testing was most common among MSM, participants younger than 30 years old, those who had been tested for syphilis in the preceding year, or those who had more routine HIV labwork done in that year.

The authors estimate that, as of 2009, the percent of people in HIV care who have ever had syphilis (including past, treated syphilis) was 21% among MSM, 5% among women and 3% among heterosexual men. They also estimated that, in 2009, nearly 4% of MSM in HIV care had a diagnosis of acute syphilis, for which the majority would have been new cases of infectious syphilis, meaning that it had been recently acquired.

What's next?

HIV clinics can play a key role in promoting and facilitating syphilis testing among people living with HIV. Clinic-based interventions can help to increase syphilis testing and diagnoses in Ontario and reduce the burden of this infection for people living with HIV.

Want to know more?

This study was published in BMC Infectious Diseases. The full text version is available at:

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The **Ontario HIV Treatment Network Cohort Study (OCS)** is an ongoing research study that collects clinical, social and behavioural information about people living with HIV (PHA) in Ontario. Participation in the study is voluntary, and all personally identifying information of study participants is removed to ensure confidentiality. The OCS was established to improve our understanding of HIV and to inform HIV prevention, care and treatment strategies for people living with HIV and groups at increased risk of HIV infection. For more information about the OCS, please contact the OCS Research Coordinator, Brooke Ellis at: bellis@ohtn.on.ca.