

Health PEI

Cervical Cancer Screening

Clinical Practice Guidelines for Average Risk Women

**For Approval of the Provincial Medical Affairs Committee
October 2013**

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Background

The last review of the PEI Cervical Cancer Screening Clinical Practice Guidelines was done in 2009. Since that time advancements in testing and screening practices have evolved to improve cervical cancer prevention. In response to the updated guidelines in other provinces and updated cervical cancer screening recommendations by the Canadian Task Force on Preventative Health Care (CTFPHC), a working group was struck to begin the revision of screening guidelines in PEI using the latest evidence.

The goals of the working group were to:

- draft, revise and finalize the PEI Cervical Cancer Screening Clinical Practice Guidelines according to current evidence and within available resources,
- develop an implementation and communications plan to ensure clinicians, stakeholders and public are aware of the revised guidelines in PEI,
- And recommend next steps including a monitoring and review process.

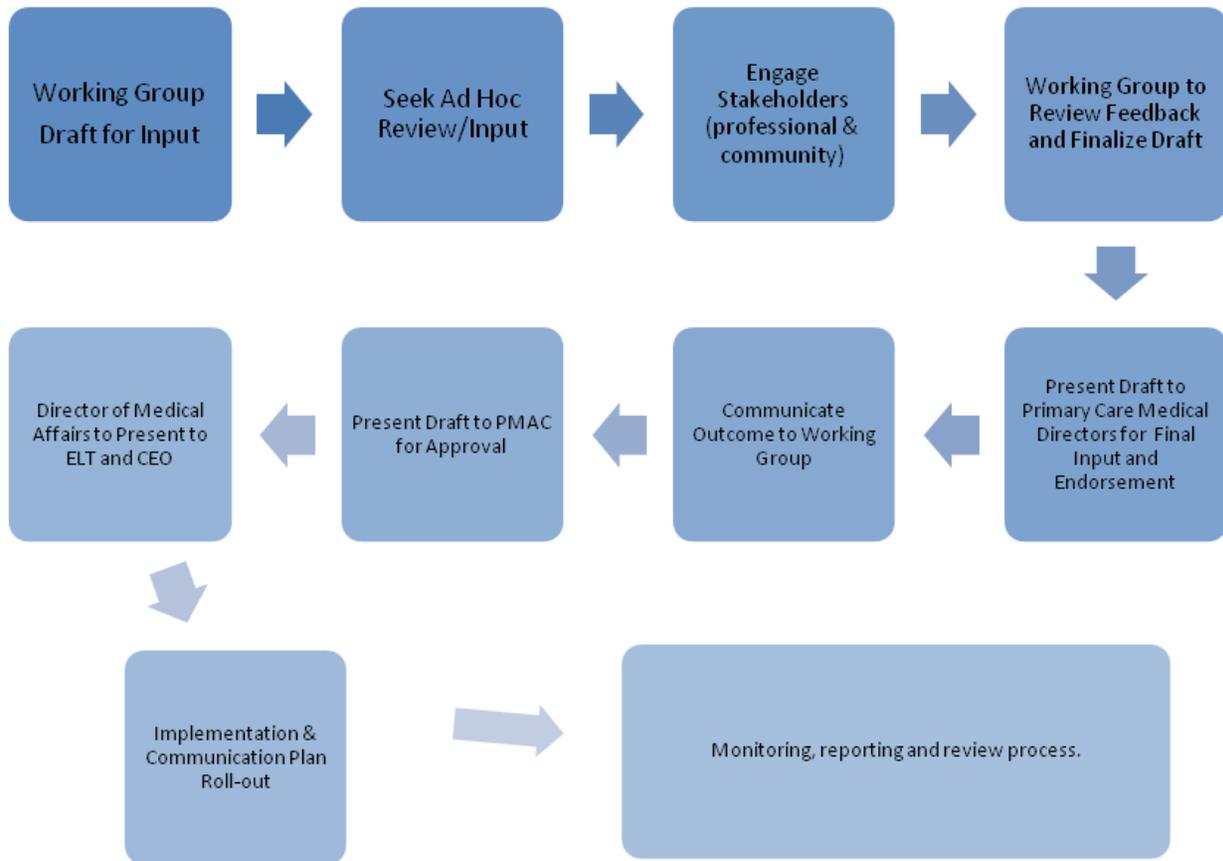
The working group was formed to ensure a balance of expertise with contributions from the across continuum of care from prevention to detection and treatment. Members of the working group included:

Role	Name	Business Area
Chair	Dr. Krista Cassell	Gynecology (QEH)
Past-Chair	Dr. Ruth Sellers	Acting Director of Medical Affairs
Member	Dr. David I. Stewart	Cornwall Pap Screening Clinic
Member	Dr. Lamont Sweet	Chief Public Health Officer
Member	Dr. Carol McClure	Epidemiologist, Chief Public Health Office
Member	Dr. Kristen Mead	Pathology/Laboratory Services
Member	Dr. Elizabeth Barbrick-Crozier	Gynecology (PCH)
Member	Dr. Jennifer Zelin	Family Physician (Queens)
Member	Dr. Gil Grimes	Family Physician (Prince)
Member	Dr. Philip Hansen	Family Physician (Prince)
Member	Sherri McKinnon	Nurse Practitioner, Primary Care Network East
Member	Christina Phillips	Registered Nurse, Primary Care Network West
Member	Pat Charlton	Manager, Chronic Disease Prevention & Management Unit
Coordinator	Marla Delaney	Cancer Screening Programs

Review Process:

To undertake this review, a process was developed and timelines were determined by the working group with the intention to launch the revisions by October 2013.

This process included gathering up-to-date evidence from research and any available provincial data, face-to-face meetings of the working group, an ad hoc review of the draft guidelines, and work to garner support and endorsement from the Provincial Medical Affairs Committee, administration and professional and community stakeholders. All of these processes culminated with a consensus on proposed changes to the current guidelines to be supported by a plan for implementation, communication and monitoring to ensure every effort is made to engage clinicians and the public.



Screening & Early Detection for Average Risk Women:

A woman's risk of developing cervical cancer can increase based on age, personal and family history of cancer, ethnicity, a history of early or multiple pregnancies, and a history of abnormal cervical tests or the presence of the human papillomavirus (HPV).

The following Clinical Practice Guidelines (CPG's) for cervical cancer screening are intended for *women of average risk*, where the primary risk factor is age. Women who have had a subtotal hysterectomy and retain their cervix, who have a history of dysplasia, or who are pregnant require different attention. Screening practices for such situations would be individualized. (See section below "Screening for Women with Special Circumstances" or refer to Appendix A: Clinician Reference Tool)

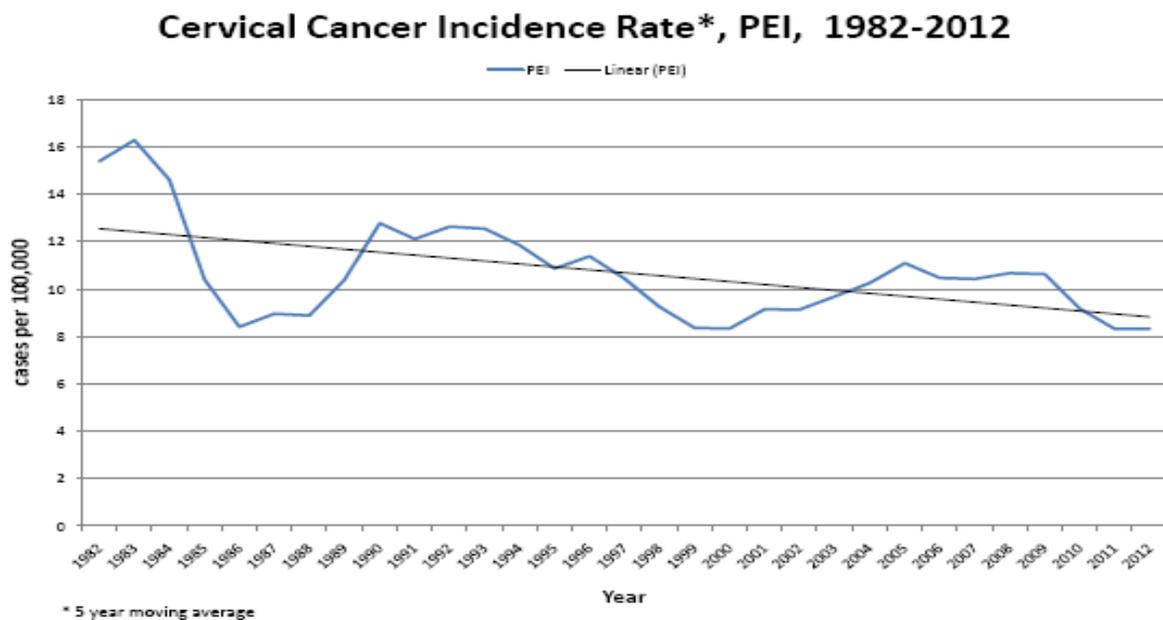
Primary Screening Test in PEI:

These revised CPG's were developed based on the current practice of conventional cytology collection using a Pap smear.

Progress in Cervical Cancer Prevention:

PEI cervical cancer trends for the past 30 years (1982-2012) have shown a decrease in the incidence rate of cervical cancers. (Figure 2)

Figure 2: PEI Cancer Trends Report (2012)



Age of Cervical Screening Initiation

PEI Guidelines 2009

All Women age 18 and over or within three years of first sexual activity should be screened for cervical cancer by a Pap screening test.

PEI Guideline Revision 2013

All women aged 21 and over should be screened for cervical cancer using a Pap test.

- Women who are not sexually active by age 21 should delay cervical cancer screening until sexually active.
- Women who have never been sexually active do not require cervical cancer screening

“Sexually active” includes intercourse, as well as digital or oral sexual activity involving the genital area with a partner of either sex.

For women under the age of 21, interaction with healthcare providers is encouraged for STI screening, HPV vaccination and for necessary contraception.

Rationale and Evidence for Revision:

Based on current evidence and expert opinion, age 21 was determined as the optimal time to initiate cervical screening to be most effective for the prevention of cervical cancer, especially when looking at the ages of existing precancerous cases of Island women.

The recommendation of a start age of 25 years published in 2013 by the Canadian Task Force on Preventative Health Care (CTFPHC)¹ was considered, however, this was labeled as a weak recommendation with only moderate quality evidence by the CTFPHC. There was however a strong recommendation and high quality evidence to determine that there was no benefit of screening women any younger than age 20.

In response to the Task Force recommendations, a joint position statement was released by The Society of Obstetricians and Gynaecologists of Canada (SOGC), The Society of Gynecologic Oncology of Cancer (SGOC), and the Society of Canadian Colposcopists (SCC)². This group agreed that the age to start screening can be controversial and that evidence varies amongst international studies. Key to this position is the written statement, “We should remember that screening 21-25 year old women for precursors has the potential to prevent cancer in women in their 30’s, when cervical cancer rates start to rise.”

The group also turned to the Epidemiological and Cytology information for PEI women. The information examined by the group demonstrated to best detect abnormal cells at the pre-cancerous stage, initiation would need to be prior to age 25. There were no cases of squamous cell cervical carcinoma in women aged 20-24 years of age in the past decade, though there were cases detected between ages 25-29, supporting that screening to prevent should take place prior to age 25.

¹ Canadian Task Force on Preventative Health Care: Recommendations on screening for cervical cancer. CMAJ, January 8, 2013, 185 (1). <http://canadiantaskforce.ca/guidelines/screening-for-cervical-cancer>

² Joint Position Statement regarding recommendations on screening for cervical cancer. <http://sogc.org/wp-content/uploads/2013/04/medCervicalCancerScreeningENG130220.pdf>

Cervical Screening Interval

PEI Guidelines 2009

Most women should be screened for cervical cancer every 2 years, after three consecutive annual negative tests have been documented.

If abnormalities are detected, the schedule for repeat examinations is dictated by clinical requirements.

PEI Guideline Revision 2013

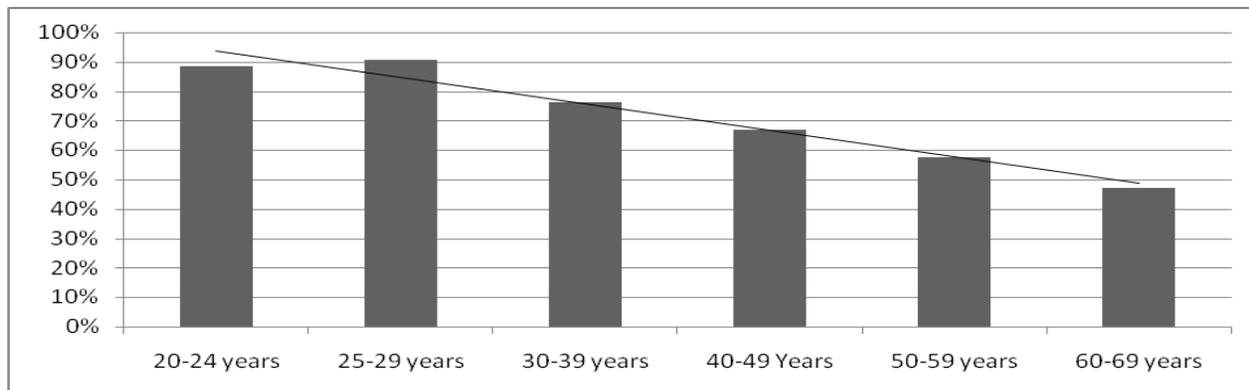
Pap testing for cervical cancer screening of average risk women should be done every 2 years.

If abnormalities are detected, follow related recommendation in the “Management of Cytology Abnormalities”.

Rationale and Evidence for Revision:

The rate of Island women completing a pap test within a three year period was examined and found that there is high uptake in those between 20-29 years (89%) of age and a continuous decline in screening rates of women between 40-69 years of age (47%). Figure 1: Pap Screening Participation in PEI 2009-11.

Figure 1: Percentage of Women who have successfully completed a Pap test, between 2009 and 2011, compared to overall female population in PEI (Census 2011)



The CTFPHC recommendation of a 3 year interval was considered, however reaching under-screened and never screened women with an extended interval without an organized screening program structure on PEI was a concern of the working group. The Joint Position Statement by the SOGC, SGOCC and SCC also reflected on the fact that 50% of cervical cancers are found in women who had never screened or lapsed in their screening routine. They caution that without a tracking and recall program a move to the three year interval could mean more women never or under-screened.

Increased uptake of regular cervical screening for women in Canada, especially those over the age of 40, would have a significant impact on the incidence and mortality of cervical cancers. To best engage the population, the working group felt it was important to maintain a 2 year screening interval, providing consistency with other population-based cancer screening recommendations in PEI.

It was acknowledged that a recommendation for a 3 year interval would be better supported by the group if PEI had an organized screening program where women were supported by correspondence and recalls.

Age of Cervical Screening Cessation

PEI Guidelines 2009

In most women, Pap screening should be discontinued after age 75, if they have had two negative tests, at the recommended screening interval.

Pap screening may be discontinued in women who have had a total hysterectomy, in the absence of a cervical malignancy or pre-malignancy.

PEI Guideline Revision 2013

Women of average risk should cease Pap testing at age 65, provided that they have had an adequate history of normal tests in the previous ten years (i.e. three or more negative Pap tests)

Abnormalities are to be managed as clinically indicated based on the revised “Managing of Cytology Abnormalities” recommendations.

Rationale and Evidence for Revision:

There was limited evidence found that screening over age 70 prevented cervical cancers in all published materials, including the CTFPHC. The group in turn reviewed the guidelines of other provinces and territories as well as the local data on incidence, mortality and screening history where available. As each province updates their guidelines for cervical cancer screening, there is a definite shift to lower the age of screening cessation as more information becomes available and the science of HPV advances. Cancer Care Ontario’s Program in Evidence-Based Care released an updated report in 2011 on Cervical Screening³. The discussion and evidence in this document supports the move to age 65 from age 70 as a phased in approach in Ontario. This recommendation is the consensus of the authors, taking into account the low rate of cervical cancer in this age group among women who have previously been adequately screened, the potential discomfort of the procedure, and difficulties with visualization of the squamocolumnar junction in older women.

The PEI Cancer Registry and laboratory cytology records show that there were less than 5 cases of cervical cancer in the past 5 years of women aged 65 and over. Due to confidentiality of the patients, sharing the data is not permitted. However, it was demonstrated that the cases of squamous cell carcinomas of the cervix reported were of women who had not followed the recommended screening guidelines.

³ Murphy J, Kennedy E, Dunn S, Fung Kee Fung M, Gzik D, McLachlin CM, et al. Cervical Screening. Toronto (ON): Cancer Care Ontario; 2011 Oct 5. Program in Evidence-based Care Evidence-based Series No.: 15-9. <http://www.cancercare.on.ca/toolbox/qualityguidelines/clin-program/screening-ebs/>

Screening Women with Special Circumstances⁴: (all in Appendix A)

- These guidelines do not apply to women who have been previously treated for dysplasia. Screening intervals should be individualized and should likely be annual.
- Immunocompromised women should receive annual screening.
- Women who have undergone subtotal hysterectomy and retained their cervix should continue screening according to the guidelines.
- Pregnant women should be screened according to the guidelines; however, care should be taken not to over-screen. Only conduct Pap tests during pre-natal and post-natal visits if the woman is otherwise due for screening.
- Women who have sex with women should follow the same cervical screening regimen as women who have sex with men.
- Women who have received the HPV vaccine should continue with screening.
- Women who have had previous positive HPV test but have a negative cytology test during routine screening require repeat testing (both HPV and Pap) twelve months after the negative cytology test. For more information on managing this please refer to the SOGC Joint Clinical Practice Guidelines.

⁴ Cancer Care Ontario: Ontario Cervical Screening Cytology Guidelines Summary (2012).
www.cancercare.on.ca/screenforlife

Management of Cytology Abnormalities

PEI Guidelines 2009

Repeat Pap test in 3 months if “UNSAT” (Unsatisfactory).
Repeat Pap test twice at 6 month intervals, 2 abnormal tests (ASC-US, LSIL) within 2 year period warrants colposcopy.
Colposcopy if ASC-H, HSIL, malignant

PEI Guideline Revision 2013

Cytology Result:	Follow-up:
UNSAT (unsatisfactory)	Repeat Pap in 3 months.
ASCUS	Repeat Pap in 6 months. If abnormality is persistent, refer to colposcopy. If HPV Testing is used in women 30 years or older and the results is negative, repeat cytology in 12 months. If the HPV test result is positive, then refer to colposcopy.
LSIL	Repeat Pap in 6 months. If abnormality is persistent, refer to colposcopy.
ASC-H, AGUS, HSIL+ or Malignancy	Refer to colposcopy.

Rationale and Evidence for Revision:

The group turned to the Journal of Obstetrics and Gynaecology Canada (JOGC) and reviewed the clinical practice guideline for Colposcopic Management of Abnormal Cervical Cytology and Histology⁵. Developing these guidelines was a major endeavor with the input of many contributing experts. Having a Canadian consensus and standardizing practices demonstrates a significant advancement in practice. These guidelines should support and provide consistency in practice of the abnormal management from primary care providers and in gynecologic intervention by specialists and align with any reporting from laboratory services.

It was noted by the group that the implementation of HPV Testing would change the recommended follow-up of abnormalities. The working group recommends that HPV testing only be considered for women age 30 or over following the primary screening cytology result of Atypical Squamous Cells of Undetermined Significance (ASCUS). The management plan of a HPV positive test requires clinicians to consider if the abnormal was high or low grade, patient history, any risk factors and age. This would improve management of abnormalities with an HPV confirmation, especially in the younger population, and would allow of more appropriate colposcopy referral.

For more information on HPV testing in PEI see the HPV discussion below and Appendix A: Clinician Reference Tool.

⁵ Colposcopic Management of Abnormal Cervical Cytology and Histology. J Obstet Gynaecol Can 2012;34(12):1188–1202

HPV Testing

PEI Guidelines 2009

Nothing stated at that time.

PEI Guideline Revision 2013

Recommendation on HPV testing as a primary cervical screening tool will be developed based on ongoing monitoring of evidence as it develops; will require local planning and the allocation of resources.

HPV Testing can be used for women aged 30 and over with the presence of ASCUS. See “Clinician Reference Tool: Recommendations for Follow-up of Abnormal Cytology” (Appendix A)

Rationale and Evidence:

The review done by the CTFPHC did not provide sufficient evidence for the Task Force to confidently make any recommendations at this time. Currently, each province and territory is examining their resources, any developing evidence and considering HPV testing as a population-based screen for cervical cancers.

Cancer Care Ontario’s revised cervical screening guidelines were released in 2011 with a phased in approach to move from cytology testing to HPV testing. This shift will influence the age of initiation and cessation as well as extending the screening interval. It is recommended that PEI monitor the experience in such jurisdictions as Ontario and any other evidence that arises that would strengthen a recommendation for HPV testing as a form of cervical cancer screening.

The best way to test for HPV, and the follow-up to diagnosis, is not definitively known at this time. When examining other jurisdictions, a variety of ways of testing, implementation and guidelines of HPV testing are being piloted or are only newly adopted and not yet evaluated. Based on experiences in other jurisdictions and evidence, future consideration for feasibility in PEI is required.

The working group recognizes that HPV testing in women age 30 and over following the primary cytology screen resulting in a finding of ASCUS can be used as a triage to better determine the management plan. This aligns with the recommendations in the SOGC Joint Clinical Guidelines for Colposcopic Management of Abnormal Cervical Cytology and Histology. However, it is important to acknowledge that at this time that HPV testing is not covered by PEI Medicare so the cost of HPV testing would be the responsibility of the woman. With this in mind, management of ASCUS can be done with either cytology or HPV testing, depending on which test is used. (Health care providers can request the HPV test through PEI Laboratory Services)

The group recommends that Health PEI begin planning for HPV testing, as this is on the horizon as evidence grows, and will require decisions and investments in cervical cancer screening on PEI. With this planning it a cost benefit analysis is needed to determine the optimal primary screening tool for population-based cervical cancer screening.

Conclusion:

The practice of regular screening for cervical cancer has made a significant impact on the incidence and mortality rates in Canada and PEI over the past three decades. To maintain effective practice, it is important the guidelines be reviewed and revised as new evidence emerges. This revised version of the PEI Cervical Cancer Screening Clinical Practice Guidelines demonstrates an alignment with the recommendations of other jurisdictions in Canada and where information is available, is guided by actual data of precancerous and cancer cases of women in PEI.

The review process is ongoing and should remain supported by experts who can best advise on advancing practices. Monitoring the implementation of these revisions is vital to ensure that clinical practices are up to date, appropriate and are making the most positive impact in preventing cervical cancers.

Health PEI is committed to providing effective, efficient and high quality evidence-based services to Islanders. These values were maintained throughout the development process. The working group acknowledged that clinical practice guidelines, when implemented fully, can greatly impact services; improve patient care, and health outcomes. It is anticipated that the guidelines be reviewed every three years unless major evidence becomes available that would require immediate alignment of practice for the safety of patients.

Thanks are extended to all those who contributed to this work.

These guidelines are for screening average risk, asymptomatic women.
A symptomatic woman with a visibly abnormal cervix or abnormal bleeding should be tested and/or referred appropriately.

Screening Initiation	<p>Women aged 21 and over should be screened for cervical cancer using a Pap test.</p> <ul style="list-style-type: none"> - Women who are not sexually active by age 21 should delay cervical cancer screening until sexually active. - Women who have never been sexually active do not require cervical cancer screening. <p>“Sexually active” includes intercourse, as well as digital or oral sexual activity involving the genital area with a partner of either gender.</p> <p>For women under the age of 21, interaction with healthcare providers is encouraged for STI screening, HPV vaccination and for necessary contraception.</p>
Screening Interval	Pap screening of average risk women should be done every 2 years.
Screening Cessation	Women older than 65 years who have had an adequate negative cytology screening history in the previous 10 years can discontinue screening (i.e. three or more negative Pap tests).
Optimal Screening Tool	<p>The conventional Pap smear is the tool used in PEI for cervical screening.</p> <p>There is emerging interest in the use of HPV testing as a primary screening tool; however, there is currently not enough evidence to recommend it for this purpose in PEI. HPV testing has been well established for use in triaging ASCUS results and may play a role in the management of these patients. At this time, HPV testing is not covered by PEI Medicare and the cost of HPV testing would be the responsibility of the patient.</p>

Women with Special Circumstances:

Hysterectomy	<p>Women who have undergone subtotal hysterectomy and retained their cervix should continue screening according to guidelines.</p> <p>Women who have had a total hysterectomy with the cervix removed for BENIGN DISEASE may discontinue screening as long as there is a adequate pathological documentation that the cervix has been removed completely and there is not history of high grade lesions. If Pap tests results or hysterectomy pathology is unavailable, continue screening until 2 negative vaginal vault tests are obtained.</p>
Pregnant Women	<p>Pregnant women should be screened according to the guidelines, however care should be taken not to over-screen. Only conduct Pap tests during pre-natal and post-partum visits if the woman is otherwise due for screening.</p> <p>Pregnant women who have an ASCUS or LSIL test result should have a repeat Pap test 3 months after delivery. Those with an HSIL, ASC-H or AGC test result should be referred for colposcopy during pregnancy, ideally within 4 weeks.</p>
Immunosuppressed Women	<p>Because of the increased risks associated with immunosuppression, these women should be screened annually.</p> <p>This includes women who are transplant recipients, being treated with chemotherapy or taking long-term corticosteroids, or who are HIV/AIDS positive.</p>
Women who have sex with other women	The gender of the sexual partner does not change the woman’s risk of cervical cancer. These women should be screened according to their other risk factors.
Previous high-grade lesions or cancer.	After treatment for dysplasia (biopsy proven NOT abnormal Pap result) or cancer, continue to screen annually.
HPV Vaccinated Women	Continue screening according to the clinical guidelines noted above for average risk women.

It is recommended that clinicians turn to the SOGC Joint Clinical Guidelines:
"Colposcopic Management of Abnormal Cervical Cytology and Histology Guidelines"

Cytological Abnormality	Recommended Management				
Atypical Squamous Cells of Undetermined Significance (ASCUS) <i>* HPV Testing is available by request to Laboratory Services in PEI but at a cost to the patient. HPV Testing is not covered by PEI Medicare.</i>	For women < 30 years of age (HPV triage not recommended)				
	Repeat cytology in 6 months	Result: Negative	Repeat Cytology in 6 months	Result: Negative	Routine screening in 2 years
		Result: ≥ ASCUS	Colposcopy		
	For women ≥ 30 years of age (If HPV Testing is used)				
	HPV Test*	Result: Negative	Repeat Cytology in 12 months	Result: Negative	Routine screening in 2 years
		Result: Positive	Colposcopy		
	For women ≥ 30 years of age (If HPV testing is NOT used)				
Repeat Cytology in 6 Months	Result: Negative	Repeat Cytology in 12 months	Result: Negative	Routine screening in 2 years	
	Result: ≥ ASCUS	Colposcopy			
Low-Grade Squamous Intraepithelial Lesion (LSIL)	Repeat Cytology in 6 months	Result: Negative	Repeat cytology in 6 months	Result: Negative	Routine Screening in 2 years
		Result: ≥ ASCUS	Colposcopy		
Atypical Glandular Cells (AGC)	Colposcopy and endocervical curettage.				
Formerly referred to as Atypical Glandular Cells of Undetermined Significance (AGUS)	Women over 35 years of age or with a history of abnormal bleeding should have endometrial sampling.				
Atypical Squamous Cells, Cannot Exclude HSIL (ASC-H)	Colposcopy				
Atypical Glandular Cells of Undetermined Significance (AGUS)					
High Grade Intraepithelial Lesion (HSIL)					
Carcinoma/Malignancy					
Unsatisfactory for Cytology Evaluation					
Unsatisfactory for Cytology Evaluation	Repeat cytology in 3 months.				
Satisfactory but No Transformation Zone Present	Routine screening as per screening guidelines; no immediate recall required.				
Benign Endometrial Cells on Pap Test	<ul style="list-style-type: none"> - Pre-menopausal women who are asymptomatic require no action (follow screening guidelines). - Post-menopausal women may require investigations, including adequate endometrial tissue sampling. - Any woman with abnormal vaginal bleeding requires investigation, which may include adequate endometrial tissue sampling. 				
Cytology Negative and HPV Positive	Women with negative cytology and positive HPV results should have both tests repeated with their primary health care provider after 12 months.				
	12 Month Follow-up Test Result Plan:				
	Cytology: Negative HPV: Negative		Return to routine cytology screening every 2 years.		
	Cytology: Abnormal		Manage as clinically indicated for cytological abnormality		
HPV: Positive 2 times 1 year apart		Colposcopy			