October 2024 Provincial Colposcopy Community of Practice (CoP)

Webinar option 2 October 25, 2024



Land acknowledgement

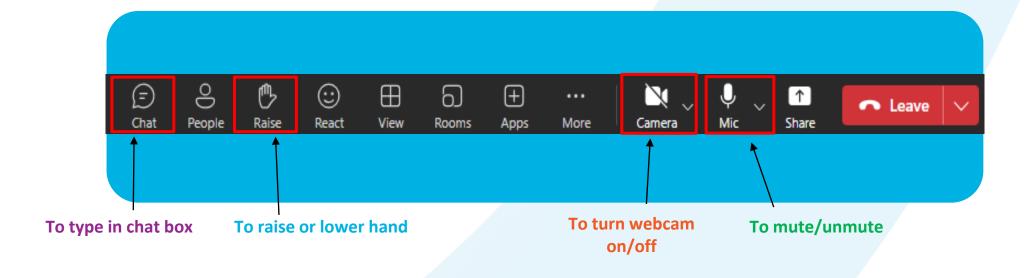


Agenda

TIME	TOPIC	PRESENTER
7:30 - 7:35 am	Introductions	Riley Crotta
7:35 - 7:40 am	Colposcopy quality reports	Dr. Rachel Kupets
7:40 - 7:50 am	HPV testing implementation update	Dr. Dustin Costescu
7:50 - 8:10 am	New cervical screening recommendations	Dr Dustin Costescu Dr. Rachel Kupets
8:10 - 8:20 am	Vaginal vault testing	Dr. Rachel Kupets
8:20 - 8:30 am	Cervical screening quiz	Dr. Dustin Costescu
8:30 - 8:55 am	Overview of colposcopy recommendations	Dr. Rachel Kupets
8:55 - 9:00 am	Final remarks	Dr. Dustin Costescu

Housekeeping items

- Please mute yourself when you are not speaking
- Please use the chat box or raise hand option to ask questions or share comments



Recording of webinar is underway

Please note that this session will be recorded and will be available on the Colposcopy CoP Resources Hub in the coming weeks. You can access the hub here:

cancercareontario.ca/ColposcopyHub

Learning objectives

- After this webinar, participants will better understand:
 - 1. How to access the physician-level cervical screening and colposcopy quality reports
 - 2. What to expect leading up to the launch of HPV testing implementation
 - 3. The new future state cervical screening recommendations and vaginal vault testing guidance
 - 4. A high-level overview of the future state colposcopy recommendations

Colposcopy quality reports

7:35 - 7:40 am

Dr. Rachel Kupets

At a glance: Colposcopy in Ontario



Total colposcopy volume: 89,170

Total number of colposcopists: 454

Total procedure volume: 7,033

- Number of physicians who performed colposcopy per 10,000 people: 0.9/10,000
- Number of physicians who attended 1 out 2
 Provincial CoP webinars in 2023: 161

Median wait time (in days) from high-grade cytology result to colposcopy by Regional Cancer Program





At a glance: Physician data

Total colposcopy volume

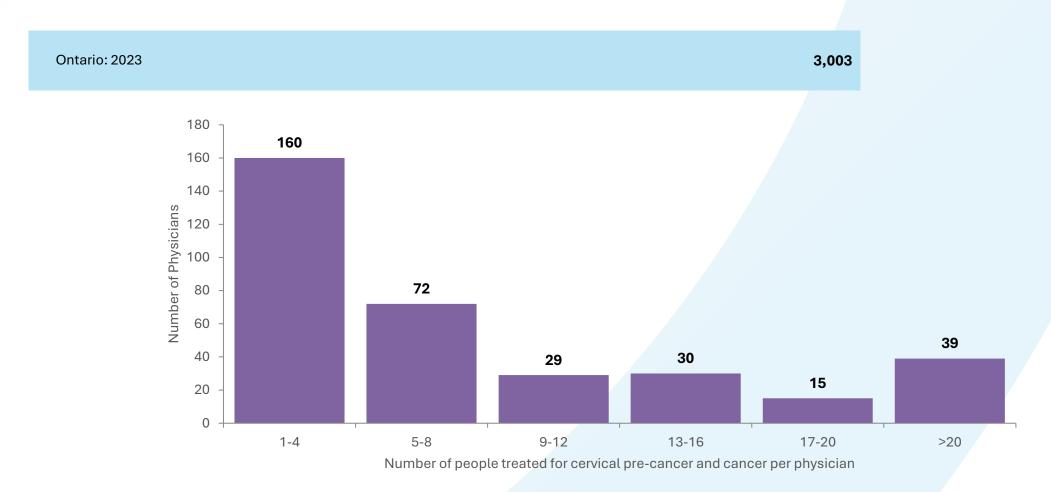
Total Ontario colposcopy volume 2023 89,170 | Minimum required colposcopy volume is 100 Number of Physicians

Colposcopy Volume in 2023

^{*}Physicians with ≤5 colposcopies in the reporting period are excluded from data

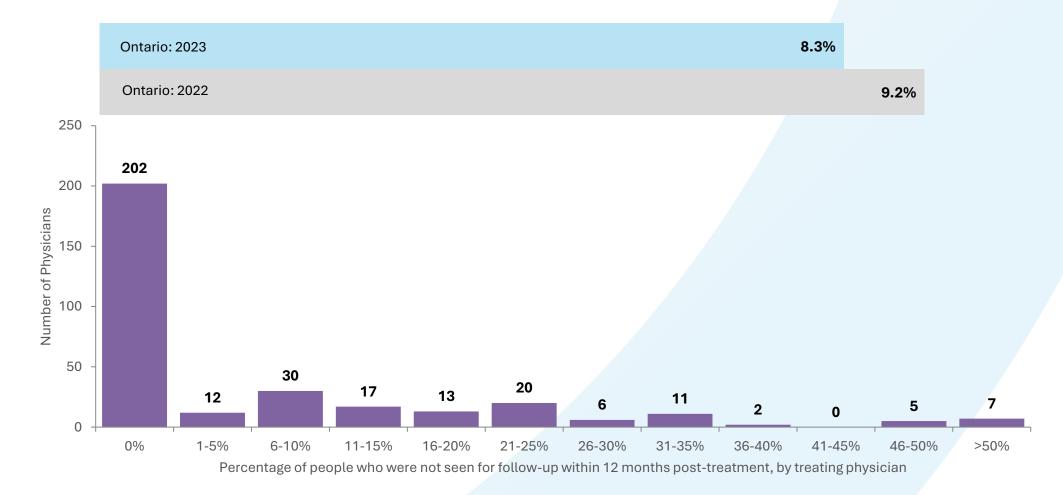
At a glance: Physician data

Number of people treated for cervical pre-cancer and cancer: Physician data

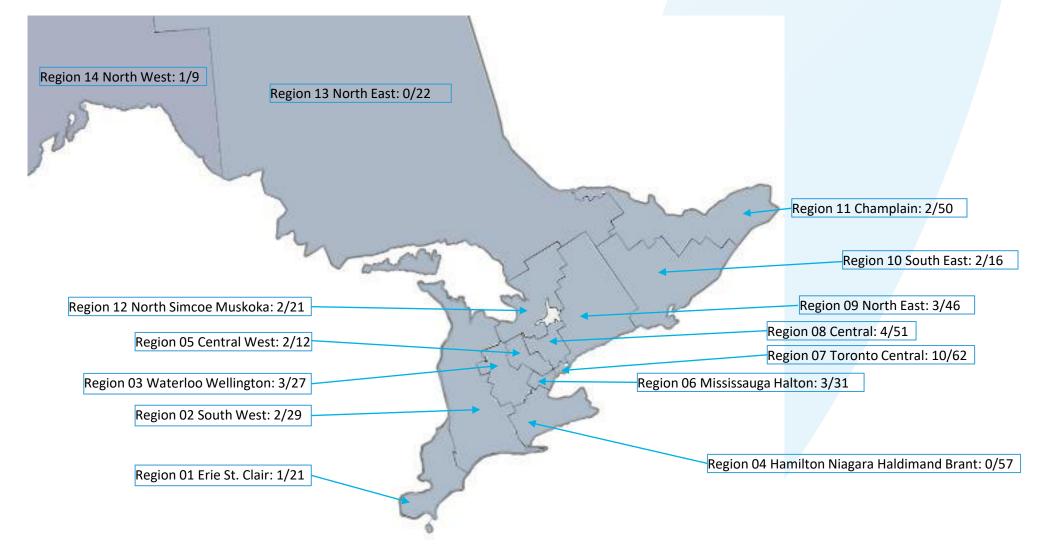


At a glance: Physician data

Proportion of people who were not seen for follow-up within 12 months posttreatment for cervical pre-cancer and cancer



Physician report eReport access* by Regional Cancer Program



Physician report eReport update

	Colposcopists Volume as of October 21, 2024
Colposcopists with a 2024 report	454
ONE ID users	295 (65%)
eReport portal access for 2024 report	56 (12.3%)

Previous years' physician report access access				
Release Year	eReport access			
2023	134 (31%)			

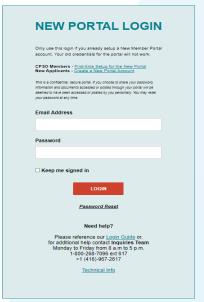
How to access your report: ONE ID self-registration

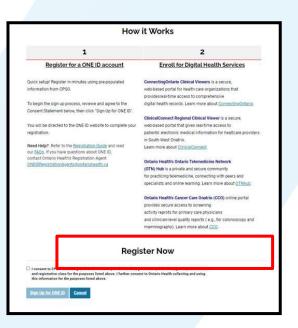
Step1:

Physicians can self-register for ONE ID via the CPSO website using your account credentials.

Step 2:

Once signed up, a ONE ID username (first.last@oneid.on.ca) and password will be generated (ONE ID credentials).





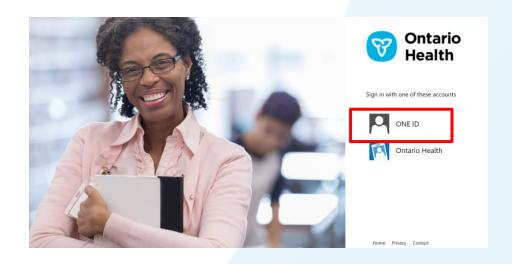
How to access your report: eReport portal

Step 3:

a. Navigate to eReport portal:

https://ereport.ontariohealth.ca/

b. Select ONE ID and login using your ONE ID account credentials





HPV testing implementation update

7:40 - 7:50 am

Dr. Dustin Costescu

Winter 2025: **Timeline** HPV testing launch date announcement -Spring 2025 **Provider information** Aug 2024: package **Winter 2025:** HPV testing resource hub **HPV** testing launch reminder announcement Sep 2024: CSCL stock deck **HPV** and cytology tests 3 months pre-launch: Regional requisition form and engagements with PCPs instructions **6 months pre-launch:** Regional engagements with colposcopists FY 24/25 Q2 Q3 Q4 Regional change management activities Nov 2024: Oct 2024: Jan 2025: Colposcopy Colposcopy Colposcopy Community of Community of Community of Winter/Spring Practice **Practice Practice** 2025: Provincial provider webinars

Legend: Broad email blast (includes provider associations and RCPs)

HPV testing resource hub



Human Papillomavirus (HPV) Testing in Ontario: Implementation Resource Hub

This hub contains tools and resources for primary care providers, colposcopists and other health care providers. This material supports the Ontario Cervical Screening Program's implementation of HPV testing in 2025. HPV testing will be used with reflex cytology in cervical screening and as a cotest with cytology in colposcopy for the management of screening-related abnormalities.

Advantages of HPV Testing

- · HPV testing has a higher sensitivity, which means it is better at detecting cervical pre-cancer or cancer than cytology testing alone.
- HPV testing is objective, which means results are highly consistent and reproducible
- HPV testing has a high negative predictive value, which means it is more likely that negative results will correctly identify people who do not have a cervical precancer or cancer and who will not develop a cervical cancer in the next 5 years.
- · HPV testing allows for earlier and more appropriate discharge from colposcopy.

If you have questions, please call Ontario Health toll-free at 1.866.662.9233 from 8:30 a.m. to 5 p.m. Monday to Friday or email us at cancerinfo@ontariohealth.ca.

Thank you for supporting the successful implementation of HPV testing in Ontario

HPV Testing Resources for Health Care Providers

Tools and resources

HPV testing frequently asked questions (FAQ) Target audience: HPV testing abridged FAQ for providers offering Providers offering cervical screening Answers to questions about implementing HPV testing and changes to the Ontario Cervical Screening cervical screening Providers offering colposcopy HPV testing abridged FAQ for providers offering colposcopy Ontario Cervical Screening Program: Guidance Target audience: for vaginal vault testing - frequently asked questions Answers to questions about vaginal vault testing. Providers offering cervical screening

Providers offering colposcopy

Available in English and French: ontariohealth.ca/hpvhub

santeontario.ca/pole-vph

Resources for providers

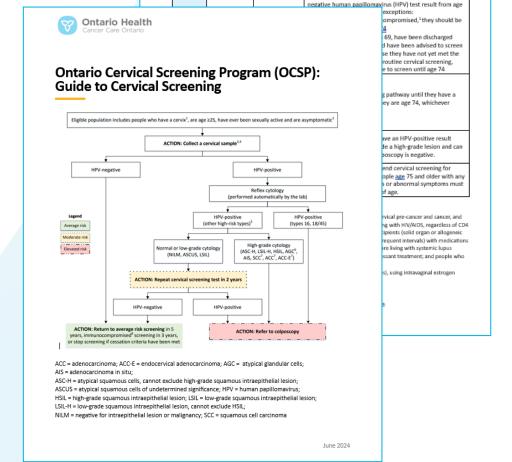
Re	esource The Control of the Control o	A	Availability of resources		
•	Program guide: Ontario cervical screening and colposcopy recommendations				
•	Guide to cervical screening				
•	Guide to colposcopy				
•	Guide to resuming cervical screening post-discharge from colposcopy	•	HPV testing resource hub in Winter 2025		
•	How to collect a cervical sample		The viciting resource habin whiter 2025		
•	HPV and cytology tests requisition form and instructions				
•	Templates for colposcopists to support clear communication to PCPs (i.e., discharge letter templates and declined referral letter template)				
•	Frequently asked questions (FAQs)	•	Currently available on HPV testing resource hub Additional FAQs on HPV testing resource hub in Winter 2025		
•	CSCL stock decks	•	Regional presentations to support launch		

Guide to cervical screening

- Summarizes the new Ontario Cervical Screening Program (OCSP) cervical screening and cessation recommendations
- Includes an updated cervical screening pathway

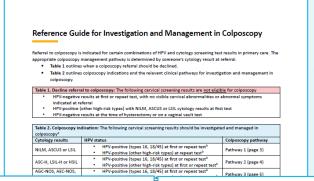
Ontario Cervical Screening Program (OCSP): Cervical Screening Cessation

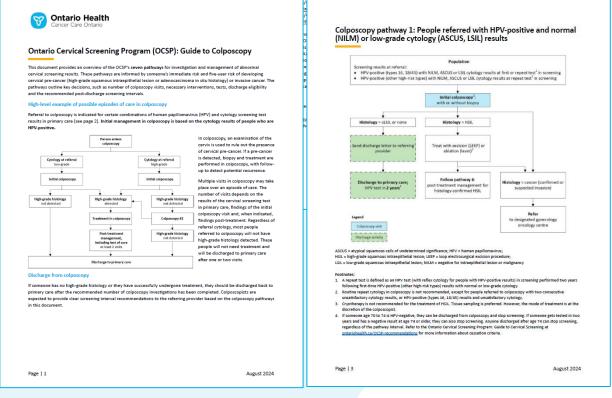
Age	Test result	Clinical next step	Considerations and exceptions	
65 to 69	Not screened		If a person did not have a cervical screening test from age 65 to 69, they should be screened until age 74.	
			Someone can stop cervical screening if they have had 1	



Guide to colposcopy

- Summarizes the new OCSP colposcopy recommendations and pathways
- Available in winter 2025





Guide to resuming cervical screening postdischarge from colposcopy

- Summarizes how to manage cervical screening in primary care after someone has been discharged from colposcopy
- Recommendations organized by treatment status



Ontario Cervical Screening Program (OCSP): Guide to Resuming Cervical Screening Post-discharge from Colposcopy

Care in colposcopy

In colposcopy, an examination of the cervix is used to rule out the presence of cervical pre-cancer or cancer. Regardless of HPV type or cytology result at referral, most people referred to colposcopy will not have high-grade histology detected in colposcopy. These people will not require treatment and can be discharged after one or two vists. People with high-grade histology will be treated and followed up over a number of visits at a colposcopy clinic (known as an episode of care).

Discharge from colposcopy to primary care

When someone is discharged from colposcopy after being assessed or treated, their likelihood of developing cervical precancer and cancer is greatly reduced and they can return to cervical screening in primary care. At discharge from colposcopy, a colposcopist should recommend the next interval for cervical screening in primary care on their discharge summary.

Table 1: Post-discharge cervical screening recommendations for people <u>not treated</u> in colposcopy (i.e., HSIL or AIS histology not detected in colposcopy)

First post-discharge	screening interval		Second post-discl	Second post-discharge screening interval		
Referral cytology from primary discharge from care colposcopy		Action	Screening result at first recall	Action		
Normal (NILM) or low-grade (ASCUS	N/A (HPV test not repeated in	Screen in 2 years	HPV-negative	Return to average risk screening in years ¹		
or LSIL)	colposcopy)		HPV-positive ¹	Re-refer to colposcopy		
High-grade (ASC-	HPV-negative	Return to average risk screening in 5 years ¹	N/A			
H, LSIL-H, AGC, HSIL or AEC)		Screen in 2 years	HPV-negative	Return to average risk screening in 5 years ¹		
		,	HPV-positive ¹	Re-refer to colposcopy		

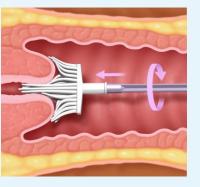
Table 2: Post-discharge cervical screening recommendations for people treated in colposcopy (AIS histology)

First post-discharge screening interval			Second post-discharge screening interval		Third post-discharge screening interval		Fourth post-discharge screening interval	
HPV result at first post- treatment colposcopy visit	HPV result at discharge	Action Screening result Action Screening result Action		Screening result	Action			
HPV-	HPV- negative	Screen		Re-screen in 2 years	HPV- negative	Re-screen in 2 years	HPV- negative	Return to average risk screening in 5 years ¹
negative HPV- positive ¹							HPV- positive ¹	Re-refer to colposcopy
					HPV- positive ¹	Re-refer to colposcopy	N/A	
			HPV- positive ¹	Re-refer to colposcopy	N/A			

June 2024

How to collect a cervical sample

- Instructions on how to collect cervical samples using two collection device options
- Tips for collecting a cervical sample to avoid rejection by the lab
- Additional instructions on how to collect samples from people who are pregnant, have a double cervix or who need vaginal vault testing







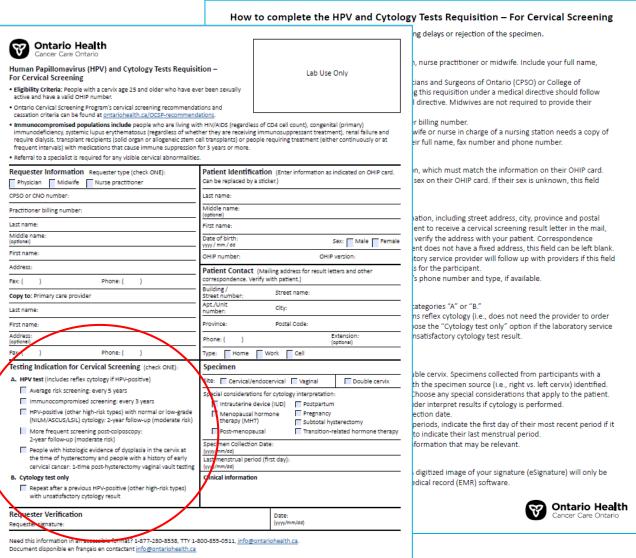
FAQs for providers offering cervical screening / colposcopy

- Answers to potential questions about HPV testing implementation and changes to the OCSP
- Two audiences: Cervical screening and colposcopy



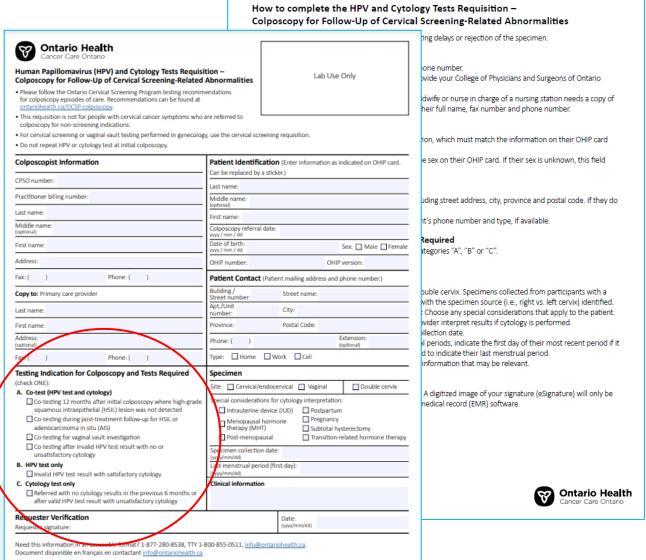
HPV and cytology tests requisition form and instructions – for cervical screening

- A new requisition form that providers offering cervical screening can use to order an HPV test (with reflex cytology if HPV-positive) as part of the OCSP
- Instructions on how to complete each section of the new requisition form



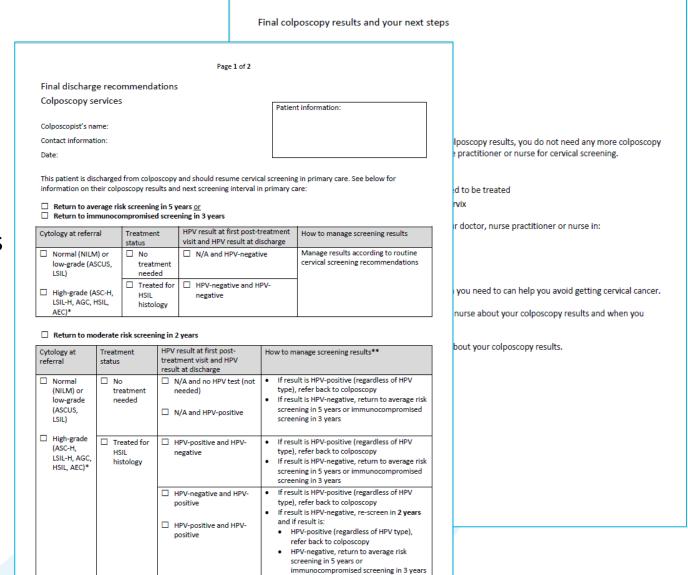
HPV and cytology tests requisition form and instructions – for colposcopy

- A new requisition form that colposcopists can use to order an HPV and cytology co-test as part of the OCSP
- Instructions on how to complete each section of the new requisition form



Colposcopy discharge and declined referral letter templates

- Letter templates for use by colposcopists
- Discharge letters: For when a patient is discharged back to primary care
 - Letters include colposcopy results and next steps in primary care
- Declined referral letter: For when a referral was declined



Update: Self-collection

Dr. Dustin Costescu

Expert panel on self-collected HPV testing

- The OCSP is preparing for a phased introduction of self-collected cervical screening
- To support planning, we are convening a multi-disciplinary expert panel to provide us with input on:
 - Screening and colposcopy follow up pathways for people with self-collected results
 - Considerations for phasing self-collected HPV testing to priority populations

New cervical screening recommendations

7:50 - 8:10 am

Dr. Dustin Costescu

Dr. Rachel Kupets

Development of recommendations

Dr. Rachel Kupets

Approach

Draft content for expert panel

Expert panel meetings

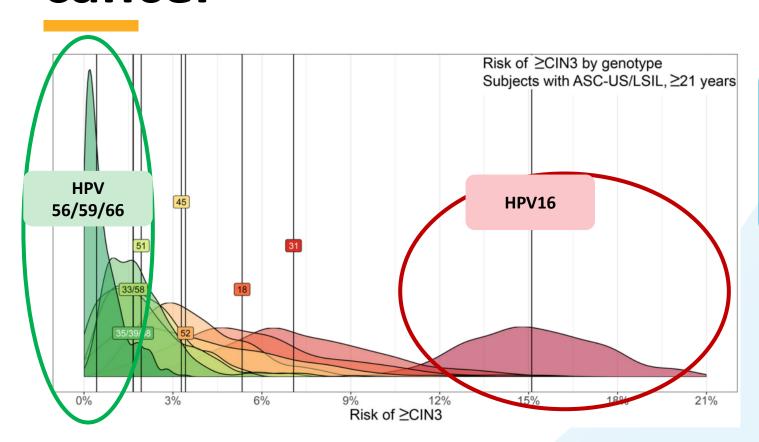
National / international review

- Unpublished Program in Evidence Based Care (PEBC) guidelines
- Jurisdictional scan
- Evidence review (guidelines and/or primary literature)
- Ontario data

The shift to risk-based screening

- New OCSP recommendations are risk-based and align with the principle of "equal management for equal risk"
- Recommendations are based on the immediate and 5-year risks of cervical pre-cancer and cancer after a positive screening test result

HPV and cytology results allow estimation of immediate risk of cervical pre-cancer and cancer



Key takeaway:

Combination of HPV and cytology results will be used to inform risk-based management in cervical screening and colposcopy

ASC-US = abnormal atypical squamous cells of undetermined significance; CIN = cervical intraepithelial neoplasia; LSIL = low-grade squamous intraepithelial lesion

Source: Wright Jr TC, Stoler MH, Parvu V, Yanson K, Cooper C, Andrews J. Risk detection for high-grade cervical disease using Onclarity HPV extended genotyping in women,≥ 21 years of age, with ASC-US or LSIL cytology. Gynecol Oncol. 2019;154(2):360–7.

HPV testing in the OCSP

Dr. Rachel Kupets

HPV testing vs. cytology

	HPV test	Cytology test	
One-time sensitivity* (range) ¹	96.1% (94.2% to 97.4%)	53.0% (48.6% to 57.4%)	
One-time specificity** (range) ¹	90.7% (90.4% to 91.1%)	96.3% (96.1% to 96.5%)	
Detects	Oncogenic (cancer causing) types of HPV Abnormal cell changes in the cervix		
Interpretation	Objective and reproducible ²	Subjective	

^{*}Sensitivity: The effectiveness of a screening test in detecting pre-cancer and cervical cancer in people who have pre-cancer and cervical cancer

Key takeaway:

HPV testing has higher sensitivity, but lower specificity than cytology testing

Sources:

^{**}Specificity: The effectiveness of a screening test in indicating a normal result in people who do not have pre-cancer and cervical cancer

^{1.} Cuzick J, Clavel C, Petry KU, Meijer CJ, Hoyer H, Ratnam S, et al. Overview of the European and North American studies on HPV testing in primary cervical cancer screening. Int J Cancer 2006;119:1095-101.

Negative predictive value of HPV tests

# of years after negative HPV test	Outcome	Negative predictive value ^a	Author
5	HSIL histology and cervical cancer (defined in the study as CIN3+)	0.9968	Elfström et al.
6	HSIL or AIS histology and cervical cancer (defined in the study as CIN3+)	0.997	Dillner et al.

^aThe likelihood that negative results will correctly identify people who do not have a high-grade squamous intraepithelial lesion (HSIL) or adenocarcinoma in situ (AIS) histology and cervical cancer and will not develop these outcomes in the next 5 years

Key takeaway:

A negative HPV test result has long-term protection against high-grade histology and cervical cancer

Sources:

- 1. Elfström KM, Smelov V, Johansson AL V., Eklund C, Naucler P, Arnheim-Dahlstrom L, et al. Long term duration of protective effect for HPV negative women: follow-up of primary HPV screening randomised controlled trial. BMJ. 2014 Jan 16;348(jan16 1):g130–g130.
- 2. Dillner J, Rebolj M, Birembaut P, Petry KU, Szarewski A, Munk C, et al. Long term predictive values of cytology and human papillomavirus testing in cervical cancer screening: joint European cohort study. BMJ. 2008 Oct 13;337(oct):a1754–a1754.

HPV testing in cervical screening

- Will only identify oncogenic (cancer-causing) types of HPV
- For samples that test positive for oncogenic types of HPV, partial genotyping and reflex cytology will be done automatically by the lab

Partial genotyping

Will stratify results as:

- HPV type 16
- HPV types 18/45
- Other high-risk oncogenic types of HPV

Reflex cytology

Will check for the presence or absence of cervical cell changes and if the changes are high-grade or low-grade

HPV testing in colposcopy

- Will be performed as a co-test with cytology (both tests concurrently performed)
 to determine eligibility for discharge and the screening interval in primary care post-discharge
- Partial genotyping will be performed, but management in colposcopy will not be based on HPV genotyping results

Summary of HPV testing

- Better screening test for pre-cancer and early cervical cancer
- Reduces unnecessary colposcopy referral
- Safer, earlier, more appropriate discharge from colposcopy



Improved quality of screening and colposcopy services in Ontario

Eligibility criteria

Dr. Dustin Costescu

Eligibility for cervical screening

- Have a cervix
- Are age **≥25**
- Have ever been sexually active
- Have Ontario Health Insurance Plan (OHIP) coverage
- Have no symptoms suggestive of cervical cancer

Evidence supporting age of initiation

- Cervical cancer is extremely rare in people under age 25
- From 2016 to 2020:
 - o 29 new cases of cervical cancer were diagnosed in people under age 25 in Ontario
 - 3,058 new cases were diagnosed for all ages
 - 11 of these new cases were diagnosed in people ages 21 to 24
- Screening people under age 25 may result in follow-up tests and treatments that do not benefit them
- There is insufficient evidence on the benefit of cervical screening in immunocompromised people before age 25

Cervical screening categories and pathway

Dr. Dustin Costescu

Background

- Not all people with HPV-positive results will be referred to colposcopy
- The OCSP assessed published literature and Ontario data to determine who should be referred to colposcopy based on their risk of cervical pre-cancer and cancer - known as the "colposcopy referral threshold"
- Aligns with the principle of "equal management for equal risk"

Key takeaway:

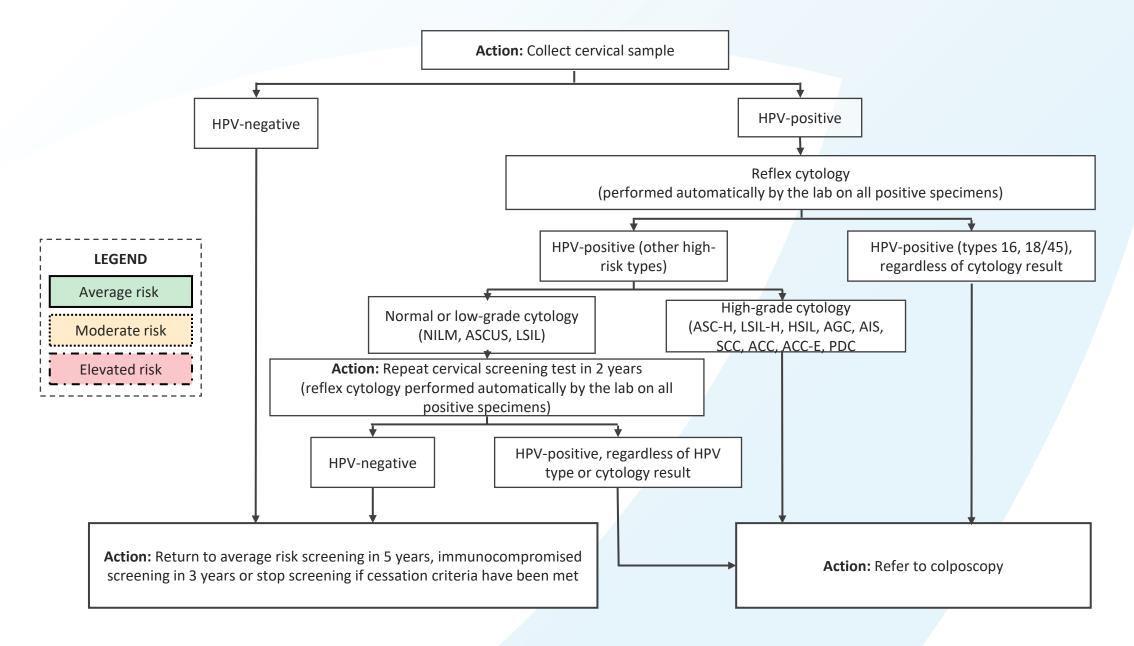
The OCSP's colposcopy referral threshold is ≥6%, which has informed the cervical screening pathway

Risk-based screening categories

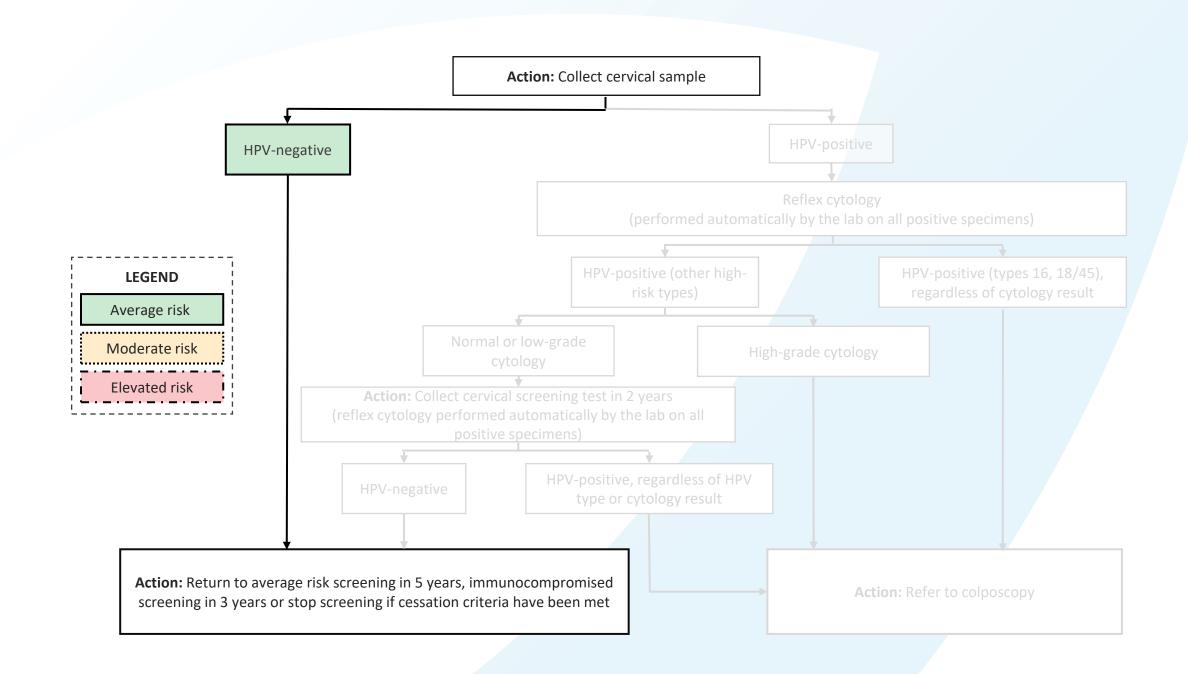
Screening risk category	Risk of cervical pre-cancer and cancer	Clinical next step
Average risk	0.12% to 0.41% (5-year risk) ¹	Screen in 5 years
Immunocompromised	Unknown or variable	Screen in 3 years
Moderate risk	1.3% to 3.7% (immediate risk) ²	Re-screen in 2 years
Elevated risk	≥6% (immediate risk)³	Refer to colposcopy

Sources:

- 1. Dillner J, Rebolj M, Birembaut P, Petry KU, Szarewski A, Munk C, et al. Long term predictive values of cytology and human papillomavirus testing in cervical cancer screening: joint European cohort study. BMJ. 2008 Oct 13;337(oct):a1754–a1754.
- 2. Demarco M, Egemen D, Raine-Bennett TR, Cheung LC, Befano B, Poitras NE, et al. A Study of Partial Human Papillomavirus Genotyping in Support of the 2019 ASCCP Risk-Based Management Consensus Guidelines. J Low Genit Tract Dis. 2020;24(2):144–7.
- 3. This risk threshold was selected based on OCSP's cytology-based screening recommendations, jurisdictional scan data and input from expert panel members.



ACC = adenocarcinoma; ACC-E = endocervical adenocarcinoma; AGC = atypical glandular cells; AIS = adenocarcinoma in situ; ASC-H = atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesion; ASCUS = atypical squamous cells of undetermined significance; HPV = human papillomavirus; HSIL = high-grade squamous intraepithelial lesion; LSIL-H = low-grade squamous intraepithelial lesion, cannot exclude HSIL; NILM = negative for intraepithelial lesion or malignancy; PDC = poorly differentiated carcinoma; SCC = squamous cell carcinoma



Rationale for 5-year screening interval for people at average risk

3-year risk of HSIL or AIS histology and cervical cancer after a <u>normal cytology</u> test (defined in the study as CIN3+) (95% CI)	5-year risk of HSIL or AIS histology and cervical cancer after a <u>negative HPV test</u> (defined in the study as CIN3+) (95% CI)	Author
0.19% (not reported)	0.14% (not reported)	Gage et al.
0.51% (0.23% to 0.77%)	0.25% (0.12% to 0.41%)	Dilner et al.

HSIL = high-grade squamous intraepithelial lesion

AIS = adenocarcinoma in situ

Key takeaway:

A negative HPV test result every 5 years provides at least as much protection against high-grade histology and cervical cancer as a normal cytology test result every 3 years

Sources:

- 1. Dillner J, Rebolj M, Birembaut P, Petry KU, Szarewski A, Munk C, et al. Long term predictive values of cytology and human papillomavirus testing in cervical cancer screening: joint European cohort study. BMJ. 2008 Oct 13;337(oct):a1754–a1754.
- 2. Gage JC, Schiffman M, Katki HA, Castle PE, Fetterman B, Wentzensen N, et al. Reassurance against future risk of precancer and cancer conferred by a negative human papillomavirus test. J Natl Cancer Inst. 2014 Jul 18;106(8).

Rationale for 3-year screening interval for people who are immunocompromised

- People who are immunocompromised may be at higher risk of having or developing cervical pre-cancer and cancer
 - o Immunosuppression may impair someone's ability to clear an HPV infection
- A 3-year screening interval was selected based on input from an expert panel, jurisdictional scan data and the precautionary principle (when there are potential harms, scientific uncertainty must be resolved in favour of prevention)

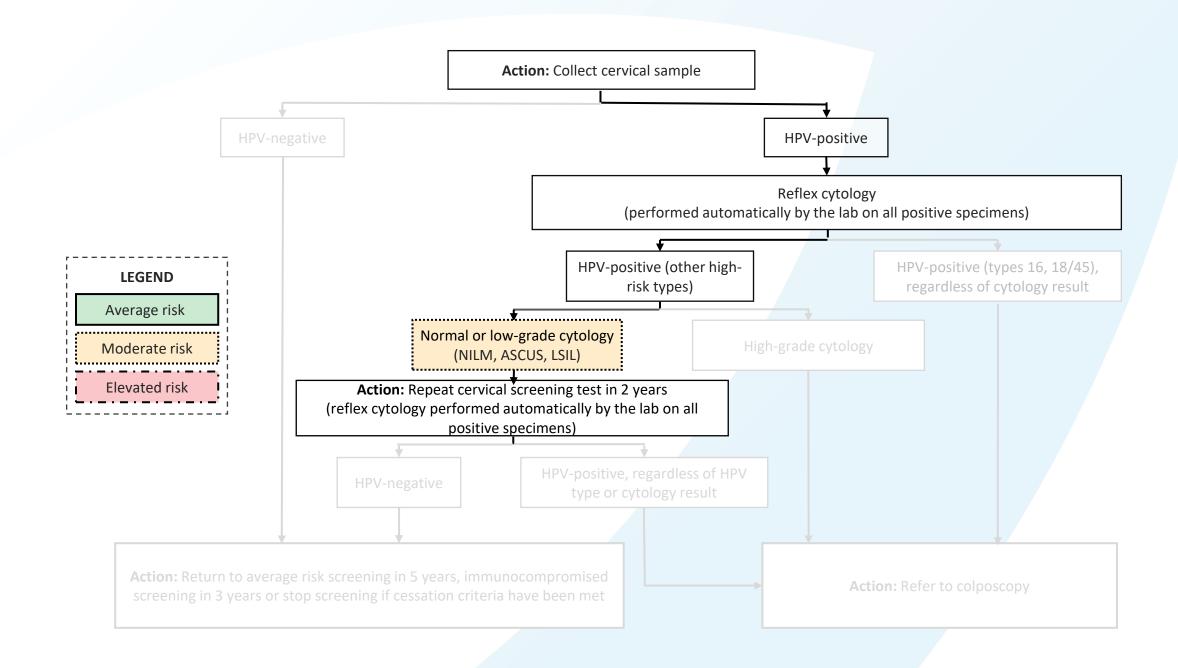
Immunocompromised populations

Populations defined as immunocompromised by the OCSP

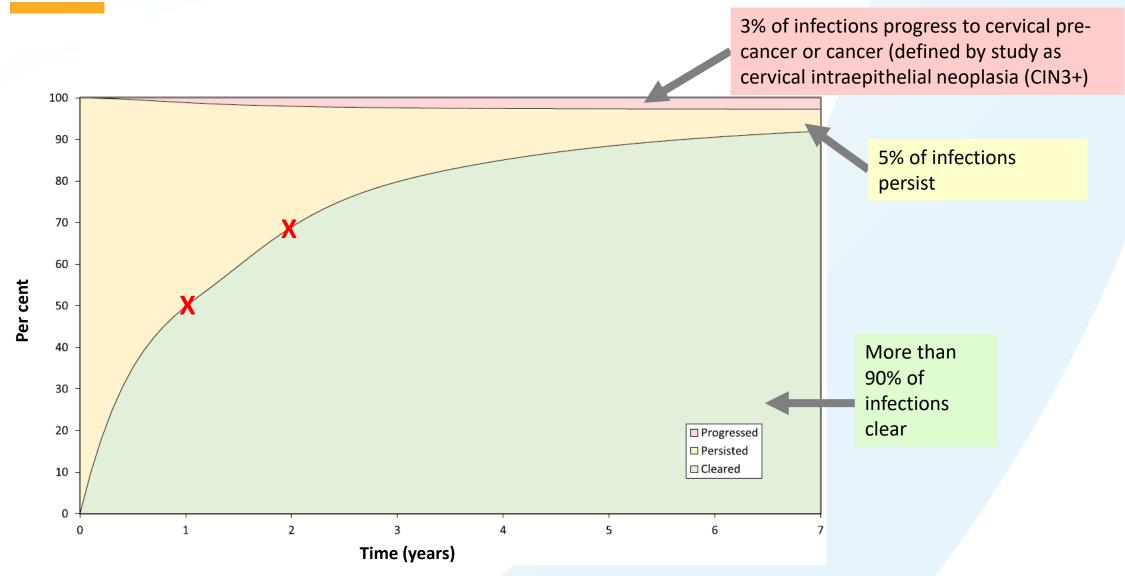
- ✓ People with HIV/AIDS, regardless of CD4 cell count
- People on long-term immunosuppressive medication (either continuously or at frequent intervals)
- People with organ transplants (solid organ transplant or allogeneic stem cell transplants)
- ✓ People with systemic lupus erythematosus, regardless of treatment
- ✓ People with congenital (primary) immunodeficiency
- ✓ People on dialysis with renal failure

Populations <u>not</u> defined as immunocompromised by the OCSP

- X People with a past history of cytotoxic treatments for cancer
- People with Crohn's disease or multiple sclerosis who are not receiving immunosuppressant treatment
- X The offspring of people with a cervix exposed in utero to diethylstilbestrol (DES) (i.e., grandchildren of people who were prescribed DES)
- X People with diabetes (excluding those with renal failure)



Rationale for screening in 2 years



Demarco M, Hyun N, Carter-Pokras O, et al. A study of type-specific HPV natural history and implications for contemporary cervical cancer screening programs. EClinicalMedicine. 2020;22:100293.

Supporting evidence

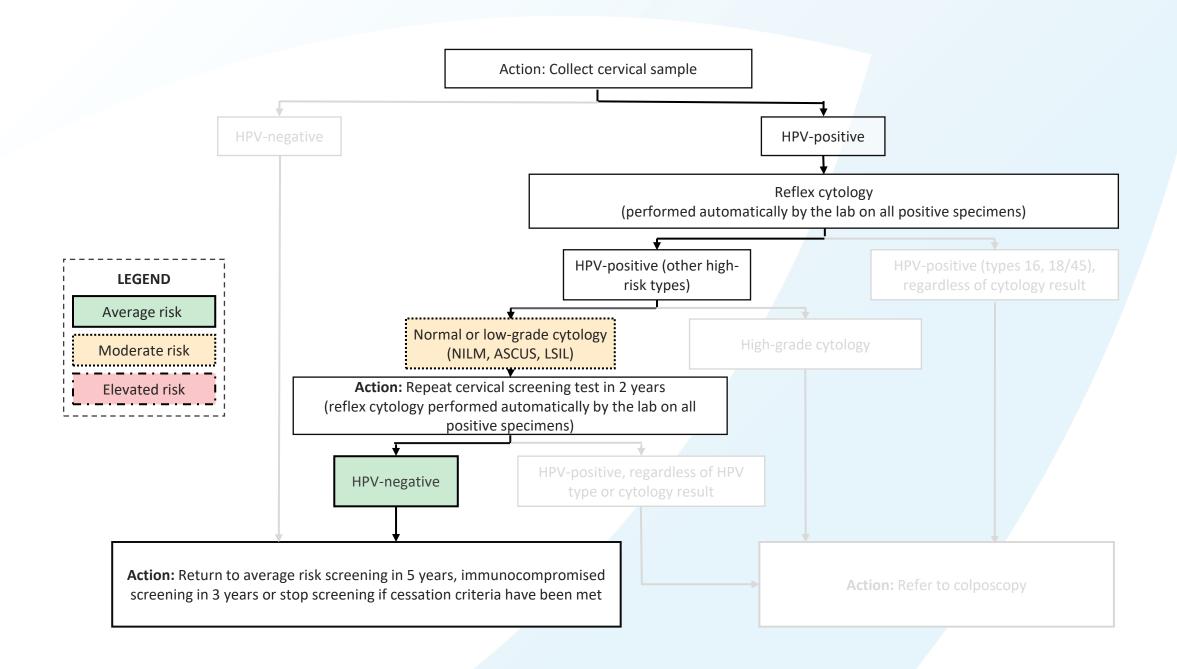
Current cytology	Current HPV	CIN3+ immediate risk (%)	CIN3+ 5-year risk (%)
	HPV 16	5.3	8.8
NILM	HPV 18	3.0	4.5
	HR 12	1.3	2.2
	HPV 16	9.0	13
ASCUS	HPV 18	3.5	4.6
	HR12	2.8	4.0
	HPV 16	11	15
LSIL	HPV 18	3.1	3.9
	HR12	3.7	4.7

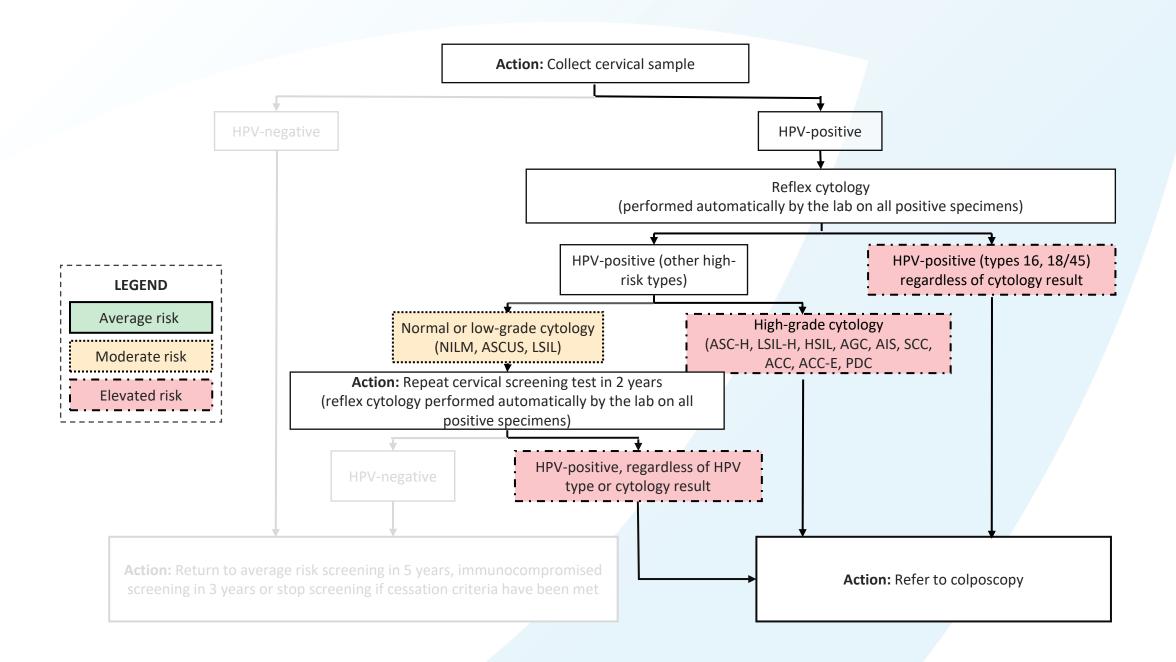
HR12: High-risk HPV type 12 is defined as HPV-positive (other high-risk types) in the OCSP terminology

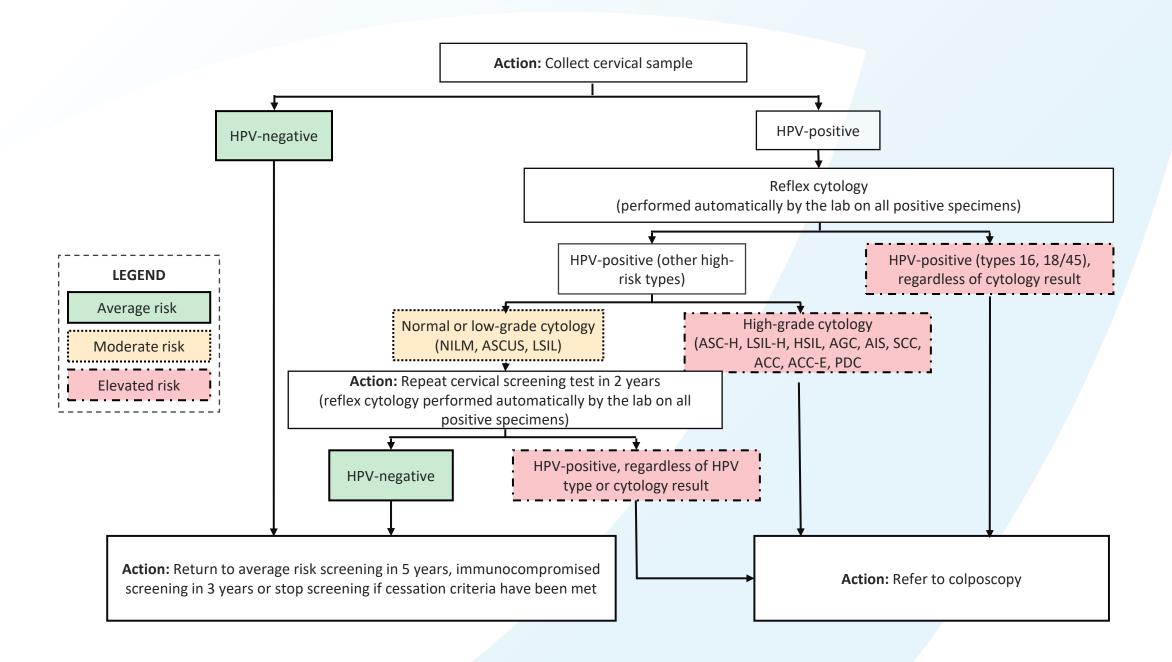
Key takeaway:

HPV-positive (other high-risk types) with normal or low-grade cytology **does not** meet colposcopy referral threshold of ≥6%

ASCUS = abnormal atypical squamous cells of undetermined significance; LSIL = low-grade squamous intraepithelial lesion; NILM = negative for intraepithelial lesion or malignancy; HSIL = high-grade squamous intraepithelial lesion; AIS = adenocarcinoma in situ







Management of invalid HPV tests or unsatisfactory cytology results

Dr. Rachel Kupets

When to repeat testing or refer to colposcopy

- Specimens should be repeated within 3 months
- A repeat specimen is not required and refer to colposcopy if:
 - The HPV test is positive for types 16, 18/45 with unsatisfactory cytology
 - There are 2 consecutive unsatisfactory cytology or invalid HPV test results

When to use intravaginal estrogen therapy

Intravaginal estrogen therapy may be considered after 1 unsatisfactory cytology result in people who are using androgen therapy (e.g., for gender transition) and in post-menopausal people

Cessation criteria

Dr. Rachel Kupets

People ages 65 to 69

Test result	Clinical next step	Considerations and exceptions
Not screened	Continue screening	If a person did not have a cervical screening test from age 65 to 69, they should be screened until age 74
HPV-negative	Stop screening	 Someone can stop cervical screening if they have had 1 negative HPV test result, with the following exceptions: Immunocompromised people should screen until age 74 People ages 65 to 69 who have been discharged from colposcopy and have been advised to screen in 2 years should screen until age 74
HPV-positive	Follow screening pathway and refer to colposcopy if appropriate	Can stop screening when they have a negative HPV test result or when they are age 74, whichever occurs first

People ages 70 to 74

- People with an HPV-positive result (regardless of HPV type or reflex cytology) should be referred to colposcopy
- A colposcopy is needed to exclude a high-grade lesion

People ages 75 and older

- The OCSP does not recommend screening people ages 75 and older
- Any visible cervical abnormalities or abnormal symptoms should be referred for appropriate investigation by gynecology oncology

Summary of screening recommendations

Dr. Rachel Kupets

Screening: Key changes

	Current state	Following the implementation of HPV testing	
Screening test	Cytology	HPV test with reflex cytology	
Initial triage test	N/A	Partial genotyping, reflex cytology	
Interval after negative test	Average risk: 3 years Immunocompromised: 1 year	Average risk: 5 years Immunocompromised: 3 years	
Repeat test	Repeat cytology test in 1 year	Repeat HPV test in 2 years	
Start age	Age 21*	Age 25	
Cessation age	70 years if cessation criteria are met	Most people ages 65 to 69 with a negative HPV test	

^{*}In January 2021, the OCSP began encouraging providers to start cervical screening at age 25 for immunocompetent people

Vaginal vault testing

8:10 - 8:20 am

Dr. Rachel Kupets

Background

- People who have had their cervix removed via hysterectomy are no longer at risk of developing cervical cancer, but they may be at risk of developing vaginal cancer
- Vaginal vault testing can be done to identify people at risk of vaginal cancer
- Although vaginal cancer is also HPV-related, the risk of vaginal cancer is very low in Ontario
 - Ontario had an incidence rate of 0.6 squamous cell vaginal cancers per 100,000 people from 2014 to 2018
- Organized population-level screening for vaginal cancer would not meet principles of screening

HPV test positivity in vaginal intraepithelial neoplasia (VaIN) and vaginal cancer

Author, year	VaIN1	VaIN2/3	Vaginal cancer
De Vuyst, 2009 ¹	100%*	90.1%*	69.9%*
Smith, 2009 ²	98.5%*	92.6%*	65.5%*
Alemany et al., 2014 ³		96%*	74%*
Saraiya, 2015 ⁴			75%*

*Percent testing positive for HPV

Key takeaway

HPV is highly prevalent in VaIN and vaginal cancer

Sources:

- 1. De Vuyst H, Clifford G, Nascimento M, Madeleine M, & Franceschi S. Prevalence and type distribution of human papillomavirus in carcinoma and intraepithelial neoplasia of the vulva, vagina and anus: A meta-analysis. Int. J. Cancer (2009), 124, 1626–1636.
- 2. Smith J., Backes D., Hoots B., Kurman R., & Pimenta J. Human Papillomavirus Type-Distribution in Vulvar and Vaginal Cancers and Their Associated Precursors. Obstetrics and Gynecology (2009) 113(4), 917-924.
- 3. Alemany L., Saunier M., Tinoco L., Quirós B., Alvarado-Cabrero I., et al. Large contribution of human papillomavirus in vaginal neoplastic lesions: A worldwide study in 597 samples. European Journal of Cancer (2014), Volume 50, Issue 16, 2846-285
- 4. Saraiya M., Unger E., Thompson T., Lynch C., Hernandez B., et al. US Assessment of HPV Types in Cancers: Implications for Current and 9-Valent HPV Vaccines. JNCI J Natl Cancer Inst (2015) 107(6): djv086

Post-hysterectomy population

 The post-hysterectomy population is organized by risk for vaginal cancer and consists of elevated and low risk groups

Elevated risk group	Low risk group
People with LSIL, HSIL or AIS histology in the cervix at the time of hysterectomy	Anyone who does not meet the criteria for the elevated risk group, including:
(i.e., in the hysterectomy specimen), regardless of margin status or HPV status	 People with a history of LSIL, HSIL or AIS histology in the cervix, but no evidence of it in the hysterectomy specimen
 People with a history of early cervical cancer (microinvasive cervical cancer, stage 1A1 only), regardless of whether there is evidence of cancer or pre- cancer at hysterectomy 	 People with an unknown or no cervical screening history (including Two-Spirit people, transmasculine people and nonbinary people who did not receive cervical screening before their hysterectomy)

Out of scope populations

- People with a history of cervical cancer beyond stage 1A1
- People treated with radical trachelectomy, radiation or chemotherapy
- People under surveillance in the cancer system

Ontario data: Risk of VaIN2/3+ post-hysterectomy

Diagnosis of VaIN 2/3+ 2010 to 2021	Residual HSIL/AIS histology or early cervical cancer at hysterectomy		
2021	Yes (n=139)	No (n=6,091)	
Had VaIN 2/3+ dx	8 (5.8%)	129 (2.1%)	
No VaIN 2/3+ dx	131 (94.2%)	5,962 (97.9%)	

Key takeaway

In Ontario, the incidence of VaIN 2/3+ was higher in people with residual HSIL/AIS histology or early cervical cancer on hysterectomy than those without

Whom and when to test



- Perform a 1-time HPV test of the vaginal vault 6 to 12 months after hysterectomy
- Reflex cytology done automatically by the lab for HPV-positive results



• Do **not** perform an HPV test

Management of HPV test results

- HPV-positive, regardless of HPV type or cytology result → Refer to colposcopy
- **HPV-negative** → No further HPV testing is needed
- Invalid HPV result → Repeat HPV test at participant's earliest convenience (preferably within 3 months) and if repeat HPV test is also invalid, refer to colposcopy

For hysterectomies that took place >12 months ago

- The same eligibility criteria apply
- If a patient's hysterectomy specimen results are unknown and they do not have a history of early cervical cancer (microinvasive cervical cancer, stage 1A1 only), vaginal vault testing should not be performed

Health Canada approval

- Guidance for vaginal vault testing has been developed by Ontario Health (Cancer Care Ontario)
 in consultation with a multidisciplinary, international expert panel
- The use of the HPV test is approved by Health Canada for health care provider-collected cervical samples but has not been reviewed or authorized by Health Canada for use in the vaginal vault due to rarity
- As such, a disclosure will be included in OCSP resources and lab reports

Cervical screening quiz

8:20 - 8:30 am

Dr. Dustin Costescu

Brooke is 40 years old and is due for cervical screening. Her screening test result is HPV-positive (other high-risk types) with ASCUS reflex cytology. What is the recommended next step?

- a) Brooke is at moderate risk \rightarrow Repeat screening in 2 years
- b) Brooke is at moderate risk → Repeat screening in 1 year
- c) Brooke is at elevated risk \rightarrow Refer to colposcopy

Type answer in chat

- Risk is not high enough for referral to colposcopy, but not low enough to return to average risk screening
- A repeat screening test will determine if the HPV infection has cleared

Question #1 – continued

Brooke returns for a cervical screening test in 2 years. Her repeat screening test result is HPV-positive (other high-risk types) with normal reflex cytology. What is the recommended next step?

- a) Brooke is now at average risk \rightarrow Return to screening in 5 years
- b) Brooke is now at elevated risk → Refer to colposcopy
- c) Brooke remains at moderate risk \rightarrow Repeat HPV test again in 2 years

Type answer in chat

An HPV-positive result at the 2-year repeat screening test indicates persistent infection and risk is now high enough for referral to colposcopy

Alex (he/him) is 35 years old and is a transmasculine person who is due for cervical screening. His screening test result is HPV-positive (type 16) with normal reflex cytology. What is the recommended next step?

- a) Alex is at elevated risk \rightarrow Refer to colposcopy
- b) Alex is at moderate risk \rightarrow Repeat screening in 2 years
- c) Alex is at moderate risk \rightarrow Repeat screening in 2 years

Type answer in chat

People who are HPV-positive (types 16, 18/45) are referred to colposcopy, regardless of cytology result

Jesse is 29 years old and is due for cervical screening. Her screening test result is HPV-positive (other high-risk types) with HSIL reflex cytology. What is the recommended next step?

- a) Jesse is at average risk \rightarrow Return to screening in 5 years
- b) Jesse is at moderate risk \rightarrow Repeat screening in 2 years
- z) Jesse is at elevated risk → Refer to colposcopy

Type answer in chat

People with HPV-positive (other high-risk types) and high-grade cytology results are referred to colposcopy

Mary is 67 years old and has received routine cervical screening with the HPV test. She is due for screening and the result is HPV-positive (other high-risk types) with normal reflex cytology. What are the recommended next steps? Select all that apply

- a) Mary should have a repeat screening test in 2 years \rightarrow if her result is HPV-positive \rightarrow refer to colposcopy
- b) Mary should have a repeat screening test in 2 years → if her result is HPV-negative → stop screening

Type answer in chat

c) Mary can stop screening

People ages 65 to 69 with a positive HPV result should follow the appropriate screening and colposcopy pathways until they have a negative HPV result or until they are age 74, whichever occurs first

Zara is 70 years old and is a newcomer to Ontario. She does not remember having cervical screening tests in a long time. She decides to make an appointment to get a screening test. Her test result is HPV-positive (other high-risk types) with ASCUS reflex cytology. What is the recommended next step?

- a) Zara can stop screening
- b) Zara is older than 69 → Refer to colposcopy
- c) Zara is overdue for screening → Refer to colposcopy

Type answer in chat

People ages 70 to 74 with a positive HPV result (regardless of HPV type or cytology result) should be referred to colposcopy

Taylor is 30 years old and is living with HIV. She had a cervical screening test 2 years ago and her test result was HPV-positive (other high-risk types) with LSIL reflex cytology. She made an appointment for a repeat cervical screening test and the result came back as HPV-negative. What is the recommended next step?

- a) Taylor should get her next cervical screening test in 3 years
- b) Taylor should be referred to colposcopy
- c) Taylor should get her next cervical screening test in 5 years

Type answer in chat

- People living with HIV are immunocompromised as defined by the OCSP so are at higher risk of cervical pre-cancer and cancer
- People who are immunocompromised follow the same pathway as those who are at average risk, but with a different screening interval if HPV-negative

Mary is 49 years old with a history of cervical dysplasia. She had a hysterectomy 6 months ago and there was evidence of HSIL histology in the hysterectomy specimen. An HPV test of the vaginal vault is performed, and result is HPV-negative. What is the appropriate next step?

- a) Refer to colposcopy
- b) Cease testing
- c) Repeat an HPV test in 2 years

Type answer in chat

Vaginal vault testing can stop after 1 negative result

Overview of colposcopy recommendations

8:30 - 8:55 am

Dr. Rachel Kupets

Colposcopy pathways

Investigation and management

- Referred with HPV-positive and normal (NILM) or low-grade cytology (ASCUS, LSIL)
- Referred with HPV-positive and high-grade cytology (ASC-H, LSIL-H, HSIL), excluding AIS
- Referred with HPV-positive and AGC or AEC cytology (AGC-NOS, AEC-NOS, AGC-N and AEC-N)
- Referred with HPV-positive and AIS cytology
- Referred with HPV-positive and SCC, ACC, ACC-E or PDC cytology

Post-treatment management

- Histology confirmed HSIL
- Histology confirmed AIS

ACC = adenocarcinoma; ACC-E = endocervical adenocarcinoma; AEC = atypical endocervical cells; AGC = atypical glandular cells;

AIS = adenocarcinoma in situ; ASC-H = atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesion;

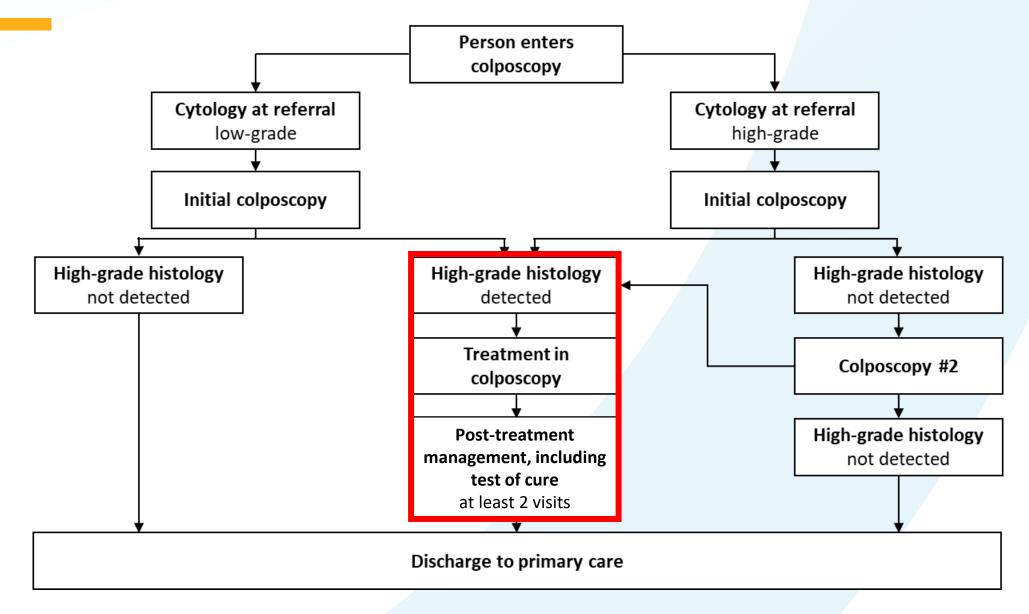
ASCUS = atypical squamous cells of undetermined significance; HPV = human papillomavirus;

HSIL = high-grade squamous intraepithelial lesion; LSIL = low-grade squamous intraepithelial lesion;

LSIL-H = low-grade squamous intraepithelial lesion, cannot exclude HSIL; NILM = negative for intraepithelial lesion or malignancy;

PDC = poorly differentiated carcinoma; SCC = squamous cell carcinoma

High-level overview: Episode of care



Initial colposcopy visit

- Most people referred to colposcopy will have ≤LSIL histology (LSIL or none) detected at initial colposcopy
 - Low-grade referral cytology: Over 89% will have ≤LSIL detected
 - High-grade referral cytology: 33% to 70% will have ≤LSIL detected
- Treatment is not required

Key takeaway:

Regardless of referral cytology, not all people referred to colposcopy will require treatment

Colposcopy: Key changes

	Current state	Following the implementation of HPV testing
Tests	Visual inspection, +/- cytology, +/- biopsy, +/- HPV test, +/- endocervical curettage	Visual inspection, +/- HPV-cytology co-test, +/- biopsy, +/- endocervical curettage
Discharge	Lack of clear exit criteria → many people remain in colposcopy long term	Defined, objective exit criteria → timely and safe discharge
Screening post-discharge	Annual screening (most people)	Risk-based screening intervals (all people)

*where available

Final remarks

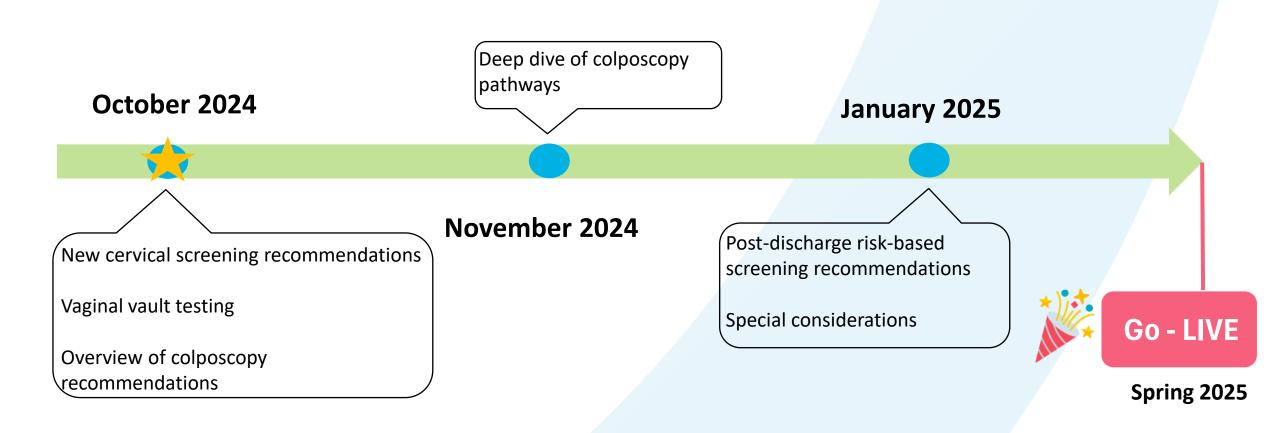
8:55 - 9:00 am

Dr. Dustin Costescu

Next steps

- Kindly complete post-webinar survey
- Next colposcopy CoP webinars:
 - Webinar option 1: Thursday, November 14 (5:30 7:00pm)
 - Webinar option 2: Friday, November 22 (7:30 9:00am)
- Agenda: Deep dive of colposcopy pathways

Timeline of Colposcopy CoP webinars



Thank you!