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Ontario Human Immunodeficiency Virus (HIV) 2023 Testing Guidelines

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May 23, 2023

Disclosures

Presenter Disclosures – Austin Zygmunt

- I do not have a relationship with a for-profit and/or a not-for-profit organization to disclose

Presenter Disclosures – Patrick O'Byrne

- I do not have a relationship with a for-profit and/or a not-for-profit organization to disclose

Presentation Outline

- HIV serological test ordering in Ontario
- Epidemiology in Ontario
- Testing guidelines
- Questions and Wrap-up

Acknowledgments

- Thank-you to Maya Kesler at the Ontario HIV Treatment Network (OHTN) and Andrea Saunders at Public Health Ontario for preparation of the epidemiology slides.

Objectives

By the end of this session, participants will be able to:

1. Identify population groups that should be tested for HIV according to the new Ontario HIV testing guidelines.
2. Describe scenarios and conditions where it is appropriate to test (and retest) people for HIV.
3. List additional HIV prevention interventions and when to recommend them.

HIV Serological Test Ordering in Ontario

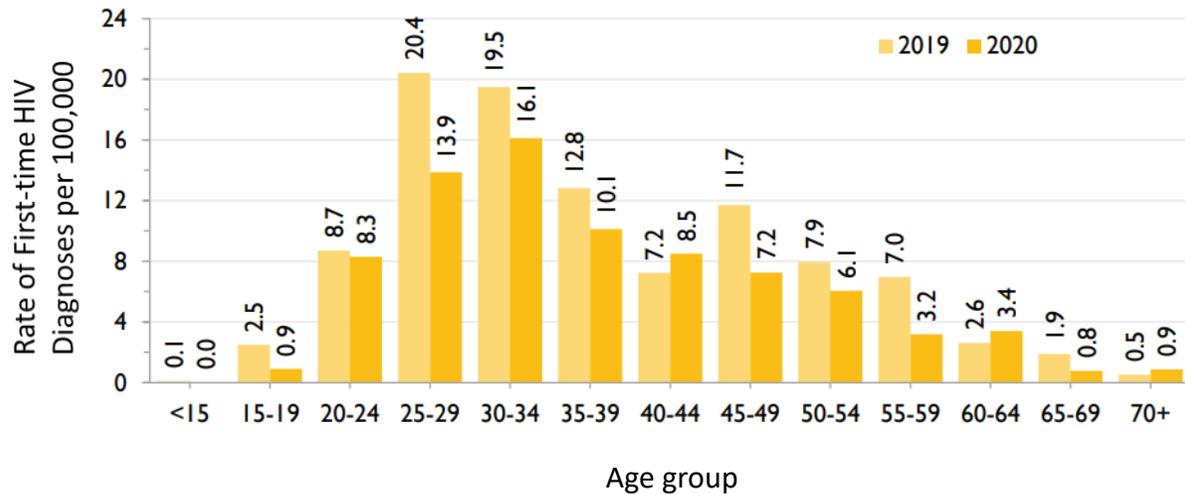


HIV Epidemiology in Ontario

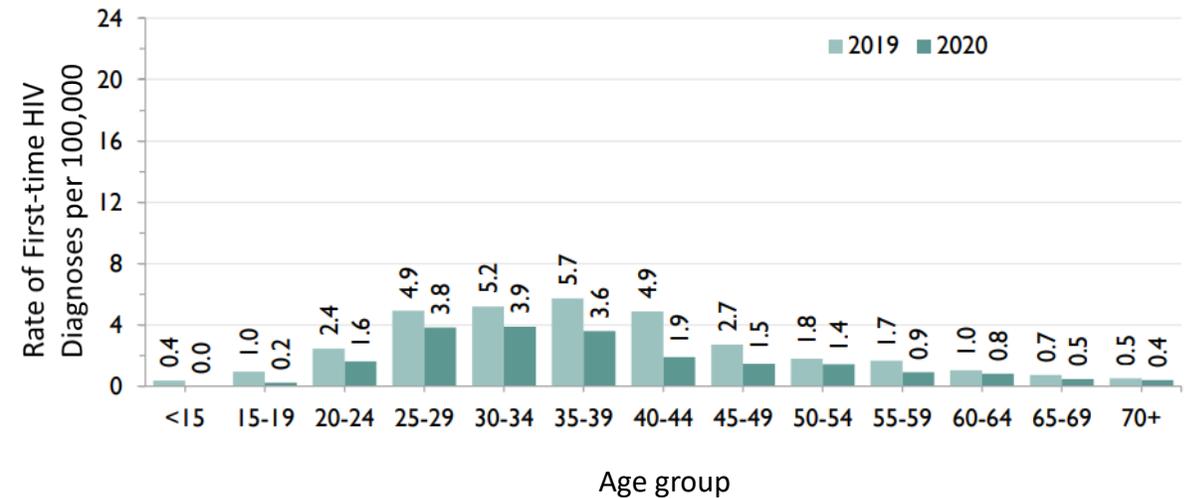


Rate of First-time HIV Diagnoses per 100,000 People by Sex and Age, Ontario, 2019 to 2020

Males



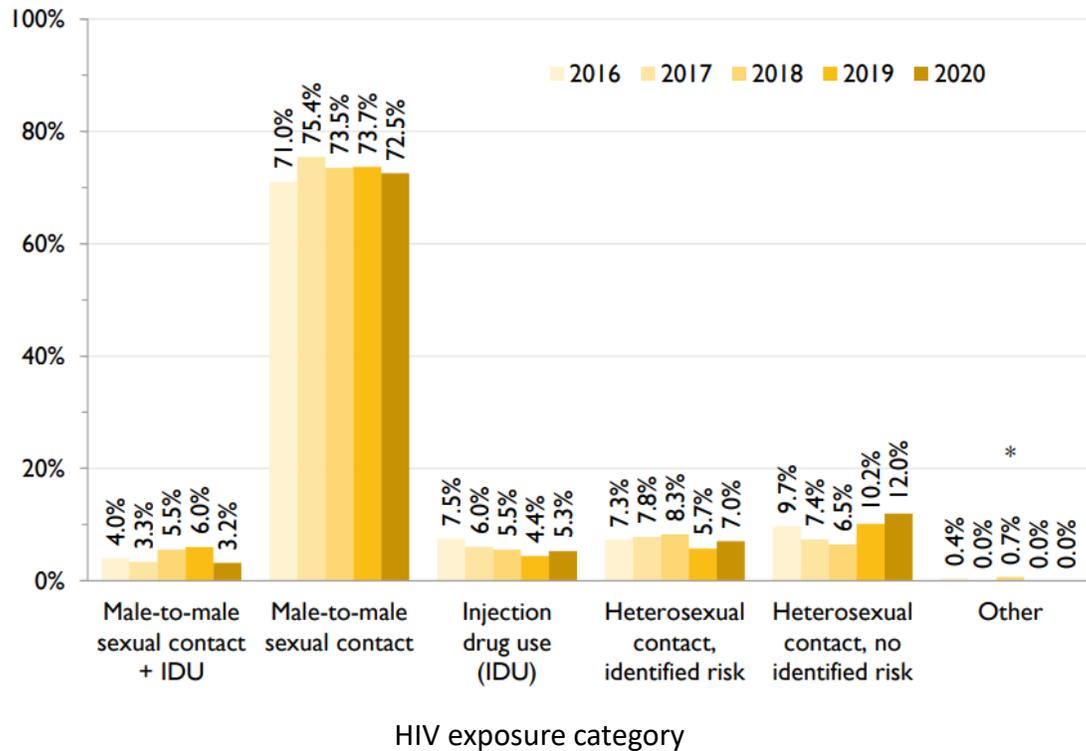
Females



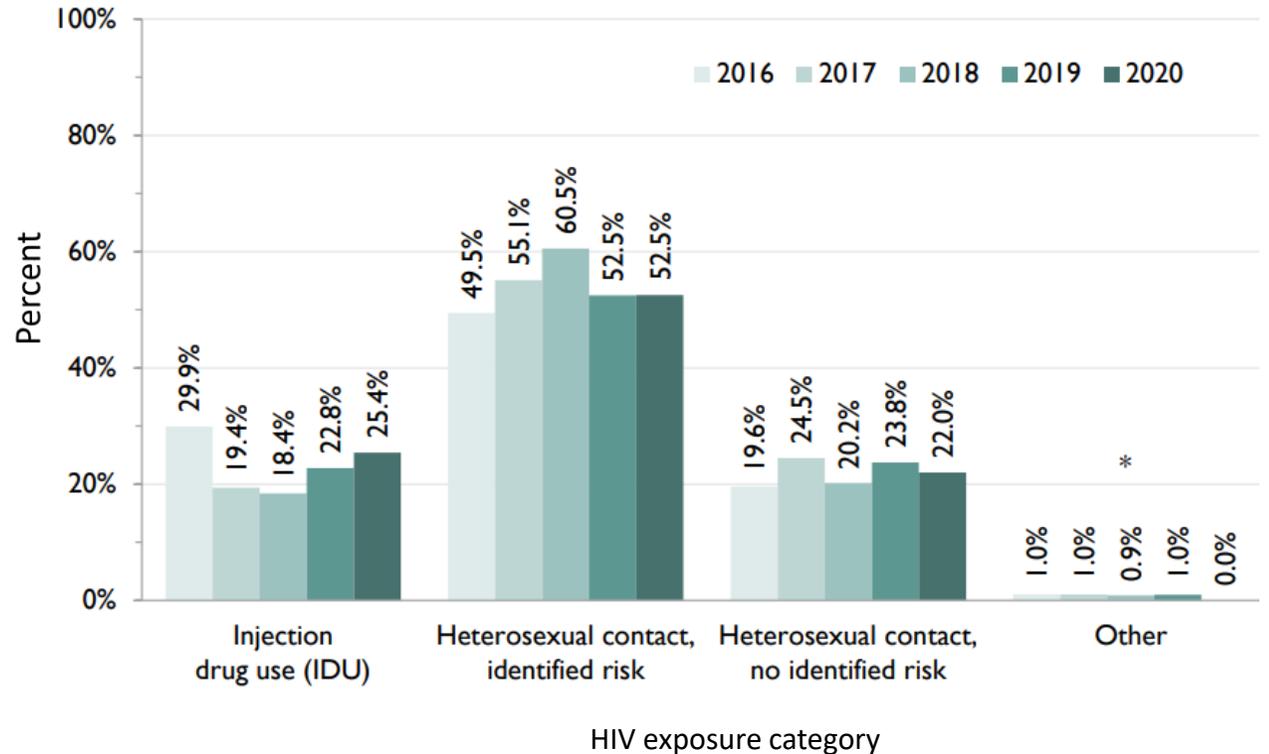
Source: Ontario HIV Epidemiology and Surveillance Initiative (OHESI). HIV diagnoses in Ontario, 2020 [Internet]. Toronto, ON: OHESI; 2022 [cited 2023 Apr 25]. Available from: <https://www.ohesi.ca/wp-content/uploads/2022/08/HIV-diagnoses-in-Ontario-2020-REPORT-FINAL-1.pdf>

Percent of First-Time HIV diagnoses by HIV Exposure Category (where reported) and Sex, Ontario, 2016 to 2020

Males



Females

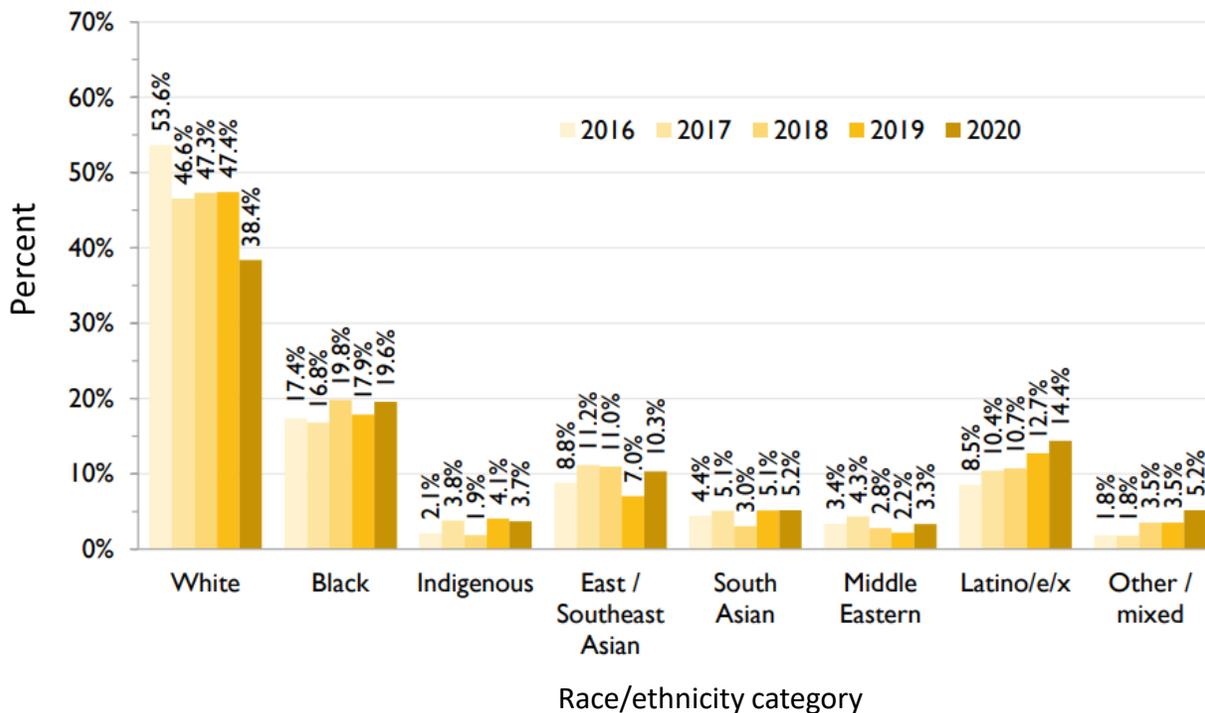


Source: Ontario HIV Epidemiology and Surveillance Initiative (OHESI). HIV diagnoses in Ontario, 2020 [Internet]. Toronto, ON: OHESI; 2022 [cited 2023 Apr 25].

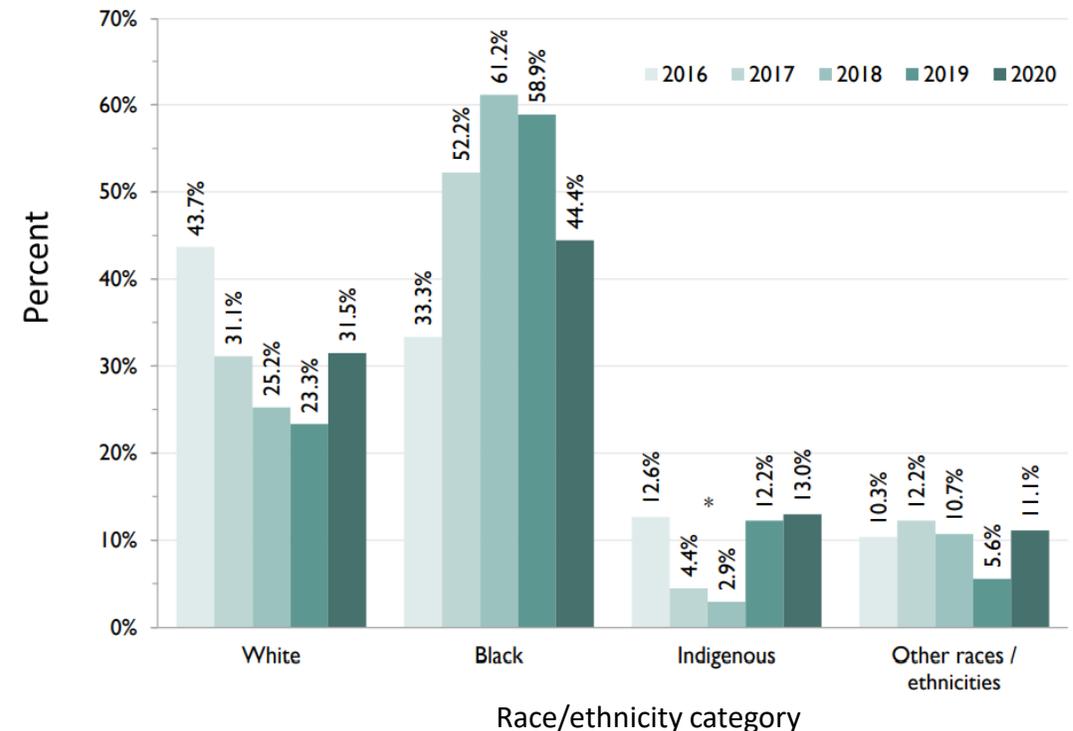
Available from: <https://www.ohesi.ca/wp-content/uploads/2022/08/HIV-diagnoses-in-Ontario-2020-REPORT-FINAL-1.pdf>

Percent of First-time HIV Diagnoses by Race/Ethnicity (where reported) and Sex, Ontario, 2016 to 2020

Males



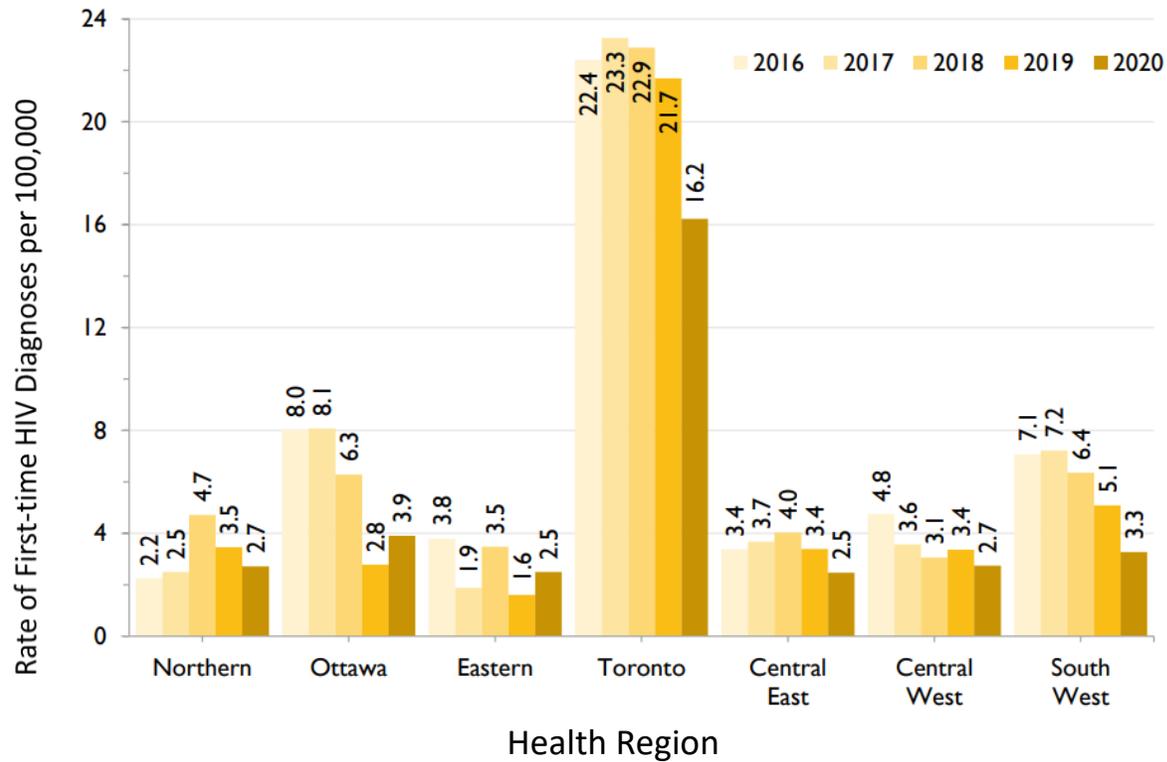
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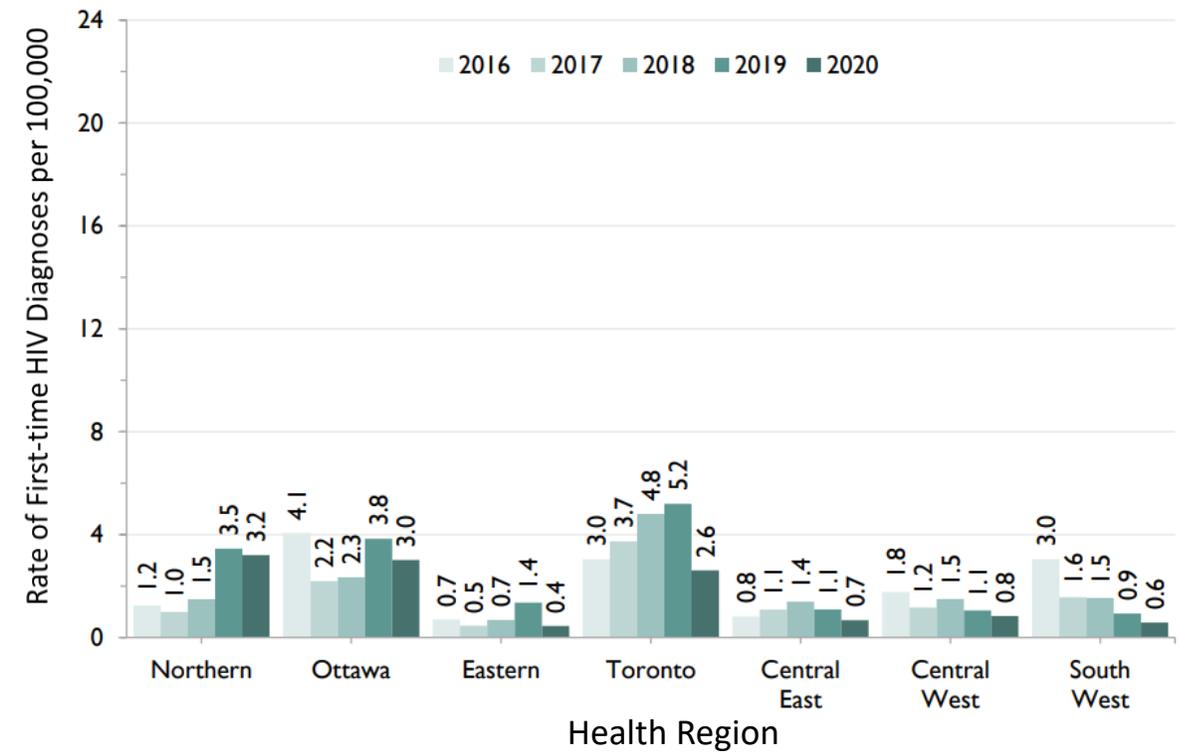
Source: Ontario HIV Epidemiology and Surveillance Initiative (OHESI). HIV diagnoses in Ontario, 2020 [Internet]. Toronto, ON: OHESI; 2022 [cited 2023 Apr 25]. Available from: <https://www.ohesi.ca/wp-content/uploads/2022/08/HIV-diagnoses-in-Ontario-2020-REPORT-FINAL-1.pdf>

Rate of First-time HIV Diagnoses per 100,000 People by Health Region and Sex, Ontario, 2016 to 2020

Males



Females

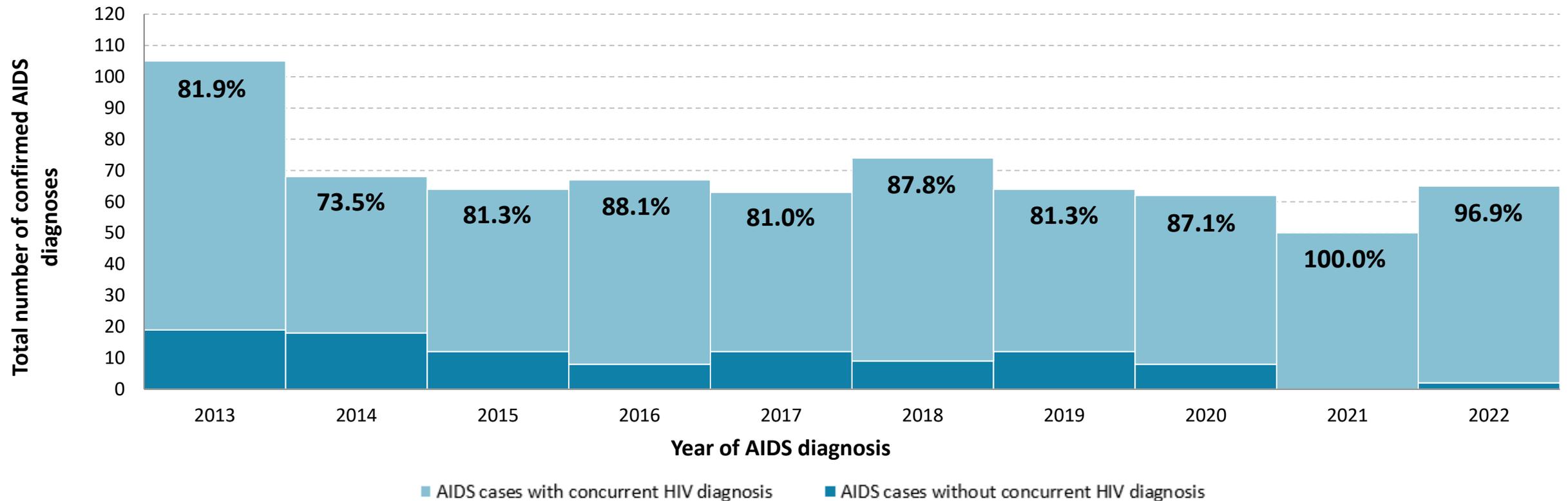


Source: Ontario HIV Epidemiology and Surveillance Initiative (OHESI). HIV diagnoses in Ontario, 2020 [Internet]. Toronto, ON: OHESI; 2022 [cited 2023 Apr 25]. Available from: <https://www.ohesi.ca/wp-content/uploads/2022/08/HIV-diagnoses-in-Ontario-2020-REPORT-FINAL-1.pdf>

Concurrent AIDS and HIV diagnoses in Ontario

- Between January 1, 2013 and December 31, 2022 there were 682 AIDS diagnoses in Ontario, of which 85.3% (n=582) had a concurrent first-time HIV diagnosis

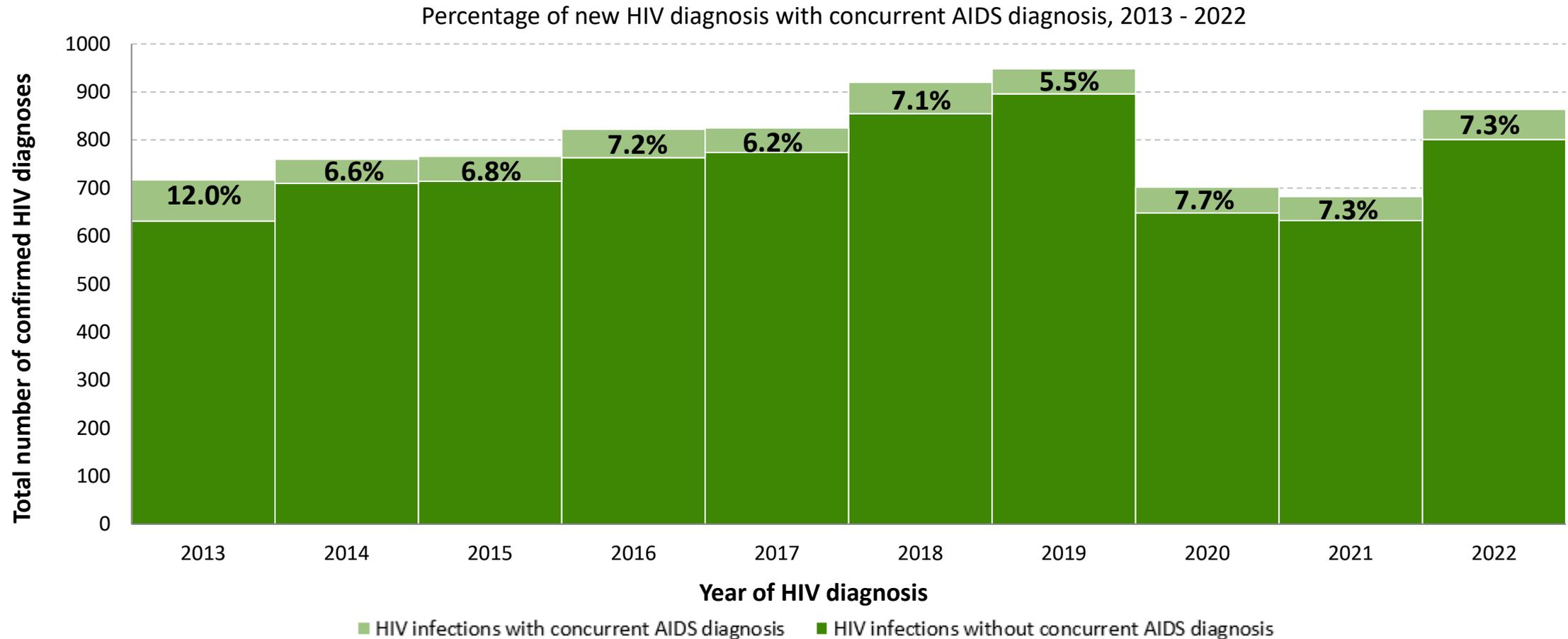
Percentage of new AIDS diagnosis with concurrent HIV diagnosis, 2013 - 2022



Source: Ontario. Ministry of Health and Long-Term Care. Integrated Public Health Information System (iPHIS) [database]. Toronto, ON: King's Printer for Ontario; [data extracted 2023 Apr 27].

Concurrent HIV and AIDS diagnoses in Ontario

- Between January 1, 2013 and December 31, 2022 there were 8,006 first-time HIV diagnoses in Ontario, of which 7.3% (n=582) had a concurrent AIDS diagnosis in Ontario



Source: Ontario. Ministry of Health and Long-Term Care. Integrated Public Health Information System (iPHIS) [database]. Toronto, ON: King's Printer for Ontario; [data extracted 2023 Apr 27].

2023 HIV Testing Guidelines



Polling Question

- Following the 2023 Ontario HIV Testing Guidelines, testing people for HIV should now occur at what time intervals?
 1. After 3 months from a potential HIV exposure
 2. Only when they request HIV testing
 3. When they request HIV testing, 3 weeks after a potential HIV exposure, and, if negative, again at 6 weeks
 4. After 6 weeks from a potential HIV exposure

Ontario Guidelines for Providers Offering HIV Testing

New guidelines developed to achieve updated UNAIDS 95-95-95 targets by:

1. Identifying acute and chronic symptoms that warrant testing
2. Promoting routine testing for members of the groups with higher rates of HIV
3. Increasing status neutral linkages

Source: HIV Testing Ontario; Ontario. Ministry of Health. Ontario guidelines for providers offering HIV testing [Internet]. Toronto, ON: Ontario HIV Treatment Network (OHTN); 2023 [cited 2023 Apr 25]. Available from: <https://hivtestingontario.ca/ontario-guidelines-for-providers-offering-hiv-testing/>

Major HIV Testing Guideline Updates

Using serology, the period to rule out HIV infection in Ontario is now 6 weeks¹

Undetectable = Untransmittable
(U = U)²

Tailor pretest counselling and risk assessments to a person's needs³

Rule out HIV infection in persons with suggestive or compatible symptoms⁴

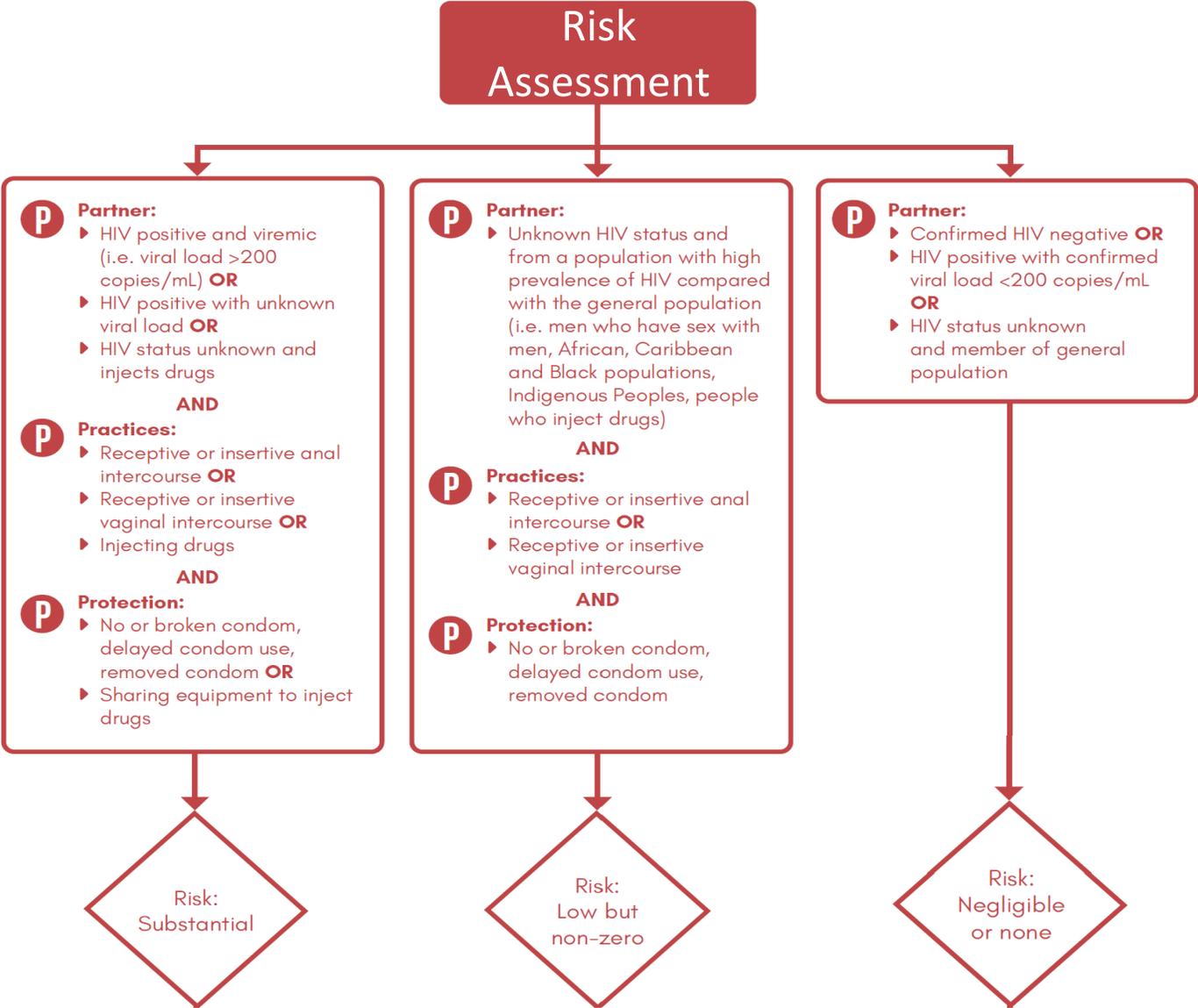
1. Taylor D, Durigon M, Davis H, Archibald C, Konrad B, Coombs D, et al. Probability of a false-negative HIV antibody test result during the window period: a tool for pre- and post-test counselling. *Int J STD AIDS*. 2015;26(4):215-64. Available from: <https://doi.org/10.1177/0956462414542987>

2. Eisinger RW, Dieffenbach CW, Fauci AS. HIV viral load and transmissibility of HIV infection: undetectable equals untransmittable. *JAMA*. 2019;321(5):451-2. Available from: <https://doi.org/10.1001/jama.2018.21167>

3. Metsch LR, Feaster DJ, Gooden L, Schackman BR, Matheson T, Das M, et al. Effect of risk-reduction counseling with rapid HIV testing on risk of acquiring sexually transmitted infections: the AWARE randomized clinical trial. *JAMA*. 2013;310(16):1701-10. Available from: <https://doi.org/10.1001/jama.2013.280034>

4. Orser L, O'Byrne P, Holmes D. AIDS cases in Ottawa: a review of simultaneous HIV and AIDS diagnoses. *Public Health Nurs*. 2022;39(5):909-16. Available from: <https://doi.org/10.1111/phn.13065>

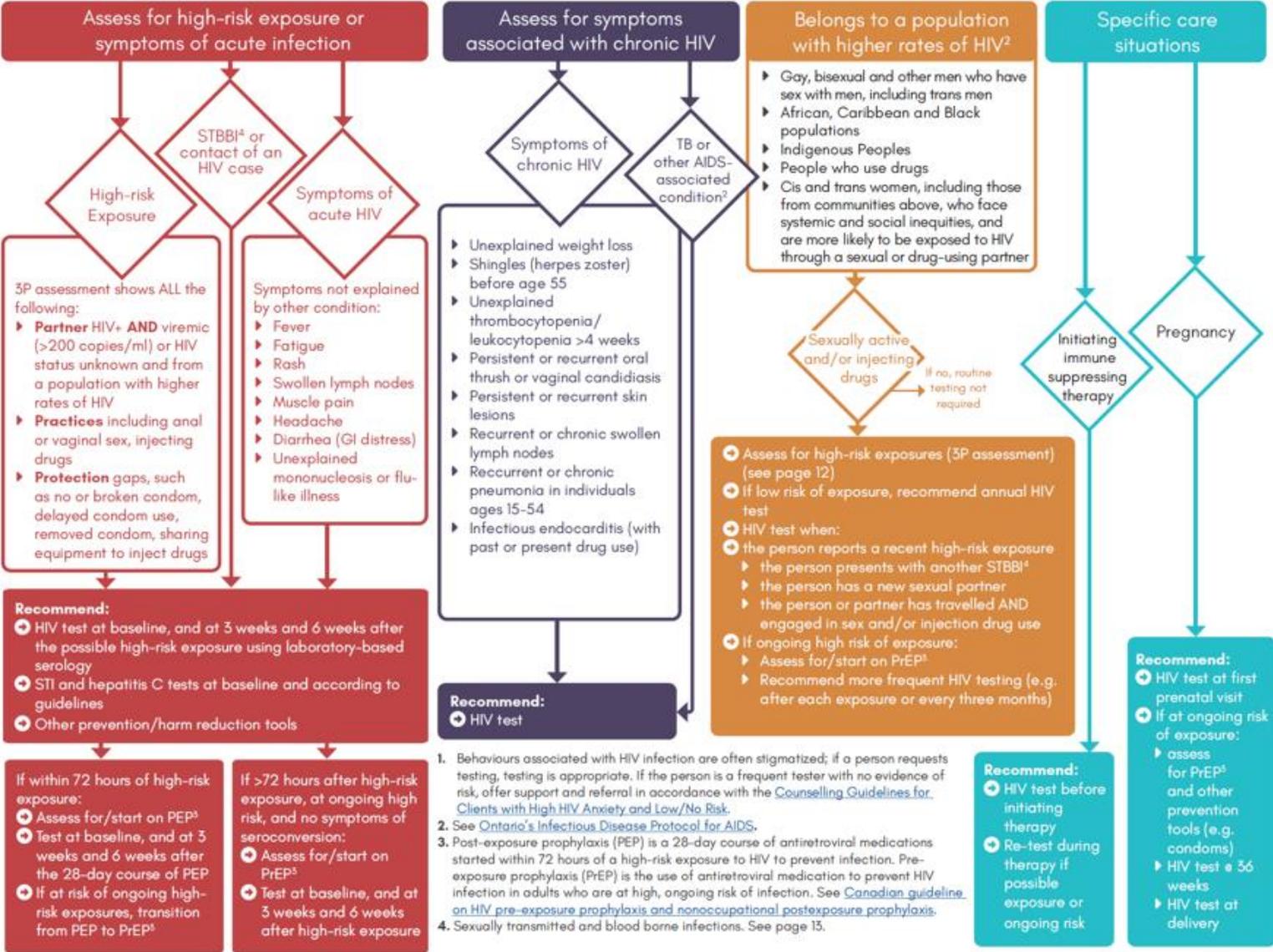
Risk Assessment



Source: HIV Testing Ontario; Ontario. Ministry of Health. Ontario guidelines for providers offering HIV testing [Internet]. Toronto, ON: Ontario HIV Treatment Network (OHTN); 2023 [cited 2023 Apr 25]. Available from: <https://hivtestingontario.ca/ontario-guidelines-for-providers-offering-hiv-testing/>

Does Your Patient Need HIV Testing?

DOES YOUR PATIENT NEED HIV TESTING?¹



STBBIs ASSOCIATED WITH HIV

- ▶ infectious syphilis
- ▶ a rectal bacterial STI (gonorrhea, chlamydia), particularly among cis and trans men who have sex with men, and trans women
- ▶ gonorrhea among women
- ▶ hepatitis C
- ▶ hepatitis B

STBBI testing is an opportunity to assess a person's risk for HIV.

Source: HIV Testing Ontario; Ontario. Ministry of Health. Ontario guidelines for providers offering HIV testing [Internet]. Toronto, ON: Ontario HIV Treatment Network (OHTN); 2023 [cited 2023 Apr 25]. Available from: <https://hivtestingontario.ca/ontario-guidelines-for-providers-offering-hiv-testing/>

Prong 1: Find New Infections

Who	Details	Recommendations
High-risk exposures	<ul style="list-style-type: none"> • Partners <ul style="list-style-type: none"> • HIV-positive AND viremic, OR • HIV-status unknown from group with higher rates of HIV • Practices <ul style="list-style-type: none"> • Vaginal and/or anal sex, OR • Injection drug use • Protection (gaps) 	<ul style="list-style-type: none"> • HIV testing at baseline, then 3 and 6 weeks with serology (again at 3 months with point-of-care or self test) • Clinically-indicated STI testing • Prevention services including post-exposure prophylaxis (PEP), pre-exposure prophylaxis (PrEP), and harm reduction gear
Diagnosis of a Sexually Transmitted and Blood Borne Infections (STBBIs)	<ul style="list-style-type: none"> • Infectious syphilis • Rectal bacterial sexually transmitted infection (STI) • Gonorrhea among women • Hepatitis B and C 	
Symptoms (acute)	<ul style="list-style-type: none"> • Mononucleosis-like 	

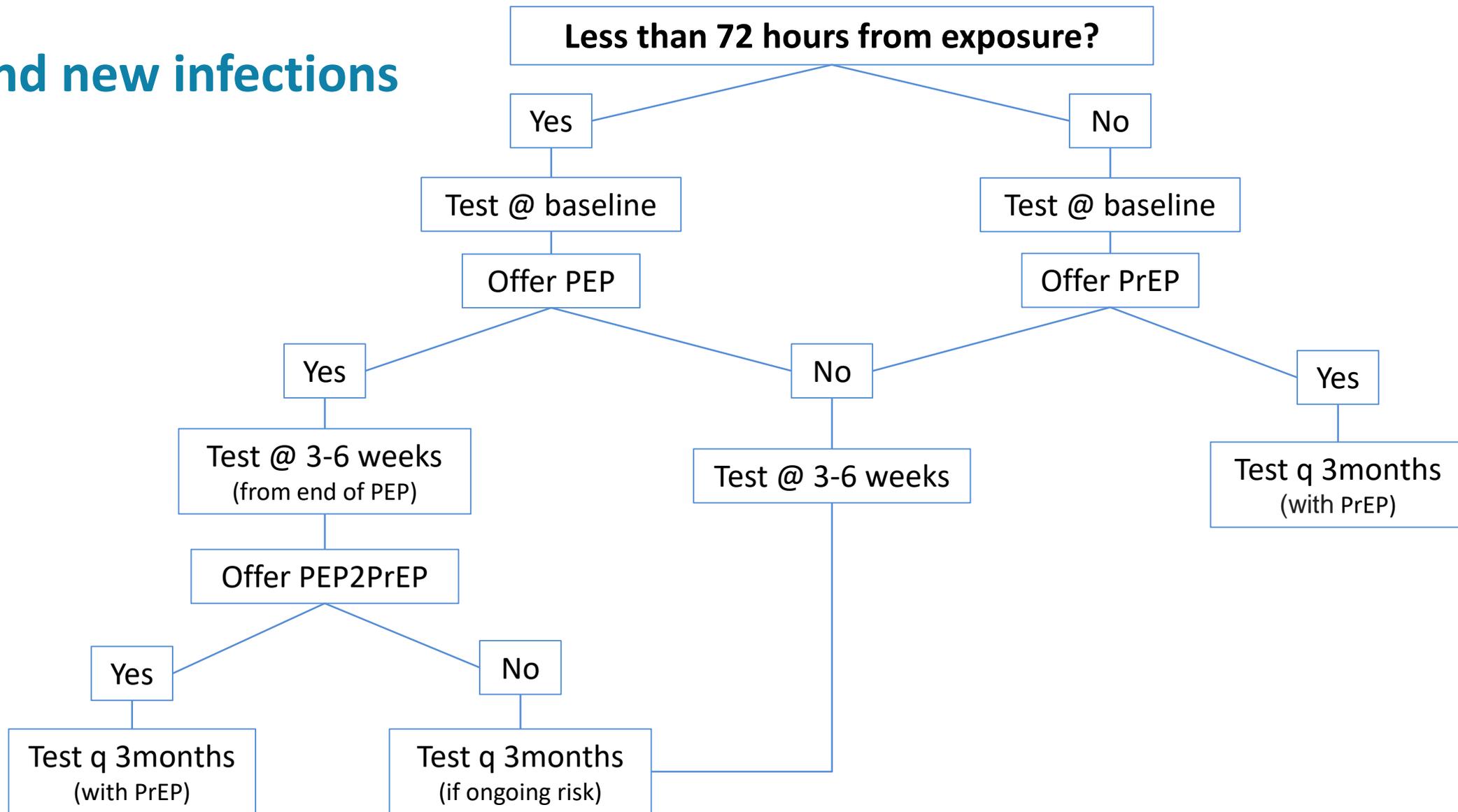
Adapted from: HIV Testing Ontario; Ontario. Ministry of Health. Ontario guidelines for providers offering HIV testing [Internet]. Toronto, ON: Ontario HIV Treatment Network (OHTN); 2023 [cited 2023 Apr 25]. Available from: <https://hivtestingontario.ca/ontario-guidelines-for-providers-offering-hiv-testing/>

Polling Question

A 28 year old male patient presents to clinic requesting HIV testing. He is concerned about a sexual contact from 2 days ago. Is it appropriate to test him for HIV right now?

1. Yes
2. No

Prong 1: Find new infections



Adapted from: HIV Testing Ontario; Ontario. Ministry of Health. Ontario guidelines for providers offering HIV testing [Internet]. Toronto, ON: Ontario HIV Treatment Network (OHTN); 2023 [cited 2023 Apr 25]. Available from: <https://hivtestingontario.ca/ontario-guidelines-for-providers-offering-hiv-testing/>

Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis

Darrell H. S. Tan MD PhD, Mark W. Hull MD MHSc, Deborah Yoong BScPhm PharmD, Cécile Tremblay MD, Patrick O'Byrne RN (EC) PhD, Réjean Thomas MD, Julie Kille RN, Jean-Guy Baril MD, Joseph Cox MD MSc, Pierre Giguere BPharm MSc, Marianne Harris MD, Christine Hughes BScPharm PharmD, Paul MacPherson MD PhD, Shannon O'Donnell MD MPH, Joss Reimer MD MPH, Ameeta Singh BMBS MSc, Lisa Barrett MD PhD, Isaac Bogoch MD MSc, Jody Jollimore MPP, Gilles Lambert MD, Bertrand Lebouche MD PhD, Gila Metz MD, Tim Rogers PhD, Stephen Shafran MD; for the Biomedical HIV Prevention Working Group of the CIHR Canadian HIV Trials Network

■ Cite as: *CMAJ* 2017 November 27;189:E1448-58. doi: 10.1503/cmaj.170494

Box 2: Summary of recommendations

Pre-exposure prophylaxis (PrEP)

Indications

Men who have sex with men (MSM)

- PrEP is recommended for MSM (*strong recommendation; high quality of evidence*) and transgender women (*strong recommendation; moderate quality of evidence*), who report condomless anal sex within the last six months and who have any of the following:
 - Infectious syphilis or rectal bacterial sexually transmitted infection (STI), particularly if diagnosed in the preceding 12 months;
 - Recurrent use of nonoccupational postexposure prophylaxis (nPEP) (more than once);
 - Ongoing sexual relationship with HIV-positive partner with substantial risk of transmissible HIV; or
 - High-incidence risk index (HIRI)-MSM risk score ≥ 11 (Appendix 1, supplemental Table 2).
- PrEP is not recommended in the context of a stable closed relationship with a single partner with no or negligible risk of having transmissible HIV (*strong recommendation; moderate quality of evidence*).

Heterosexual exposure

- We recommend PrEP for the HIV-negative partner in heterosexual serodiscordant relationships reporting condomless vaginal or anal sex where the HIV-positive partner has a substantial risk of having transmissible HIV (*strong recommendation; high quality of evidence*).
- PrEP may be considered for the HIV-negative partner in heterosexual serodiscordant relationships reporting condomless vaginal or anal sex, where the HIV-positive partner has a low but non-negligible risk of having transmissible HIV (*weak recommendation; moderate quality of evidence*).

People who inject drugs (PWID) exposure

- PrEP may be considered for PWID if they share injection drug use paraphernalia with a person with a non-negligible risk of HIV infection (*weak recommendation; moderate quality of evidence*).

Source: Tan DHS, Hull MW, Yoong D, Tremblay C, O'Byrne P, Thomas R, et al. Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis. *CMAJ*. 2017;189(47):E1448-58. Available from: <https://doi.org/10.1503/cmaj.170494> (License: CC BY 4.0).

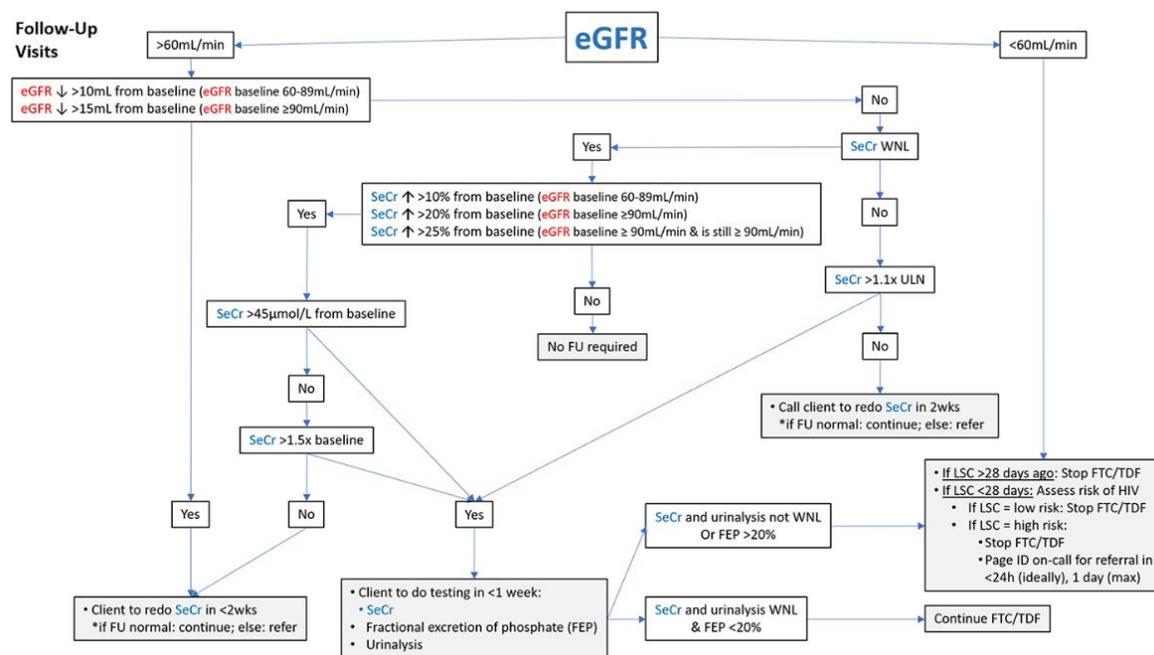
PrEP-RN

Clinical Considerations and Protocols for Nurse-Led PrEP

O'Byrne, Patrick RN-EC, PhD^{*}; MacPherson, Paul MD, PhD; Orser, Lauren RN; Jacob, Jean Daniel RN, PhD; Holmes, Dave RN, PHD

Author Information

Journal of the Association of Nurses in AIDS Care 30(3):p 301-311, May-June 2019. | DOI: 10.1097/JNC.0000000000000075



Source: O'Byrne P, MacPherson P, Orser L, Jacob JD, Holmes D. PrEP-RN: clinical considerations and protocols for nurse-led PrEP. *J Assoc Nurses AIDS Care*. 2019;30(3):301-11. Available from: <https://doi.org/10.1097/JNC.0000000000000075>. (License: CC BY-NC-ND).

Prong 2: Find Chronic Infections

Who	Details	Recommendation
Indicator conditions	<ul style="list-style-type: none"> • Tuberculosis • Acquired immunodeficiency syndrome (AIDS) associated condition 	HIV test once to rule out infection
Symptom presentation (chronic)	<ul style="list-style-type: none"> • Unexplained weight loss • Unexplained thrombocytopenia / leukopenia for 4 or more weeks • Infectious endocarditis • Shingles if under 55 years old • Recurrent or chronic: <ul style="list-style-type: none"> • Oral or vaginal candidiasis • Skin lesions • Lymphadenopathy • Pneumonia if 15-54 years old 	HIV test once to rule out infection

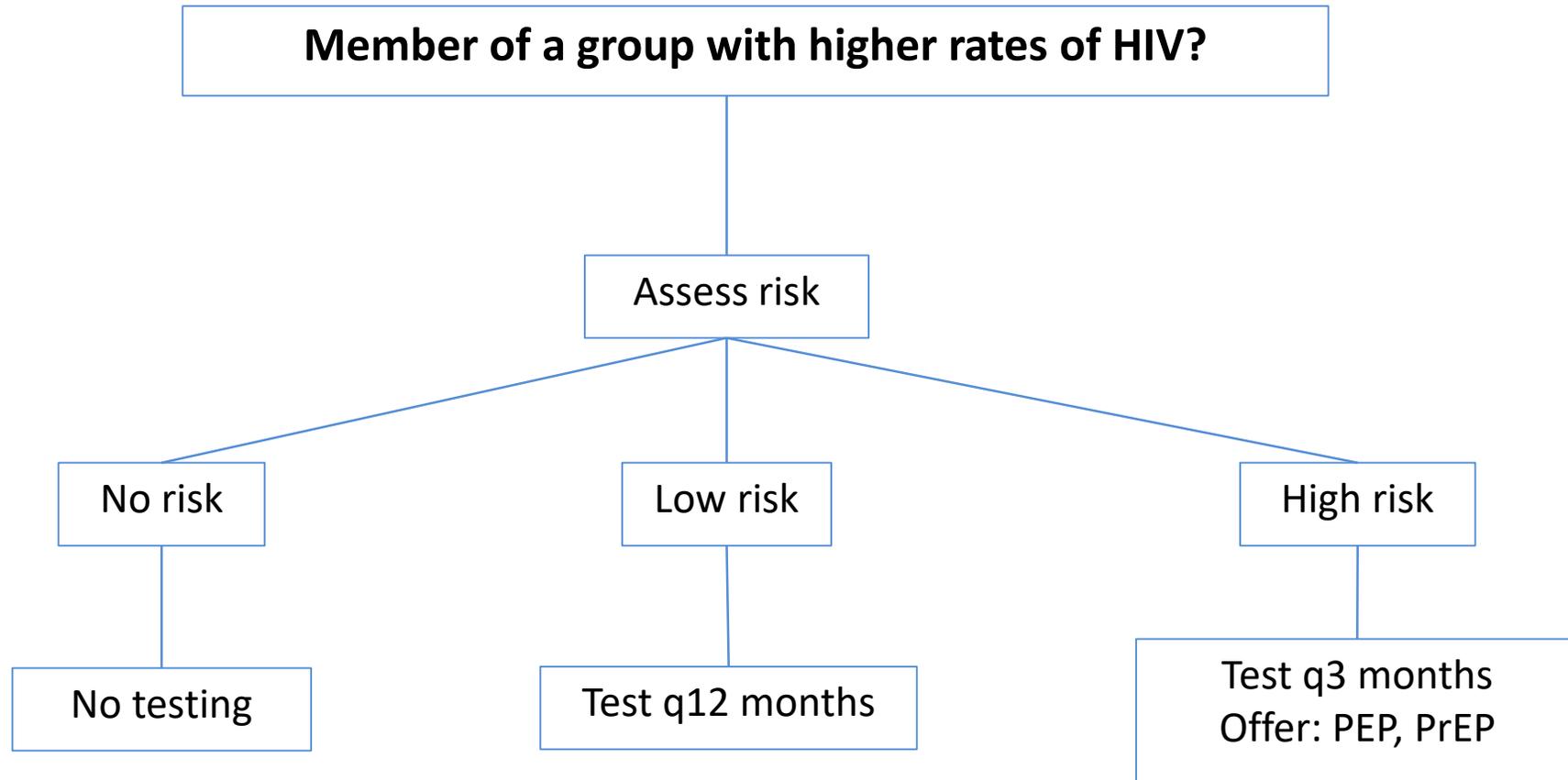
Adapted from: HIV Testing Ontario; Ontario. Ministry of Health. Ontario guidelines for providers offering HIV testing [Internet]. Toronto, ON: Ontario HIV Treatment Network (OHTN); 2023 [cited 2023 Apr 25]. Available from: <https://hivtestingontario.ca/ontario-guidelines-for-providers-offering-hiv-testing/>

Prong 3: Routine Testing

Who	Details	Recommendations
Member of groups with higher rates of HIV	<ul style="list-style-type: none">• Gay, bisexual, and other men who have sex with men• African, Caribbean, and Black persons• Members of Indigenous communities• People who use drugs• Cis and trans women (including those from communities above) who face systemic and social inequities, and are more likely to be exposed to HIV through a sexual or drug-using partner	<ul style="list-style-type: none">• No HIV testing if no risk (not sexually active and no injection drug use)• HIV testing annually if low risk• HIV testing every 3 months if ongoing high risk of exposure

Adapted from: HIV Testing Ontario; Ontario. Ministry of Health. Ontario guidelines for providers offering HIV testing [Internet]. Toronto, ON: Ontario HIV Treatment Network (OHTN); 2023 [cited 2023 Apr 25]. Available from: <https://hivtestingontario.ca/ontario-guidelines-for-providers-offering-hiv-testing/>

Prong 3: Routine Testing



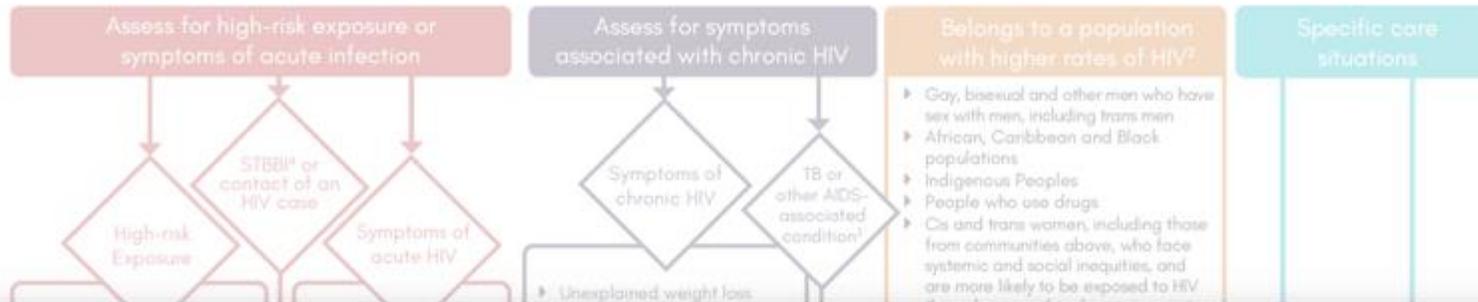
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Prong 4: Other Care Scenarios

Who	Recommendations
<ul style="list-style-type: none">Initiating immune suppressing therapy	<ul style="list-style-type: none">HIV testing before initiating treatmentRe-test during treatment if possible exposure or ongoing risk
<ul style="list-style-type: none">Pregnancy	<ul style="list-style-type: none">HIV test at first prenatal visitIf at ongoing risk of exposure:<ul style="list-style-type: none">Assess for pre-exposure prophylaxis (PrEP) and other prevention toolsHIV test at 36 weeksHIV test at delivery

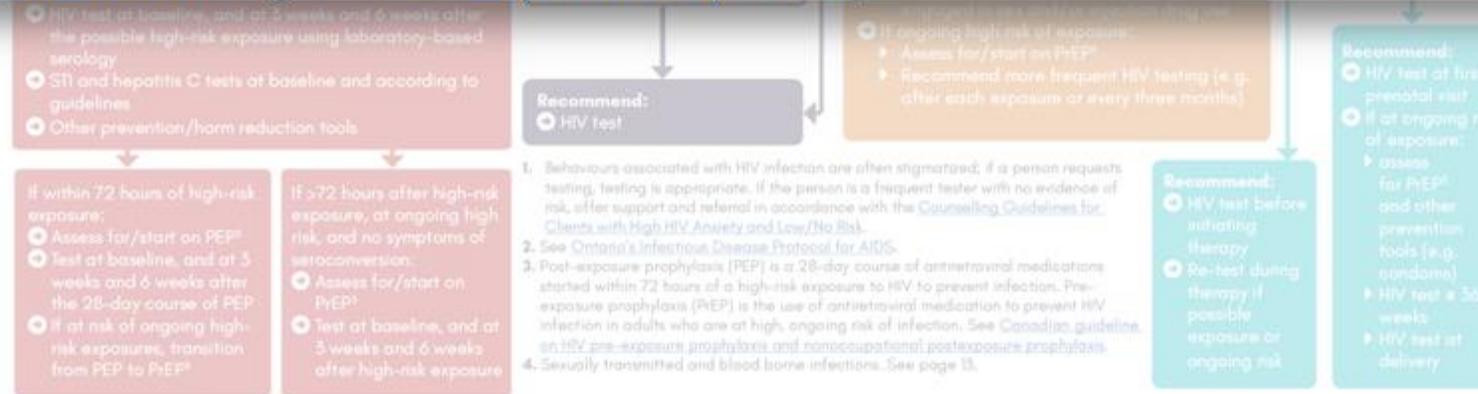
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DOES YOUR PATIENT NEED HIV TESTING?¹



DOES YOUR PATIENT NEED HIV TESTING?¹

1. Behaviours associated with HIV infection are often stigmatized; if a person requests testing, testing is appropriate. If the person is a frequent tester with no evidence of risk, offer support and referral in accordance with the [Counselling Guidelines for Clients with High HIV Anxiety and Low/No Risk](#).



Source: HIV Testing Ontario; Ontario. Ministry of Health. Ontario guidelines for providers offering HIV testing [Internet]. Toronto, ON: Ontario HIV Treatment Network (OHTN); 2023 [cited 2023 Apr 25]. Available from: <https://hivtestingontario.ca/ontario-guidelines-for-providers-offering-hiv-testing/>

Summary

Context:

- 11% of persons remain undiagnosed
- Ongoing new infections among same groups
- Ongoing delayed diagnoses
- Updated testing technology in Ontario
- Updated UNAIDS targets: 95-95-95

Guideline Updates:

- Test earlier, test often
- Window period reduced to 6 weeks
- Testing timeline: 0-3-6 (serology) and 0-3-6-3 (point-of-care or self-test)
- Resting timeline: annual to every 3 months (depending on risk)
- Status neutral linkage

Source: HIV Testing Ontario; Ontario. Ministry of Health. Ontario guidelines for providers offering HIV testing [Internet]. Toronto, ON: Ontario HIV Treatment Network (OHTN); 2023 [cited 2023 Apr 25]. Available from: <https://hivtestingontario.ca/ontario-guidelines-for-providers-offering-hiv-testing/>

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Resources

- Ontario Agency for Health Protection and Promotion (Public Health Ontario). Testing information index: HIV - diagnostic serology [Internet]. Toronto, ON: King's Printer for Ontario; 2023 [cited 2023 Apr 25]. Available from: <https://www.publichealthontario.ca/en/Laboratory-Services/Test-Information-Index/HIV-Diagnostic-Serology>
- Ontario Agency for Health Protection and Promotion (Public Health Ontario). HIV serology/HIV PCR test requisition. Toronto, ON: King's Printer for Ontario; 2023 [cited 2023 Apr 25]. Available from: https://www.publichealthontario.ca/-/media/Documents/Lab/hiv-serology.pdf?rev=b13fbd63624446cba61ffd22c37d111f&sc_lang=en
- Ontario Agency for Health Protection and Promotion (Public Health Ontario). HIV-1 RNA Viral Load. Toronto, ON: King's Printer for Ontario; 2023 [cited 2023 Apr 25]. Available from: <https://www.publichealthontario.ca/en/laboratory-services/test-information-index/hiv-viral-load#:~:text=References-,Testing%20Indications,as%20an%20indicator%20of%20disease>
- Ontario HIV Epidemiology and Surveillance Initiative (OHESI). HIV tests in Ontario, 2020 [Internet]. Toronto, ON: OHESI; 2022 [cited 2023 Apr 25]. Available from: <https://www.ohesi.ca/wp-content/uploads/2022/06/OHESI-report-HIV-tests-in-Ontario-2020.pdf>
- Ontario HIV Epidemiology and Surveillance Initiative (OHESI). HIV diagnoses in Ontario, 2020 [Internet]. Toronto, ON: OHESI; 2022 [cited 2023 Apr 25]. Available from: <https://www.ohesi.ca/wp-content/uploads/2022/08/HIV-diagnoses-in-Ontario-2020-REPORT-FINAL-1.pdf>
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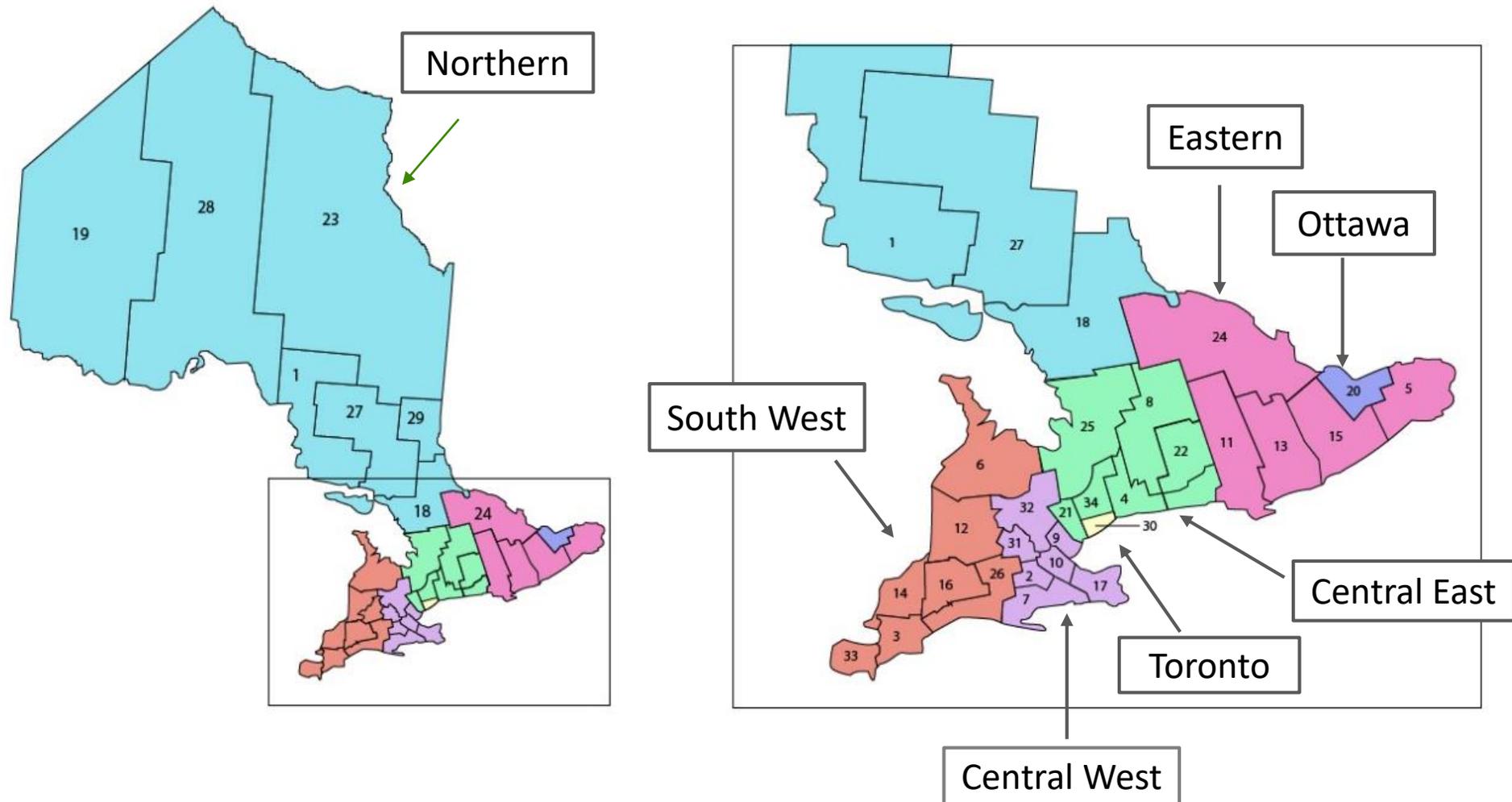
Resources continued

- Tan DHS, Hull MW, Yoong D, Tremblay C, O’Byrne P, Thomas R, et al. Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis. CMAJ. 2017;189(47):E1448–58. Available from: <https://doi.org/10.1503/cmaj.170494>
- O’Byrne P, MacPherson P, Orser L, Jacob JD, Holmes D. PrEP-RN: clinical considerations and protocols for nurse-led PrEP. J Assoc Nurses AIDS Care. 2019;30(3):301-11. Available from: <https://doi.org/10.1097/JNC.0000000000000075>
- Taylor D, Durigon M, Davis H, Archibald C, Konrad B, Coombs D, et al. Probability of a false-negative HIV antibody test result during the window period: a tool for pre- and post-test counselling. Int J STD AIDS. 2015;26(4):215-64. Available from: <https://doi.org/10.1177/0956462414542987>
- Eisinger RW, Dieffenbach CW, Fauci AS. HIV viral load and transmissibility of HIV infection: undetectable equals untransmittable. JAMA. 2019;321(5):451-2. Available from: <https://doi.org/10.1001/jama.2018.21167>
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- Orser L, O’Byrne P, Holmes D. AIDS cases in Ottawa: a review of simultaneous HIV and AIDS diagnoses. Public Health Nurs. 2022;39(5):909-16. Available from: <https://doi.org/10.1111/phn.13065>

Appendices



Ontario HIV Epidemiology and Surveillance Initiative (OHESI) regions



Source: Ontario HIV Epidemiology and Surveillance Initiative (OHESI). HIV diagnoses in Ontario, 2020 [Internet]. Toronto, ON: OHESI; 2022 [cited 2023 Apr 25]. Available from: <https://www.ohesi.ca/wp-content/uploads/2022/08/HIV-diagnoses-in-Ontario-2020-REPORT-FINAL-1.pdf>

HIV Testing in Ontario

- Specimens are screened for HIV using a chemiluminescent micro-particle immunoassay (CMIA) for the simultaneous qualitative detection of HIV p24 antigen (Ag) and antibodies to HIV-1 and/or HIV-2
- If the CMIA test is reactive or indeterminate, the specimen is tested using the Geenius™ HIV1/2 Differential assay, which is an immunochromatographic test for the confirmation and differentiation of antibodies to HIV-1 (Group M and O) and HIV-2.
- CMIA positive samples that are negative or indeterminate by the Geenius™ HIV1/2 Differential assay are screened for p24 Ag using an Enzyme Linked Fluorescent Assay (ELFA) for the detection of HIV-1 p24 Ag. Samples that are positive for p24 Ag are confirmed using a p24 Ag neutralization assay.
- HIV PCR testing
 - HIV 1 PCR testing is performed using a qualitative Nucleic Acid Amplification assay (based on PCR). It is a molecular technique which amplifies and detects specific HIV 1 RNA and proviral DNA in plasma and anti-coagulated whole blood
 - HIV-2 PCR requests are forwarded to the National Laboratory for HIV Reference Services”

Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Testing information index: HIV - diagnostic serology [Internet]. Toronto, ON: King's Printer for Ontario; 2023 [cited 2023 Apr 25]. Available from: <https://www.publichealthontario.ca/en/Laboratory-Services/Test-Information-Index/HIV-Diagnostic-Serology>

Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). HIV serology/HIV PCR test requisition. Toronto, ON: King's Printer for Ontario; 2023 [cited 2023 Apr 25]. Available from: https://www.publichealthontario.ca/-/media/Documents/Lab/hiv-serology.pdf?rev=b13fbd63624446c61ffd22c37d111f&sc_lang=en

HIV Serology Interpretation

HIV Antibody/Antigen Chemiluminescent micro-particle immunoassay (CMIA) Screen	Geenius™ Confirmatory Assay	p24 Antigen enzyme-linked fluorescent assay (ELFA)	Interpretation
Non-Reactive	Not Tested	Not Tested	No HIV p24 antigen AND No HIV-1/HIV-2 antibodies detected
Reactive/ Indeterminate	Positive	Not Tested	HIV-1 antibodies detected OR HIV-2 antibodies detected
Reactive/ Indeterminate	Negative/ Indeterminate	Reactive	Evidence of HIV-1 infection prior to seroconversion

Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Testing information index: HIV - diagnostic serology [Internet]. Toronto, ON: King's Printer for Ontario; 2023 [cited 2023 Apr 25]. Available from: <https://www.publichealthontario.ca/en/Laboratory-Services/Test-Information-Index/HIV-Diagnostic-Serology>

Public Health Ontario Laboratory Testing Turnaround Times

	Turn-around time from receipt by Public Health Ontario Laboratory	Day(s) that testing is performed
HIV diagnostic serology	Up to 3 days for non-reactive samples Up to 6 days for reactive samples	Daily Monday to Friday
HIV-1 PCR	Up to 10 days	Once or twice a week
HIV-2 PCR	Up to 14 days	Specimens are referred to National Laboratory for HIV Reference Services in Winnipeg
HIV-1 viral load	Up to 6 days	Daily Monday to Friday

Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Testing information index: HIV - diagnostic serology [Internet]. Toronto, ON: King's Printer for Ontario; 2023 [cited 2023 Apr 25].

Available from: <https://www.publichealthontario.ca/en/Laboratory-Services/Test-Information-Index/HIV-Diagnostic-Serology>

Ontario Agency for Health Protection and Promotion (Public Health Ontario). HIV serology/HIV PCR test requisition. Toronto, ON: King's Printer for Ontario; 2023 [cited 2023 Apr 25].

Available from: https://www.publichealthontario.ca/-/media/Documents/Lab/hiv-serology.pdf?rev=b13fbd63624446c61ffd22c37d111f&sc_lang=en

Ontario Agency for Health Protection and Promotion (Public Health Ontario). HIV-1 RNA Viral Load. Toronto, ON: King's Printer for Ontario; 2023 [cited 2023 Apr 25].

Available from: <https://www.publichealthontario.ca/en/laboratory-services/test-information-index/hiv-viral-load#:~:text=References-,Testing%20Indications,as%20an%20indicator%20of%20disease>

What's Changed in the Ontario HIV Testing Guidelines

	Old (2008)	New (2023)
Indicator conditions	<ul style="list-style-type: none"> Not listed 	<ul style="list-style-type: none"> HIV & AIDS indicator conditions listed as reason for testing
Population-based testing	<ul style="list-style-type: none"> Messaging unclear 	<ul style="list-style-type: none"> Test sexually active members of populations with high HIV rates annually Test every 3 months if ongoing high-risk sexual and drug using contacts
Pretest counselling & assessment	<ul style="list-style-type: none"> Comprehensive for everyone 	<ul style="list-style-type: none"> Tailored to person's needs
Window periods	<ul style="list-style-type: none"> Listed as 3 months Messaging unclear about testing <3 months after potential exposure 	<ul style="list-style-type: none"> Serology: test at baseline, then at 3 and 6 weeks Point-of-care/self-tests: 3, 6 weeks, and 3 months
Linkage to care	<ul style="list-style-type: none"> Linkage to treatment 	<ul style="list-style-type: none"> Linkage to treatment & Pre-exposure prophylaxis (PrEP)
Treatment as prevention	<ul style="list-style-type: none"> Messaging unclear 	<ul style="list-style-type: none"> Undetectable = Untransmittable

Source: AIDS Bureau. Guidelines for HIV counselling and testing. Toronto, ON: Queen's Printer for Ontario; 2008

HIV Testing Ontario; Ontario, Ministry of Health. Ontario guidelines for providers offering HIV testing [Internet]. Toronto, ON: Ontario HIV Treatment Network (OHTN); 2023 [cited 2023 Apr 25].

Available from: <https://hivtestingontario.ca/ontario-guidelines-for-providers-offering-hiv-testing/>