



Modest Rise in Chlamydia and Gonorrhea Testing Did Not Increase Case Detection in a Clinical HIV Cohort in Ontario, Canada

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The question

How often do people living with HIV test for the sexually transmitted infections (STIs) chlamydia and gonorrhea? Do different populations of people living with HIV test more often or less often than others? Have there been any noticeable changes in testing over time? Are different populations of people living with HIV more or less likely to be diagnosed with chlamydia or gonorrhea?

The answer

A total of 39% of all of the participants in the study took a chlamydia and gonorrhea test at least once during the study period (2008-2011). Of all people who tested, most tested about once a year. Testers were more likely to be younger, attending a primary care clinic, living in Toronto, tested in the previous year, and identifying as gay, bisexual, or as a man having sex with men (MSM) than participants who did not test for STIs. Participants were more likely to test soon after HIV diagnosis or when they entered care rather than in later years.

There was a significant increase in testing at least once a year from 2008, where 15% of participants were tested for chlamydia and gonorrhea, to 2011, where 27% of participants were tested. However, testing was still lower than expected given Canadian and US guidelines. Even though testing increased over time, this did not translate into an increase in the number of cases of chlamydia and gonorrhea found in this population.

There were a total of 86 cases of chlamydia and 64 cases of gonorrhea diagnosed over the study period. The majority of both chlamydia and gonorrhea cases—93% and 97%, respectively—were found in MSM, corresponding to a prevalence of about 1% for both chlamydia and gonorrhea in the MSM population. Compared to the general male population in Ontario, MSM in this study had a six-fold higher rate of being diagnosed with chlamydia and a 27-fold higher rate of being diagnosed with gonorrhea. Diagnosis was also more common among younger MSM.

Why is this question important?

Since HIV is a disease of the immune system, having another infection can affect how the body manages HIV or the STI, and symptoms may be worse than if a person was not co-infected. Also, people living with HIV who have another STI, like chlamydia or gonorrhea, may transmit HIV more easily (i.e., they may be more infectious).



In Canada and the US, chlamydia and gonorrhoea testing is recommended annually for MSM, regardless of HIV status. In the US and the UK, people living with HIV are recommended to get tested for STIs annually. These guidelines are in place to improve health outcomes for people living with HIV and reduce onward transmission.

What else did we learn?

Women and heterosexual men were also diagnosed with chlamydia (in 2011: 0.64% prevalence among women, 0.32% among heterosexual men), but there were no cases of gonorrhoea found in either of these two populations. These rates are consistent with those for the general population of Ontario.

The authors reported that the majority of chlamydia and gonorrhoea tests (87%) were done with urine-based samples and only 13% of the tests were done on samples taken from the genital, rectal, or oral tract. Other research has shown that testing oral and rectal samples for chlamydia and gonorrhoea can improve case finding. Testing done from samples that are not urine-based can also identify specific strains of gonorrhoea that do not respond well to treatment (“antibiotic-resistant gonorrhoea”).

How was the study conducted?

The authors were able to get HIV viral load, chlamydia, and gonorrhoea test results from the Public Health Ontario Laboratories (PHOL). Seven of the 10 OCS clinic sites confirmed that they send all of their samples to the PHOL for testing. These results were linked to the participant’s data from the OCS and the authors of this study were able to analyze all of the data together to see the different patterns and trends in chlamydia and gonorrhoea testing.

What’s next?

The study authors recommend exploration of strategies to encourage regular chlamydia and gonorrhoea testing among men at risk of infection. Consideration should be given to making systematic changes to healthcare and laboratory practice to maximise screening uptake and improve testing for rectal and oral infection and antibiotic-resistant gonorrhoea.

Want to know more?

This study was published by [the Journal of] Sexually Transmitted Infections. The full text version is available at: <http://sti.bmj.com/content/early/2014/09/01/sextrans-2014-051647.full>

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@ohln.on.ca.