



Module: The Science and Practice of HIV Testing in Ontario



Allow 30 minutes if presenting this module as part of a full day training (note: without the scenario card exercise)

This module talks about the process of HIV infection, and why this process causes a window period early in infection when an HIV infection cannot be detected or is more likely to be missed. This science dictates the recommended 3-6 (lab-based testing) or 3-6-3 (POC testing only) schedule for advising clients who have had a recent high risk exposure. Refer to Ontario's new HIV testing guidelines for more information on the new window period and testing: <https://hivtestingontario.ca/ontario-guidelines-for-providers-offering-hiv-testing/>.

The Training Slides (30 minutes)

Present the slide deck (window_period_final.pptx) to your trainee group, or have an individual trainee read and review it. If you are presenting the slides, points to consider while presenting are available in the notes section of the slide.

Follow-up Discussion with Trainees

If you are not presenting this material to a group, you should sit down with your trainee(s) to review this material and anything they do not understand. Make sure to invite questions, and ensure that they know and understand the following:

- Use the participant handout when reviewing this material with trainees. That will give you a graphic of the timeline of infection to look at.
- Talk about the two kinds of testing available through your site – the rapid testing that the trainee will do, and the standard laboratory testing used to confirm any reactive result. Emphasize the key difference between these tests:
 1. Standard testing can confirm that a person is truly HIV positive because several tests are done at the labs to ensure a correct result.
 2. Because the lab test measures both the antibody and the virus itself, it may also catch new infections early than the rapid test.
- Look at the timeline graph together. Make sure the trainee understands that:
 1. No blood test can detect HIV during the first two weeks after infection because the virus is not yet in the blood
 2. Rapid and lab-based testing measures antibodies (the yellow line) which start to appear about three weeks after infection; by six weeks 95% of people will have measurable antibodies in their blood by POC testing, and 99% of people will have a definitive lab-based testing result, requiring no further testing.
- If a client has had a high-risk exposure, and has the acute infection symptoms described in their hand-out they should recommend standard testing, if the POC test is negative; there is a strong possibility that the client is in the window period
- Not everyone is infected by a high-risk exposure, but if they are infected they can more easily pass the virus on during the window period. Counsel people to take precautions to protect their partners: abstinence, condoms and harm reduction



- In Ontario we say the window period is 6 weeks. For POC testing only the window period remains 3 months. We ask people who have had a high-risk exposure to return for testing at 3 weeks, 6 weeks, and 3 months (for POC testing only), and 3 weeks and 6 weeks for lab-based testing. Most people who will test positive will do so at one of the first two appointments. At 6 weeks (for lab-based testing) and 3 months (for POC testing only), we can confidently say that a new infection has not happened
- Talk about using their judgement to counsel a low-risk client to return at the end of 6 weeks (for lab-based testing) or 3 months for POC testing only.
- By now trainees have already learned about PEP and PrEP. Reiterate that PEP and PrEP can delay an HIV diagnosis if used after an infection has occurred, but this should never discourage clients from using these forms of protection. Refer to Ontario's new HIV testing guidelines for more information on the PEP window period and testing: <https://hivtestingontario.ca/ontario-guidelines-for-providers-offering-hiv-testing/>.
- Review the concepts false positive and false negative and make sure the trainee understands them
- Make sure that trainees have seen the laminated card that they can use as a reference guide to interpret different testing outcomes

Interactive Learning (15 minutes)

Pose these scenarios to the trainee to assess their learning. For a group training, cut out the scenario cards below. Have each trainee draw a card and explain:

- What this result tells them about the client's HIV status
- How they would advise the client

(Alternatively, talk with an individual trainee about these scenarios)

HIV POC Training Slides: Module 4 The Science and Practice of Testing

Facilitator's Guide: Interactive Learning (15 minutes)

<p>POC Test = non-reactive</p> <p>Client had a high risk exposure three weeks ago</p>	<p>POC Test = reactive Standard Test = reactive</p> <p>Client had several high risk exposures in the last three months</p>	<p>POC Test = reactive Standard Test = non-reactive</p> <p>Client had several high risk exposures in the last three months</p>
<p>Interpretation/Next Steps:</p> <p>POC: return for testing at 6 weeks and 3 months OR Standard test now and at 6 weeks</p>	<p>Interpretation/Next Steps:</p> <p>Refer to treatment/care</p>	<p>Interpretation/Next Steps:</p> <p>POC: false reactive. Standard Test: determine if client outside 6 week window for standard testing. If yes, client negative. If no, test again at 3 weeks and at 6 weeks after most recent exposure.</p>
<p>POC Test = non-reactive</p> <p>Client had a high risk exposure three months ago</p>	<p>POC Test = non-reactive Standard Test = reactive</p> <p>Client had a high risk exposure three weeks ago</p>	<p>POC Test = reactive Standard Test = inconclusive</p> <p>Client had several high risk exposures in the last three months</p>
<p>Interpretation/Next Steps:</p> <p>Client is negative, no further testing for that exposure.</p>	<p>Interpretation/Next Steps:</p> <p>POC: false negative (in window). Standard Test: Client is positive, refer to treatment/care.</p>	<p>Interpretation/Next Steps:</p> <p>POC: possible false reactive Standard Test: ask client to return for another Standard Test 6 weeks after most recent exposure.</p>
<p>Self Test = non-reactive POC Test = reactive</p> <p>Client had a high risk exposure six weeks ago</p>	<p>Self Test = reactive POC Test = reactive</p> <p>Client had a high risk exposure six weeks ago</p>	<p>Self Test = non-reactive POC Test = non-reactive</p> <p>Client had high risk exposure six weeks ago</p>
<p>Interpretation/Next Steps:</p> <p>Recommend Standard test</p>	<p>Interpretation/Next Steps:</p> <p>Recommend Standard test</p>	<p>Interpretation/Next Steps:</p> <p>POC: test at 3 months OR Standard Test now</p>