CancerCare Manitoba
ActionCancerManitoba
BreastCheck CervixCheck ColonCheck

Cervical Cancer Screening Learning Module

FOR HEALTHCARE PROVIDERS

INITIATE

LEARNING AND COMPETENCY TO PERFORM CERVICAL CANCER SCREENING

MENTOR

COLLEAGUES TO BECOME COMPETENT IN SCREENING

REVIEW

CURRENT RESEARCH AND TRENDS IN CERVICAL CANCER SCREENING

cancercare.mb.ca/screening/hcp
Screening@cancercare.mb.ca
1-855-95-CHECK

X-HCP-MODULE

Cervical Cancer Screening Learning Module for Healthcare Providers

Legal Disclaimer and Terms of Use

The information in this Module is public information and should not be used as a substitute for any kind of professional medical advice, diagnosis or treatment.

CervixCheck makes no representations or warranties in relation to the contents of the Module. While CervixCheck strives for accuracy, it is possible that the information in the Module may contain errors and omissions. CervixCheck reserves the right to review, update and/or amend the Module, from time to time, in its sole discretion, without recourse from any user of the Module. All references to the Module herein shall include any amended Module.

Endorsements

The Pap Test Learning Module for Healthcare Providers has been endorsed by the following organizations:

- **College of Midwives of Manitoba**
- **The College of Physicians and Surgeons of Manitoba**
- **The Manitoba College of Family Physicians**
- **The University of Manitoba Department of Obstetrics, Gynecology and Reproductive Sciences**
- **The University of Manitoba Division of Gynecologic Oncology**

Contact Person

Education & Prevention Lead
CancerCare Manitoba Prevention & Screening
Unit 5 – 25 Sherbrook St., Winnipeg, Manitoba R3C 2B1

Phone: 1-855-95-CHECK
Email: Screening@cancercare.mb.ca
Website: cancercare.mb.ca/screening/hcp

CancerCare Manitoba
ActionCancerManitoba
BreastCheck CervixCheck ColonCheck

CREATED: JUNE 2009
LAST UPDATED: MARCH 2022
HPV Triage Implementation March 14, 2022

Table of Contents

Acknowledgements

Chapter 1: Introduction

Welcome to the CervixCheck, CancerCare Manitoba's Cervical Cancer Screening Learning Module for Healthcare Providers (HCPs). This module has been developed in consultation with Manitoba stakeholders in cervical cancer screening. It has been adapted with permission from the Alberta Cervical Cancer Screening Programs (ACCSP) Registered Nurse Pap Smear Learning Module.

The Cervical Cancer Screening Learning Module can be found at:
https://www.cancercare.mb.ca/screening/hcp/education

Target Audience and Purpose

The Cervical Cancer Screening Learning Module is for physicians, registered nurses, advanced practice nurses, licensed practical nurses, registered midwives, clinical assistants and/or physician assistants in Manitoba seeking to:

- **Initiate** learning about cervical cancer and competency to perform cervical cancer screening tests,
- **Mentor** colleagues to become competent in screening for cervical cancer, and/or
- **Review** current research, details and techniques about cervical cancer screening in Manitoba.

The purpose of the module is to:

- Provide employers and HCPs with an accessible and standardized resource to support community based cervical cancer screening competency training using local human resources,
- Support the Regional Health Authorities to increase the number of HCPs providing quality access to cervical cancer screening services,
- Enhance service by facilitating cervical cancer screening competency for nurses, physician assistants and clinical assistants, and
- Provide materials to support ongoing evaluation of cervical cancer screening services.

Client-Centered Service

In order to respond to the diverse needs of clients, recruit participation in underscreened communities and enhance the quality of service in Manitoba, CervixCheck facilitates a client-centered approach to cervical cancer screening. This approach helps to facilitate cervical screening services that are accessible, appropriate and acceptable for all eligible clients.

Client-centered care[1] includes values such as:

- respect;
- human dignity;
- clients as the expert in their own lives;
- clients as a co-manager of their healthcare plan;
- continuity of care;
- timeliness;
- responsiveness; and
- Universal access to care.

Learning Objectives	On completion of the learning module theory and practicum, the learner will be able to:
	1. Demonstrate an understanding of cervical cancer, disease burden and cervical screening in Manitoba.
	2. Understand screening eligibility, initiation, frequency and cessation, as well as circumstances that require increased surveillance.
	3. Demonstrate an understanding of the benefits and harms associated with cervical cancer screening.
	4. Demonstrate an understanding of the education and communication needs of clients before, during and after an exam.
	5. Identify the special learning and counselling needs of clients with special considerations.
	6. Demonstrate an understanding of normal and abnormal female pelvic anatomy and physiology.
	7. Demonstrate an understanding of and competently perform a speculum exam and specimen collection.
	8. Demonstrate an understanding of the appropriate follow-up for abnormal findings and the CervixCheck Screening Guidelines.
	9. Demonstrate an understanding of the HPV vaccines, liquid based cytology and HPV testing.
	10. Identify the colleges and licensing bodies associated with standards of practice for all Manitoba HCPs, as well as sources of information for understanding confidentiality, informed consent, privacy, accountability and responsibility as it relates to healthcare in Manitoba.

Competency Requirements

The HCP will first *partner with a preceptor* to oversee the activities outlined for cervical cancer screening competency. Cervical cancer screening competency activities should include:

1. Theory: a self-paced review of all module contents (text and video's)

i. Read chapter 1 of module
ii. Complete module pre-test
iii. Read remaining contents of module
iv. View module videos at https://www.cancercare.mb.ca/screening/hcp/education
v. Complete module post-test (obtaining a mark of 85%)

2. Practicum: the preceptor will facilitate the following learning activities:

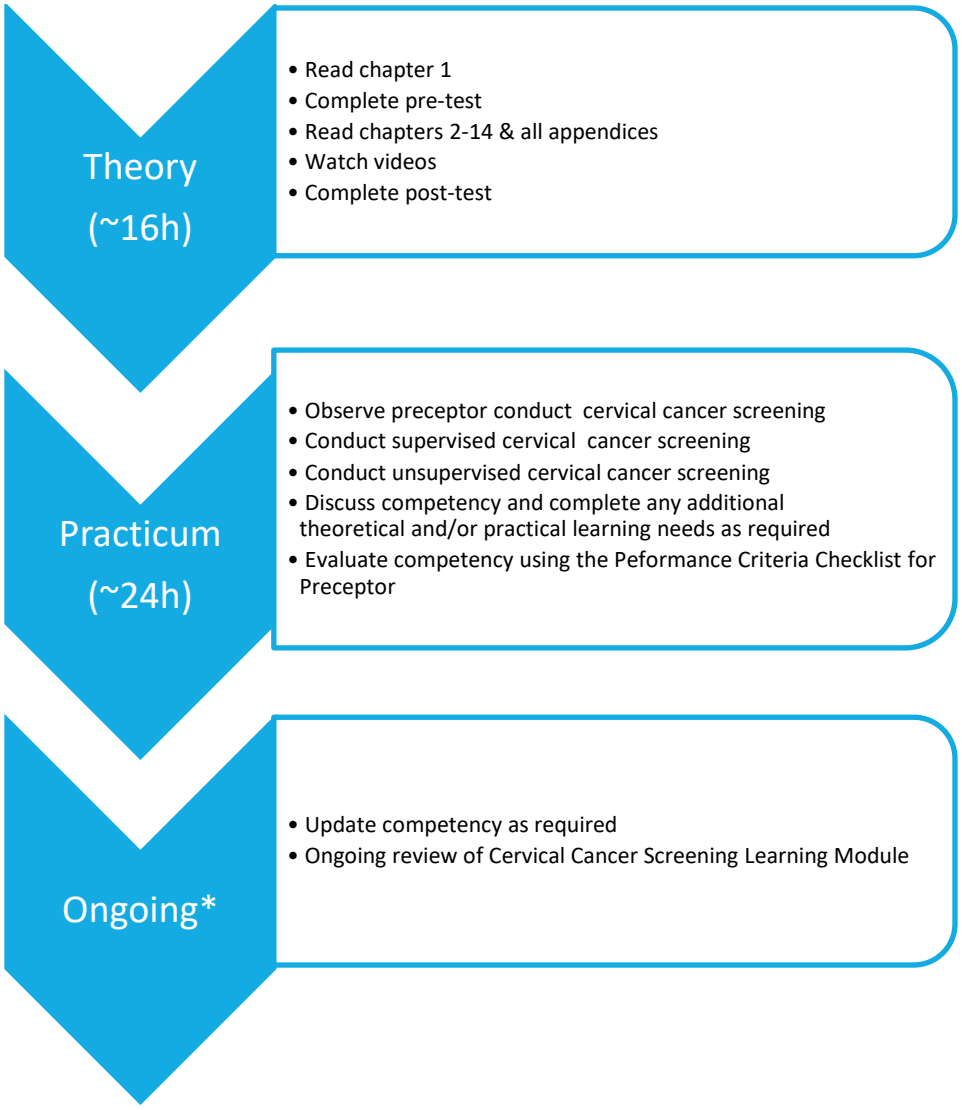
i. *Observe* preceptor conduct at least 5 clinical Pap test visits with clients
ii. Perform at least 10-20 *supervised* Pap tests within 2 months
iii. Perform 15-30 *unsupervised* Pap tests within 2 months
iv. Discuss all components of competency and complete any additional theoretical and/or practical learning needs as required

***Note:** The above is a suggested guideline for the HCPs practical experience. The number of cervical cancer screenings that the HCP completes during the practicum may range. Emphasis should be placed on **quality** of performance rather that quantity of tests performed. The HCP should observe and demonstrate until they feel comfortable and confident and are deemed competent by the preceptor.

3. Evaluation: Competency will be assessed using the Performance Criteria Checklist for Preceptor (obtaining a mark of 100%) (see Appendix 3).

It is important for HCPs to have a diverse clinical experience to be proficient in determining normal from abnormal cervical variations. For example, an HCP who only observes healthy young women, may not have the skills to properly assess a multiparous women who may have many cervical lacerations. Please see the Cervical Cancer Screening Learning Module video "At your cervix: What's normal anyway?" to visualize carcinoma and other abnormalities of the cervix.	Important Information

Competency Requirements Summary Table



It is the employer and HCP's responsibility to review ongoing competency. It is recommended that a formal process be developed for such review.	Important Information

*See Competency Requirements Summary below for guidelines on number of Pap tests, etc.

Obtaining a CervixCheck Provider Number

Nurses, clinical assistants and physician assistants should obtain a CervixCheck provider number (Nurses: N###, Clinical Assistants: 22###, Physician Assistants: 72##) from CervixCheck at such point cervical cancer screening becomes part of their professional practice. The CervixCheck provider identifies the specimen taker on the cytology requisition form and links the HCP with a Pap test and any subsequent follow-up.

To request a CervixCheck provider number, complete the form in Appendix 2 and submit to CervixCheck.

Scope of Practice for those who can Perform Cervical Cancer Screening

In the province of Manitoba, the College of Physicians and Surgeons of Manitoba, the College of Registered Nurses of Manitoba, the College of Midwives of Manitoba, the College of Licensed Practical Nurses of Manitoba and the College of Registered Psychiatric Nurses of Manitoba have the professional responsibility for standards of practice for all physicians, physician assistants, clinical assistants, nurses and midwives in the province. Each profession and jurisdiction within Manitoba are responsible for having in depth knowledge of legislative acts which impact scope of practice. Each professional body covers members with liability insurance and each professional is responsible for his/her own competent practice. This learning module does not replace the scope of practice, nor does it exist to define it. Each professional is responsible for their own scope of practice, competencies and procedures of their facility or region.

Find below, links to licensing bodies, colleges and policies that support practice in Manitoba. All questions regarding individual scope of practice should be directed to your appropriate college.

College of Physicians & Surgeons of Manitoba

By-Law #11

- Delegation of Function: Principles
- Shared Competencies and Delegated Physician Services
- Clinical Assistants

College of Registered Nurses of Manitoba

College of Midwives of Manitoba

College of Licensed Practical Nurses of Manitoba

College of Registered Psychiatric Nurses of Manitoba

Office of Physician Assistant Studies

The Regulated Health Professionals Act

Professional Responsibility and Accountability

The HCP, employer, educational facilities, as well as the professional college or body, are accountable for providing education to the HCP to be competent cervical cancer screening providers, as well as facilitate ongoing education and maintenance of competencies.

Best practices advise that the HCP and/or the employer of HCPs who are expected to provide Pap tests:

- should provide or allow adequate time, resources, preceptorship and facilities to ensure that HCPs are adequately educated (both initially and on an ongoing basis) to provide quality Pap tests
- have procedures in place for follow-up of the cervical cancer screening test results
- encourage or participate in ongoing monitoring of cervical cancer screening test adequacy rates
- maintain a record of HCP cervical cancer screening competency training
- follow infection control and maintenance procedures regarding medical equipment utilized
- have policies in place which define the rules and responsibilities of those who require a delegation and function

Preceptor

A preceptor who provides cervical cancer screening theory and a practicum experience is required to:

- be a Medical Doctor, Nurse Practitioner, Licensed Nurse, Clinical Assistant, Physician Assistant, or Midwife in the province of Manitoba
- be skilled at screening for cervical cancer
- be able to demonstrate continuing competencies in cervical cancer screening test (with particular reference to cervical sampling technique)
- demonstrate good communication and counseling skills, practice person-centered care
- remain current in new developments in cervical screening and the cervical screening program
- have time to provide preceptor duties such as mentorship, supervision, review of assessment materials

Medicolegal Issues

The following is a list of professional and legal sources of information to support HCPs understanding of confidentiality, informed consent, privacy, documentation, negligence, liability, accountability and responsibility as it relates to health care services and cervical cancer screening in Manitoba:

- The Personal Health Information Act
- The College of Physicians and Surgeons of Manitoba
- The Midwifery Act
- The Manitoba Regulated Health Professionals Act
- The Registered Nurses Act
- The Registered Nurses Extended Practice Act
- The Medical Act
- The College of Registered Nurses of Manitoba
- The Canadian Medical Association

References

[1] Nursing Best Practice Guideline: Shaping the future of Nursing (2002). Client Centered Care. (p 10). Collected on February 3, 2017 from http://rnao.ca/sites/rnao-ca/files/Client_Centred_Care.pdf

Cervical Cancer Screening Learning Module Pre-Test

Please complete the following pre-test prior to proceeding to Section 2.
The Answer Key is provided in Appendix 3.

Instructions for Test Completion

- For **multiple choice questions,** please circle one or more answers as appropriate.
- For **open-ended questions,** please write your answers on the lines provided.
- For **short answer questions,** please write your answers in the space provided.

1. **CervixCheck, CancerCare Manitoba is needed because (select all that apply):**
    - **a.** organized cervical cancer screening programs reduce the cervical cancer incidence and mortality
    - **b.** participating in regular cervical cancer screening can prevent most cervical cancers
    - **c.** all patients who develop cervical cancer in Manitoba have not participated in regular cervical cancer screening
    - **d.** the majority of patients who develop cervical cancer in Manitoba have not participated in regular cervical cancer screening
    - **e.** the program will remind clients and physicians when cervical cancer screening testing or follow-up is overdue

2. **Which of the following is not a risk factor for cervical cancer?**
    - **a.** Not participating in regular cervical cancer screening
    - **b.** Persistent HPV infection
    - **c.** A first degree relative diagnosed with cervical cancer

3. **Name four higher risk groups who may be less likely to be screened for cervical cancer.**
    - **a.** _____
    - **b.** _____
    - **c.** _____
    - **d.** _____

4. **List five reasons why an eligible client may be reluctant to participate in regular cervical cancer screening.**

    a. _____

    b. _____

    c. _____

    d. _____

    e. _____

5. **List six populations that may have special learning, counseling and/or educational needs.**

    a. _____

    b. _____

    c. _____

    d. _____

    e. _____

    f. _____

6. **A persistent high-risk human papillomavirus (hrHPV) infection is recognized as the main risk factor for cervical cancer.**
    a. True
    b. False

7. **If a client appears apprehensive before the exam, it is best to:**
    - **a.** reassure them and press forward
    - **b.** tell them that there is nothing to worry about
    - **c.** ask open-ended questions about their apprehension about the cervical cancer screening procedure

8. **List three things that you can do to increase a client's physical and emotional comfort during the exam.**

    a. _____

    b. _____

    c. _____

9. **According to the post-hysterectomy screening guidelines, screening of the vaginal vault is not necessary if the hysterectomy was performed for a malignant condition.**
    - **a.** True
    - **b.** False

10. **Which of the following clients is at risk for infection with HPV? Select all that apply.**
    - **a.** Mary who has only had sex once in her lifetime over 20 years ago
    - **b.** Eve who has worked as a sex trade worker for the last 15 years
    - **c.** Sally who started having sex at 14 and has smoke a pack of cigarettes every day for the past 5 years

11. **List five abnormal findings of the ectocervix.**

    a. _____

    b. _____

    c. _____

    d. _____

    e. _____

12. Which of the following are abnormal findings on the cervix that should be investigated appropriately or referred to a specialist? Select all that apply.

- **a.** Friable tissue (soft, eroded)
- **b.** Red patchy areas
- **c.** Abnormal bleeding, and inflammation
- **d.** Granular areas, white patches
- **e.** Pink colour
- **f.** Lesions

13. Name the three sampling areas of the cervix.

a. _____

b. _____

c. _____

14. A smaller and narrower speculum should be used with:

- **a.** Clients with vaginismus
- **b.** Nulliparous clients
- **c.** Circumcised clients
- **d.** Clients whose vaginal orifices have contracted post-menopausally

15. It is acceptable to lubricate the speculum with:

- **a.** Lubricating jelly
- **b.** Warm water
- **c.** Vaseline

16. **An acceptable way to insert the speculum is (select all that apply):**
    - **a.** With the blade tips against the upper (anterior) wall of the vagina
    - **b.** At an oblique angle
    - **c.** With the speculum closed
    - **d.** With the speculum slightly opened
    - **e.** The speculum is angled 45° downward toward the small of the client's back

17. **The best way to reposition a speculum for a client with a cervix with posterior orientation is:**
    - **a.** to reinsert less deeply and anteriorly, with the base of the lower blade actually compressing the anterior wall of the vagina.
    - **b.** to insert the speculum more deeply and posteriorly through compression of the perineal tissue. The blade tips will slip under the cervix into the posterior fornix.
    - **c.** by choosing a plastic speculum of a larger size and reinserting as you did prior.

18. **The correct way to obtain a broom specimen is by rotating the broom in the endocervical canal:**
    - **a.** Counterclockwise 360° once.
    - **b.** Clockwise, 360° twice.
    - **c.** Clockwise, 360° five times.

19. **When using the dual sampling technique with a liquid medium, a plastic spatula and plastic cytobrush with perforated ends should be used in order to break off into the liquid medium.**
    - **a.** True
    - **b.** False

20. If sexually transmitted infections specimens need to be collected, they should be taken prior to the cervical specimen.

- **a.** True
- **b.** False

21. The broom-like device collects cells from the ectocervix and endocervix simultaneously.

- **a.** True
- **b.** False

22. If a clinician uses the device pictured below to collect the cervical specimen, they should select 'Cytobrush' when completing the cytology requisition form instrument section.

- **a.** True
- **b.** False

23. The HCP should avoid touching the head of the broom while detaching it into the liquid medium.

- **a.** True
- **b.** False

24. The specimen and the cytology requisition should both be labeled with matching (select all that apply):

- **a.** First name
- **b.** Last name
- **c.** PHIN
- **d.** Date of birth

25. List four key things that should be discussed with the client after the examination.

- **a.** _____
- **b.** _____
- **c.** _____
- **d.** _____

26. Name four scenarios in which the laboratory would reject a specimen?

- **a.** _____
- **b.** _____
- **c.** _____
- **d.** _____

27. During a Pap test visit, when does the HCP seek to obtain informed verbal consent from the client?

- **a.** At the start of the consultation
- **b.** After you have explained the external exam, speculum exam and the cervical cancer sceening procedure and before you begin
- **c.** After completing the external exam, speculum exam and the cervical cancer screening test

28. **Is the HCP legally responsible to protect confidentiality of the client's health information?**
    - **a.** Yes
    - **b.** No

29. **In order for nurses, clinical assistants and physician assistants to properly identify themselves as the specimen taker on the cytology requisition form, they should obtain a CervixCheck Provider Number from CervixCheck.**
    - **a.** True
    - **b.** False

30. **A client had a colposcopy and was investigated and/or treated for a cervical abnormality. They completed their care with the colposcopist and the colposcopist has discharged them back to the routine care of their regular HCP. The HCP has just done a follow-up cervical cancer screen and it shows ASCUS. What is the recommended management?**

31. **A healthcare provider has a 31-year old client who was screened for cervical cancer with a cytology result of ASCUS and a positive high-risk HPV test. What is the recommended management?**

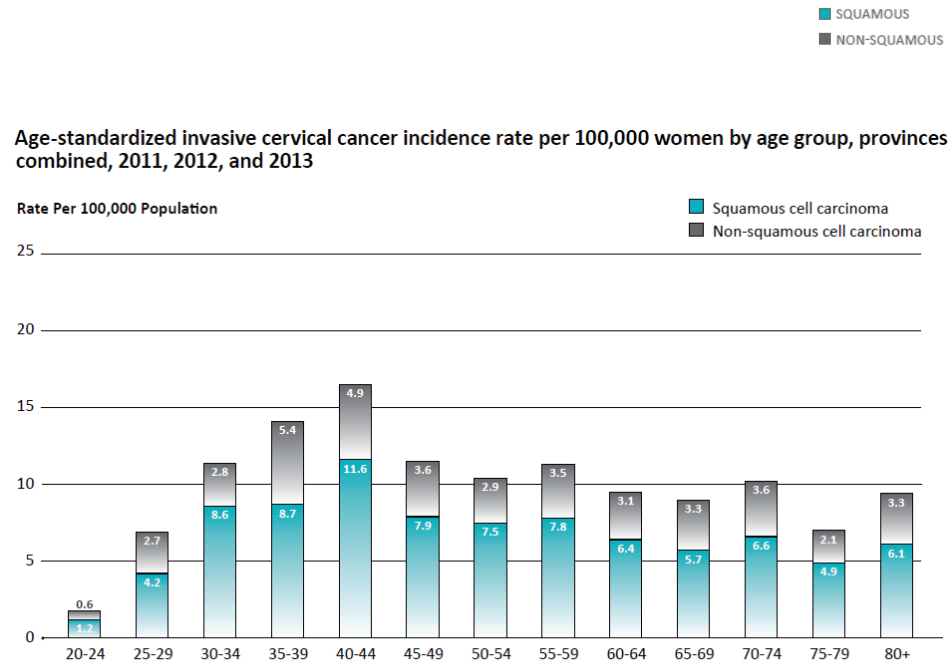
Chapter 2: Disease Burden and Cervical Cancer Screening in Manitoba

Learning Objectives	On completion of this section, the learner will be able to: 1. Understand human papillomavirus, disease burden, cervical cancer incidence, precursors, natural history, and risk factors. 2. Describe the CervixCheck, CancerCare Manitoba Program. 3. Identify the rationale for the CervixCheck program. 4. Describe CervixCheck Operations.

Cervical Cancer

Cervical cancer is the 13th most frequently diagnosed cancer amongst Canadian women.[1] On average in Canada, 1,500 women are diagnosed with invasive cervical cancer, and 475 women die each year.[1] Most women are diagnosed between the ages of 40 and 44. Figure 1 shows the invasive cervical cancer incidence for women by age group, in eight Canadian provinces, for January 2011 – December 2013.[2]

Figure 1. Invasive cervical cancer incidence rate per 100,000 women, by age group, January 2011 to December 2013.

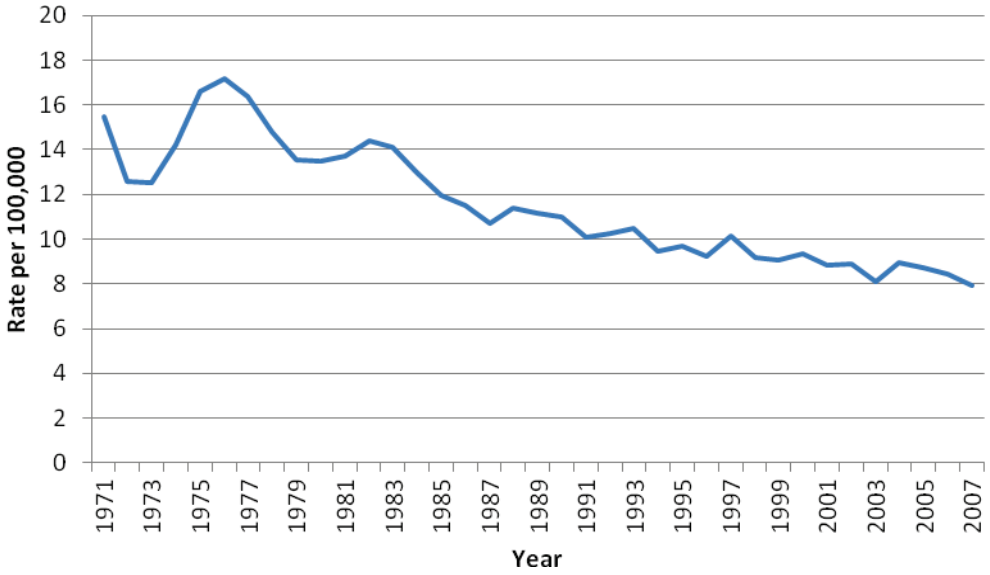


Includes BC, AB, SK, MB, NB, NS, PE, and NL and Labrador. British Columbia includes data from 2011 and 2012. Age standardized to the 2011 Canadian population

In Manitoba in 2016, 50 women were expected to be diagnosed with cervical cancer, and 20 women were expected to die from cervical cancer.[1]

Since the incept of the Pap test in Canada, the incidence of cervical cancer in Manitoba has reduced over time. Reduction in rates of cervical cancer are due to increased participation in screening by Manitobans. Figure 2 shows the age-standardized cervical cancer incidence rate per 100,000 for Manitoba between 1971 to 2007.[3] However, recently the Canadian Cancer Society published their 2016 Canadian Cancer Statistics report which revealed that age-standardized incidence rates of cervical cancer in Canada have increased by 0.5% since 2005, and the age-standardized mortality rates have increased by 1.8% since 2008. Although low, these changes remind us of the continued efforts required by all partners to increase screening participation rates.[1]

Figure 2. Age-standardized cervical cancer incidence rate per 100,000 for Manitoba, 1971 to 2007.



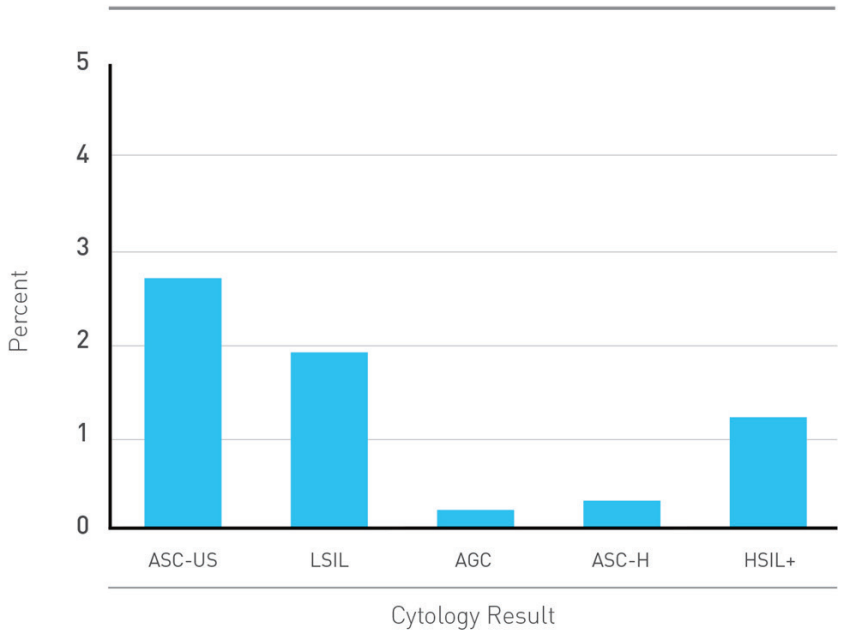
HPV Disease Burden

Infection with human papillomavirus (HPV) is recognized as the causal factor for cervical cancer and it's precursors, genital warts, as well as other anogenital and oral cancers.[1,4] Transmission of HPV occurs through skin-to-skin or skin-to-mucosa contact with more than 40 types of HPV known to infect the skin of the penis, vulva, and anus, and the lining of the vagina, cervix and rectum, as well as the lining of the mouth and throat including the oropharynx, base of tongue and tonsil.[1] HPV is estimated to be the most prevalent sexually transmitted infection in the United States and Canada.[5] Most sexually active individuals will have an HPV infection at some point during their lifetime, including over 80% of sexually active women.[1,]

Almost all cervical cancers can be traced to oncogenic HPV types, with over 70% being traced to HPV 16 and 18. These HPV types are considered high risk (HR) due to their link to cervical cancer. Other HPV types are considered low risk (LR) for causing cancer, and are primarily associated with genital warts (HPV types 6 and 11).[1]

The incidence of cervical dysplasia in Manitoba is significant. 1 in 4 women will have an abnormal Pap test in her lifetime.[5] Between January 1st, 2012 to December 31st, 2014, 4.6% of women had a low-grade Pap test (ASC-US or LSIL), and 1.7% had a high-grade (AGC, ASC-H, HSIL) or more severe Pap test (Figure 3). [6] Each year in Manitoba about 12,000 colposcopies are performed in response to persistent low-grade Pap tests or high-grade Pap test results.[7]

Figure 3. Percentage of women who had an abnormal Pap test result by diagnostic category from January 2012 to December 2014 (n = 16,119).



NOTE: ASC-US (Atypical squamous cells of undetermined significance), LSIL (Low-grade squamous intraepithelial lesion); AGC (Atypical glandular cells); ASC-H (Atypical squamous cells, cannot rule out high-grade); HSIL+ (High-grade squamous intraepithelial lesion or more severe).

A recent study that looked at 100% of the U.S. population between 2004 and 2008, found HPV to be responsible for:

- over 90% of anal cancers,
- more than 50% of vaginal, vulvar and penile cancers, and
- 60-70% of oropharyngeal cancers.[8]

In Manitoba between 1985 and 2004, HPV was responsible for approximately 25,000 cases of anogenital warts.[9]

The psychological impact of an abnormal cervical cancer screening test result, colposcopy procedure, genital warts and/or cancer diagnosis on the individual is significant. This, coupled with the financial burden to the healthcare system, makes the disease burden of HPV an important healthcare issue in Canada.

Natural History

The peak incidence of HPV occurs in women under 25 years of age, shortly after the onset of sexual activity.[10] However, over 90% of cervical HPV infections spontaneously regress within 24 months without symptoms or intervention.[11] [12] It is not clear if "*Viral "clearance"* means that an individual's immune system completely eliminates HPV infection or reflects *Latency* where the amount of virus reduced to levels undetectable with current diagnostic methods. HPV infections are very common in the lifespan of any individual with a lifetime probability of over 80% (*Koutsky)*. Persistent infection with the same HPV genotype is a necessary risk factor to develop a high-grade cervical precancer abnormality.[13]

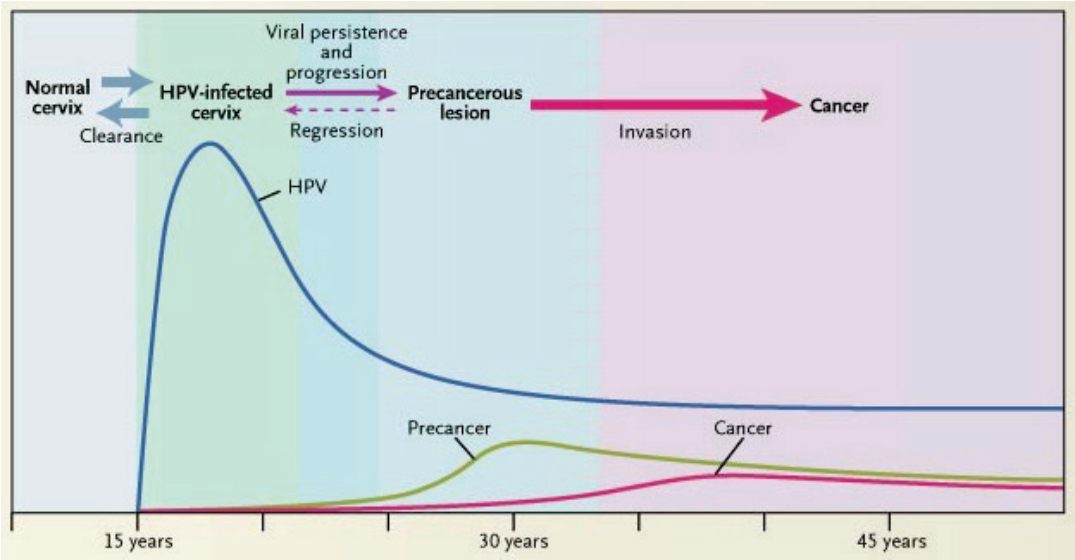
It is not clearly understood why HPV infections "resolve" in certain individuals and disease (cervical abnormalities) develops in others. "Disease is a rare consequence of a common infection"

When progression occurs, it happens over a long period of time. One study showed that the mean time for progression to HSIL was as long as seven years.[14] As well, an average of 20 years may be required for low-grade lesions to develop into invasive squamous cell carcinoma (Figure 4).[15] Having a HSIL does not necessarily mean that progression to cancer is inevitable.[16]

Occasionally cervical cancer appears to progress more rapidly. This may be due to:

- inadequate specimen collection and preparation (hence the importance of HCPs to learn the proper technique for Pap test), and/or
- lab misinterpretation.
- Limitation of cytology to identify certain cancers like adenocarcinomas
- Rapidly biological cancer

Figure 4. The natural history of HPV infection and cervical cancer.



Risk Factors for HPV and Cervical Cancer

Risk Factors for HPV

Genital HPV is transmitted by:

- **Current and previous sexual activity including sexual intercourse and skin-to-skin genital touching (including oral, genital and/or rectal sex and sex with toys).** HPV can be transmitted between any two people regardless of sexual orientation or gender identity. It is not possible to identify the origin of an individual's HPV infection.

Occasionally, HPV can be transmitted by:

- **Vertical transmission.** HPV has been shown to transmit non-sexually through vertical transmission. HPV infections that are transmitted from a mother to her baby in utero and/or during childbirth are uncommon, and often rarely persist beyond six months after birth.[17] [18]

Factors that may put a person at increased risk for HPV include:

- **Number of sexual partners.** Increasing the number of sexual partners one has can increase the risk of acquiring HPV infection. However, HPV transmission can occur with only one sexual encounter. Some

research indicates that up to 60% of women were infected with HPV by their first partner.[19]

- **Early age of onset of sexual activity** has been identified as a possible co-factor for HPV infection due to the probability of an increase in the number of sexual partners. Potential for initial infection begins with onset of sexual activity, and each sexual encounter augments the risk of infection.[20] [21] [22]
- **The sexual behavior of the woman's male partner.** Studies have indicated that the risk of HPV infection and cervical cancer incidence in women increased with the number of her male partner's sexual partners, and with the male partner's early age at first intercourse.[23]
- **Male partners who are not circumcised** have more HPV infections than men who are circumcised.[24] Uncircumcised men are also more likely to be infected with carcinogenic HPV types compared to circumcised men.[25] HPV infection in uncircumcised men is also more likely to persist when compared to HPV infections in circumcised men.[26] As well, the incidence of high-risk HPV infection among women is lower among those who have circumcised male partners.[27]

Specific HPV genotypes cause genital warts while others cause abnormal cervical changes. HPV types 16 and 18 cause 70% of cervical cancer. HPV 6 and 11 cause over 90% of genital warts.	Important Information

Risk Factors for Cervical Cancer

Factors that can contribute to the development of cervical cancer include:

- acquisition of high-risk HPV
- persistent high-risk HPV infection
- not having Pap tests and/or not having Pap tests for 5 years or more

Other contributing factors that may act together with HPV and affect the development of cervical cancer include:

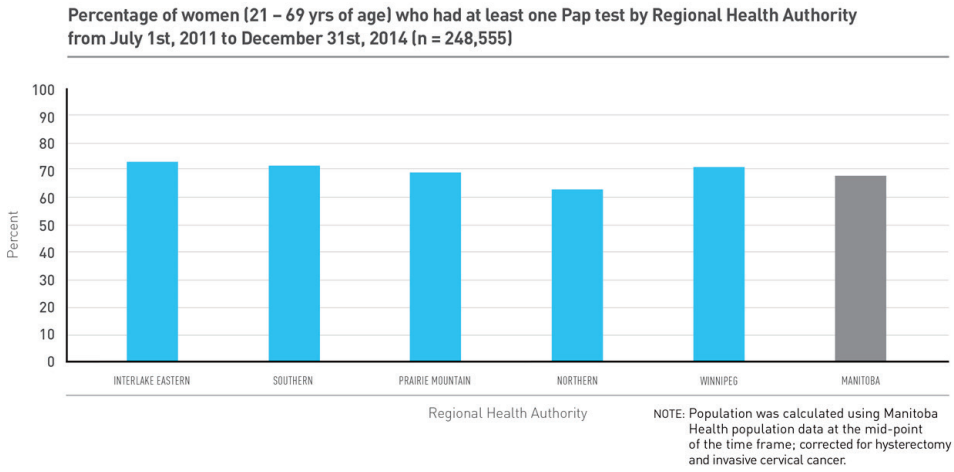
- smoking
- infection with other sexually transmitted agents
- immunodeficiency

High risk groups include those who are less likely to be screened. Therefore, it is valuable to focus our recruitment efforts on underserved clients who are eligible for screening. These populations include:

- older women, post-menopausal
- women of low socioeconomic status
- immigrant women
- Aboriginal women
- women who live in rural, remote and isolated areas
- women who have poor access to Pap test providers
- providers not offering cervical screening
- poorly educated and illiterate women
- women who have sex with women
- women with disabilities
- women with no family physician
- women with persistent HPV infection
- women who smoke and/or exposed to second-hand smoke
- women who are immunosuppressed
- women infected with HIV and have a CD4 count lower than 400
- women who have been victim to childhood sexual assault
- transgender/non-binary individuals

In Manitoba, between July 1, 2011 to December 31, 2014, 67.7% of women had at least one Pap test. The Northern Regional Health Authority (formerly Burntwood and Nor-Man) had the lowest screening rate, with 62.7% of women having had at least one Pap test between July 2011 and December 2014.[8]

Figure 5. Percentage of women (21-69 years of age) who had at least one Pap test by Regional Health Authority from July 1st, 2011 to December 31st, 2014 (n = 248,555).



Organized Cervical Cancer Screening in Manitoba: CervixCheck, CancerCare Manitoba

Cervical cancer screening may be opportunistic or organized. Opportunistic screening depends on the individual eligible client and/or their HCP's initiative, and does not achieve optimal screening coverage of the eligible population.

Manitoba's organized screening program allows a standardized approach to screening, follow-up, and treatment, and requires a registration database of eligible clients. The database of an organized screening program enhances participation by identifying and recruiting underscreened and unscreened clients, as well as facilitating the recall of those who may be overdue for routine screening. A registry also enables the program to facilitate follow-up for abnormal results where the appropriate management may not have occurred. It further provides Quality Assurance at all levels of screening.

What is CervixCheck, CancerCare Manitoba?

CervixCheck was established in January of 2000 with a mandate to ensure that eligible Manitobans receive organized, high quality cervical cancer screening services. CervixCheck is supported by Manitoba Health and managed by CancerCare Manitoba. On April 27, 2001, an amendment to the Public Health Act requiring the reporting of all cervical cancer screening tests to CervixCheck commenced operation of the CervixCheck registry. The registry is a central and confidential record of Pap tests, colposcopy, and biopsy results.

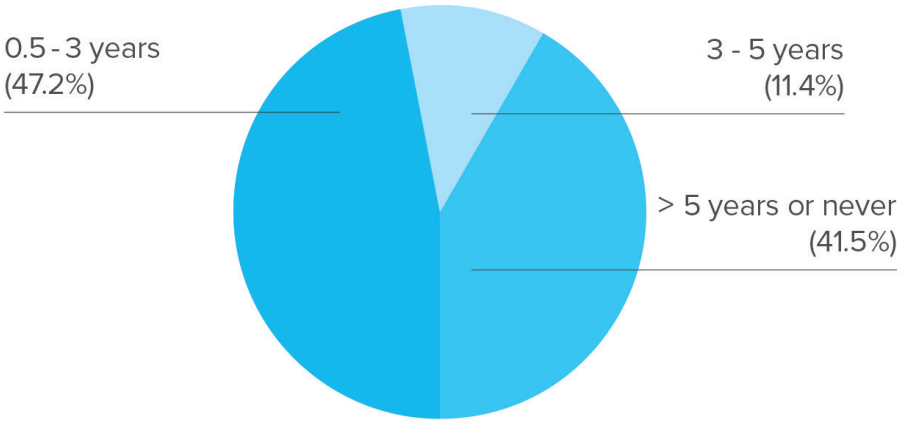
The goal of CervixCheck is to reduce the incidence of and mortality from invasive cervical cancer. To accomplish this goal, CervixCheck is guided by the following five objectives:

1. Maximize screening uptake in the eligible population
2. Operate and enhance a population-based information system and Registry
3. Facilitate and support quality assurance activities for cervical cancer screening services
4. Monitor and evaluate CervixCheck
5. Participate in review, evaluation and implementation planning of new technologies

Why is the program needed?

Cervical cancer is largely preventable, yet each year in Manitoba, 50 women are diagnosed with invasive cervical cancer and approximately 20 women die from their disease. Surveillance of cervical cancer and Pap test utilization in Manitoba has confirmed that individuals diagnosed with invasive cervical cancer have not ever had a Pap test or have had significantly fewer Pap tests in the 5 years before their diagnosis (Figure 6).[8]

Figure 6. Percentage of women diagnosed with invasive cervical cancer by time since last Pap test, from January 2011 to December 2013 (n = 123). *Note: more than 5 years includes women who had a Pap test more than 5 years prior to diagnosis, women who had no record of a Pap test, and women whose only Pap test was during the 6 months prior to diagnosis (because this Pap test was likely performed for diagnostic rather than screening purposes).*



Research from around the world shows that organized cervical cancer screening programs like CervixCheck reduce the rates of cervical cancer by:

- Educating the public and HCPs about the importance of regular Pap tests for the prevention of cervical cancer,
- Inviting eligible unscreened clients to participate in screening,
- Reminding eligible clients when they are overdue for a Pap test,
- Informing patients when they have high-grade Pap test results, and
- Sending letters to HCPs and patients when the appropriate follow-up has not occurred for low-grade abnormal Pap test results.

What is a client's role in this program?

A client's role in the program involves participating in her own healthcare by participating in regular cervical cancer screening and recommended follow-up. The client may contact the program to request a copy of a test result or receive information about screening for cervical cancer.

What is the CervixCheck Registry?
The Registry is a central and confidential record of Pap tests and follow-up test results for all eligible Manitobans. It was established in 2001. Personal health information is collected according to the cervical cancer screening regulation of the Public Health Act. The Registry contains:

- the client's name, address and date of birth
- the client's Personal Health Identification Number (PHIN) and Manitoba Medical Number (MHSC)
- the date(s) and results of cervical cancer screening and colposcopy test(s)
- the name, address and provider number of the HCP who did the test(s)
- the name of the laboratory where each test was read
- HPV vaccine information for females age 18 or older (dates and number of doses)
- hysterectomy status (if completed after 1985 and in Manitoba) for females 18-69 years of age
- in-situ cervical cancer, invasive cervical cancer and invasive gynecologic cancer information for all women between 18 and 69 years of age

Who has access to the information in the Registry?

- The individual woman can access her own results
- The HCP who did the Pap test
- A HCP who provides the woman care where a woman's cervical screening history is relevant to the care being provided
- The laboratory that reads the Pap test
- CervixCheck staff involved in the Registry

Everyone who has access to a client's health information is bound by the Personal Health Information Act (PHIA) of Manitoba and has signed a Pledge of Confidentiality.

What does CervixCheck do with the information in the Registry?
The information in the Registry enables CervixCheck to send HCPs and clients letters where appropriate. The Registry allows the program to determine where underscreened communities exist and focus recruitment efforts in those regions. HCPs may also access the screening histories of women in their care in order to facilitate appropriate and efficient screening (see Appendix 2 for a

screening histories request form). CervixCheck also uses information in the Registry to measure the performance of the program.

Can a woman opt out of the CervixCheck Registry?
Yes. To opt out, a client must complete an opt out form available at https://www.cancercare.mb.ca/screening/cervix. A client's HCP will continue to receive test results from the lab, but CervixCheck will no longer collect any Pap test or follow-up test results for the client. As well, letters will no longer be sent to the client or the client's HCP. A client can choose to opt back into the registry by calling the CervixCheck office, however, historical results will not be accessible.

Does a client's HCP continue to communicate with her regarding Pap test results?
Yes, a client's HCP retains responsibility to communicate Pap test results, provide follow-up care and arrange for any medical follow-up procedures. The program does not replace communication requirements between a client and the client's HCP.

Can a client choose not to receive letters from CervixCheck?
Yes, a client can choose not to receive correspondence from the program. A client may in the future want to receive correspondence from CervixCheck.

What kind of correspondence does the program send in the mail?
To follow is a summary chart and more specific detail below the chart for each letter type. Note: Specimen collectors will always receive a lab report for each result.

LETTER TYPE	PURPOSE	TIMING
Patient - Invite	▪ Notify patient they are eligible to be screened for cervical cancer ▪ Encourage patient to make a cervical cancer screening appointment.	Send to patient when they become eligible for cervical cancer screening. Eligibility criteria includes: • Age 24-69 • Existed in the registry for at least 5 years • Manitoba resident with a current MB Health number • No history of a Pap test, colposcopy, gyne cancer, or hysterectomy
Patient – Invite Reminder	▪ Remind patient they are eligible to be screened for cervical cancer ▪ Encourage patient to make a cervical cancer screening appointment.	Send to patient 3 months after initial invite is sent.
Patient - Recall	▪ Notify patient they are due to be screened for cervical cancer ▪ Encourage patient to make a cervical cancer screening appointment.	Send to a patient 36 months after last Pap test or colposcopy result.

LETTER TYPE	PURPOSE	TIMING
Patient – High-Grade Result	▪ Notify patient of their recent high-grade cervical cancer screening result ▪ Encourage patient to contact their healthcare provider to ensure a colposcopy appointment has been made	Sent to patient within 4 weeks of a high-grade Pap test result.
Provider – Repeat Pap test	▪ Notify the healthcare provider (HCP)their patient has not had their repeat Pap test.	Send to HCP: • 6 months after Unsatisfactory result. • 9 months after last ASCUS or LSIL result.
Patient –Repeat Pap test	▪ Notify the patient they are due for a repeat Pap test after a low grade or unsatisfactory result. ▪ Encourage the patient to make a Pap test appointment.	Send to patient 8 weeks after HCP notification letter and no update/response is received.
Provider – Pending 2nd negative	▪ Notify the (HCP) their patient has not yet had their second negative Pap test.	Send to HCP 9 months after last negative result.
Patient – Pending 2nd negative	▪ Notify the patient they are due for a repeat Pap test after a recent low grade or unsatisfactory results.	Sent 8 weeks after HCP notification letter and no update/response is received.

LETTER TYPE	PURPOSE	TIMING
Provider – Pending colposcopy	▪ Notify the HCP their patient has not yet been seen in colposcopy due to persistent low grade or unsatisfactory results. ▪ Encourage HCP to make colposcopy referral if not already done.	Send to HCP: • 6 months after unsatisfactory result • 9 months after last ASCUS or LSIL result.
Patient – Pending colposcopy	▪ Notify the patient they should be seen in colposcopy due to persistent low grade or unsatisfactory results. ▪ Encourage the patient to contact their HCP to ensure a colposcopy appointment has been made.	Send to patient 8 weeks after HCP notification letter and no update/response is received.
Provider – High-Risk HPV (hrHPV) Result	▪ Notify the provider of their patient's recent cervical cancer screening result including the Pap test interpretation and a positive hrHPV test result	Within one week of CervixCheck receiving the result.

LETTER TYPE	PURPOSE	TIMING
Patient – High-Risk HPV (hrHPV) Result	▪ Notify patient of their recent cervical cancer screening result including the Pap test interpretation and a positive hrHPV test result ▪ Encourage patient to contact their healthcare provider to ensure a colposcopy appointment has been made	Sent to patient within 4 weeks of a hrHPV result.

Abnormal Follow-Up (Fail-Safe) Letters

Follow-up or fail-safe letters are correspondence sent by the screening program to health care providers, patients or both to ensure appropriate investigation of abnormal screening results occurs. Correspondence is sent when the appropriate investigation is overdue.

i. **Follow-Up Letters to Primary HCPs:** A letter will be sent to the HCP when the necessary follow-up is not evident within 6 – 9 months.
ii. **Follow-Up Letters to Patients:** A letter will be sent directly to the patient when:
    a. CervixCheck does not receive a response from the provider eight weeks from the date when the follow up letter was generated,
    b. CervixCheck is informed by the provider that the individual could not be located and, hence, has not been informed of the abnormal cervical cancer screening result,
    c. The provider is no longer practicing and the follow up letter to the provider is returned to the program.
    d. The patient has a high-grade cytology result or a high-risk HPV result.

Follow-up letters to patients notify them of their abnormal cervical cancer screening test result and encourage follow-up with their HCP.

High-Grade Result Letters

Result letters are sent directly to patients with a high-grade cytology result test result four weeks after the specimen date to notify patients of their high-grade test result and need for colposcopy. Patients are encouraged to contact their health care provider to arrange an appointment for colposcopy. Information about abnormal results, colposcopy and the importance of cervical cancer screening are also provided in the letter. The specimen taker is still responsible to notify patients of all abnormal cervical cancer screening test results.

High-Risk HPV Result Letters

Result letters are sent directly to patient with a high-risk HPV (hrHPV) test result. Patients are encouraged to ensure their healthcare provider has made them a colposcopy appointment. Information about high-risk HPV and colposcopy are also provided in the letter package.

Invitation Letters
An invitation letter is correspondence from a cervical screening program to a never screened client informing the client about screening and their eligibility to participate in screening. Invitation letters notify clients on their screening status and encourage clients to make an appointment with their health care provider for cervical cancer screening. Information about the importance of cervical cancer screening and where a client may access service are also provided in the letter.

Recall Letters
A recall letter is correspondence from a cervical screening program to a previously screened client to inform the client that they are due for repeat routine screening. Recall letters notify clients on their screening status and encourage clients to make an appointment with their health care provider for a Pap test. Information about the importance of Pap tests and where a woman may access service are also provided in the letter. A phrase translated into several languages is also included.

Recommended Reading

CervixCheck Resources:
https://www.cancercare.mb.ca/screening/resources

Steven, M. (2007). Prevention. *Journal of Obstetrics and Gynecology,* 29(8): S23-S25.

Franco, E.L., Duarte-Franco, E., and Ferenczy, A. (2001). Cervical cancer: Epidemiology, prevention and the role of HPV infection. *Canadian Medical Association Journal*, 164(7):1017-25.

1. Describe human papillomavirus, cervical cancer incidence, precursors, natural history and risk factors. 2. How does CervixCheck operate? 3. Why is the CervixCheck program needed? 4. Who are the most important high-risk groups for HCPs to target?	Chapter 2 Self-Test

References

[1] Canadian Cancer Society's Advisory Committee on Cancer Statistics. Canadian Cancer Statistics 2016. Toronto, ON: Canadian Cancer Society; 2016.

[2] Canadian Partnership Against Cancer. Cervical Cancer Screening in Canada: Monitoring Program Performance January 2011 – December 2013. Toronto: Canadian Partnership Against Cancer, 2016.

[3] Demers, A. et al. (2003). Epidemiology and Cancer Registry, CancerCare Manitoba, 2011.

[4] Insigna, R.P., Dasbach, E.J. & Elbasha, E.H. (2005). Assessing the annual economic burden of preventing and treating anogenital human papillomavirus-related disease in the US: Analytical framework and review of the literature. Pharmacoeconomics. 23: 1107-22.

[5] Manitoba Cervical Cancer Screening Program. (2008). Rates of cervical dysplasia. Manitoba: CancerCare Manitoba.

[6] CervixCheck. (2015). Cervical Cancer Screening in Manitoba: 2012--2014 Report. Manitoba: CancerCare Manitoba.

[7] CervixCheck. (2014). Volume of colposcopy submission report. Manitoba: CancerCare Manitoba.

[8] Centers for Disease Control and Prevention (CDC). Human papillomavirus–associated cancers—United States, 2004–2008. *MMWR* 2012;61(15):258–261.

[9] Kliewer, E. et al. (2009). Twenty-year trends in the incidence and prevalence of diagnosed anogenital warts in Canada. Sexually Transmitted Diseases, 36(6): 380-386.

[10] Dunne, E.F., Unger, E.R., Sternberg, M., McQuillan, G., Swan, D.C., Patel, S.S. & Markowitz, L.E. (2007). Prevalence of HPV infection among females in the United States. JAMA, 297(8):813-819.

[11] Insinga, R.P., Dasbach, E.J. & Elbasha, E.H. (2005). Assessing the annual economic burden of preventing and treating anogenital human papillomavirus-related disease in the US: Analytical framework and review of the literature. Pharmacoeconomics. 23, 1107-22.

[12] Holowaty, P., Miller, A.B., Rohan, T. & To, T. (1999).Natural History of Dysplasia of the uterine cervix. Journal of the National Cancer Institute, 91(3):252-258.

[13] Khan et al., JNCI 2005; Schiffman et al. JNCl, 2011; Thomsen LT*, et al.* Int J Cancer 2015, 137: 193-203.

[14] Schlecht et al. (2003). Human papillomavirus infection and time to progression and regression of cervical intraepithelial neoplasia. Journal of the National Cancer Institute (95):1336-1343.

[15] Schiffman, M. Castle, P.E. (2005). The promise of global cervical-cancer prevention. N Engl J Med. 353(20):2101-4.

[16] Oster et al, 1993; Melnikow, Obstet Gynecol 1998; McCredie, M. et al. Lancet Vol 9 May 2008.

[17] Smith E, Parker M, Rubenstein L, et al. (2010). Evidence for vertical transmission of HPV from mothers to infants. Infect Dis Obstet Gynecol. 2010: 326369.

[18] Park H, Lee SW, Lee IH, et al. (2012). Rate of vertical transmission of human papillomavirus from mothers to infants: Relationship between infection rate and mode of delivery. Virology Journal, 9(80).

[19] Collins, S., Mazloomzadeh, S., Winter, H., Bloomfield, P., Bailey, A., Younge, L.S. et al. (2002). High incidence of cervical human papillomavirus infection in women during their first sexual relationship. Br J Obstet Gynecol, 109, 96-8.

[20] Bosch, F. X., Lorincz, A., Munoz, N., Meijer, C., & Shah, K. (2002). The causal relation between human papillomavirus and cervical cancer. Journal of Clinical Pathology, 55, 244-265.

[21] Koutsky, L. (1997). Epidemiology of genital human papillomavirus infection. The American Journal of Medicine, 102(5A), 2-8.

[22] Shields, T., Brinton, L., Burk, R., Wang, S., Weinstein, S., Ziegler, R., Studentsov, Y., McAdams, M., & Shiffman, M. (2004). A case-control study of risk factors for invasive cervical cancer among U.S. women exposed to oncogenic types of human papillomavirus. Cancer Epidemiology, Biomarkers & Prevention, 13,10, 1574-1582.

[23] International Agency for Research on Cancer. (2005). International handbooks of cancer preve ntion: Cervix cancer screening. Oxford, UK

[24] Auvert B, Sobngwi-Tambekou J, Cutler E, et al. (2009). Effect of male circumcision on the prevalence of high-risk human papillomavirus in young men: results of a randomized controlled trial conducted in Orange Farm, South Africa. J Infect Dis. 199: 14-9.

[25] Tobian AA, Serwadda D, Quinn TC, et al. (2009). Male circumcision for the prevention of HSV-2 and HPV infections and syphilis. N Engl J Med. 360: 1298-309.

[26] Hernandez, B. et al. (2010). Reduced clearance of penile human papillomavirus infection in uncircumcised men. J Infect Dis. 201 (9): 1340-1343.

[27] Wawer MJ, Tobian AA, Kigozi G, Kong X, et al. (2011). Effect of circumcision of HIV-negative men on transmission of human papillomavirus to HIV-negative women: a randomised trial in Rakai, Uganda. Lancet. Jan 15;377(9761):209-18. Epub Jan 6.

Chapter 3: Cervical Cancer Screening Guidelines

Learning Objectives	On completion of this section, the learner will be able to: 1. Identify who should participate in cervical cancer screening and how frequently. 2. Identify who should not participate in cervical cancer screening. 3. Identify who should have increased surveillance.

The cervical cancer screening guidelines in Manitoba are based on the most recent epidemiological data on human papillomavirus (HPV) and cervical cancer and aim to maximize the benefits of screening while minimizing the harms.

Effective March 14, 2022, HPV Triage testing was implemented in Manitoba. Cervical cytology labs in Manitoba began automatically perform high-risk human papillomavirus (hrHPV) testing on the Pap test specimens of women:

- 30 years of age and older with ASCUS Pap test results, and
- 50 years of age and older with LSIL Pap test results.

HPV Triage is used to detect hrHPV genotypes on the Pap test results listed above to determine which patients require colposcopy versus those who can return to routine screening.

Cervical Cancer Screening Eligibility and Interval[1]

It is important to be familiar with the timing and frequency of cervical cancer screening. The following section outlines the cervical cancer screening guidelines for eligible clients in Manitoba.

General Guidelines	
Initiation of screening	• All women and transgender or non-binary individuals with a cervix who are, or have ever had sexual contact (wanted and unwanted) including sexual intercourse, oral and digital skin-to-skin contact involving the genital and/or anal area, or sex with sex toys, should begin screening at 21 years of age. • Women and transgender or non-binary individuals with a cervix who have not had sexual contact by age 21 should delay screening until sexually active.
Routine screening/screening interval	• Every 3 years.
Cessation of screening	• Screening can be discontinued if the client is 70 years and older and has had 3 negative Pap test results in the past 10 years. • Unscreened and/or underscreened clients 70 years of age and older should have 3 consecutive Pap tests, each one year apart. If the results are reported as negative, screening may be discontinued. • Screening can be discontinued after a total hysterectomy as per the guidelines below.

INITIATION OF SCREENING

Background

Infection with human papillomavirus (HPV) is the main risk factor for cervical cancer and is the most prevalent sexually transmitted infection in Canada.[2] 80% of Canadians will have at least one HPV infection within their lifetime. Persistent HPV infections with the same HPV genotype may cause cervical dysplasia, and if left untreated over time, can progress to invasive cervical cancer. Almost all cervical cancers can be traced to oncogenic HPV types; 70% of invasive cervical cancers are caused by HPV types 16 and 18.

The peak incidence of HPV occurs in women under 25 years of age.[3] However, over 90% of HPV infections regress within 24 months without symptoms or intervention.[2 4] It is not clear if "viral clearance" means that an individual's immune system completely eliminates HPV infection or reflects "viral latency" where the amount of virus is reduced to levels undetectable with current diagnostic methods. HPV infections are very common in the lifespan of any individual with a lifetime probability of over 80%.[5] Persistent infection with the same HPV genotype is a necessary risk factor to develop a high-grade cervical precancer abnormality.[6]

It is not clearly understood why HPV infections "resolve" in certain individuals and disease (cervical abnormalities) develops in others. Disease is a rare consequence of this common infection.

When progression occurs, it happens over a long period of time. One study showed that the mean time for progression from LSIL to HSIL was as long as seven years.[7] Approximately 15% of Pap tests in women under the age of 21 in Manitoba will be reported as either low-grade squamous intraepithelial lesion (LSIL) or atypical squamous cells of undetermined significance (ASCUS).[8]

High-grade squamous intraepithelial lesions (HSIL) represent less than 4% of Pap tests in women under the age of 21 in Manitoba.[5] Cervical cancer in young women is very rare. Since 1980, 0.18% of invasive cervical cancers were diagnosed in women under 21.[5] As well, there is a long latent period between exposure to HPV infection and the development of precancerous lesions and invasive cervical cancer. Therefore, delaying the onset of screening young women will still provide the opportunity to detect and treat these lesions if they occur.

Recommendation
Screening should be initiated at 21 years of age for all clients who have ever had sexual contact. Transgender males and females may also need regular cervical cancer screening. Healthcare providers should discuss the benefits and potential harms of screening with their patients.

Some sexually active clients may choose to delay onset of screening until 25 years of age as evidence suggests the harms of screening women 21-24 may outweigh the benefits. The decision to delay should take into consideration patients' values, preferences and beliefs.

Rationale
The harms of screening women under 21 years of age outweigh the benefits.

- Pap tests and follow-up procedures expose young women to anxiety and potential harms.
- Treatments such as loop electrosurgical excisions (LEEP) or cone biopsy procedures potentially impact reproductive performance (preterm delivery, low birth weight, increased caesarean section rate, and premature rupturing of membranes)[9], and may be unnecessary in some women.
- "The emotional impact of labeling an adolescent with both a sexually transmitted infection and a potential pre-cancer must be considered because adolescence is a time of heightened concern for self-image and emerging sexuality."[10]
- Cervical cancer in young clients is very rare. Since 1980, 0.18% of invasive cervical cancers in Manitoba were diagnosed in women under 21.[11] Over time, this rate has remained relatively unchanged.
- Most cytological abnormalities in young women are low-grade and non-oncogenic. 90% will spontaneously regress within 24 months.[12,13]
- The latency period between HPV infection and the development of precancerous lesions and invasive cervical cancer is approximately 7 to 10 years.[14] Delaying the start of screening young clients still provides the opportunity to detect and treat lesions.

Although the Canadian Task Force on Preventive Health Care recommends not routinely screening women aged 20-24, a "weak recommendation is assigned due to the uncertainty of the evidence. Screening may still be minimally effective to reduce cervical cancer incidence in this age group.[15] Initiating screening at 21 years of age is consistent with the recommendation made in

most other Canadian provinces and territories, and is also the recommendation made by the U.S. Preventive Services Task Force. CervixCheck will continue to respond to the evolving evidence to support screening guidelines. If patients are interested in deferring initiation of cervical cancer screening, they should have a discussion with their healthcare provider about the potential harms and benefits.

SCREENING INTERVAL (ROUTINE SCREENING)

Recommendation

In the absence of abnormal cytology, routine screening with Pap tests should be performed every 3 years. Healthcare providers (HCPs) should discuss the benefits and harms of screening with patients.

Rationale

Screening every 3 years maintains the benefits of screening while decreasing the harm from over-screening.

- Shorter screening intervals (1-2 years) do not significantly decrease the incidence of cervical cancer more than screening every 3 years.[16 17 18 19 20] Annual screening significantly increases the number of women who are sent for further tests which increase the harms of screening.
- Most countries recommend a 3-5 year interval.

CervixCheck sends recall letters to clients who are overdue for a Pap test.

The greatest reduction in cervical cancer will be achieved by screening eligible women who have not previously been screened, not by screening women earlier or more often.

CESSATION OF SCREENING

The decision to discontinue screening for clients 70 years and older must take into consideration the individual's screening history.

Screening can be discontinued if a client has had 3 consecutive negative Pap tests in the previous 10 years or one negative hrHPV test result in the previous 5 years.

Clients who are 70 years and older who have never had a Pap test, or are underscreened, should have 3 Pap tests one year apart. If these are reported as negative or the patient has a negative hrHPV test result, cervical cancer screening may be discontinued.

The recommendation to discontinue screening in clients 70 years and older is based on evidence that:

- clients with multiple prior consecutive negative cytology or one negative hrHPV result are at low risk for cervical cancer, and
- false positive cytology results incurred from mucosal atrophy in post-menopausal women produces potentially unnecessary follow-up and anxiety in this population.[21]

When providing service to clients 70 years and older, HCPs should:

- obtain a thorough health history to determine whether or not Pap tests are still warranted, and
- provide education about the benefits and risks of continuing to be screened past 69 years of age.

INDIVIDUALS WHO HAVE NEVER HAD SEXUAL CONTACT

If the HCP determines that an individual has never had sexual intercourse or skin-to-skin contact of the anus, genitals or mouth, the HCP should focus on educating them about the benefits of regular screening once they do become sexually active. The decision to start screening should be mutually agreed upon between the patient and HCP.

HPV transmission occurs through sexual intercourse as well as through skin to skin genital contact. Sexual activity includes oral sex, sex with fingers or hands, genital rubbing and sex with sex toys. HCPs should be sensitive to circumstances where sexual abuse may have occurred and may prevent a client from discussing, remembering or defining sexual activity as such.	Important Information

CLIENTS WHO HAVE HAD THE HPV VACCINE

All clients who have ever been sexually active and have received an HPV vaccine should begin routine screening at age 21. Routine screening should occur every 3 years.

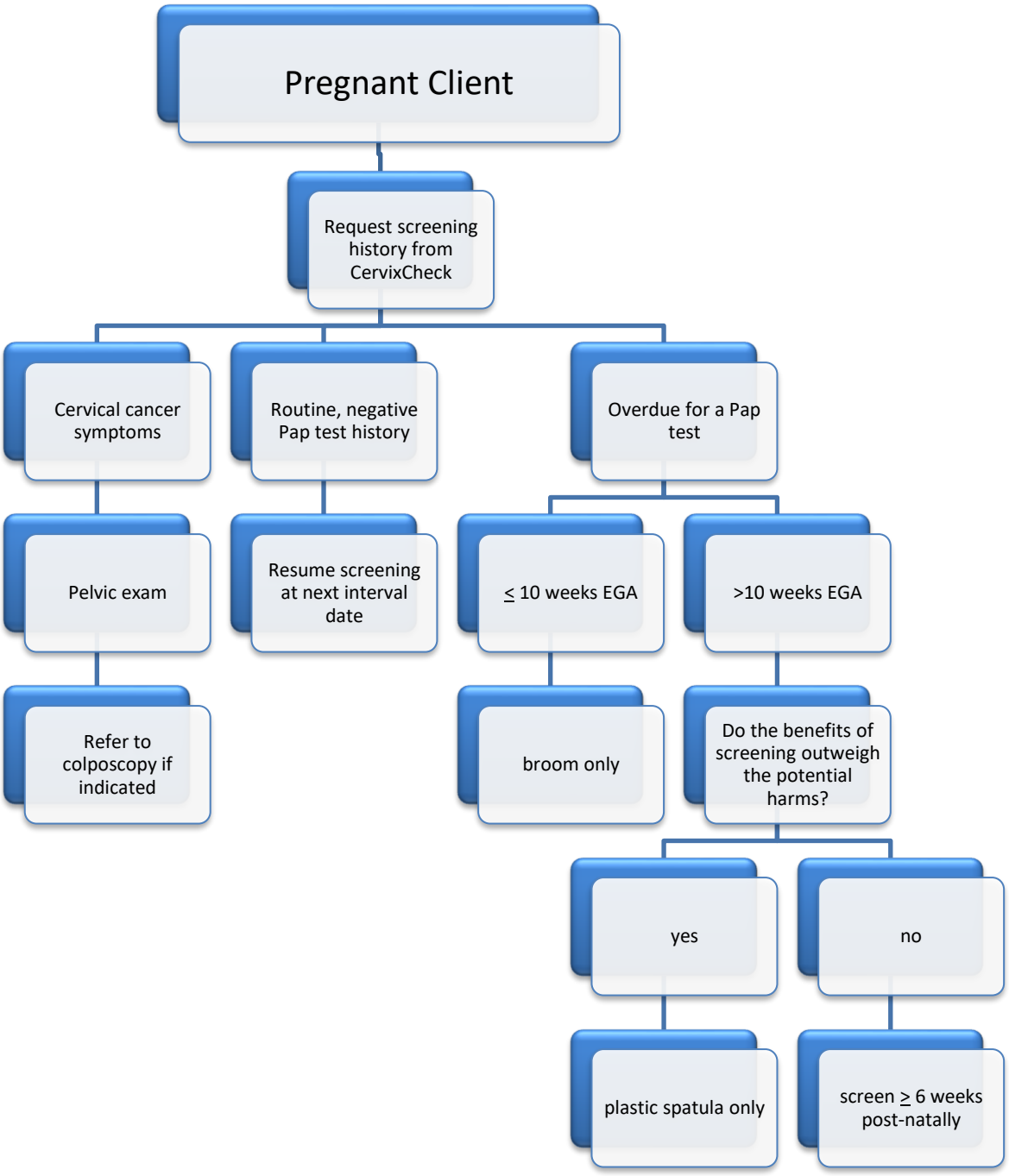
CLIENTS WHO ARE PREGNANT

Screening during pregnancy may produce a significant number of false positive results. Screening pregnant clients is unnecessary if they have had routine negative Pap tests (screening histories can be obtained from CervixCheck). If a pregnant client has any symptoms of cervical cancer, including abnormal bleeding, a speculum exam is appropriate (with or without Pap as indicated). Refer to colposcopy as indicated.

If the HCP determines a Pap test may be necessary due to the client's screening history:

- Aim to screen during the first 10 weeks of pregnancy.
- If the client is over 10 weeks pregnant, the benefits of screening should outweigh the potential harms.
- Only the broom should be used in women who are 10 or less weeks EGA.
- Only the plastic spatula should be used in women who are more than 10 weeks EGA.
- The cytobrush is contraindicated in pregnancy.

Where a pregnant client's history is suggestive of cervical cancer the client should be examined. If a visual abnormality is present the client should be referred to colposcopy.



***The cytobrush is contraindicated during pregnancy.**

CLIENTS WHO HAVE HAD A HYSTERECTOMY

Screening of the vaginal vault (broom or spatula) is unnecessary if the client meets all of the following conditions:

- They have had a total hysterectomy (as opposed to a subtotal hysterectomy)
- Hysterectomy was performed for a benign disease (pathology negative for high-grade dysplasia)
- They have had no previous high-grade dysplasia results

If no previous Pap test record is available and/or no pathology is available from the hysterectomy specimen, the client should have 2 consecutive, negative vault results 1 year apart before discontinuing screening.

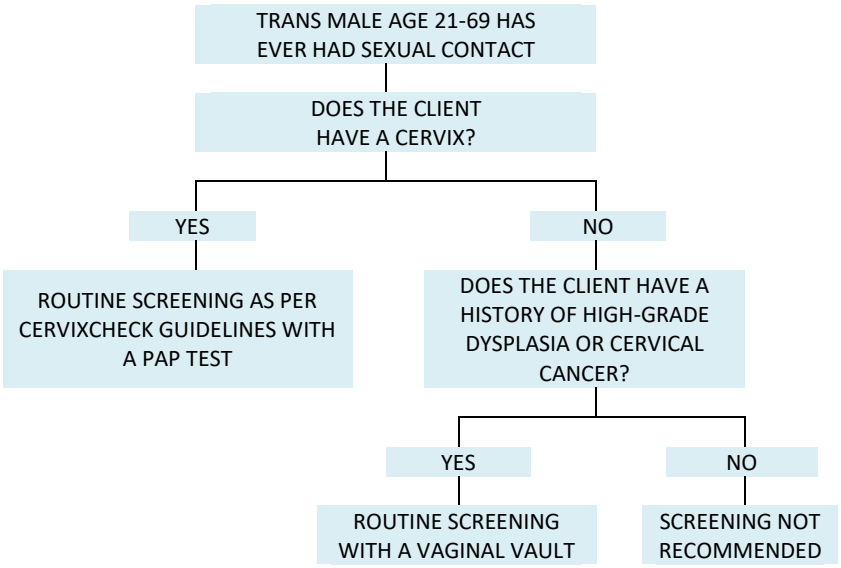
LESBIAN WOMEN OR WOMEN WHO HAVE SEX WITH WOMEN (WSW)

Lesbian women and WSW have a lower incidence of HPV and invasive cervical cancer. Nevertheless, this population is still at risk. Screening for cervical cancer among lesbian women and WSW should be consistent with screening guidelines for women who have sex with men; screening should occur every 3 years (routine screening).

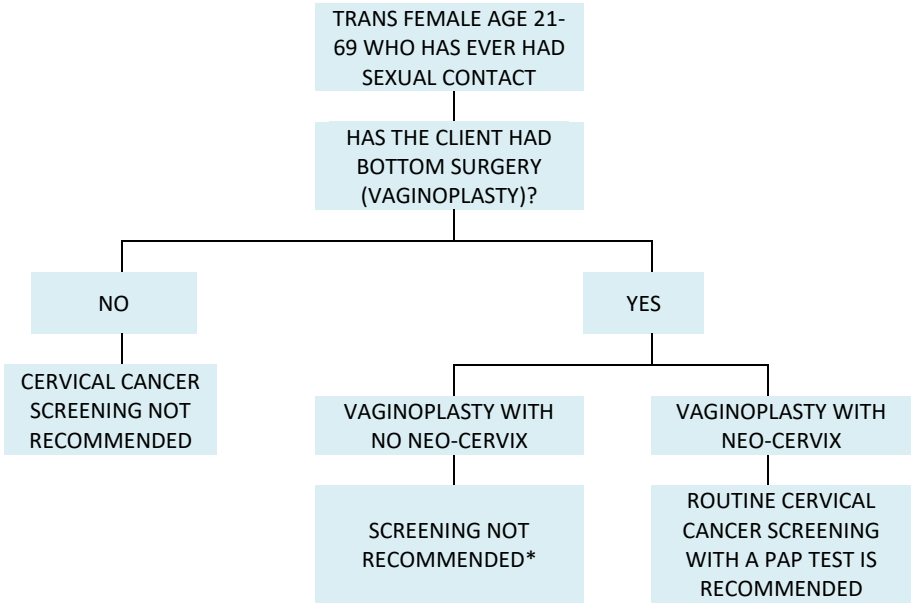
THE TRANSGENDER OR NON-BINARY CLIENT

Screening the transgender client may be necessary. A careful health history should be taken by the HCP to determine if the HCP should proceed with cervical cancer screening, and if so, with a vault smear or a conventional Pap test. Routine screening should occur in the following scenarios:

TRANSGENDER OR NON-BINARY MALE



TRANSGENDER OR NON-BINARY FEMALE



*See the Guidelines for Gender-Affirming Primary Care with Trans and Non-Binary Patients (Sherbourne Health) for more information about visual inspection with speculum.

CLIENTS WHO REQUIRE INCREASED SURVEILLANCE

The following outlines patient characteristics that warrant increased surveillance and provides management recommendations for each of these characteristics.

Patient Characteristics	Management
Recent abnormal Pap test result	Follow up as per the CervixCheck Screening Guidelines "Management of Results"
***Previous high-grade cervical pathology result (≥HSIL/CIN2/moderate dysplasia)**	Screen every year *once discharged from colposcopy*. Screen annually until client meets the criteria to discontinue as per the CervixCheck Screening Guidelines.
Immunosuppressed or HIV positive. Immunosuppression is: ○ CD4 count of < 400 in HIV-positive women, or ○ Transplantation with immunosuppressive therapy > 3 years	Screen every year **All** cytological abnormalities (including low-grade lesions) should be referred to colposcopy
Exposure to diethylstilboestrol (DES)[22] in utero	Screen every year with cytology and colposcopy of cervix and vagina
Previous endometrial cancer	Screening can be discontinued following a complete hysterectomy if patient has no history of high-grade cervical histopathology prior to cancer
Previous ovarian cancer	Screening can be discontinued following a complete hysterectomy if patient has no history of high-grade cervical histopathology prior to cancer
Previous cervical or vaginal cancer	Continue screening annually for as long as the client is biologically healthy

*Cervical **histopathology** specimens have historically been reported using a variety of terminology systems. Squamous abnormalities have generally been reported using terms including “dysplasia”, “cervical intraepithelial neoplasia” (CIN) and “squamous intraepithelial lesions”. Recently, the Pan-Canadian Cervical Screening Network (Canadian Partnership Against Cancer) reported on and published Canadian consensus statements for reporting on histopathology specimens from the cervix and vagina[23]. Manitoba cytology labs have adopted these consensus statements. The following table provides the current cervical histopathology nomenclature, and correlates it to previous reporting terminology.

Cervical histopathology nomenclature correlations

Dysplasia terminology	CIN terminology	2014 Consensus Statements (current)
Normal	Normal	Negative
Mild dysplasia	CIN 1	Low-grade squamous intraepitheleal lesion (LSIL)
Moderate dysplasia	CIN 2	High-grade squamous intraepitheleal lesion (HSIL)
Severe dysplasia	CIN 3	
Carcinoma in-situ	CIN 3	
Dysplasia NOS	CIN NOS	Squamous intraepitheleal lesion (SIL), Ungraded
Adenocarcinoma in-situ (AIS)		High-grade adenocarcinoma intraepithelial lesion
Invasive carcinoma	Invasive carcinoma	Superficially Invasive Squamous Cell Carcinoma (SISCCA)
		Invasion

PREVIOUS HIGH-GRADE CYTOLOGY RESULTS: WHAT'S THE RECOMMENDED INTERVAL?

In the colposcopic management of high-grade (ASC-H/HSIL) or persistent low-grade Pap test results, a sample of cervical tissue (biopsy) is typically obtained to confirm the diagnosis. A significant proportion of histology outcomes, however, do not correlate with the cytology result. The following provides management recommendations for Pap test results that were over-called (the cytologic impression was more severe than the histological diagnosis), under-called (the cytologic impression was less severe than the histological diagnosis), not correlated (no histological diagnosis is available), or correlated (the cytological impression correlated with the histological diagnosis).

Once discharged from colposcopy, and in the absence of a history of high-grade histopathology results, patients should be routinely screened every 3 years.

Cytology result (Pap test)	Histology result (biopsy/ECC)	Recommended screening interval
High-grade (ASC-H/HSIL)	≤Low-grade squamous intraepithelial lesion (Negative/LSIL/mild atypia/CIN 1)	Every 3 years once discharged from colposcopy.
High-grade (ASC-H/HSIL)	≥High-grade squamous intraepithelial lesion (HSIL/CIN 2/CIN 3/AIS/SISCCA*)	Every year once discharged from colposcopy. There is no evidence to support how long annual screening should continue. Discontinue screening once the patient reaches the criteria for cessation as per the CervixCheck guidelines.
High-grade (ASC-H/HSIL) that is not necessarily connected to the current biopsy event, i.e. a high-grade result in the past that has no existing biopsy related to the event.	≤Low-grade squamous intraepithelial lesion (Negative/LSIL/mild atypia/CIN 1)	Every 3 years once discharged from colposcopy (the client may have been pregnant and not referred for colposcopy until result was explored post postpartum, the Pap test may have been overcalled).
High-grade (ASC-H/HSIL)	No biopsy/histopathology	There is no evidence to support a recommended interval. A very conservative approach would be to screen every year. The clinician may consider extending the interval after a few years if all results are negative. This decision should be made in consultation with the client and align with their values and preferences.
High-grade (ASC-H/HSIL)	Cervical cancer	After treatment for cervical cancer, clients should continue screening annually as long as they are biologically healthy. The age of screening cessation for those with a history of cervical cancer is not well defined.

*Superficially Invasive Squamous Cell Carcinoma

PREVIOUS HIGH-RISK HPV TEST RESULT:
WHAT'S THE RECOMMENDED INTERVAL?

The screening interval is dependent on the histopathology result, not the high-risk HPV result or the Pap test result.

Key Messages for Healthcare Providers

- 90% of HPV infections will spontaneously regress within 2 years.
- High grade lesions and cervical cancer are very rare in young clients under 21 years of age.
- There is a long latent period between exposure to the HPV infection and the development of precancerous lesions and invasive cervical cancer.
- Annual screening offers little benefit over screening performed at 2 to 3 year intervals and exposes clients to unnecessary risks and anxieties.
- Pap test sensitivity is 51% and specificity is 98%.
- High-risk HPV testing is 89.9% sensitive and 89.9% specific for CIN2+ results.[24]

Benefits & Potential Harms of Cervical Screening: Facilitating Informed Decision-Making

The CervixCheck screening guidelines aim to ensure clients receive the greatest benefit from cervical cancer screening and avoid unnecessary tests. This balance is achieved when we can identify cervical cancer precursors likely to progress to invasive cancer (**maximizing the benefits)**, and avoid the detection and unnecessary treatment of transient HPV infection and its associated benign lesions that are not destined to become cancerous (**minimizing the potential harms**).

HCPs should facilitate a discussion with clients about the benefits and harms of screening with Pap tests. The goal of the client-HCP discussion is to:

- foster an **understanding** of the Pap test, its benefits and potential harms, and
- support **client participation** in the clinical decision; one that is **informed** and consistent with the individual's **preferences and values.**

For example, a 21 year-old female who only recently became sexually active is very anxious about her first Pap test. After reading a brochure about cervical cancer, she realizes her risk for developing cervical cancer at her age is very low. She wonders if she needs to be screened this year given that this is the recommendation, but her fear about the test continues to make her very anxious.

A discussion between the HCP and the patient would highlight the individual's fears and anxieties about the Pap test, as well as the individual's recent onset of sexual activity. With these factors under consideration, and after a discussion about the benefits and harms of screening with the Pap test, the HCP and client decide together to delay screening for another year. In the meantime, the HCP provider will continue to educate and counsel them about the Pap test, ensuring that when the time comes for the first Pap test, they are informed and feel ready to perform the procedure.

CervixCheck can support you to discuss the benefits and harms of Pap tests with patients. See the Manitoba Cancer Screening Guidelines for more information about benefits and potential harms.

The following chart outlines the benefits and potential harms of screening with the Pap test.

Benefits	Potential Harms
• Observational data have shown declines of up to 80% in cervical cancer mortality following introduction of organized screening with Pap tests • Cervical dysplasia can be removed with procedures during colposcopy • Detecting cancer at an early stage may result in simpler treatment, more treatment options, and less need for chemotherapy	• False positives • False negatives • Screening and follow up may cause anxiety • Discomfort or bleeding may result from the Pap test or colposcopy • Treatment with cold knife conization and large loop excision of the transformation zone (LLETZ) may increase a woman's risk for pre-term delivery, low birth weight, caesarean section, and premature rupturing of membranes during future pregnancies

	Recommended Reading

CervixCheck Resources (cancercare.mb.ca/screening/resources)
CervixCheck Screening Guidelines
HPV Triage – Information for Healthcare Providers
Human Papillomavirus (HPV) Frequently Asked Questions (for patients)

1. Who should have a Pap test and how frequently? 2. Describe the screening guidelines for pregnant women. 3. What are the requirements for not screening the vaginal vault after a hysterectomy? 4. Who should be excluded from Pap tests? 5. Who should be screened with increased surveillance?	Chapter 3 Self-Test

References

1 CervixCheck, CancerCare Manitoba. 2013). Screening guidelines. Manitoba: CancerCare Manitoba.

[2] Insinga, R.P., Dasbach, E.J. & Elbasha, E.H. (2005). Assessing the annual economic burden of preventing and treating anogenital human papillomavirus-related disease in the US: Analytical framework and review of the literature. Pharmacoeconomics. 23, 1107-22.

[3] Dunne, E.F., Unger, E.R., Sternberg, M., McQuillan, G., Swan, D.C., Patel, S.S. & Markowitz, L.E. (2007). Prevalence of HPV infection among females in the United States. JAMA, 297(8):813-819.

[4] Holowaty, P., Miller, A.B., Rohan, T. & To, T. (1999).Natural History of Dysplasia of the uterine cervix. Journal of the National Cancer Institute, 91(3):252-258.

[5] Koutsky, L. (1997). Epidemiology of genital human papillomavirus infection. The American Journal of Medicine, 102(5A), 2-8.

[6] (Khan et al., JNCI 2005; Schiffman et al. JNCl, 2011; Thomsen LT, *et al.* Int J Cancer 2015, 137: 193-203)

[7] Schlecht et al. (2003). Human papillomavirus infection and time to progression and regression of cervical intraepithelial neoplasia. Journal of the National Cancer Institute (95):1336-1343.

[8] Manitoba Cervical Cancer Screening Program. Statistical Report. Retrieved January 8th, 2010.

[9] Kyrgious, M., Koliopoulos, G., Martin-Hirsch, P., Arbyn, M., Prendville, E., Paraskevaidis, E. (2006). Obstetric and fertility outcomes after conservative treatment for intraepithelial or early invasive cervical lesions: A systematic review and meta-analysis of the literature. Lancet, (367):489-98.

[10] American College of Obstetrics and Gynecologists. (2009). Clinical management guidelines for obstetrician-gynecologists, Cervical Cytology Screening, (109):1409-1420.

[11] CervixCheck, CancerCare Manitoba. Statistical Report. Retrieved January 8th, 2010.

[12] Dunne, E.F., Unger, E.R., Sternberg, M., McQuillan, G., Swan, D.C., Patel, S.S. & Markowitz, L.E. (2007). Prevalence of HPV infection among females in the United States. JAMA, 297(8):813-819.

[13] Holowaty, P., Miller, A.B., Rohan, T. & To, T. (1999).Natural History of Dysplasia of the uterine cervix. Journal of the National Cancer Institute, 91(3):252-258.

[14] Schlecht et al. (2003). Human papillomavirus infection and time to progression and regression of cervical intraepithelial neoplasia. Journal of the National Cancer Institute (95):1336-1343.

[15] Popadiuk, C. et all (2012). Invasive cervical cancer incidence and mortality among Canadian women aged 15-29 and the impact of screening. Journal of Obstetrics and Gynaecology Canada. 34(12): 1167-1176.

[16] Screening for squamous cervical cancer: duration of low risk after negative results of cervical cytology and its implication for screening policies. IARC Working Group on evaluation of cervical cancer screening programs. Br Med J 1986;293:659–64.

[17] Sawaya, G.F. Brown, A.D., Washington, A.E. & Garber, A.M. (2001). Clinical practice. Current approaches to cervical cancer screening. New England Journal of Medicine, (344):1603-7.

[18] Eddy, D.M. (1987). The frequency of cervical cancer screening. Comparison of a mathematical model with empirical data. Cancer, (60):1117–22.

[19] Sasieni, P., Adams, J., Cuzick, J. (2003). Benefit of cervical screening at different ages: Evidence from the UK audit of screening histories. Br J Cancer, (89):88–93.

[20] World Health Organization. International Agency for Research on Cancer. IARC handbooks of cancer prevention: cervix cancer screening. Vol 10. Lyon: IARC Press; 2005.

[19] Sawaya, G.F. Grady, D., Kerlikowske, K., Valleur, J.L. Barnabei, V.M. Bass, K. et al. (2000). The positive predictive value of cervical smears in previously screened postmenopausal women: The heart and estrogen/progestin replacement study (HERS). Ann Intern Med, 133, 942-50.

[22] Australia National Screening Program. Taken from the Management Summary Sheet on May 7, 2013. http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/cv-management-kit/$File/mgmt-summary.pdf

[23] Dr. C. Meg McLachlin on behalf of the Pan-Canadian Cervical Screening Initiative Working Group (2014). "Reporting on histopathology specimens from the cervix and vagina: consensus statements from the Pan-Canadian Cervical Screening Initiative. Canadian Journal of Pathology, Winter 2013-2014.

[24] Koliopoulos G, Nyaga VN, Santesso N, Bryant A, Martin-Hirsch PPL, Mustafa RA, Schünemann H, Paraskevaidis E, Arbyn M. Cytology versus HPV testing for cervical cancer screening in the general population. Cochrane Database of Systematic Reviews 2017, Issue 8. Art. No.: CD008587. DOI: 10.1002/14651858.CD008587.pub2. Accessed 30 June 2021.

Chapter 4: Counseling and Education

Learning Objectives	On completion of this section, the learner will be able to: 1. Describe reasons why an eligible client may not want to obtain a Pap test. 2. Describe communication and counselling strategies that are important to consider before, during and after a Pap test.

Clients have different reactions to having a Pap test. Some are quite calm and relaxed, while others are extremely apprehensive, embarrassed or fearful and find the examination very uncomfortable. Past experiences with pelvic exams, comfort with one's body and sexuality, and the attitudes and behaviors of the HCP during an exam can all affect a client's level of anxiety during a Pap test.[1]

Reasons why an eligible client may not want to obtain a Pap test:

- Lack of information and understanding of Pap test
- Fear of the test
- Fear of cancer
- Fear of pain
- Embarrassment
- Modesty
- Lack of access to HCP
- One or more negative experiences
- Religious, cultural and/or social factors
- Inability to understand an invitation to participate in Pap test clinic because:
  - It is in a language they do not understand
  - They are unable to read and/or write in their own language
  - Due to education level they are unable to understand relevance and importance
- Difficulty in communicating with some HCPs
- History of assault or trauma
- Lack of childcare facilities
- Accessibility issues
- Other peoples' attitudes regarding the Pap test (i.e. partner, family, religious leaders)[2]

To make the Pap test a positive experience, it is important that the HCP performing the Pap test talk to the client before, during, and after the exam in a level of language that is understandable to the client. The HCP should have a non-judgmental, gentle, sensitive, and caring attitude and create an atmosphere of trust, privacy, and respect. Communication is important. A good HCP-client relationship will help the client to relax, reduce their anxiety, enhance their learning, and decrease their discomfort. Give the client control of the situation.

Chaperones

To understand the recommendations surrounding intimate exams in a clinical setting, HCPs in Winnipeg should review the Winnipeg Regional Health Authority's Primary Care Practice Guideline, "Patient Chaperones in Primary Care Clinics", Guideline Number: PCPG8.

HCPs practicing outside of Winnipeg should refer to their clinic or region policy regarding the presence of a chaperone or attendant during the Pap test examination.

Before the Exam[1]

- Introduce yourself to the client before they change for the exam. Meeting them before the exam when they are dressed and sitting, as opposed to lying in the lithotomy position in a gown, will help them to feel less vulnerable and more in control of the situation.

- Use open-ended questions to assess the client's learning needs. For example, "what have your friends told you about Pap tests?" or "what has been your experience with your previous Pap tests?"

- Explore sexual and reproductive issues. For example, you could ask, "how do you protect yourself against sexually transmitted infections?"

- Listening is important. Focus on the client's feelings, fears and concerns, and dispel any myths. Never talk down to the client. Be sure to acknowledge each concern seriously and professionally.

- Explain each of the following in simple, concise lay terms:
  - Female anatomy
  - Optional positions for the exam (e.g., Lithotomy, M-Shaped, Knee-Chest Position – see Chapter 8 for a brief explanation of each position)
  - Purpose of the exam
  - Instruments
  - Procedure (external, speculum exam and Pap test)
  - Length of procedure and sensations (pressure, mild cramps, no pain) experienced during the Pap test
  - That there may be some minor painless spotting a day or two following the Pap test

- Tell the client that you will tell them what you are going to do before you do it and that if they feel any pain or anxiety at any time during the Pap test that you will stop what you are doing until they feels more comfortable. If the client cannot speak, suggest that they raise a hand to indicate to stop the exam.

- Use language that is consistent with the client's developmental age and educational level.

- Visual aids can benefit some clients. Show the client a speculum and how it will be inserted into the vagina to visualize the cervix and a wooden spatula and cytobrush. Allow them to handle the speculum if desired. Give the client written information on Pap tests. Consider using the CervixCheck Image Gallery to explain the test.

- Assess the client's need or desire for a chaperone. The presence of a chaperone during these procedures may comfort the client and protect them and the HCP from physical, emotional, or legal problems. Inform the client of relevant chaperone policy pertaining to your facility or region. The HCP can offer the client the option of bringing a friend into the examination, however, the chaperone would also need to be present in these circumstances.

- Ensure privacy. Make sure that the drapes and the door to the exam room are closed.

During the Exam[1]

- Create an environment that is comfortable. Ask the client if they would like the head of the exam table raised. Provide reassurance throughout the exam.

- Tell the client what you are going to do before you do it, e.g. “I am now going to examine the outside of your labia.”

- Reinforce to the client that if at any time they feel uncomfortable, you will stop the test.

- Avoid comments that may have sexual overtones, such as “spread your legs, dear.” “I am going to stick it in now” and “I am coming out now.” Be aware that the word “touch” is often associated with physical intimacy, and should be avoided being used by the HCP. Avoid referring to the size of the speculum.

- Offer the client a mirror to visualize what you are doing and to learn about their anatomy. Emphasize normal anatomical structures.

- Normalize the client’s feelings and experience. Ask them “How are you feeling about coming to have your Pap test today?” If the client indicates feeling nervous or embarrassed the HCP can normalize their feelings and discuss the root of their concerns.

After the Exam[1]

This is a great opportunity to reinforce learning and to answer any questions that the client may have. Ask the client to sit up on the exam table and if time permits, inform the client that you will leave the room while the client gets dressed and that you will return in a few minutes to discuss follow-up. If time does not permit, proceed to summarize and discuss the exam findings with the client. Discuss any concerns or findings that may need follow-up by another HCP or any specialist referral.

HCPs need to be aware of their individual scope of practice and when consultation is required. All abnormal findings need to be investigated appropriately or referred to a specialist.	Important Information

- Indicate how the woman will receive the Pap test results. Pap test results usually go to the Pap test provider for any necessary follow up. It is the Pap test provider's responsibility to ensure processes are in place at their facility for normal and abnormal results, referrals etc. Clients should be encouraged to contact their HCP and/or CervixCheck for results. A woman can request her own cervical cancer screening history on the CervixCheck website at https://www.cancercare.mb.ca/screening/cervix

- Elicit and respond to the client's questions and provide written information and instructions as appropriate. Provide the client with relevant CervixCheck resources to reinforce learning.

	Recommended Reading

CervixCheck Resources

The College of Physicians and Surgeons of Manitoba
Standards of Practice of Medicine By-Law #11, page 10

The Winnipeg Regional Health Authority
Primary Care Practice Guideline: Patient Chaperones in Primary Care Clinics
Guideline Number: PCPG8

1. Why might an eligible client not want to obtain a Pap test? 2. What communication and counselling strategies are important to consider before, during, and after conducting a Pap test?	Chapter 4 Self-Test

References

[1] Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program. (2000). Pap Testing and Bimanual Exam. Adapted with permission.

[2] National Health Services Cervical Screening Program. (1998). Resource pack for training smear takers. United Kingdom.

Chapter 5: Facilitating an Inclusive Environment

Learning Objectives	On completion of this section, the learner will be able to: 1. Identify the special learning, counseling and communication needs of specific groups.

Barriers to Access

Since its introduction more than 50 years ago, the use of the Pap test for cervical cancer screening has resulted in significant reductions in mortality from the disease. However, improvements in screening participation rates have started to decline in the last five years and reductions in death from cervical cancer have plateaued across Canada. Health promotion and recruitment research demonstrates that multiple initiatives are necessary to reach the various population groups in terms of age, culture, and ease of access to health care services. Effective recruitment strategies have included media campaigns, increased training for physicians, expansion of nurse roles to increase providers of service, and letters of recruitment from physician offices and organized screening programs. While these initiatives demonstrate improvements in recruitment of women for cancer screening services, there remain those who are hard to reach given any health promotion strategy.

Evidence shows that those least likely to participate in cervical cancer screening include individuals over the age of 50, those living in rural communities, those identifying as First Nations, Metis, or Inuit,, new immigrants to the province, and those identifying as minorities.[1][2][3][4][5] Such groups have consistently remained the hardest to reach by health promotion and recruitment campaigns for cervical cancer screening, and can experience inequities in access to health care services and screening reinforcement by their HCP.

Traditional barriers impacting participation in cervical cancer screening are reflected in personal attitudes and barriers to cancer screening. These attitudes include perceived cancer susceptibility, ethnicity, age, low socioeconomic status, and perceived benefits and discomfort of screening and treatments.[6] Recommendations for education and promotion of cancer screening behaviours reflect multifactorial and multimodal measures to combat attitudes of non-adherence and non-compliance.

A significant challenge to organized screening programs is overcoming barriers in reaching unscreened and underscreened populations. Combining access to

health services with a tailored, mass media campaigns have shown an increase in cervical cancer screening participation rates among those hard to reach (please refer to Chapter 12: Pap Test Access). Educational information offered in culturally specific languages also increases the success of awareness and service-oriented education campaigns.[7]

Lesbian Clients, WSW and Transgender and Non-Binary People[8 9 10]

Clients who identify as lesbian, women who have sex with women (WSW), or transgender and non-binary are a largely underscreened population in Manitoba. This is often due to a combination of the following reasons:

- A misunderstanding by the HCP and/or the client about whether cervical cancer screening is recommended
- Poor representation or engagement by HCPs with lesbian, transgender, and non-binary individuals in their community
- Homophobic attitudes and heterosexist assumptions reflected
  - by the HCP
  - in the clinic setting
  - on the intake forms
  - during the health history by the HCP

The Transgender and Non-Binary Client
Due to social stigmatization and transphobia, transgender and non-binary individuals lack access to primary medical services and preventative health care. Screening for cervical cancer may be necessary in this population. An atmosphere of privacy, trust and respect should be facilitated by the HCP.

Lesbian Clients and WSW[9]
Lesbian clients and WSW are a subgroup that cut across all ages, races, social classes, and ethnic barriers. Lesbian clients can be isolated in society because of homophobia. Many lesbian clients avoid health care interactions because of fear of discrimination.[11] To provide a positive health care experience for lesbian clients, it is important for the HCP to be aware of their unique health care needs.

Lesbian clients and WSW have fewer Pap tests than heterosexual women.[12] They also have a low incidence of sexually transmitted infections (STIs), vaginal infections, and cervical intraepithelial neoplasia (CIN). Nevertheless, they are still at risk, because:

- lesbian clients or their partners may have had consensual or non-consensual intercourse with men at some time (e.g. 77% of lesbians have one or more lifetime male sexual partners).[13]
- HPV in lesbian clients may be as prevalent as it is in heterosexual clients.

Screening for cervical cancer among lesbian clients should be consistent with the screening guidelines and practices recommended for heterosexual clients.

Intake Forms

Intake forms should:

- enable the client to identify their sexual orientation/identity in a way that represents their experience. For example,

INSTEAD OF….	USE…
❑ male ❑ female	Gender: _____

During the Health History

- Ensure confidentiality.
- Use gender-neutral language.
- Facilitate an open dialogue about the client's sexual orientation, sexual practices and gender identity.
- Approach the client with empathy.
- Attempt to create a positive rapport and atmosphere of trust.
- Do not make assumptions about the client.
- Ask if the client has had:
  - a Pap test before and if the experience was positive.
  - penetrative sex to gauge a person's comfort during the test.[14]
- Avoid miscommunication by asking for clarification about concepts and terms when unfamiliar, without implying that the trans person needs to provide you with an education session.[15]
- Consider the trans person's biological sex at birth, identify what anatomy exists and approach/treat accordingly.

- Understand that:
  - sexual reassignment surgery is not necessarily the end goal for trans people, and
  - trans clients may or may not pursue a variety of different medical interventions.

A note about language…
Changing the language we use is a simple way to create a safer, more inclusive environment. There is no perfect language to describe every person's gender identity, but there are some general terms that aim to provide affirmation of a person's state of alignment between their gender assigned at birth and current gender identity.

Transgender A person who experiences a state of incongruence between the gender they were assigned at birth and their current gender identity. For example, a transgender male was assigned a female gender at birth, but currently identifies as a male.

Cis gender A state of alignment between the gender identity assigned at birth and their current gender identity.

Using language that lessens the gender-izing a person can help clients feel more accepted. For example, instead of using the term:

boy/girlfriend	use	partner
vagina	use	genital opening
menstruation	use	bleeding
vulva	use	external pelvic area
panties	use	underwear
Pap test	use	cancer screening
him/her	use	they

During the Pap Test
The presence of a chaperone or attendant may comfort the client. Inform the client of relevant chaperone policy pertaining to your facility or region.

- Ask "What would be helpful for you during this test?"
- Many trans men who are taking testosterone will have a less lubricated vagina. Lubricate the speculum with warm water prior to Pap test.

Vaginal atrophy onset typically occurs at 3-6 months after initiating testosterone hormone therapy and peaks at 1-2 years.[16]

- Proceed with as much of the Pap test as the client is comfortable with
- Ensure any hormone therapy is noted on the cytology requisition form as it will impact how the cytotechnologist reads the specimen[17]

Access

As HCPs, there are several things that you and your staff can do to create a welcoming atmosphere for lesbian and transgender or non-binary clients. These include:

- featuring:
    - signs, symbols and imagery of lesbian, gay, bisexual, transgender and two-sprit (LGBTT) people on the door of the clinic, in clinic windows and inside the clinic (rainbow sticker, pink triangle, posters, campaign acknowledgement)
    - distributing educational information specific to the LGBTT clients in your clinic
    - media that positively reflect LGBTT people
- providing gender neutral washrooms and change facilities
- posting a visible statement that communicates your intentions as a clinic to provide equal service to the LGBTT communities and other marginalized populations
- encouraging staff and administration to partake in professional development and capacity building workshops that specifically address the issues and barriers of LGBTT people

Clients with a History of Sexual Abuse

A Canadian study demonstrated that a history of sexual abuse may be associated with subsequent cervical cancer risk factors such as smoking, sexual intercourse at a young age, etc.[18] Approximately 30% of all women have experienced some form of sexual abuse in childhood or adolescence.[19]

Some clients who are survivors of sexual abuse are very anxious about having a Pap test and may respond differently than those who have not suffered trauma.

To learn more about creating a trauma-informed cancer screening experience, visit Klinic Community Health Centre's Trauma-Informed Toolkit.

Ensure the client has the opportunity to be referred to a counselor. Check with your region or facility policy and/or procedure manual for direction on follow-up and referral of clients with a history of sexual abuse.	Important Information

Counseling and Education

During the Speculum and Pap Test
Some clients don't recall or have suppressed knowledge of childhood sexual abuse. This may impact client comfort level without the ability to articulate why. Provide support and encourage the client to articulate feelings in a safe environment.

Give the Client Control of the Situation
Ask the client what would be helpful to make the Pap test easier. Give the client choice about positioning for the test and reassure them that the test can be stopped at any point. The presence of a chaperone or attendant may comfort the client depending on the chaperone policy pertaining to your facility or region.

Talk the Client through the Exam
Ask the client to communicate to you about the test experience while it is occurring. Tell the client what you are going to do before you do it and provide reassurance. The phrases "let your knees go out to the side" or "let the muscles in your thighs go soft" are appropriate. The HCP may have to further

review how to relax the muscles. If this doesn't work and the client is so tense that it is difficult to insert the speculum, it may be best to stop the exam and defer it for another time. On a subsequent visit, remind the client that although the exam may be a reminder of the abuse, it is not the abuse, and the procedure may be difficult but that the HCP will proceed at the client's pace.[20]

If the client experiences a flashback during the Pap test:

- reassure the client that you believe her
- reassure the client of safety
- reassure the client that although she is re-experiencing the memories she is not re-experiencing the event
- examine the client only with permission
- ask the client specific questions related to the present to help ground the client in the moment
- never leave the client alone[18]
- prepare visual cues to stop the exam (i.e. raise hand) if the client is unable to speak
- ensure follow-up and offer a referral to a counselor

Vaginismus

Vaginismus is a condition by which clients experience persistent involuntary spasm of the vagina. Vaginismus often results in difficult and/or painful sexual intercourse, and in many cases intercourse is impossible. Clients with vaginismus also often experience discomfort when inserting a tampon, as well as when having an internal exam.

During the Speculum and Pap Test
Use a smaller speculum.

Reassure clients that if they feel uncomfortable at any time during the Pap test that you will stop and proceed only when it feels comfortable for you to do so.

Give the client control of the situation by giving choices

- What would be helpful to make the Pap test easier?
- What position would be most comfortable?
- Give the client the option of not using foot supports.
- Offer the client the option of inserting the speculum

Clients with Disabilities

Each disability affects each person differently. It is therefore important for HCPs to educate themselves about relevant aspects of a client's disability. A HCP's sensitivity in asking only pertinent questions about the disability will increase the client's comfort and cooperation.

Clients with Physical Disabilities

Clothes should be removed from the waist down only. By only partially undressing, the client can conserve time and energy. Removing or rearranging the furnishings in the examination room will provide the space needed for a client to negotiate a wheelchair.

The HCP should consider:

- access to the clinic
- the height of the exam table
- the client's physical limitations[21]
- possible need of assistance for transfer
- alternate positioning for examination (please refer to Chapter 8)

Equipment such as obstetric foot supports, a high-low examination table, or a particularly wide examination table can be obtained to facilitate safer transfers and positioning.[22]

Clients with Learning/Cognitive Disabilities

Counseling and Education

"When speaking with the client, the HCP should remember to speak directly to her. Often people will address a disabled person's friend, attendant or interpreter instead of speaking directly to the client."[19] If the client's particular disability is cognitive, use visual strategies such as showing instruments and using 3D models.

The HCP should consider:

- how to obtain informed consent
- involving the caregiver in communicating effectively with the client
- accepting that non-cooperation or distress of the client must be recognized as refusal or withdrawal of consent[21]

Clients with a Hearing Impairment[19]

The communication system used by a hearing-impaired or speech-impaired client (e.g. a sign language interpreter, word board, or talk box) should be discussed at the onset of the visit.

Among other services, the E-quality Communication Centre of Excellence (ECCOE) provides interpretation services to individuals with hearing impairments throughout Manitoba. The ECCOE can be contacted at:

Ph:	204-926-3271
Emergency:	204-475-6332
Email:	candy.badger@eccoe.ca
Web:	https://secure.eccoe.ca/

Counseling and Education

Before the examination, offer the client the opportunity to see the instruments that will be used during the examination. If three-dimensional genital models are available, they can be used to acquaint the client with the relevant anatomy, as well as review the examination process. Some clients may wish to view the examination with a mirror while it is happening.

When working with an interpreter, the HCP should speak directly to the client at a regular speed instead of the interpreter. If a client wishes to lip read, the HCP should be careful not to move her/his face out of sight of the client without first explaining what she/he is doing. The HCP should always look directly at the client and enunciate clearly when the client prefers lip reading.

During the Speculum and Pap Test

The client with a hearing impairment may want to assume a position to elevate the head to maintain eye contact with the HCP and/or interpreter. If this is the case, the drape that is used to cover the body below the waist should be eliminated or kept low between the client's legs.

The client should indicate which form of communication to use during the examination: a sign language interpreter, lip-reading, or writing. Some clients choose to use an interpreter for most of the visit but not for the actual test. Many clients will feel more comfortable with a female interpreter.

Clients with Visual Impairments[19]

Some visually impaired clients may want to be oriented to their surroundings whereas others may not. Each client should be encouraged to specify the kind of orientation and mobility assistance needed. The HCP should verbally describe and assist the client with the following:

- locating where clothing can be placed
- where the various furnishings are positioned
- how to approach the examination table
- exam table positioning, including how to place feet in the foot rests
- the procedures of the Pap test from start to finish
- ensure consistent use of the same exam room with each visit
- obtaining and interpreting results
- follow-up

Counseling and Education

Before the examination, the HCP can invite the client to touch the speculum, swab, or other instruments that will be used during the examination. If three-dimensional genital models are available, they can be used to acquaint the client with the relevant anatomy as well as the examination process.

During the Pap test

A client may feel more at ease if continuous verbal contact is maintained (eg. the HCP narrating what is taking place during the examination). It is important for the HCP to identify themselves upon entering or leaving the examination room. Always inform the client when they are starting the exam, what they are doing throughout the exam, and when they are finished the exam.

Clients with Language and Cultural Considerations

Language, culture, socio-economic factors and education level may deter some clients from seeking medical treatment.[8] Providing culturally and linguistically appropriate services improves access to care, quality of care, and health outcomes.

Counseling and Education

Culture and language are vital factors in how health care services are delivered and how health care information is received. Counseling and education should be culturally and linguistically appropriate.

The HCP should:

- consider scheduling a longer appointment
- consider the needs of clients who speak English as an additional language
- respond with sensitivity to the needs and preferences of all culturally and linguistically diverse clients
- ensure all clients understand the purpose of cervical screening
- ensure women know of the availability of an appropriate HCP to perform the Pap test
- inform clients and explain the benefits (accuracy, confidentiality, impartiality) and availability of trained interpreter services (see info below), and the risks of working with untrained interpreters (information relayed may be inaccurate, incomplete, biased, and there may be breaches of confidentiality)
- schedule a trained interpreter as applicable when the client indicates a preference or a need for these services
- be aware that clients have the right to decline trained interpreter services and to arrange for their own interpreters, however, the use of ad hoc interpreter services (family member, friend, volunteer) is discouraged

Working with Interpreters

When communicating through an interpreter:

- speak to the client directly so that she will feel like a participant in the discussion rather than talked about
- use one or two short sentences at time, pause frequently and speak clearly and slowly
- give simple, full explanations
- avoid technical terms, jargon, slang, and idiomatic expressions (the latter are difficult to render in another language)
- avoid side discussions that you would not usually have in the presence of a client who is fluent in English (trained interpreters will interpret everything said, including side conversations)
- keep in mind that sometimes there are no direct equivalent terms in another language,
- be patient if the interpreter requests an explanation and requires more time (and more words) to convey unfamiliar concepts
- ask the client questions to determine her understanding of the information provided

Trained Interpreter Services in the Winnipeg Health Region
Clients who speak English as an additional language, even if they speak English well enough to have a basic conversation, may require interpreter services to fully understand and participate in communication regarding their health care.

To reduce risks associated with language barriers and working with untrained interpreters (family member, friend, visitor, staff, volunteer) WRHA Language Access currently employs trained interpreters who perform their duties in accordance with the WRHA Language Access Code of Ethics & Standards of Practice for Health Interpreters.

At WRHA facilities and WRHA-funded facilities, in-person interpreter services (face-to-face, conference call, message relay, reminder call, whispered simultaneous, sight translation) are available in 25-30 languages. In order to provide a more comprehensive range of languages, WRHA Language Access can also arrange over-the-phone interpreter services in approximately 170 languages.

If you are a **WRHA facility** or a **WRHA-funded facility** you can call WRHA Language Access Interpreter Services central dispatch at 204-788-8585 to request a trained interpreter for a Pap test examination, as well as for appointments to discuss abnormal test results. Requests can also be sent to Language Access by fax. To obtain a fax request form contact: languageaccess@wrha.mb.ca.

If you are a **Winnipeg fee-for-service physician's office** and would like more information on how to request WRHA Language Access Interpreter Services send an e-mail to languageaccess@wrha.mb.ca.

If you are a non-WRHA site and you require interpreter services, consult with your regional health authority.

Female Genital Cutting (FGC) (also known as circumcision)[23] [24]

Numerous women who have immigrated to Canada have had their female genitalia excised in their country of origin. FGC is practised in Africa (Egypt, N. Sudan, Eritrea, Ethiopia, Somalia, Mali, Guinea), Yemen, Oman, Palestinian territories (Gaza), certain Kurdish communities in Iraq and in Asia (India, Indonesia, Malaysia). Depending on the cultural perception of this procedure,

some women may consider female genital cutting (FGC), also known as circumcision, a normal cultural tradition, and not a practice that should be regarded as inappropriate, unnecessary or violent. Common cultural reasons for performing FGC include:

- reduce female's desire for sex
- guarantee virginity at marriage
- guarantee "marriageability" of a female (especially regarding arranged marriage and dowries)
- maintain her place as a "respectable" woman and mother in the community
- prevent rape
- increase sexual pleasure for the male partner
- prevent the girl/woman from "scratching" her genitals
- if not circumcised, the clitoris will grow long
- help identify a woman as part of a clan
- mark the transition to becoming a woman

HCPs should approach each client with the sensitivity that reflects the client's personal and cultural experience. When speaking to the client about FGC, use the word "circumcision" as it is the most understood term to describe this procedure. Please refer to Chapter 6 for a full description and illustrations of FGC.

Counseling and Education

Clients who have experienced FGC may be anxious about exposing their genitals, especially in front of a male HCP. The client should always have the choice to have a female chaperone accompany her in the examination room. Arrange for a female HCP to conduct the pelvic exam.

Do not assume that clients who have been circumcised are not sexually active. Clients who have experienced FGC should be counselled about STIs and cervical neoplasia on an individual basis. As well, do not assume that reconstruction is desired by the client. Often clients who have experienced FGC have little understanding of the health consequences of FGC and therefore are not aware that some of the health issues they face are in fact, because of FGC. Consult each client on individual needs and provide education where appropriate.

During the Pap test
For clients with FGC, the ability to perform a Pap test will depend on the size of the introital opening. A pediatric or small speculum may be necessary. If the introital opening is too small, the HCP will not be able to insert a speculum. These cases may require referral to the obstetrician gynecologist and may require the examination under anaesthesia.

The HCP should:

- be sensitive and non-judgemental
- avoid inappropriate comments
- not ask colleagues to observe the exam as a method of teaching about FGC
- refrain from making facial expressions

Recommended Reading

Cultural Sensitivities
Andrews, Caryn Scheinberg. (2006). Modesty and Healthcare for Women: Understanding Cultural Sensitivities. Psychosocial Oncology, Volume 3, Number 7, 443-6.

Society of Obstetrics and Gynecology
A Guide for Health Professionals Working with Aboriginal Peoples: Cross Cultural Understanding

The Canadian Women's Health Network
Getting Through Medical Examinations: A Resource for Women Survivors of Abuse and Their Health Care Providers

Canadian Women's Health Network
Women Survivors of Childhood Sexual Abuse: Knowledge and Preparation of Health Care Providers to Meet Client Needs

Public Health Agency of Canada
Handbook on Sensitive Practice for Health Care Practitioners: Lessons from Adult Survivors of Childhood Sexual Abuse.

Sexualityandu.ca
Assessment and Treatment of Female Sexual Dysfunction in Primary Care

Society of Obstetrics and Gynecology
Lesbian Health Guidelines

Vancouver Coastal Health
Transgender Primary Medical Care: Suggested Guidelines for Clinicians in British Columbia

National LGBT Health Education Center
If you Have it, Check it: Overcoming Barriers to Cervical Cancer Screening with Patients on the FTM Trans Spectrum

Trans Primary Care
Trans Health Guide

Canadian AIDS Society
The Trans* toolkit: Practical Resources for Community-Based Organizations

Rainbow Health Ontario, Sherbourne Health Centre

- http://www.rainbowhealthontario.ca/
- Screening content: http://www.rainbowhealthontario.ca/screening/
- Guidelines & Protocols for Hormone Therapy and Primary Health Care for Trans Clients
- Tips for Providing Paps to Trans Men

National LGBT Health Education Center
http://www.lgbthealtheducation.org/
Specific publications include:

- Affirmative Care for Transgender and Gender Non-Conforming People: Best Practices for Front-line Health Care Staff
- Providing Affirmative Care for Patients with Non-binary Gender Identities

Transgender Health Information Program (THIP), BC Health
http://transhealth.phsa.ca/

The Canadian Cancer Society, Rainbow Health Ontario and the Toronto Central Regional Cancer Program
Educational Module on Cancer Screening in LGBTQ Populations

PATIENT SITES:
New Sexual Orientation and Gender Identity Questions: Information for Patients

www.Checkitoutguys.ca (Sherbourne Health Centre)

Canadian Cancer Society LGBTQ Cancer Screening (Get Screened)

1. What are some special learning, counselling or communication needs of the following clients:
    a) Adolescents
    b) Lesbian clients
    c) Transgender people
    d) Clients with a history of sexual abuse
    e) Clients with disabilities
    f) Clients from different cultures
    g) Clients with barriers to access

Chapter 5
Self-Test

References

[1] Miller, A., Anderson, G., Brisson, J., Laidlaw, J., Le Pitre, N., Malcolmson, P., Mirwaldt, P., Stuart, G., & Sullivan, W. (1989). Report of a national workshop on screening for cancer of the cervix. Toronto: University of Toronto.

[2] Vellozzi, C., Romans, M., & Rothenberg, R. (1996). Delivering breast and cervical cancer screening services to underserved women: *Part I. literature review and telephone survey. Women's Health Issues, 6(2), 65-73.

[3] Young, T., Kliewer, E., Blanchard, J., & Mayer, T. (2000). Monitoring disease burden and preventative behavior with data linkage: Cervical cancer among Aboriginal people in Manitoba, Canada. American Journal of Public Health, 90(9), 1466-1468.

[4] Maxwell, C., Bancej, C., Snider, J., & Vik, S. (2001). Factors important in promoting cervical cancer screening among Canadian women: Findings from the 1996-1997 national population health survey (NPHS). Canadian Journal of Public Health, 92(2), 127-133.

[5] McDonald, J., & Kennedy, S. (2007). Cervical cancer screening by immigrant and minority women in Canada. Journal of Immigrant Minority Health, 9, 323-334.

[6] Womeodu, R., & Bailey, J. (1996). Barriers to cancer screening. Medical Clinics of North America, 80(1), 115-133.

[7] Hislop, T., Deschamps, M., The, C., Jackson, C., Tu, S-P., Yasui, Y., Schwartz, S., Kuniyuki, A., & Taylor, V. (2003). Facilitators and barriers to cervical cancer screening among Chinese Canadian women. Canadian Journal of Public Health, 94(1), 68-73.

[8] Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program. (2000). Pap testing and bimanual exam (for Seminar 260). Regina, SK: SIAST Wascana Campus.

[9] Society of Obstetrics and Gynecology. (2000). Lesbian health guidelines. Retrieved February 23, 2009 from: http://www.sogc.org/guidelines/public/87E-PS-March2000.pdf

[10] World Professional Association for Transgender Health. (2012, 7th Version) Standards of Care for the Health of Transsexual, Transgender, and Gender Nonconforming People. Retrieved February 17, 2016 from: http://www.wpath.org/site_page.cfm?pk_association_webpage_menu=1351&pk_association_webpage=4655

[11] Clark, M.A., Bonacore, Wright. S. T, Armstrong, G. Rakowski. W. (2003). The cancer screening project for women: Experiences of women who partner with women and women who partner with men. Women & Health, 38(2), 19-33.

[12] Cochran, S.D., Mays, V.M., Bowen, D., Gage S., Bybee, D., Roberts, S.J., Goldstein, R.S., Robison, A., Rankow, E.J., & White J. (2001). Cancer-related risk indicators and preventive screening behaviors among lesbians and bisexual women. American Journal of Public Health, 91(4), 591-7.

[13] Diamant AL. Schuster MA. McGuiean K. Lever J. (1999). Lesbians' sexual history with men: Implications for taking a sexual history. Archives of Internal Medicine, 159(22), 2730-6.

[14] Potter, M. Tips for Providing Paps to Trans Men. Sherbourne Health Centre, LBGT Family Health Team. Retrieved March 28, 2017 from: http://checkitoutguys.ca/sites/default/files/Tips_Paps_TransMen_0.pdf

[15] Potter, M. Tips for Providing Paps to Trans Men. Sherbourne Health Centre, LBGT Family Health Team. Retrieved March 28, 2017 from: http://checkitoutguys.ca/sites/default/files/Tips_Paps_TransMen_0.pdf

[16] Sherbourne Health Centre (2017). Guidelines and protocols for hormone therapy and primary health care for trans clients. Rainbow Health Ontario, p 22.

[17] Sherbourne Health Centre (2017). Guidelines and protocols for hormone therapy and primary health care for trans clients. Rainbow Health Ontario, p 29.

[18] Young, T. K. & Katz. A. (1998). Survivors of sexual abuse: Clinical, lifestyle and reproductive consequences. CMAJ, 159(4), 329-334.

[19] Holz, KA. (1994). A practical approach to clients who are survivors of childhood sexual abuse. Journal of Nurse-Midwifery, 39(1), 13-8.

[20] Daley, A. & Cromwell, P. F. (2002). How to perform a pelvic exam for the sexually active adolescent. The Nurse Practitioner, 27(9), 28-43.

[21] National Health Services Cervical Screening Program. (1998). Resource pack for training smear takers. United Kingdom.

[22] Seidel, H.M., Ball, J.W., Dains. J.E., & Benedict G. W. (1987). Mosby's Guide to Physical Examination. Mosbv. Inc. St. Louis MS.

[23] Sexuality Education Resource Centre. (2004). Retrieved February 23, 2009 from: http://www.serc.mb.ca/content/article/femaleGenitalCutting?market=SP&topic=WA&subject

[24] Sexuality Education Resource Centre (2010). Understanding Female Genital Circumcision Workshop, January 2012.

Chapter 6: Physiology, Anatomy & Abnormal Findings

Learning Objectives	On completion of this section, the learner will be able to: 1. Describe the normal developmental changes associated with female genitalia. 2. Describe the external and internal anatomy and physiology of the female. 3. Recognize variations of female genital cutting (FGC) or circumcision. 4. Understand normal versus abnormal bleeding. 5. Identify abnormal findings and indications of STIs, and when referral is necessary.

Developmental Changes in the External and Internal Genitalia[1]

The size of the uterine corpus and cervix change over time. In a premenarchial female, one third of the uterus is corpus, and two thirds may be cervix. In the adult multiparous female, the corpus is two thirds of the uterus, while the cervix is a third.

ADOLESCENTS

External Genitalia During Puberty

- External genitalia increase in size
- Clitoris becomes more erectile
- Labia minora more vascular
- Labia majora and mons pubis become more prominent and begin to develop hair, often occurring simultaneously with breast development

Internal Genitalia During Puberty

- Vagina lengthens, and epithelial layers thicken
- Vaginal secretions become acidic
- Uterus, ovaries, and fallopian tubes increase in size and weight
- Uterine musculature and vascular supply increase
- Endometrial lining thickens in preparation for the onset of menstruation (menarche), which usually occurs between the ages of 8 and 16 years
- Vaginal secretions increase just before menarche

PREGNANT CLIENTS

- Vagina changes to a violet color
- Mucosa of the vaginal walls and the connective tissue thicken, and smooth muscle cells hypertrophy
- Vaginal secretions increase and have an acidic pH due to an increase in lactic acid production by the vaginal epithelium

OLDER CLIENTS

- Ovarian function diminishes during a client's 40s
- Ovulation usually ceases about 1 to 2 years before menopause
- Menstrual periods begin to decrease in amount and intervals between cycles increase (for clients between 40 and 55 years of age - fertility may continue)
- Menopause is defined as 1 year of no menses

Irregular menstrual cycles as well as persistent intermenstrual, postcoital and postmenopausal bleeding are all considered abnormal bleeding patterns and should be appropriately investigated. Depending of your scope of practice, all abnormal findings need to be investigated appropriately or referred to a specialist.	Important Information

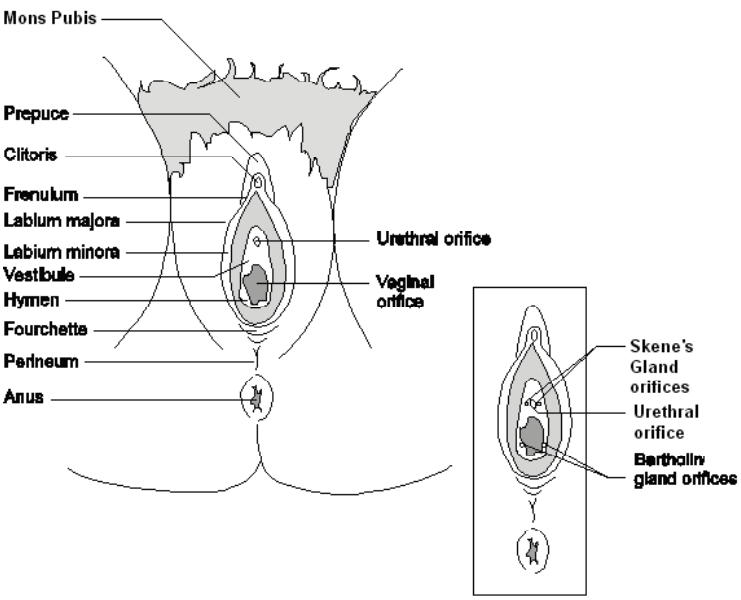
Changes in External Genitalia

- Estrogen levels decrease, causing the labia and clitoris to become smaller
- Labia majora also become flatter as body fat is lost
- Pubic hair turns gray and is usually more sparse

Changes in Internal Genitalia

- Vaginal introitus gradually constricts
- Vagina narrows, shortens, and loses lubrication, and the mucosa becomes thin, pale, and dry, which may result in dyspareunia
- Vaginal walls may lose some of their structural integrity
- Cervix becomes smaller and paler
- Uterus decreases in size, and the endometrium thins
- Ovaries also decrease in size to approximately 1 to 2 cm
- Ligaments and connective tissue of the pelvis sometimes lose their elasticity and tone, thus weakening the supportive sling for the pelvic contents

External Genitalia[2]



External genitalia

Source: Saskatchewan Institute of Applied Science and Technology, From Faculty of Primary Care Nurse Practitioner Program. (2000). Pap Testing and Bimanual Exam. Reprinted with permission.

Mons Pubis
The mons pubis is the cushion of adipose and connective tissue covered by skin and coarse, curly hair in a triangular pattern over the symphysis pubis.

Abnormal Findings
- Excessive hair associated with excessive hair elsewhere
- Absence of hair in a client >16 may suggest abnormality, however it is not uncommon for clients to remove their pubic hair

Urethral Orifice
The urethral orifice is normally pink with no excretion.

Abnormal Findings
- Erythema
- Abnormal exudates
- Abnormal mass within or upon the orifices

Vaginal Orifice and Skene's Glands
When the labia are spread, the vaginal orifice (introitus) and the urethral meatus are visible. Less easily visible (normally invisible) are the multiple orifices of Skene's glands (paraurethral gland), mucus-producing glands located on both sides of the urethal opening.

Abnormal Findings

- Visible Skene's gland orifice
- Erythema
- Abnormal exudates
- Abnormal mass situated within or upon the orifice

Bartholin's Gland Orifices
Openings of the two mucus-producing Bartholin's glands are located laterally and posteriorly on either side of the inner vaginal wall. Orifices of the Bartholin's glands are normally not visible.

Abnormal Findings

- Erythema
- Abnormal exudates
- An abnormal mass

Clitoris
The clitoris is the sensitive organ of sexual stimulation formed by erectile tissue. It is covered by the prepuce, which along with the frenulum is formed by the merged, inner parts of the labia minora. The adult clitoris is normally no greater than 0.5 cm in diameter.

Abnormal Findings

- Enlargement
- Atrophy
- Any abnormal mass
- Female genital cutting

Frenulum
The frenulum is the protective tissue covering the clitoris.

Abnormal Findings
- Abnormal mass within or upon the frenulum

Labia Majora and Minora
The labia majora border the vulva laterally from the mons pubis to the perineum. The labia minora, two moist smaller mucosal folds of delicate darker pink to red tissue, lie within the labia majora. They are made up of dense connective and erectile tissue. The labia majora and minora are usually symmetrical but vary in size. Before menarche, the labia majora are poorly defined, and with the menopause, they atrophy. In a client of reproductive age, they are prominent.

Abnormal Findings
- Asymmetry or unusual enlargement
- Abnormal exudates
- Focal hyperpigmentation
- Sebaceous cyst: blocked opening of sebaceous gland evident by a small firm round nodule on the labia. Often yellow in color with a dark center.
- Atrophy of labia majora before menopause
- Depigmentation
- Erythema
- Excoriations
- Ulcerations
- Leukoplakia may signify precancerous growth
- HPV, herpes simplex virus (HSV) and molluscum
- Lack of prominence of labia majora in clients over 16 years of age

Vestibule
The vestibule is the space between labia minora, clitoris and the fourchette. It contains the vaginal opening, Skene's glands and the hymen.

Hymen
The hymen, a tissue membrane varying in size and thickness, may completely or partially cover the vaginal orifice. In a virgin, the hymen normally contains a small aperture. An imperforate hymen may cause the retention of menstrual blood in the vaginal canal.

Perineum

The perineum is the structure constituting the pelvic floor and is referred to as the distinct bridge of tissue that separates the vaginal and anal orifices. It narrows as a result of vaginal delivery. It is usually smooth and unbroken however you may note a scar from a previous episiotomy or tear.

Abnormal Findings

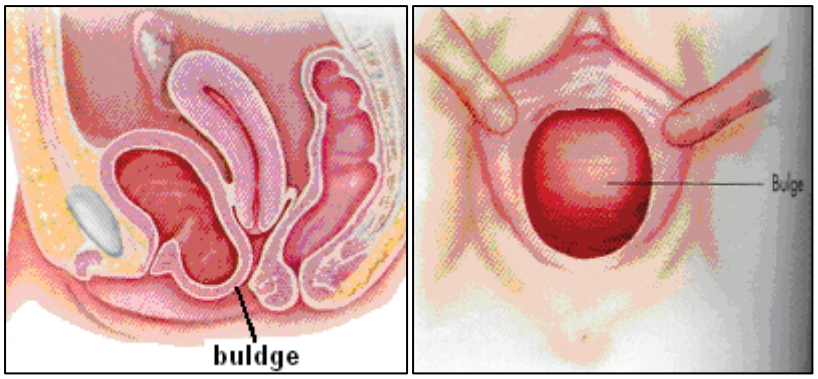
- Extreme narrowing of the perineum
- Fistula
- Bulging
- Abnormal mass
- HPV, HSV, molluscum

Vaginal Orifice

Also called the introitus. No part of the vaginal walls is normally visible through the vaginal orifice, unless the orifice is gaping as the result of one or more vaginal deliveries.

Abnormal Findings

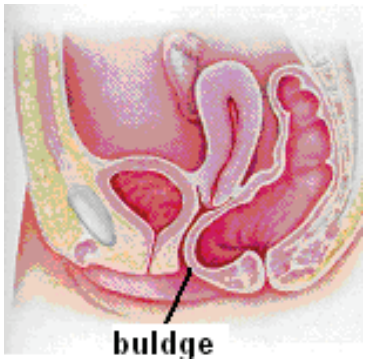
- Cystocele: prolapse of the urinary bladder through the anterior wall of the vagina, sometimes even exiting the introitus. The bulging can be seen and felt as the client bears down. More severe degrees of cystocele are accompanied by urinary stress incontinence.
- HPV, HSV, molluscum

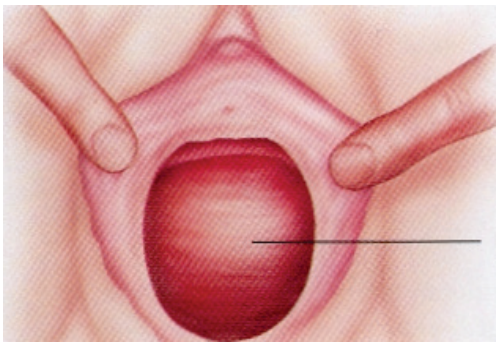


Cystocele

Source: Seidel, H.M., Ball, J.W., Dains, J.E., & Benedict, G.W. (1987). Mosby's Guide to Physical Examination. Reprinted with permission from Elsevier.

Rectocele: prolapse of part of the rectum through the posterior wall of the vagina is called rectocele or proctocele. Bulging can be observed and felt as the client bears down.

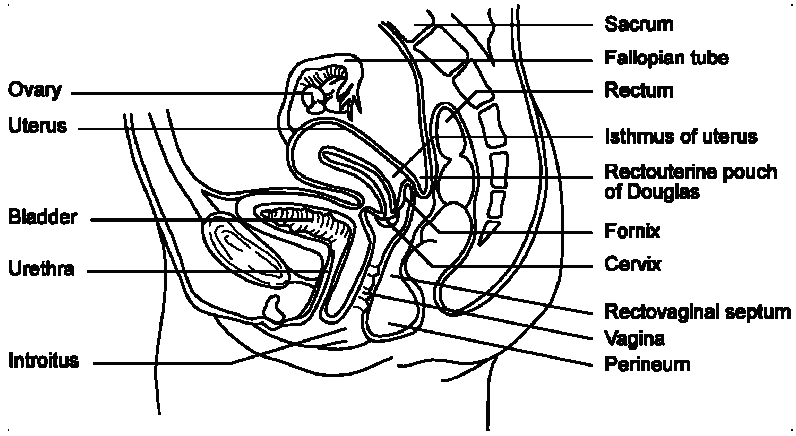




Rectocele

Source: Seidel, H.M., Ball, J.W., Dains, J.E., & Benedict, G.W. (1987). Mosby's Guide to Physical Examination. Reprinted with permission from Elsevier.

Internal Genitalia[2]



Lateral view of internal genitalia

Source: Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program. (2000). Pap Testing and Bimanual Exam. Reprinted with permission.

Vagina

The vagina is a highly elastic muscular tube extending between the urethra and rectum upward and back. The vaginal epithelium is normally continuous and unbroken and covered with epithelium fluid or transudate that is clear, colourless, and odorless. Blood is normal if it is menstrual. Before menopause the mucosa is pink. After menopause it is more pale. During pregnancy, the epithelium may appear cyanotic because of underlying venous congestion. In a nulliparous client, the vaginal mucosa typically displays rugations (wrinkles) that become less prominent after a vaginal delivery.

Abnormal Findings

- Abnormal masses or exudates
- Blood of unknown origin
- Cyanosis in a nongravid woman
- Erythema
- Genital warts
- Fistula
- Atrophic Vaginitis: in older clients, atrophy of the vagina is caused by lack of estrogen. The vaginal mucosa is usually dry and pale, but it may become reddened and develop petechiae and superficial erosions. The accompanying vaginal discharge may be white, gray, yellow, green, or blood-tinged. It can be thick or watery.
- Hemorrhagic lesions
- Leukoplakia
- Nodularity
- Pallor in a premenopausal woman
- Ulceration

Fornices

The recess anterior to the cervix is called the anterior fornix, the one posterior to the cervix is the posterior fornix, and the one on either side of the cervix is the lateral fornix.

Atrophic cervix

Source: Burghart, E. (1991). Colposcopy, Cervical Pathology: Textbook and Atlas, 2nd Ed. Reprinted with permission.

Uterus

The uterus is a small, firm, pear-shaped, and fibromuscular organ. It is about 7.5 cm. long, rests between the bladder and the rectum and usually lies at almost a 90-degree angle to the vagina. The uterus is divided into the following three layers:

- Serosa: external layer made up of a serous membrane
- Myometrium: middle layer made up of a heavy muscular wall
- Endometrium: internal lining which responds to changing estrogen and progesterone levels during the menstrual cycle

The uterus has two parts:

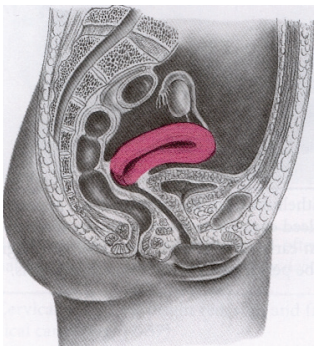
1. the cervix, which projects into the vagina, and
2. the fundus, which is the larger, upper part. In pregnancy the elastic, upper uterine portion (the fundus) accommodates most of the growing fetus. The uterine neck (isthmus) joins the fundus to the cervix. The fundus and the isthmus make up the corpus, the main uterine body. The size of the uterus varies depending on the number of births (parity) and uterine abnormalities. The uterus is anteflexed or anteverted above or over the empty bladder in most women, but can also be midplane (its long axis parallel to the long axis of the body), retroverted, or retroflexed.

Abnormal Findings

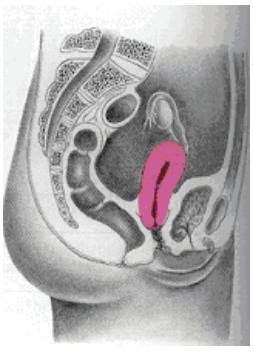
- Asymmetry
- Enlargement in a nongravid woman
- Lateral displacement
- Limited mobility
- Any abnormal mass

- Genital track duplication: can involve duplication of the fundus, entire uterus or entire uterus and vagina. Where there are two cervixes, a Pap test should be taken from each.
- Uterine prolapse: the uterus prolapses when the supporting structures of the pelvic floor weaken. This often occurs concurrently with a cystocele or rectocele. The uterus becomes progressively retroverted and descends into the vaginal canal. In first-degree prolapse the cervix remains within the vagina. In a second-degree prolapse the cervix is at the introitus and in a third-degree prolapse the cervix drops outside the introitus. See illustrations below.

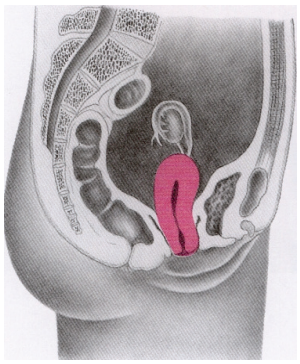
Normal uterus



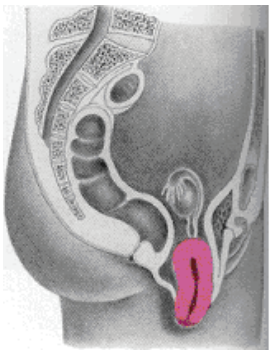
First-degree prolapse



Second-degree prolapse



Complete prolapse



Uterine prolapse

Source: Burghart, E. (1991). Colposcopy, Cervical Pathology: Textbook and Atlas, 2nd Ed. Reprinted with permission.

- Uterine Cancer:[3] in most cases, uterine cancer develops in the glandular tissue of the endometrium and is called adenocarcinoma. Having the following signs and symptoms does not necessarily indicate uterine cancer, but may require more discussion in the health history and a possible referral to a gynaecologist or oncologist.

Early Uterine Cancer Symptoms

- Bleeding between menstrual periods
- Heavy bleeding during periods
- Spotting or bleeding after menopause
- Bleeding after intercourse
- A foul discharge
- Yellow watery discharge
- Cramping pain
- Pressure in abdomen or pelvis, back or legs
- Discomfort over the pubic area
- Post-menopausal bleeding: bleeding after the first complete year without a period is considered a high risk factor for endometrial cancer and the client should be referred to a gynaecologist for an endometrial biopsy and pelvic ultrasound. The client should be told to watch for this pattern of bleeding and to arrange for evaluation.

Fallopian Tubes

From each side of the fundus extends a fallopian tube, the fringed, funnel-shaped end of which curves toward the ovary. Usually nonpalpable, these 8 -14 cm long, narrow tubes of muscle fibers have finger-like projections, called fimbriae, on the ends that partially surround the ovaries. Fertilization of the ovum usually occurs in the outer third of the fallopian tube.[1]

Ovaries

The ovaries are almond-shaped structures that vary considerably in size but average about 3 – 3.5 cm long, 2 cm wide and 1 – 1.5 cm thick from adulthood through menopause. They lie near the lateral pelvic walls, a little below the anterosuperior iliac spine. The two primary functions of the ovaries are to produce ova and secrete hormones, including estrogen, progesterone, and testosterone. About 300 ova are released during a client's childbearing years.

Abnormal Findings

- Ovarian cancer:[4] Ovarian cancer can develop for a long time without causing any signs or symptoms. When symptoms do start, they are often vague and easily mistaken for more common illnesses. Ovarian cancer is often first diagnosed as advanced disease. Although bimanual exam is not a part of this manual, the HCP should be aware of signs of ovarian cancer.

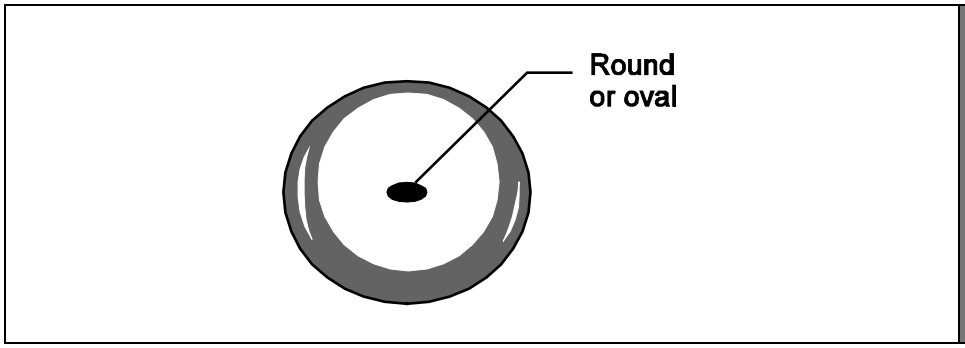
Having the following signs and symptoms does not necessarily indicate ovarian cancer, but may require more discussion in the health history and a possible referral depending on your scope of practice. These symptoms are common, however, if they persist for three weeks or more, a client should be assessed for ovarian cancer.

Early Ovarian Cancer Symptoms

- Mild abdominal discomfort or pain
- Abdominal swelling
- Change in bowel habits
- Feeling full after a light meal
- Indigestion
- Gas
- Upset stomach
- Sense that bowel has not completely emptied
- Nausea
- Constant fatigue
- Pain in lower back or leg
- Abnormal menstrual or vaginal bleeding
- More frequent urination
- Pain during intercourse
- Persistent cough

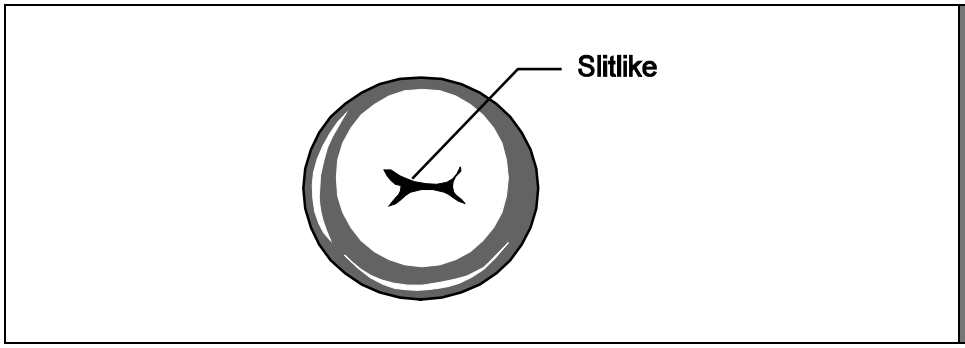
The Cervix[5]

The cervix normally protrudes into the vaginal vault by 1 to 3 cm. In a nulliparous client, its diameter is 2 to 3 cm, and following vaginal delivery increases in size to 3 to 5 cm. It is usually round and symmetrical in shape. A round (in nulliparous clients) or slit-like (in parous clients) depression is the external os of the cervix and marks the opening into the endocervical canal and uterine cavity. The trauma of a delivery may tear the cervix, producing permanent transverse or stellate lacerations.



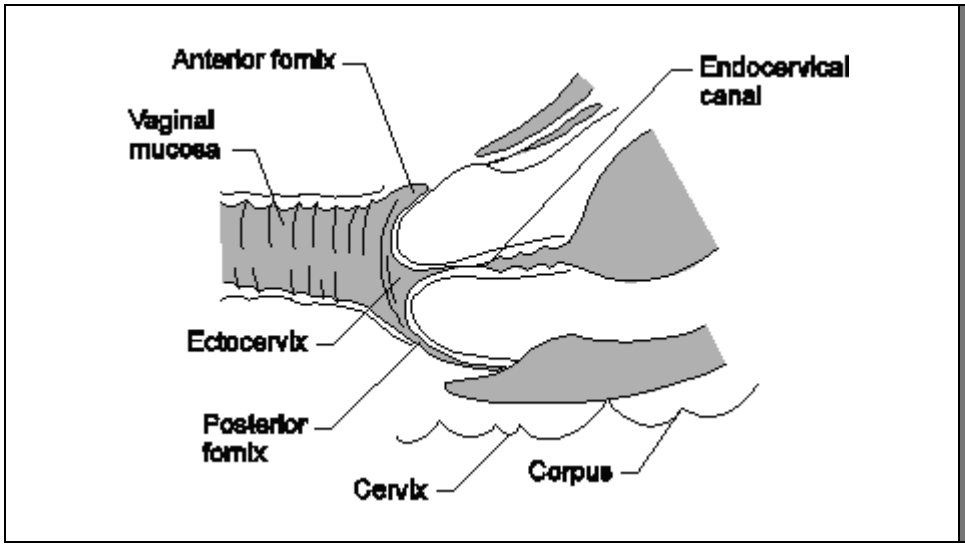
Normal nulliparous cervix

Source: Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program. (2000). Pap Testing and Bimanual Exam. Reprinted with permission.



Normal parous cervix

Source: Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program. (2000). Pap Testing and Bimanual Exam. Reprinted with permission.



Lateral view of internal genitalia

Source: Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program. (2000). Pap Testing and Bimanual Exam. Reprinted with permission.

Common Findings

- Nabothian follicles: mucus retaining cysts caused by normal changes of surface columnar squamous epithelium. They are usually small (5mm diameter) but occasionally may enlarge to 1.5 cm. If several are present the cervix may have a knobby appearance.[6]

Nabothian Follicles

Source: Burghart, E. (1991). Colposcopy, Cervical Pathology: Textbook and Atlas, 2nd Ed. Reprinted with permission.

- Polyp: bright red, soft growth emerging from os. It is usually a benign lesion, but must be determined by biopsy. There may be discharge or bleeding.

Cervical polyps

Source: Burghart, E. (1991). Colposcopy, Cervical Pathology: Textbook and Atlas, 2nd Ed. Reprinted with permission.

Abnormal Findings

- Asymmetrical shape
- Enlargement not attributable to a vaginal delivery
- An abnormal mass
- Protrusion into the vaginal vault by more than 3 cm

Please see the Pap Test Learning Module DVD presentation on "Carcinoma of the Cervix" to visualize carcinoma and other abnormalities of the cervix.	Important Information

Ectocervix

The ectocervix is covered with smooth squamous epithelium that is normally moist with a clear, colorless fluid. In some women, the epithelial color is uniformly pink, and in others, an erythema surrounds the cervical os. Usually, it appears:

- flat
- pink
- uniform
- featureless

Ectocervix : original squamous epithelium in reproductive period

Source: Burghart, E. (1991). Colposcopy, Cervical Pathology: Textbook and Atlas, 2nd Ed. Reprinted with permission.

Endocervix

A columnar, mucus producing epithelium lines the cervical canal. The columnar epithelium extends proximally from the squamo columnar junction (SCJ) to the endocervical canal and internal os. It covers a variable amount of the ectocervix and lines the endocervical canal. The endocervix:

- is irregular
- seems dark red because of the underlying vessels
- produces mucus that is more profuse, clear and watery just before ovulation

- is thicker, duller and more tenacious after ovulation or during pregnancy

Columnar epithelium

Source: Burghart, E. (1991). Colposcopy, Cervical Pathology: Textbook and Atlas, 2nd Ed. Reprinted with permission.

Squamo Columnar Junction (SCJ)
The SCJ of the cervix is the area of change or line along which the squamous epithelium of the ectocervix meets the columnar epithelium of the endocervix.

The SCJ is often marked by a line of metaplasia (see transformation zone below) and its location is variable. Age and hormonal status are the most important factors influencing its location. For example, it may be located:

- at or very close to the external os during perimenarche
- on the ectocervix at variable distances from the os in reproductive-aged women
- further away from the os as high estrogen levels during pregnancy and with oral contraceptive use promote further eversion of the SCJ
- receding up the endocervical canal from the perimenopause on, or with prolonged exposure to strong progestational agents which cause atrophy
- receding into the endocervical canal (inverted) and cannot be readily visualized during post menopause

Transformation Zone
This is the area of transformation where squamous epithelium of the ectocervix has replaced columnar (glandular) epithelium of the endocervix through the process of squamous metaplasia.

The SCJ discussed above is the visible border between the squamous and columnar epithelia of the cervix and represents the new squamocolumnar junction. Adjacent to the new SCJ the dynamic process of squamous metaplasia occurs throughout the reproductive years. This is a normal process during which columnar epithelium is replaced by squamous epithelium.

The transformation zone includes the area between the original squamocolumnar junction and the new squamocolumnar junction and has a variegated appearance. This zone:

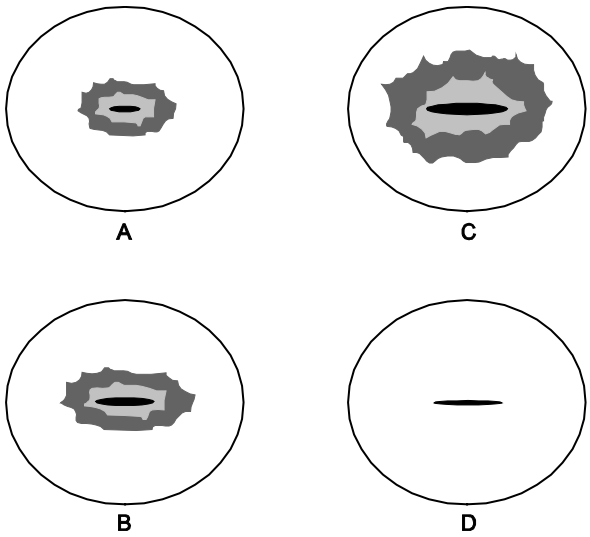
- is located 8mm to 13mm proximal to the ectocervix, but may extend as far as 20mm to 30mm into the cervical canal
- is higher within the cervix in older clients and on the ectocervix in clients who are pregnant

Transformation zone

Source: Burghart, E. (1991). Colposcopy, Cervical Pathology: Textbook and Atlas, 2nd Ed. Reprinted with permission.

A. narrow transformation zone

C: broadly everted transformation zone parous

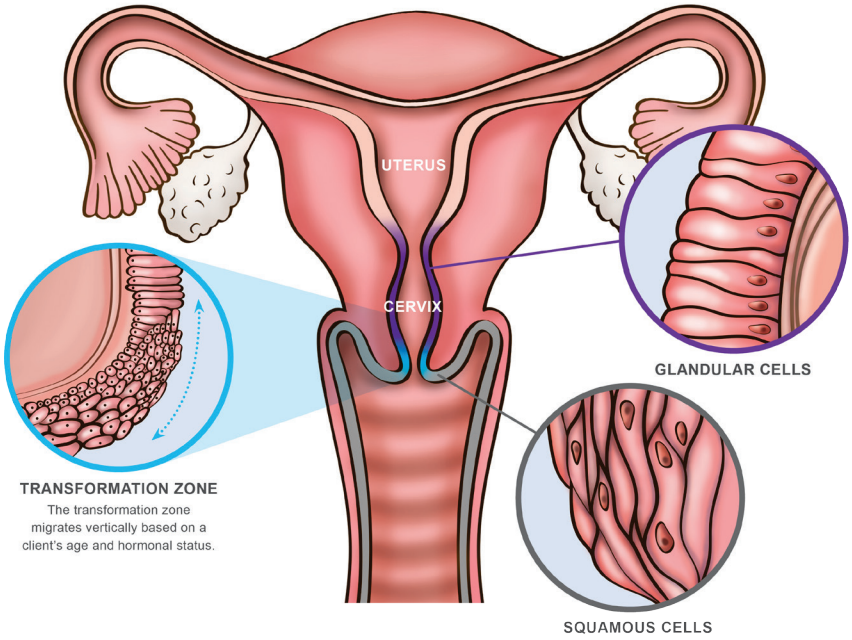


B. broader transformation zone – parous

D. post-menopausal (indrawn) or post-treatment type

Variations in the transformation zone

Source: Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program. (2000). Pap Testing and Bimanual Exam. Reprinted with permission.



Transformation zone epithelium (lateral view)

Source: CervixCheck, CancerCare Manitoba, 2017.

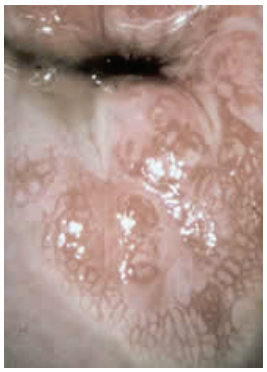
Abnormal Findings

- Abnormal exudates or masses upon the ectocervix
- Asymmetrical circumoral erythema with irregular borders
- Blood of unknown origin
- Cyanosis in a nongravid client
- Diffuse erythema
- Ulcerations
- Nodularity or roughness is usually abnormal, but may be attributable to nabothian cysts which are common
- Hemorrhagic lesions
- Leukoplakia
- Punctation: vertical, single-loop capillaries viewed end-on

Cervical punctuation (Carcinoma in situ)

Source: Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program (2000).

- Mosaicism: tile like pattern of vessels around blocks of white epithelium caused by neovascular changes. Coarser patterns and vessels indicative of higher grade lesions.



Mosaicism (Carcinoma in situ)

Source: Burghart, E. (1991). Colposcopy, Cervical Pathology: Textbook and Atlas, 2nd Ed. Reprinted with permission.

- Extensive erosion and severe dysplasia

Extensive erosion and severe dysplasia

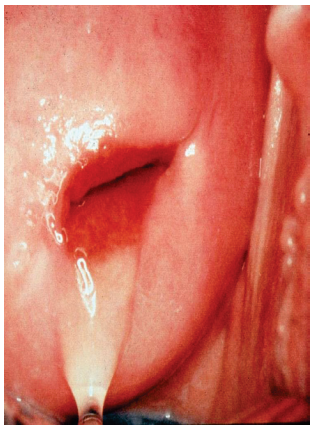
Source: Burghart, E. (1991). Colposcopy, Cervical Pathology: Textbook and Atlas, 2nd Ed. Reprinted with permission.

If you suspect malignancy (e.g. inflammation of the cervix, abnormal bleeding from cervix) or see any lesion that you are unsure of, depending on your scope of practice you should seek assistance from an appropriate practitioner, or consider colposcopy before proceeding with a Pap test. If the appropriate practitioner is not on site, ensure clear clinical details are noted on the lab requisition and the woman's record. If a Pap test is not taken, refer the woman immediately for further investigation. If there is an obvious lesion on the cervix, a Pap test may not be appropriate as it may produce a false Negative result.

Important Information

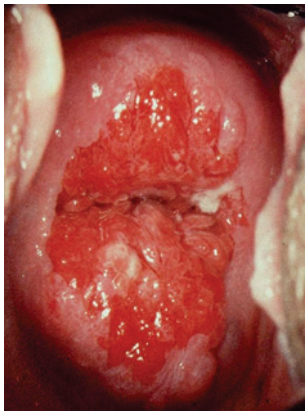
Identifying Abnormal and Normal Cervical Appearances[7 8]

Below are examples of cervixes that may be seen during a Pap test. Any visual cervical abnormalities and/or symptoms (i.e. abnormal bleeding or discharge) must be referred for colposcopy regardless of the Pap test result.

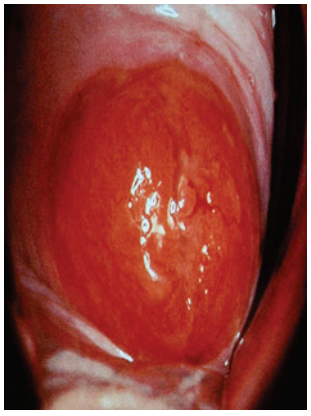


Normal

Normal with IUCD

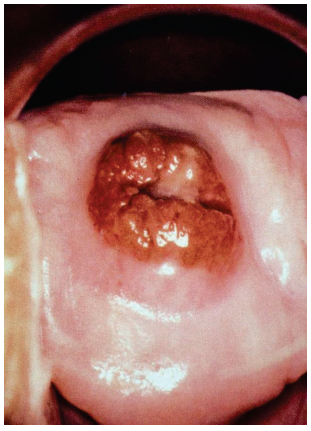


Normal with ectropion



Normal with extensive ectropion (pregnant)

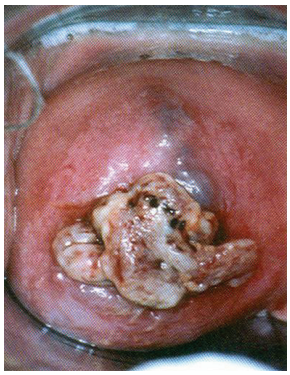
Nabothian follicles



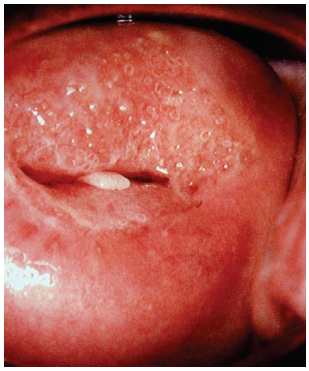
Normal, post-laser

Endocervical polyp
(biopsy required)

Cervical polyps
(biopsy required)



Decidual polyp
(biopsy required)



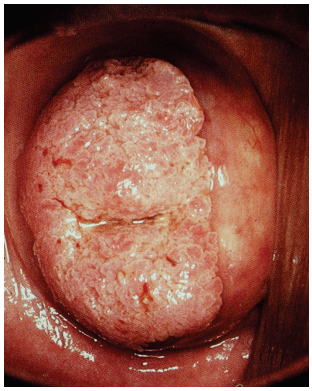
Endocervical polyp
(biopsy required)

Atrophy

Transformation zone

Cervical ulcer
(biopsy required)

Cervical condyloma
(biopsy required)



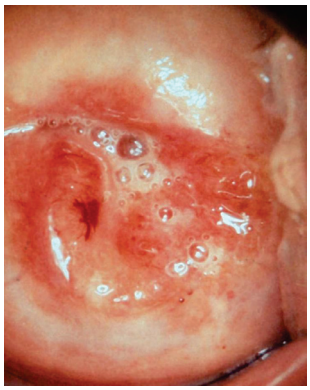
Cervical condyloma
(biopsy required)

Monilia (Candida albicans)
(cultures required)

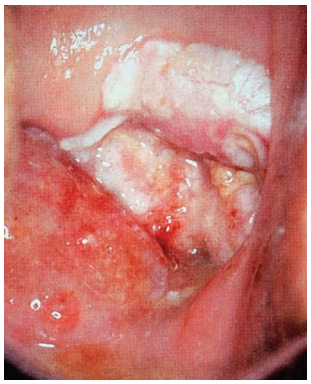
Trichomonas vaginitis
(cultures required)

Leukorrhea
(cultures required)

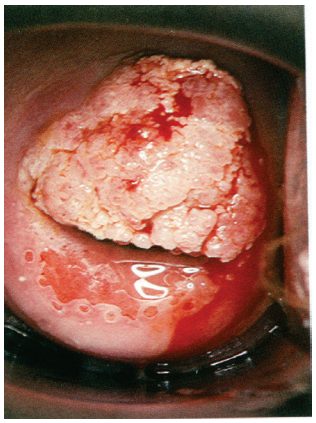
Cervical carcinoma



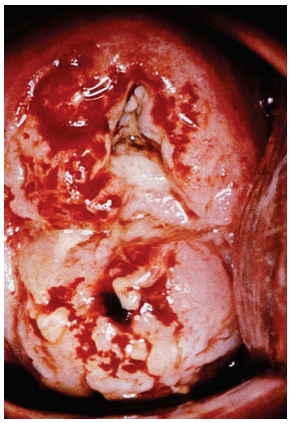
Cervical carcinoma



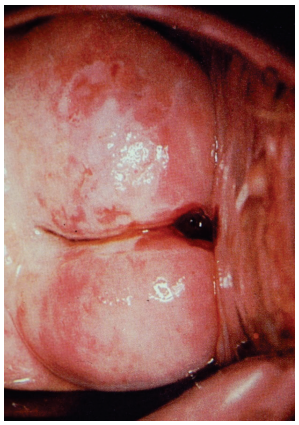
Cervical carcinoma



Invasive squamous
carcinoma & condyloma



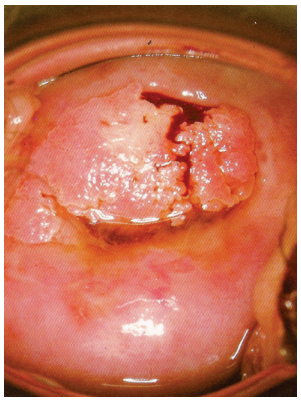
Cervical carcinoma



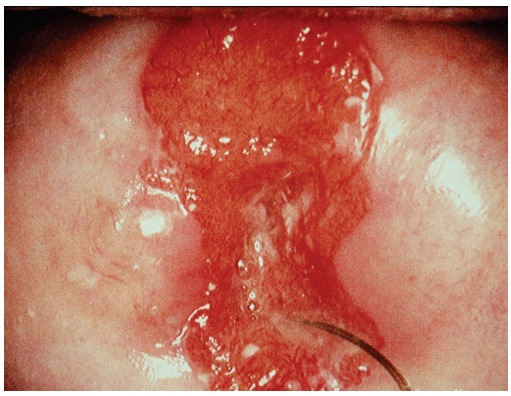
Cervical carcinoma

Cervical carcinoma

Cervical carcinoma



Cervical carcinoma



Cervical carcinoma

Female Genital Cutting (FGC) or Circumcision

Some cultures traditionally excise female genitalia as a puberty rite or means of preserving virginity until marriage. Clients who have undergone this practice may have many related negative health consequences. The World Health Organization has different classifications based on the extent of FGC.[9]

Type I
Excision of the prepuce with or without excision of part or all of the clitoris (clitoridectomy).

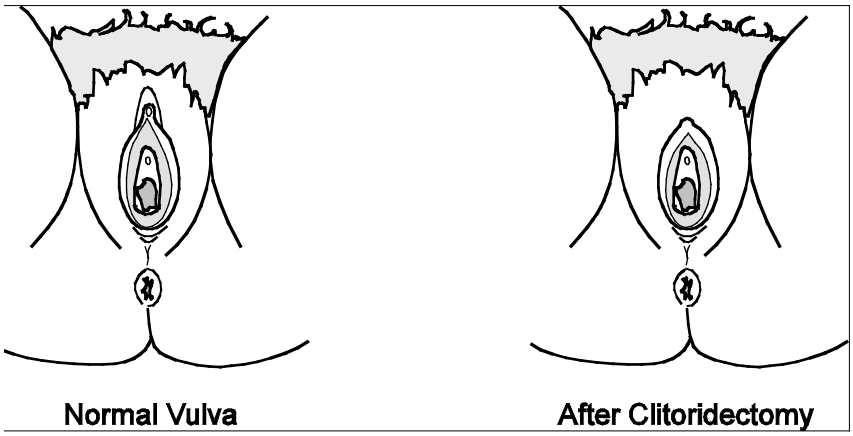
Type II
Excision of the prepuce and clitoris together with partial or total excision of the labia minora.

Type III
Excision of part or all of the external genitalia and stitching/narrowing of the vaginal opening (infibulation).

Type IV
Unclassified. May include:

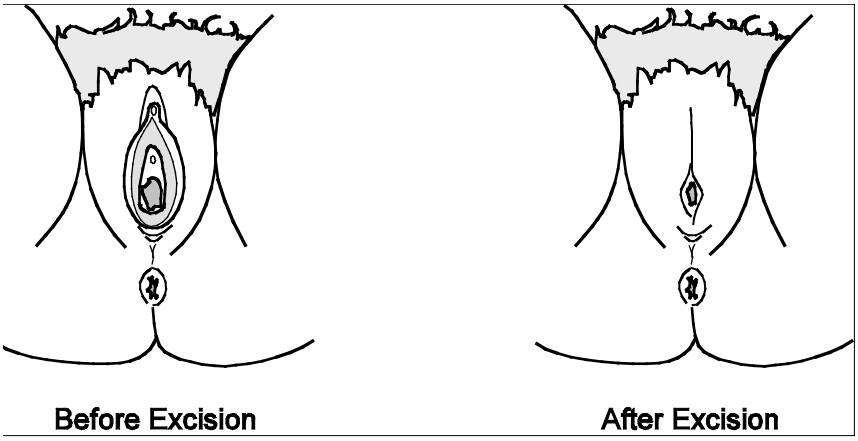
- pricking, piercing or incision of clitoris and/or labia
- stretching of clitoris and/or labia
- cauterization by burning of clitoris and surrounding tissues
- scraping of the vaginal orifice or cutting of the vagina
- introduction of corrosive substances into the vagina to cause bleeding
- herbs into the vagina with the aim of tightening or narrowing the vagina
- any other procedure which falls under the definition of FGC given above

The following graphics depict various extents of FGC.



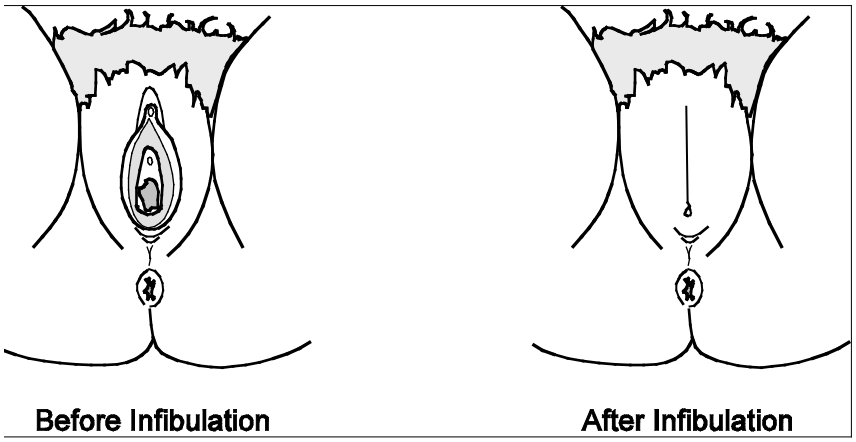
Cliteridectomy : the prepuce and head of the clitoris is removed

Source: Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program. (2000). Pap Testing and Bimanual Exam. Reprinted with permission.



Excision : removal of the entire head of the clitoris and labia minora

Source: Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program. (2000). Pap Testing and Bimanual Exam. Reprinted with permission.



Infibulation : removal of the entire external genitalia

Source: Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program. (2000). Pap Testing and Bimanual Exam. Reprinted with permission.

Normal Versus Abnormal Uterine Bleeding

Normal Uterine Bleeding (Menstrual Cycle)[10]

The menstrual cycle is a complex process involving the reproductive and endocrine systems. The average menstrual cycle usually occurs over 28 days, although the normal cycle for clients may range from 22 to 34 days. Fluctuating hormone levels that, in turn, are regulated by negative and positive feedback mechanisms regulate the cycle.

Abnormal Uterine Bleeding

Abnormal uterine bleeding is beyond the scope for nurse managed care. Nurses should refer clients to a nurse practitioner, midwife or family doctor for evaluation of abnormal uterine bleeding.

When taking a history of abnormal uterine bleeding, determine the following:

- the timing, frequency, amount and duration
- the nature of the bleeding, post coital and quantity
- the associated signs and symptoms including pain, fever and/or vaginal discharge
- pertinent medical history, including history of bleeding disorders, family history and medication history
- changes in weight, excessive exercise, chronic illness, and/or stress

Types of Abnormal Uterine Bleeding

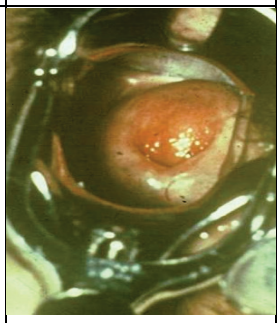
- Oligomenorrhea: > 38 day cycle length
- Polymenorrhea: < 24 day cycle length
- Memorrhhagia: increased flow or duration at regular intervals
- Metrorrhagia: regular flow at regular intervals
- Menometrorrhagia: increased flow or duration at regular intervals

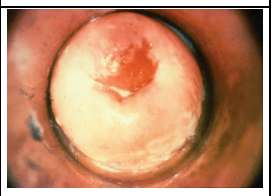
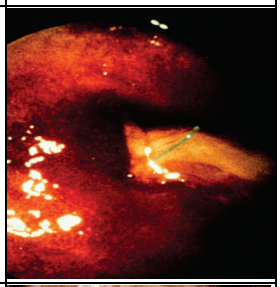
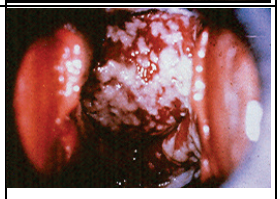
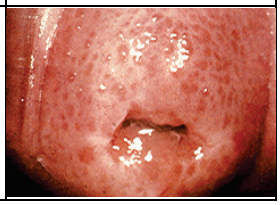
Causes of Abnormal Uterine Bleeding

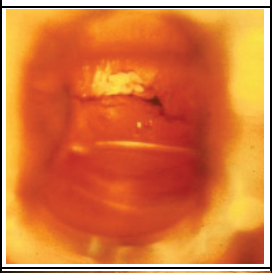
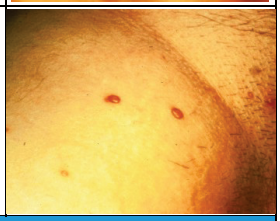
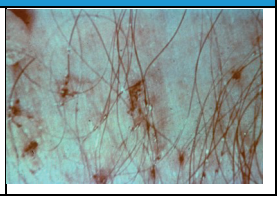
- Anovulation: hypothalamic immaturity
- Stress
- Exercise induced stress
- Pregnancy
- Infection
- Coagulation disorder
- Endocrine disorder
- Polyps/fibroids/adenomyosis
- Medication related, eg. Contraception
- Ovarian sarcoma
- Ovarian cancer
- Peri-menopausal
- Estrogen therapy
- Trauma

Summary Chart Discharges, Infections, Ulcers and Lesions[11]

Depending on your scope of practice, all abnormalities or suspected infections of the vulva, vagina or cervix should be appropriately documented and investigated and the client should be followed-up or referred as per your facility or region policy. Details about STI testing are not included in this manual although it is considered a normal part of the provision of person-centred care (depending on age and risk factors). Refer to your facility or region's policy to determine procedures and guidelines around STI testing.	Important Information

GENITAL ULCER DISEASE				
Name	**Discharge**	**Erythema/Itching**	**Associated symptoms**	**Pictures**
Syphilis	Secondary - Papules covered by gray exudate.	Syphilitic Chancre (Primary Syphilis) can appear as a single painless, indurated ulcer found on the genitals. Most chancres in women develop internally and often go undetected. Condyloma Latum (Secondary Syphilis) lesions appear 2 to 12 weeks after infection. They are flat, round or oval.		
Genital Herpes (can be due to HSV (herpes simplex virus)-1 or HSV-2)	Clear watery discharge from early blister-like lesions.	Usually starts with painful papules followed by vesicles (blisters), ulceration, crusting and healing. The lesions may itch and are usually painful.	Dysuria, swollen glands in groin, outbreaks vary and can return as often as every month or as rarely as once a year or longer. Initial infection is often extensive, whereas recurrent infection is usually confined to a small localized patch on the vulva, perineum, vagina, anus, or cervix.	

VAGINAL DISCHARGES AND INFECTIONS				
Name	**Discharge**	**Erythema/Itching**	**Associated symptoms**	**Pictures**
Gonorrhea	Often women will be asymptomatic. Thick yellow/green discharge or discharge may be absent. May manifest with urethritis, cervicitis, and pelvic inflammatory disease (PID).	Cervix and vulva may be inflamed. May have cervical friability (bleeding when the first swab is taken) and/or erythema or edema.	Dysuria, frequency, abnormal vaginal bleeding, lower abdominal pain, deep dyspareunia, Bartholin gland inflammation and discharge. If left untreated may result in infertility.	
Chlamydia	Often asymptomatic. Color of discharge may vary greatly (eg. may see yellow mucopurulent discharge from cervical os). May manifest with urethritis, cervicitis, and PID.	Hypertrophic, edematous, may have cervical friability and/or erythema or edema.	Intermenstrual spotting, spotting after intercourse, asymptomatic urethritis, deep dysparenuria, abnormal vaginal bleeding, lower abdominal pain. If untreated may result in infertility.	
Bacterial Vaginosis	Scant or moderate discharge. May be grey with foul odor.	Usually no edema or erythema of vulva or vagina. Vaginal epithelium may be red, swollen, tender, and the client complains of burning and itching.	Strong fishy vaginal odor, particularly after intercourse.	
Candidiasis	Scant to moderate discharge. May be thin but usually thick, white, curdy cheese like discharge which is adherent to vaginal wall/cervix.	Mild to severe itching and erythema of labia, thighs, perineum. Cervix may be red and edematous. Erythema and edema of vulva, vagina or introitus. Vagina may have white patches, some which may detach.	Dysuria, frequency, dysparenunia.	
Trichomoniasis	Copious, frothy, grey, green, yellow white or yellow brown, strong foul odor.	Severe itching of vulva, with or without erythema. Petechiae of cervix and vagina ("strawberry spots"). The cervix may be inflamed and friable.	Dysuria and dyspareunia with severe infection.	

PAPULAR GENITAL LESIONS				
Name	**Discharge**	**Erythema/Itching**	**Associated symptoms**	**Pictures**
Genital warts (caused by certain types of HPV).	None.	Warts may be round, flat or raised painless small, cauliflower-like bumps. They are generally flesh-colored, whitish pink to reddish brown, soft growths. Warts may be single or in clusters.	The woman may present with a lump in vulva area before the wart actually appears. May spread to urethra, vagina, cervix, or anus area.	
Molluscum Contagiosum	None.	Painless genital lesions that have a smooth waxy appearance often with a white central umbilication.	This is usually a benign condition with few complications.	
OTHER STI				
Pubic lice/crabs	None.	Evident by excoriations or itchy small red maculopapules in pubic hair and surrounding area. Look for nits or lice attached to base of pubic hair.		

Source: Centers for Disease Control and Prevention. (2003). STD Clinical Slides. National Center for HIV, STD and TB Prevention Division of Sexually Transmitted Diseases. Reprinted with permission.

	Recommended Reading

STI Guidelines and Treatment
Canadian Guidelines on Sexually Transmitted Infections

Sexuality Education Resource Centre
A Culturally Sensitive Approach: Working with Women and Girls Who Have Experienced Female Genital Cutting (FGC)

CervicalCheck, The National Cervical Screening Programme, Ireland
Cervix Image Gallery

The College of Physicians and Surgeons of Manitoba (p46)
http://cpsm.mb.ca/cjj39alckF30a/wp-content/uploads/ByLaws/By-law%2011.pdf

1. Describe normal and abnormal uterine bleeding. 2. Describe normal developmental changes associated with the female genitalia. 3. Describe the female external and internal anatomy and physiology. 4. Identify abnormal findings and indications of STI, and when referral is necessary 5. Describe the variations of FGC.	Chapter 6 Self-Test

References

[1] Seidel, H.M., Ball, J.W., Dains, J.E., & Benedict, G. W. Mosby's guide to physical examination. (6th ed.). Missouri: St. Louis.

[2] This section is adapted from Faculty of Primary Care Nurse Practitioner Program, Saskatchewan Institute of Applied Science and Technology (2000) & Cervical Screening Initiatives Program of Newfoundland and Labrador (2001).

[3] Canadian Cancer Society. (2004). Signs and symptoms of uterine cancer. Retrieved on March 2, 2009 from: http://www.cancer.ca/Canada-wide/About%20cancer/Types%20of%20cancer/Signs%20and%20symptoms%20of%20uterine%20cancer.aspx?sc_lang=en

[4] Canadian Cancer Society. (2004). Signs and symptoms of ovarian cancer. Retrieved on March 2, 2009 from: http://www.cancer.ca/Canada-wide/About%20cancer/Types%20of%20cancer/Signs%20and%20symptoms%20of%20ovarian%20cancer.aspx?sc_lang=en

[5] Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program. (2000). Pap testing and bimanual exam. Adapted with permission.

[6] National Health Services Cervical Screening Program. (1998). Resource pack for training smear takers. United Kingdom.

[7] Images from: Burghart, E. (1991). Colposcopy, Cervical Pathology: Textbook and Atlas, 2nd Ed.

[8] Images from: Lotocki, Dr. R. Pap Test Learning Module: Carcinoma of the Cervix [Video] (1997). Accessed at www.TellEveryWoman.ca/module on October 16, 2014.

[9] World Health Organization. (1996). Female Genital Mutilation: Information Pack. Retrieved on June 1, 2004 from the World Health Organization website: http://www.who.int/docstore/frh-whd/FGM/infopack/English/fgm_infopack.htm

[10] Cervical Screening Initiatives Program of Newfoundland and Labrador. (2001). Papanicolaou smear: A clinic manual. Newfoundland: Canada.

[11] This section is adapted from Faculty of Primary Care Nurse Practitioner Program, Saskatchewan Institute of Applied Science and Technology, (2000), Cervical Screening Initiatives Program of Newfoundland and Labrador (2001), & Health Canada (1998).

Chapter 7: Health History

Learning Objectives	On completion of this section, the learner will be able to: 1. Confidently conduct a health history interview with clients across the lifespan.

Sexual and Reproductive Health History Review[1]

Cervical screening is a sensitive issue for some clients. Using a positive manner to discuss risk factors can give clients the opportunity to voice health concerns and to take responsibility for their overall wellbeing by taking part in the cervical and other screening programs.[2]

Adequate and accurate information are key to a successful health history. It is necessary to be sensitive to culture, language and age-related concerns, which if recognized, help the HCP understand a client's responses and behavior. Try to assess the client's level of comfort. Based on this assessment, you may consider offering them some encouraging or supportive words. Sometimes a phrase like, "you may find sharing personal information with me uncomfortable, but you are taking a very important step in preventing cancer of the cervix, and to help you, I need to know…", can encourage the client to relax and assures them of the essential nature of such confidential information.

Terminology and language pose further barriers. The HCP should:

- be certain of what the client's statements mean
- repeat statements for verification, when necessary, so that misunderstandings can be corrected. For example, the client might complain of "itching down there" – use pictures/drawings to identify location or ask the woman to point to the area.
- use an interpreter if language presents a problem. A family member who is interpreting would be unsuitable due to the confidential and sensitive nature of questions and responses.

During the reproductive health history interview, the HCP should:

- obtain health history data in a comfortable environment that protects the client's privacy
- conduct the interview at an unhurried pace, otherwise the client may overlook important details
- always ask questions while the client is seated and dressed before the physical assessment. This ensures her comfort and confidence.
- use terms that the client understands and explain technical language

- focus questions on the reproductive system, but maintain a holistic approach by inquiring about the status of other body systems and psychosocial concerns. Reproductive system problems may cause the other problems related to self-image, sexual functioning, overall wellness, etc.
- consider the relevance and practicality of health history questions to the client. For example, asking an 80 year-old woman the date of her first menstrual period is pointless. Conversely, asking her about menopause, irregular bleeding, and estrogen replacement therapy would be appropriate.

When choosing your health history questions consider the relevance to the client and focus on their areas of concern. Do a focused health history to determine whether to proceed with a Pap or refer to a specialist.	Important Information

Review of Related History[3]

The following health history components are recommended as information to be collected by the HCP during a *Pap test visit*. Other components of a health history may be relevant and necessary to collect for other medical examinations or assessments.

Menstrual History

- Date of last menstrual period: first day of last cycle
- Number of days in cycle and regularity of cycle
- Character of flow: amount (number of pads or tampons used in 24 hours), duration, presence and size of clots
- Dysmenorrhea: characteristics of menses, duration, frequency
- Intermenstrual bleeding or spotting: amount, duration, frequency
- Post-coital bleeding
- Abnormal uterine bleeding

Obstetric History

- Gravity (number of pregnancies)
- Parity (number of births): term, pre-term
- Abortions: determine when

Contraceptive History

- Current method

Sexual History

- Number of partners within the last 6 to 12 months
- Determine whether sexual practices are with men, women or both
- Condom use (i.e. Are you able to use condoms?)
- STI history
- History of cancer in reproductive organs
- History of sexual assault
- Age of first sexual intercourse

Date of Last Pelvic Examination

Date of Last Pap Test/Colposcopy, Results and Treatment

- Request a screening history from CervixCheck by phone or fax. Visit https://www.cancercare.mb.ca/screening/resources for a copy of the screening history request form.

Past Medical History

- Past gynaecologic procedures or surgery (tubal ligation, hysterectomy, oophorectomy, laparoscopy, cryosurgery, laser therapy, LEEP, conization)
- Abnormalities of the vagina, cervix, uterus, fallopian tubes, ovaries
- Cancer of the reproductive organs
- Family history of cancer of the reproductive organs
- Female genital cutting
- Sexual reassignment surgery and/or hormone therapy

If the woman has been prescribed colposcopy, determine if appointment is booked and when. If a colposcopy was performed within the last 3 months, a Pap test should **not** be taken. If colposcopy is booked within the next 3 months, a Pap test should not be taken.	Important Information

Older Women

- Age at menopause or currently experiencing menopause
- Menopausal symptoms
- Post-menopausal bleeding
- Birth control measures during perimenopause
- Mother's experience with menopause
- Symptoms related to physical changes: vaginal dryness

1. Describe the 6 key areas (minimum data set) to review when conducting a sexual and reproductive health history	Chapter 7 Self-Test

References

[1] Cervical Screening Initiatives Program of Newfoundland and Labrador. (2001). Reprinted with permission.

[2] Alberta Cervical Cancer Screening Program. (2002). Cervical cancer screening: Quick reference card. Calgary, AB.

[3] Seidel, H.M., Ball, J.W., Dains, J.E., & Benedict, G.W. (1987). Mosby's Guide to Physical Examination. Adapted with permission from Elsevier.

Chapter 8: External & Speculum Exam

Learning Objectives	On completion of this section, the learner will be able to: 1. Describe how to perform a person-centered physical examination of the external genitalia. 2. Understand the function of and use of metal and disposable speculums. 3. Describe how to perform a person-centered speculum examination. 4. Identify requirements for follow-up.

Exam Equipment

You will need the following supplies:

- Vaginal speculum of appropriate size
- Portable or wall light or an attachable speculum light source
- Latex free gloves

Important Information	Ensure a new plastic speculum is used for each exam. If metal speculums are still in use in your facility, you must ensure that appropriate infection control procedures are followed for cleaning and maintaining these instruments.[1 2 3]

Preparing the Client[4]

- Introduce yourself to the client before they change into a gown.
- Obtain a relevant health history as explained in Chapter 7: Health History.
- Explain the steps to and the reason for performing an external genital exam, speculum exam and Pap test.
- Obtain verbal consent to proceed with the external examination, speculum exam and Pap test procedures.
- Provide the client with instructions for changing:
  - Remove clothing from the waist down.
  - Put on gown with ties facing the back and place the drape over your legs.
  - Remove a tampon, if wearing one.
  - To minimize discomfort while inserting the speculum and to allow for easier palpation, have the client void prior to the procedure.

- Either leave the room while the client undresses or pull a curtain within the room to ensure maximum privacy

- If possible, raise the head of the bed to a 40-degree angle or more. Once the client has moved to the edge of the bed they won't be sitting up this high. The benefits of raising the head include:
  - Eye contact can be maintained throughout the procedure to observe any grimacing or signs of discomfort.
  - The position naturally relaxes the abdominal and pelvic muscles.
  - The client can see the foot supports in order to place their feet.
  - This position allows the client to feel more empowered and part of the exam.

- Run a drape from the client's abdomen to their knees. This can add to their sense of privacy especially if there is a chaperone present.

- Assist the client into the lithotomy position so that their body is supine and her buttocks extends over the end of the bed by approximately one inch. Encourage the client to relax their leg muscles, letting their knees part to start the exam.

In the M-Shaped position the client:

- lies on their back
- knees bent and apart
- feet resting on the examination table close to their buttocks

"The speculum must be inserted with the handle up. If the client feels their legs are not completely stable on the examination table, an assistant may support their feet or knees. The M-Shaped position does not require the use of stirrups."[2]

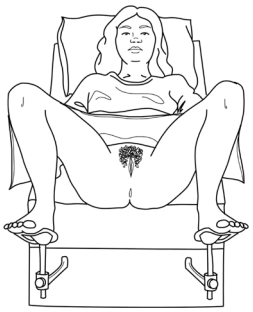
The M-shaped position

Source: Seidel, H.M., Ball, J.W., Dains, J.E., & Benedict, G.W. (1987). Mosby's Guide to Physical Examination. Reprinted with permission from Elsevier.

The Lithotomy Position

In the lithotomy position the client:

- lies on their back
- buttocks extends over the end of the bed by approximately one inch
- knees bent and apart
- feet resting in the foot stirrups



The HCP can discuss the use of alternate positions such as foot supports for lithotomy position, M-shaped or knee chest positions as explained below.

Source : Seidel, H.M., Ball, J.W., Dains, J.E., & Benedict, G.W. (1987). Mosby's Guide to Physical Examination. Reprinted with permission from Elsevier.

Knee-chest (side-lying) Position

In the Knee-Chest (Side-Lying) Position the client:

- lies on their side with both knees bent, top leg is brought closer to their chest, OR
- lies with their bottom leg straightened while the top leg is still bent closer to their chest

"The speculum can be inserted with the handle pointed in the direction of the abdomen or back. Because the client is lying on her side, the HCP should be sure to angle the speculum toward the small of the client's back and not straight up toward their head."[4]

"The assistant may provide support for the client while they are on the examination table or help them straighten their bottom leg if they prefer the variation of this position. If the client cannot spread their legs, the assistant may help them elevate one leg. The knee-chest position does not require the use of stirrups. It is particularly good for a client who feels most comfortable and balanced lying on her side."[2] This position is helpful for elderly or physically disabled clients who have less range of motion. Note: Most clinic rooms have the bed against the wall so the HCP should approach the client from the right side and the client would be lying on the left side.

Source : Seidel, H.M., Ball, J.W., Dains, J.E., & Benedict, G.W. (1987). Mosby's Guide to Physical Examination. Reprinted with permission from Elsevier.

- Sit on a stool at the foot of the examining table.

- Explain each step of the examination before it is done. Ensure the client understands that they have a choice about how much information is shared with them about the procedures for the examination. While some clients wish to know about each step of the exam, others would prefer to hear very little detail. Get a sense from the client what their preference is. Ask them to tell you if there is any pain or discomfort during the procedure.

The external examination is a part of the Well Woman's examination. However, this learning module is designed to give you detailed information to become competent in performing Pap tests. Check with your facility or regional policy to determine if an external exam is part of the care you will provide, and if so, what training will be provided to you as the learner. The external examination may be part of your preceptorship but for the purpose of this module, it is not outlined as a learning objective.	Important Information

External Examination[5]

Follow these steps:

- Wash hands and glove.

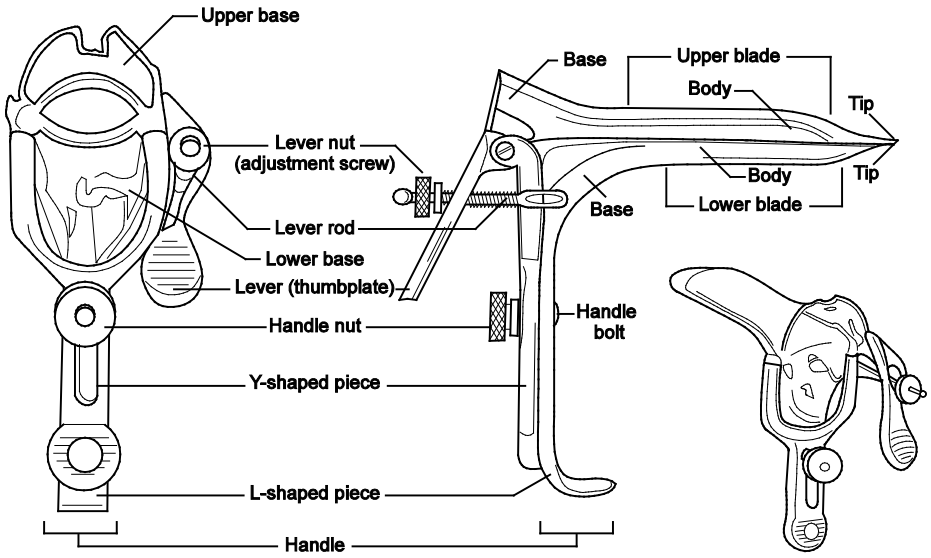
- Warn the client prior to palpating the inner thigh and labia for examination. The following phrases are encouraged: "You will feel the back of my hand on your thigh," or "now you will feel my hand on your genitals," or "you will feel me start the exam now." Examine each area for any visual abnormalities.

- Separate the labia with the fingers of the non-dominant gloved hand. Doing this allows visualization of the tissue and creates an opening for speculum insertion.

Speculum Exam Procedure[6]

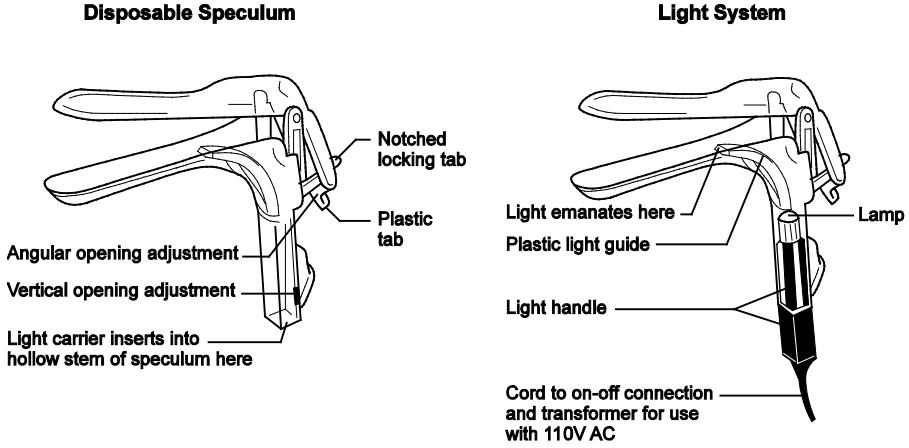
It is essential that you become thoroughly familiar with how the speculum operates before you begin the examination so that you do not inadvertently hurt the client. Become familiar with the operation of the metal speculum and the disposable plastic speculum. The mechanical action of each is somewhat different. Some plastic specula typically make a loud click when locked or released. It is therefore important to forewarn the client about this click and avoid surprise and unnecessary anxiety.

Important Information	
If metal speculums are the standard practice at your facility, you must ensure that the appropriate infection and control procedures are followed for cleaning and maintenance of these instruments.	



Metal speculum

From Faculty of Primary Care Nurse Practitioner Program, Saskatchewan Institute of Applied Science and Technology (2000). Pap Testing and Bimanual Exam, p. 25. Reprinted with permission.



Disposable speculum

Source: Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program. (2000). Pap Testing and Bimanual Exam. Reprinted with permission.

Locate plastic and metal speculums at your facility. Handle and review the parts of the speculums as per the above diagrams to understand how they function.

Important Information

After taking the client's health history and examining the external genitalia, you will have an idea of the appropriate type and size of speculum needed. A smaller and narrower speculum may need to be used with nulliparous clients, clients who have undergone FGC, clients who have vaginismus, clients whose vaginal introitus has contracted post menopausally, or clients who have never had sexual intercourse.

Now begin the speculum exam:

- Select the proper sized speculum that best matches the anatomy of the client.

- If you are using a metal speculum:
  - ensure the setscrew on the long handle (holding the two blades of the speculum together) is kept tightened
  - loosen the setscrew that holds the thumbscrew in place

- If you are using a plastic speculum:
  - ensure that it is in its most closed position

- You may choose to lubricate the speculum with warm water. The client's own lubrication, however, is often sufficient to comfortably insert the speculum. If using a vaginal lubricant use a small amount of water-soluble gel lubricant on the outer inferior blade of the speculum. Most HCPs lubricate the speculum with warm water only.

- Warm the speculum by rinsing it in warm (not hot) water, holding it in your gloved hand or under the lamp for a few minutes, or by having speculums on a warm heating pad (test temperature against wrist before inserting). A cold speculum increases muscle tenseness. Inform the client that this warming procedure is done for their comfort and that the speculum has previously been disinfected.

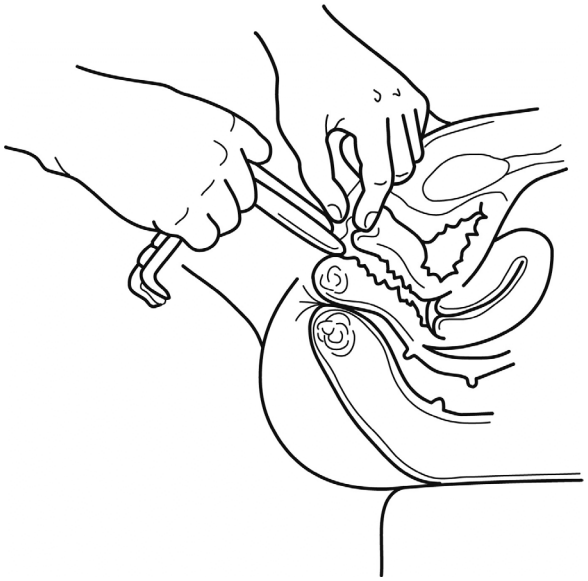
As a client ages their vaginal walls atrophy and therefore are drier than a younger client. Special attention to the client's comfort should be a priority.	Important Information

- Grasp the speculum with your dominant hand. The index and middle fingers should surround the blades and the thumb should rest against the back of the thumb lever to keep the tips of the blades closed.

- Tell the client that they are going to feel you examine them. With the index and middle fingers of the other hand, open and push downward on the vaginal orifice. This makes the speculum exam more comfortable. Ask the client to breathe slowly and try to consciously relax their muscles.

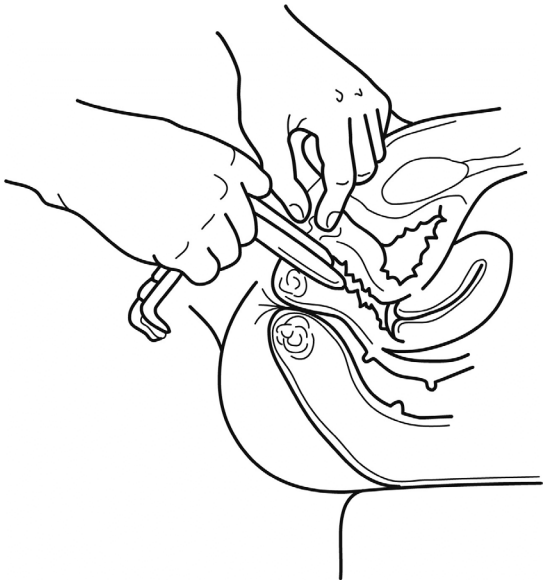
- Place the blade tips against the lower (posterior) wall of the vagina to avoid contact with the urethra. Some HCPs insert the speculum blades at an oblique angle, while others prefer horizontal. In either case, avoid touching the clitoris, catching pubic hair or pinching labial skin. Slowly insert the speculum maintaining gentle downward (toward posterior wall of vagina) pressure to avoid trauma to the urethra and vaginal walls. Firmly "sweep" away any hair or tissue that may have been pulled into the vagina.

- Insert the closed speculum at the anatomic angle of the vagina (45° angle downward toward the small of the woman's back) while maintaining downward pressure until resistance is met and then pull back slightly.



Preparing to insert closed speculum

Source: Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program. (2000). Pap Testing and Bimanual Exam. Reprinted and adapted with permission.

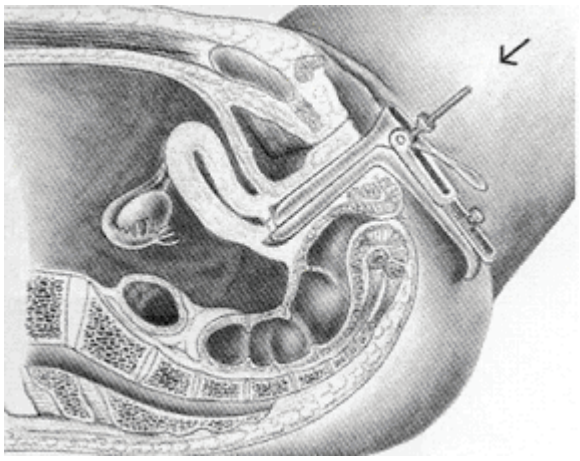


Inserting closed speculum

Source: Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program. (2000). Pap Testing and Bimanual Exam. Reprinted and adapted with permission.

- Insert the speculum up to the base of the cervix (the posterior fornix area) and then rotate it horizontally. Apply gentle pressure on the speculum against the perineum to help place the blade tips in the posterior fornix.

- Remove the hand that has separated the labia.



Speculum fully inserted

Source: Seidel, H.M., Ball, J.W., Dains, J.E., & Benedict, G.W. (1987). Mosby's Guide to Physical Examination. Reprinted with permission from Elsevier.

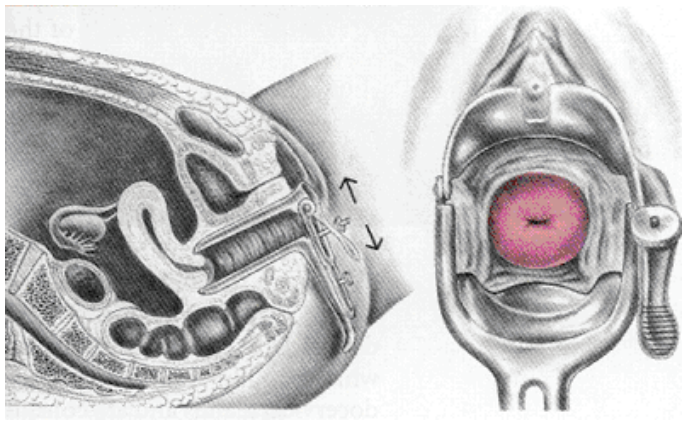
- Maintaining downward pressure of the speculum, open it by pressing on the thumb piece. Open the speculum as little as possible to see the cervix. Greater vaginal distension is unnecessary, and painful.

- Move the speculum blades slowly upward until the cervix comes into view. Adjust the light source. Note: if the speculum is directed posteriorly on insertion, it is easier to find the cervix and avoid a lot of unnecessary up and down movement of the speculum, which is uncomfortable for the client.

- If this attempt is unsuccessful and the cervix cannot be visualized, close the blade tips and withdraw the speculum slightly, then reinsert more deeply and posteriorly, with the base of the lower blade actually compressing the perineum. Then slowly move the blades upward again. Evaluate vaginal roof (wrinkled) and floor (smooth) and look for the position of the cervix. Determine direction you wish the blades to go. If this is still unsuccessful, remove the speculum, perform bimanual to locate the cervix using water as a lubricant, and then reinsert the speculum.

- If you are using a metal speculum:
  - once the cervix is central and clearly in view, tighten the leaver nut to lock the blade tips in the open position

- If you are using a plastic speculum:
  - open the blade of the speculum until it is positioned such that you may visualize the cervix. You will hear 1 – 2 clicks.



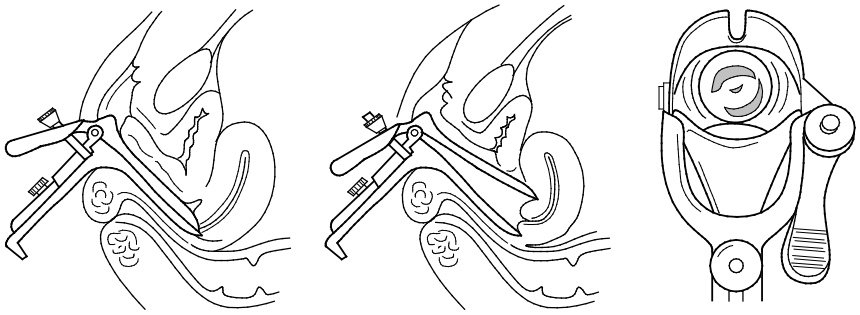
Speculum open to view cervix

Source: Seidel, H.M., Ball, J.W., Dains, J.E., & Benedict, G.W. (1987). Mosby's Guide to Physical Examination. Reprinted with permission from Elsevier.

In most clients, the cervix has a posterior orientation that slightly obscures the cervix due to the vaginal walls. The cervix can be further obscured through a retroverted uterus, marked posterior orientation of the cervix or laxity of the vaginal walls. The entire cervix should be visible in order to obtain the Pap test.

Clients with Retroverted Uterus
A cervix that is pointing anteriorly indicates a retroverted uterus. The speculum has to be much further forward and the HCP may have to invert speculum to see the cervix.

Clients with Posterior Orientation of the Cervix
Insert the speculum more deeply and posteriorly through compression of the perineal tissue. The blade tips will slip under the cervix into the posterior fornix.



Marked posterior orientation of the cervix

Source: Saskatchewan Institute of Applied Science and Technology, Faculty of Primary Care Nurse Practitioner Program. (2000). Pap Testing and Bimanual Exam. Reprinted and adapted with permission.

Clients with Laxity of the Vaginal Walls

An inability to visualize the cervix due to laxity of vaginal walls may occur in some clients (e.g. obese and multiparous clients). The blade base, as well as the tips have to be opened when using a metal speculum. Loosening the handle nut in the metal speculum and pushing the Y-shaped piece upwards accomplishes this. Alternatively, a large metal speculum can also be used. For the plastic speculum, a larger size may be needed. Placing a condom over the speculum with the tip removed also assists in visualizing the cervix by supporting the vaginal walls.

- Inspect the cervix.

Depending of your scope of practice, all abnormal findings need to be investigated appropriately or referred to a specialist. A Pap test may provide a false negative result.	Important Information

Assess the Following Features of the Cervix:

Colour

Pink, with the colour evenly distributed. A bluish colour indicates increased vascularity that may be a sign of pregnancy. Symmetric circumscribed erythema around the os is a normal finding that indicates exposed columnar epithelium from the cervical canal.

Check for:

- reddened areas: beginning HCPs should consider any reddened areas as an abnormal finding, especially if patchy or if the borders are irregular
- pale cervix: may indicate anemia or menopause

Position

Correlates with the position of the uterus. A cervix that is pointing:

- anteriorly indicates a retroverted uterus
- posteriorly indicates an anteverted uterus
- horizontally indicates a uterus in midposition

The cervix will be more posterior with the anteverted or anteflexed uterus and more anterior with the retroverted or retroflexed uterus. The cervix projects about 1 to 3 cm into the vagina.

Check for:

- deviation to the right or left may indicate a pelvic mass, uterine adhesions, or pregnancy
- projection greater than 3 cm may indicate a pelvic or uterine mass

Size

The diameter ranges from 2 to 3 cm. However, clients who have had multiple pregnancies may have larger diameters.

Check for:

- enlarged cervix may indicate cervical infection

Shape of the Os

The os of the nulliparous client is small, round, or oval. The os of a multiparous client is usually a horizontal slit or may be irregular and stellate. Trauma from induced abortion or difficult removal of an intrauterine device may change the shape of the os to a slit.

Note if the os is:

- small and round
- horizontal irregular slit
- unilateral transverse slit
- bilateral transverse slit
- stellate
- cervical eversion is present

Surface
The surface of the cervix should be smooth. Some squamocolumnar epithelium of the cervical canal may be visible as a symmetric reddened area around the os. Nabothian cysts may be observed as small, white or yellow, raised, round areas on the cervix and are considered to be a normal finding.

Check for:

- friable tissue (soft, eroded, may be bleeding), red patchy areas, abnormal bleeding, inflammation, pebbly growths, granular areas, and white patches that could indicate infection, or carcinoma. Refer for colposcopy or reassessment by another HCP as per your facility or region policy.
- nabothian cyst: becomes swollen with fluid and distorts the shape of the cervix, giving it an irregular appearance
- polyps: refer to HCP as per your facility or region policy
- a poorly visualized os appearing in inflamed tissue

Secretions
Determine whether the discharge comes from the cervix itself, or whether it is vaginal in origin and has been deposited in the cervix. Normal discharge is odorless, may be creamy or white, may be thick, thin, or stringy, and is often heavier at midcycle or immediately before menstruation.

Check for:

- abnormal vaginal discharge (refer to Chapter 6: Summary Chart of Discharges, Infections, Ulcers and Lesions)

If there is a suspicion of malignancy (inflammation of the cervix, fungating lesion, ulcerative lesion, abnormal bleeding from cervix) or if the woman has a history of abnormal bleeding (post-coital, intermenstrual, postmenopausal, or heavy irregular bleeding), depending on your scope of practice you should investigate appropriately or refer to a specialist.	Important Information

- Perform Pap test (see Chapter 9).

- If you are using a metal speculum:
  - loosen the thumbscrew but continue to hold the speculum blades open

- If you are using a plastic speculum:
  - unlock the notch locking tab while continuing to hold the speculum blades open

- Slowly withdraw the speculum, rotating it as you go to fully inspect the vaginal wall. The colour should be a similar pink colour as the cervix, or a little lighter. Clients with adequate estrogen levels have pink, moist, smooth or rugose and homogenous vaginal walls. Normal secretions that may be present are usually thin, clear or cloudy, and odorless.

Check for:

- inflammation
- lesions
- swelling
- cracks
- abnormal discharge
- abnormal colour
- presence or absence of rugae
- reddened patches, lesions, or pallor indicates a local or systemic pathologic condition
- secretions that are profuse (thick, curdy, or frothy, appear gray, green, or yellow, and may have a foul odor) indicate infection

- Close the blades when the end of the blades nears the vaginal opening, making sure that no vaginal mucosa, skin, or hair remains between the closed blades. Maintain downward pressure of the speculum to avoid trauma to the urethra. Note the odor of any vaginal discharge that has pooled.

- Place the used metal speculum in the recommended medium for infection control and cleaning, or dispose of disposable speculum.

- Discard your gloves and wash hands.

- Inform the client that the procedure is over and that they can move into a seated position. Be sure to inform the client that they may contact CervixCheck or her HCP for their results. This may also be an opportunity to educate the client about harm reduction and cervical screening guidelines. Inform the client that you will leave for a minute while they get dressed and that you will return to discuss treatment and/or education.

- Offer a tissue to the client and tell them that spotting may occur and that this is normal. If appropriate, offer her a panty liner.

Special Considerations

Clients with Hysterectomy[7]

For clients who may have had a hysterectomy, screening of the vaginal vault may still be necessary. HCPs should confirm the pathological history in order to determine how to proceed and/or refer to their facility or regional policy.

Screening of the vaginal vault with a broom or spatula is not necessary if the client meets all of the following conditions:

- they have had a total hysterectomy (as opposed to a subtotal hysterectomy)
- the hysterectomy was performed for a benign disease (pathology negative for high-grade dysplasia), and
- they have had no previous high-grade Pap test result.

If Pap test results or hysterectomy pathology is unavailable, continue screening until two negative vaginal vault tests occur.

Examine the external genitalia for atrophy, skin changes, decreased resilience, and discharge. On speculum examination, the cervix will be absent.
Assess the walls, mucosa, and secretions as you ordinarily would. The vaginal canal of a client who has had a total hysterectomy might show the same changes as those that occur with menopause (such as decrease in rugae and secretions), especially if the woman is not receiving hormone replacement therapy. Examine for a cystocele or rectocele. Stress incontinence may be a problem, so observe for this when having the client bear down.

Older Women[8]

The examination procedure for older clients (ages 55 – 69) is the same as that for the client of childbearing age, with a few modifications for comfort. The older client may require:

- more time and assistance to assume the lithotomy position
- assistance from another individual to help hold their legs, since they may tire easily when the hip joints remain in abduction for an extended period
- head and chest elevated during examination if they have orthopnea
- use of a smaller speculum depending on the degree of introital constriction that occurs with aging

Note that, in comparison to a younger adult, the older client's:

- labia appear flatter and smaller, corresponding with the degree of loss of subcutaneous fat elsewhere on the body
- skin is drier and shinier
- pubic hair is gray and may be sparse
- clitoris is smaller
- urinary meatus may appear as an irregular opening or slit. It may be located more posteriorly, very near, or within the vaginal introitus as a result of relaxed perineal musculature.
- vaginal introitus may be constricted and admit only one finger. In some multiparous older clients the introitus may gape with the vaginal walls rolling toward the opening.
- vagina is narrower and shorter, and you will see and feel the absence of rogation
- cervix is smaller and paler, and the surrounding fornices may be smaller or absent. The cervix may seem less mobile if it protrudes less far into the vaginal canal. The os may be smaller, but, should still be palpable.
- pelvic musculature relaxes, so remember to look particularly for stress incontinence and prolapse of the vaginal walls or uterus

As with younger clients, you may note signs of inflammation (older clients are particularly susceptible to atrophic vaginitis), infection, trauma, tenderness, growth, masses, nodules, enlargement, irregularity, and changes in consistency. Any concerns should be referred.

Recommended Reading

Health Canada. (1998). *Canada communicable disease report: Cleaning, disinfecting and sterilizing patient care equipment*. Ottawa: Ontario.

1. Describe the features and functioning of both the metal and disposable speculums. 2. What steps do you follow to properly insert the speculum? 3. What do you examine for the internal genital exam? 4. How might an older client's normal external and internal genitalia present in comparison to a younger adult?	Chapter 8 Self-Test

References

[1] Health Canada. (1998). Canada communicable disease report: Cleaning, disinfecting and sterilizing patient care equipment. Ottawa: Ontario.

[2] Provincial Infectious Diseases Advisory Committee. (2006). Best practices for cleaning, disinfection and sterilization in all health care settings. Toronto: Canada.

[3] Centres for Disease Control and Prevention. (2008). Guideline for disinfection and sterilization in healthcare facilities. Chapel Hill: North Carolina.

[4] This section is adapted from: a) Faculty of Primary Care Nurse Practitioner Program, Saskatchewan Institute of Applied Science and Technology (2000) & and Calgary Health Region (2001). Adapted with permission. And b) University of Manitoba, Clinical Teaching Assistant Post-Notes, (2013). Adapted with permission.

[5] This section is adapted from Faculty of Primary Care Nurse Practitioner Program, Saskatchewan Institute of Applied Science and Technology (2000) & and Calgary Health Region (2001) A

[6] This section is adapted from Faculty of Primary Care Nurse Practitioner Program, Saskatchewan Institute of Applied Science and Technology (2000) & and Calgary Health Region (2001) A & Cervical Screening Initiatives Program of Newfoundland and Labrador (2001).

[7] Manitoba Cervical Cancer Screening Program. (2002). Pap smears: A resources guide for Manitoba health professionals. Manitoba: CancerCare Manitoba

[8] Cervical Screening Initiatives Program of Newfoundland and Labrador. (2001). Papanicolaou smear: A clinic manual. Newfoundland: Canada.

Chapter 9: The Papanicolaou Test

Learning Objectives	On completion of this section, the learner will be able to: 1. Identify ideal conditions for performing cervical cancer screening. 2. Describe how to perform a person-centered Pap test. 3. Understand how to accurately label and prepare a Pap test specimen and complete a cervical cytology requisition form. 4. Identify abnormal findings and conditions that require follow-up.

Ideal Conditions for Performing Cervical Cancer Screening

While these are listed as "ideal conditions for performing cervical cancer screening" they should not be seen as barriers to cervical cancer screening participation.

- Avoid vaginal douching for 24 hours before the test
- Avoid use of contraceptive creams or jellies for 24 hours before the test
- Avoid intercourse for 24 hours before the test

Sampling Areas

The area of the cervix at risk for pre-cancer and cancer is the transformation zone (TZ). The TZ is the area between the columnar epithelium of the endocervix and the mature squamous epithelium of the ectocervix. The TZ is not clinically apparent. Sampling both the endocervix and ectocervix improves the probability of sampling the TZ. With liquid based cytology, the broom OR plastic spatula and cytobrush are effective to capture cells from the TZ.

Liquid Based Cytology[1]

With Liquid Based Cytology (LBC), a sample of cells is taken from the cervix using a broom-like device. The cervical sample is deposited in a liquid medium and sent to the laboratory for examination.

It is accepted there are marginal increases in sensitivity and decreases in specificity offers no clinical performance advantage for detection of high-grade precancerous lesions.[2] [3] [4] The decision by laboratories to incorporate LBC Is based on a cost-effectiveness analysis, practicality to laboratories and cytotechnologists and the ability to also serve as a platform for molecular testing for HPV Testing, Gonorrhea, Chlamydia and trichomonas.

Publications from the ***Netherlands National Cervical Cancer Screening*** what LBC platform is used has clinical significance.[5]

Because LBC removes most artifacts and other obscuring elements; the frequency of unsatisfactory results is reduced. LBC also allows for automated cytology reading and provides the foundation to perform HPV testing.

The Pap Test Procedure: Liquid Based Cytology

You will need the following equipment for a liquid based cytology (LBC) specimen:

- Vaginal speculum of appropriate size
- Portable light or a light source with a disposable speculum
- Liquid vial
- Broom-like sampling device (or plastic brush and plastic spatula sampling devices)
- Non-latex gloves
- Cotton tipped swab (optional)

For a summary of the Pap test procedure sampling techniques, see Appendix 1.

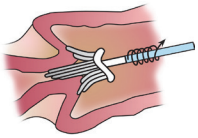
1. Prepare the client as explained in the Chapter 8: External & Speculum Exam. In a professional and sensitive manner, explain the purpose of the Pap test, the instruments to be used, the procedure, possible test results and follow-up and the recommended frequency of Pap tests.

2. As per the Manitoba Quality Assurance Program (MANQAP), the vial (as supplied by the laboratory) must be labelled with the client's first name, last name and PHIN (or military, or other provincial/territorial #). The PHIN and name on the label must match the PHIN and name on the requisition.

3. Insert an appropriately sized speculum and inspect the cervix (warm water may be used to lubricate the speculum if necessary).

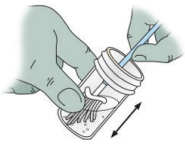
4. Take STI specimens if required. Gently wipe away excessive discharge/mucous on the cervix with an oversized cotton swab. This should be done as gently as possible to avoid removing the cervical cells to be sampled.

5. Insert the broom deeply enough into the endocervical canal so that the shorter bristles fully contact the ectocervix. Rotate the brush 5 times in a clockwise direction. To collect a **vaginal vault specimen**, insert the broom or spatula to the top of the vagina and rotate five times in a clockwise direction.



6. **For SurePath:** Insert the broom into the larger opening of the vial. Rotate the broom 90° to use the inner edge of the insert to pull off the broom into the vial.

6. **For ThinPrep:** Rinse the broom by pushing it into the bottom of the vial 10 times, forcing the bristles apart. Then, swirl the broom vigorously to release more material.



7. Place the cap on the vial and tighten firmly.

8. Slowly withdraw the speculum as explained in Chapter 8: External & Speculum Exam. Place metal speculum in appropriate container for sterilizing or dispose of plastic speculum. Discard gloves and wash hands.

9. Inform the client:
    - that the procedure is over and they can move into a seated position,
    - that they may have blood spotting following the procedure and offer them a protective pad or liner,
    - that if the Pap test is abnormal they will be contacted and follow-up will be arranged with their HCP,
    - whether they will receive their result if their Pap test is normal,
    - that they may request their results from their HCP and from CervixCheck,
    - of any future appointments,
    - about the importance of follow-up for abnormal Pap test results, and
    - that CervixCheck resources are available to them for free.

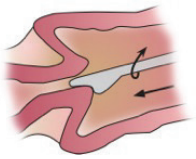
10. Complete requisition and prepare specimen for transport to your regional laboratory services. Store specimen at room temperature away from obvious heat sources. Send the sample to the laboratory within 5 days of collecting the specimen.

Alternative Collection Method for LBC

A plastic spatula and cytobrush may also be used to collect liquid based samples.

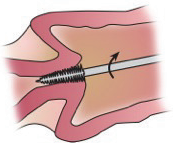
SurePath

1. Insert the spatula into the cervical os and rotate 360 degrees with firm pressure.



2. Snap off the head of the spatula (avoid touching the head of the device), and drop into the liquid vial (avoid splashing).

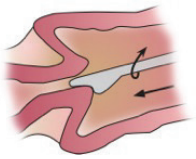
3. Insert the cytobrush into the cervical os no further than the end of the bristles and rotate 90 degrees.



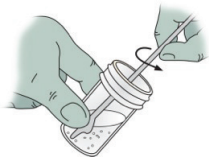
4. Snap off the head of the cytobrush (avoid touching the head of the device), and drop into the liquid vial (avoid splashing).

ThinPrep

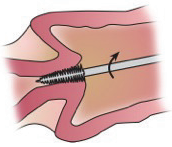
1. Insert the spatula into the cervical os and rotate 360 degrees with firm pressure.



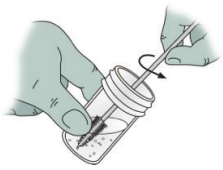
2. Rinse the spatula by swirling it vigorously in the vial 10 times. Discard the spatula.



3. Insert the cytobrush into the cervical os no further than the end of the bristles and rotate 90 degrees.



4. Rinse the cytobrush by swirling it vigorously in the vial 10 times. Discard the cytobrush.



The Vaginal Vault Procedure: Liquid Based Cytology

To collect a vaginal vault specimen, insert the broom or spatula to the top of the vagina and rotate five times in a clockwise direction.

Pregnant Clients	Important Information
Screening pregnant clients is unnecessary if the client has had routine negative Pap tests, is not due to be screened, has no symptoms of cervical cancer and/or no visual abnormalities of the cervix. If a Pap test is warranted, aim to screen during the first 10 weeks of pregnancy. If the client is over 10 weeks pregnant, the benefits of screening should outweigh the potential harms. Only the plastic spatula should be used.	

How to Document a Pap Test

Below are two examples of how to document a Pap test:
O= Objective
A= Assessment
P= Plan

Example #1

O: External genitalia: no noted lesions or rash.
Cervix: midline; small ectropion, small amount of thick white mucousy discharge from multip os.

A: Rule out cervical pathology.

P: Pap test performed; well tolerated. Will advise of abnormal results.

Example #2

O: External genitalia: 2mm flesh coloured discrete circular papule to left labia majora; no tenderness on palpation; no discharge.
Cervix: posterior position, but os easily maintained in midline position within opened speculum; small amount fresh bleeding upon rotation of cervix broom.
Adnexa: negative cervical motion tenderness; negative palpable lesion to either fornix

A: Rule out cervical pathology

P: Pap test performed; well tolerated. Client aware she may experience slight spotting post procedure. Will advise of abnormal results. Advised patient to monitor papule for any change in size or discomfort and report same to HCP.

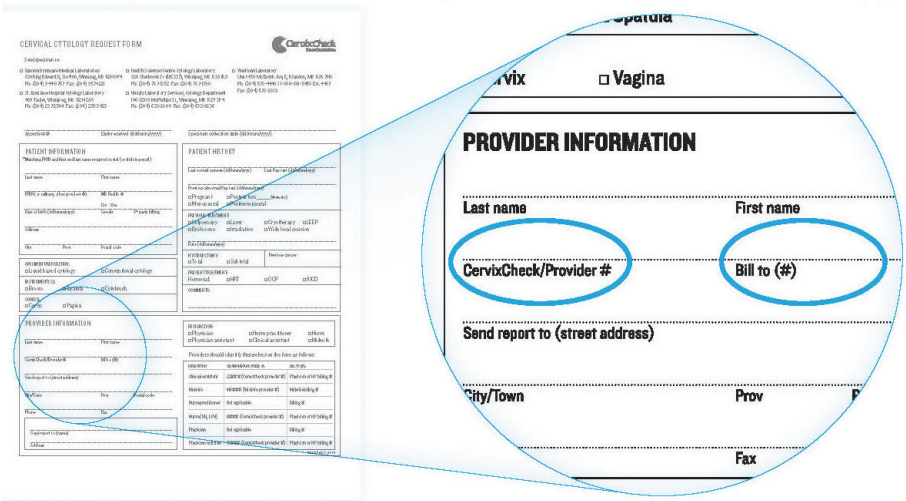
Cervical Cytology Request and Colposcopy Report Forms[6]

In Manitoba, cytology requisition forms and cytology reporting terminology are standardized. Locate the Manitoba cervical cytology request form and become familiar with the laboratory's process for transporting specimens to the lab, access to specimen collection instruments and mechanisms for receiving reports. Any questions should be directed to the laboratory.

Completing the Cervical Cytology Request Form

At present, all cytology laboratories in Manitoba use one format for requisitioning and reporting cervical cytology. Colposcopists also use a common colposcopy reporting form. Please review these forms in Appendix 2 of the module. As per MANQAP, in order for a specimen to be accepted at the laboratory, the PHIN and first and last name on the specimen must match the PHIN and name on the cytology requisition.

The specimen taker must be clearly identified on the cervical cytology request form in the "CervixCheck/Provider#" and/or "Bill to (#)" field. Where nurses, clinical assistants (CA) and physician assistants (PA) perform Pap tests under a physician or nurse practitioner, the CervixCheck provider number (issued by CervixCheck) should be recorded in the "CervixCheck/Provider#" field. The billing number of the physician or nurse practitioner overseeing these Pap tests should be captured in the "Bill to(#)" field.



Specimen takers should identify themselves on the cervical cytology request form as follows:

DESIGNATION	CervixCheck/PROVIDER #:	BILL TO (#):
Clinical Assistant	**22### (CervixCheck #)**	**Physician or NP billing #**
Midwife	M6### (midwifery provider #)	Midwifery billing #
Nurse Practitioner	Not applicable	Billing #
Nurse (RN, LPN)	**N### (CervixCheck #)**	**Physician or NP billing #**
Physician	Not applicable	Billing #
Physician Assistant	**72### (CervixCheck #)**	**Physician or NP billing #**

As per MANQAP and CervixCheck, the laboratory requires:

- client's surname and first name
- client's PHIN (or military number, other provincial/territorial number)
- complete date of birth (year/month/day)
- HCP name
- HCP's street address (or Box # where street address does not exist)
- HCP identifiers
  - CervixCheck/Provider #:
    - collects CervixCheck provider numbers for nurses, clinical assistants and physician assistants (issued by CervixCheck) in cases where nurses, clinical assistants and physician assistants perform Pap tests under a physician or nurse practitioner,
    - collects individual midwifery provider #'s, and/or
  - Bill to (#): billing number of the physician, nurse practitioner and midwife.

To ensure optimum evaluation of specimens, laboratories require:

- date of the client's last menstrual period (LMP). This date is important in the evaluation of benign endometrial cells. If these cells are found past the 12th day of a client's cycle or in a client who is post-menopausal, it is considered an abnormal finding.
- date(s) and result(s) of previous tests
- any relevant clinical or histological history
- history of existing hysterectomy, abnormal Pap tests and/or treatment. This is important information for follow-up.

Specimen Rejection Policy

1. The laboratory will reject a specimen under the following circumstances:
    - The specimen is improperly labelled
    - When the client is a non-Manitoba resident or, for any other reason, has not been issued a PHIN, the failure to identify the specimen with the client's name or alternate number
    - Discrepancy of information between the specimen and the requisition form
    - The specimen is received without accompanying requisition

2. The specimen and requisition will be returned to the HCP if the requisition lacks any or all of the following pertinent information:
    - Client's first and last name
    - Client's PHIN
    - Date of birth
    - Name/address of referring HCP

3. The requisition will be returned to the HCP if it is received without a specimen.

Transporting the Specimen
Liquid Vial (liquid based cytology)
Store at room temperature away from obvious heat sources and deliver to the laboratory within 5 days of specimen collection. Place the vial in a plastic bag with the patient's requisition form.

CervixCheck Provider Number

Nurses, clinical assistants and physician assistants should obtain a CervixCheck provider number from CervixCheck at such point cervical screening becomes part of their professional practice. This number identifies the nurse (N###), clinical assistant (22###) or physician assistant (72###) on the cervical cytology request form, thereby linking the nurse, clinical assistant or physician assistant with a cervical cancer screening test (i.e. Pap test) and any subsequent follow-up. See Appendix 2 for the request form.

Physicians, midwives, nurse practitioners should record their billing number (as assigned by Manitoba Health) in the "Bill to (#)" field on the cytology requisition form.

1. How do you sample the cervix with a broom?	Chapter 9 Self-Test

References

[1] Canadian Agency for Drugs and Technologies in Health. (2008). Liquid-based techniques for cervical cancer screening: Systematic review and cost-effectiveness analysis. Retrieved March 4th, 2009 from: http://cadth.ca/media/pdf/333_LBC-Cervical-Cancer-Screenin_tr_e.pdf

[2] Arbyn M, et al. Obstetrics and gynecology.2008; 111:167-77.

[3] RCT:Ronco G, et al. BMJ, Clinical research ed. 2007; 335:28.

[4] Siebers AG, et al. JAMA. 2009; 302:1757-64

[5] Rozemeijer et al. Cancer Causes Control. 2016; Rozemeijer et al. BJM. 2017.

[6] Manitoba Laboratory Standards. January, 2013. The College of Physicians and Surgeons of Manitoba.

Chapter 10: Cervical Cancer Screening Test Results

Learning Objectives	On completion of this section, the learner will be able to: 1. Identify how cervical cancer screening test results are interpreted and the reasons for normal and abnormal results. 2. Describe the appropriate follow-up for each cervical cancer screening test result using the CervixCheck Screening Guidelines.

The lab will issue ONE cervical cancer screening result report which will include:

1- Pap test (cytology) interpretation,

2- High-risk human papillomavirus (hrHPV) triage test result*
Note: (HPV triage will only be included for ASCUS results in patients age 30 and over, and LSIL results in patients age 50 and over), and

3- Management of results complete with a follow-up recommendation and/or educational note.

NOTE: High-risk HPV **triage** testing and high-risk HPV **reflex** testing both refer to the same genotyping process outlined above.

SAMPLE CERVICAL CANCER SCREENING HISTORY:

CancerCare Manitoba CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Smith**		
Given Name:	**Jane**		
Middle Name:			
Date of Birth:		Age:	**30**
Gender:	**F**		

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
One month ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	17-003888
		ROCKSTAR CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Atypical squamous cells of unknown significance (ASCUS)**				
HPV Test Result:	**High-Risk HPV Positive**				
	Type 16 Not Detected				
	Type 18 Detected				
	Type Other Not Detected				
7 months ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456800
		ROCKSTAR CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Atypical Cells of Undetermined Significance ASCUS**				
4 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
		HSC COLPOSCOPY CLINIC			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				

1- Pap Test Interpretation

The Bethesda System[1]

The terminology for reporting cervical cytology is based on The Bethesda System which is the internationally recognized reporting standard.

Specimen Adequacy

The two categories of cytology specimen adequacy are:

a) Unsatisfactory for Evaluation
b) Satisfactory for Evaluation

a) Unsatisfactory for Evaluation

Unsatisfactory for Evaluation indicates that:

- The specimen was processed and examined but was unsatisfactory for evaluation because of obscuring factors (excessive RBCs, WBCs or mucous) or insufficient epithelial cells or cytolysis.

The reason the Pap test was considered *Unsatisfactory for Evaluation* will be indicated in the report.

Unsatisfactory Pap tests are mostly due to:

- cervical sampling errors, or
- specimen collection issues (refer to chapter 9 to review Pap test sampling techniques).

The following table identifies and describes each reason for Unsatisfactory Pap test results:

Unsatisfactory due to:	Description
Mainly endocervical cells only	Only cells from the endocervix are visible.
Excessively thick cell preparation for adequate cytological evaluation	The sample was likely not spread uniformly across the slide (where conventional cytology is in use), such that the sample appears lumped together or "thick."
Acellularity	Not enough cells were collected to interpret the sample.
Insufficient epithelial cells	Not enough cells were collected to interpret the sample.
Obscuring inflammation	There is a presence of infection and/or necrosis (dying cells, usually due to disease) in the sample.
Obscuring blood	The presence of blood in the sample makes it inadequate for interpretation.
Lubricant or other foreign material	Other foreign material, i.e. lubricant exists on the sample making it difficult to interpret.

Factors associated with the client may also produce Unsatisfactory Pap tests results. These include:

- Intercourse within 24 hours of Pap test
- Douching or vaginal medication used 24 hours before Pap test
- Infection

b) Satisfactory for Evaluation

The diagnostic categories are:

- Negative for Intraepithelial Lesion or Malignancy
- Epithelial Cell Abnormality

- Other

Negative for Intraepithelial Lesion or Malignancy
Where there is no cellular evidence of neoplasia, Pap tests are interpreted as Negative for Intraepithelial Lesion or Malignancy. Clients with negative results can typically continue with routine screening.

Epithelial Cell Abnormality
Pap tests interpreted as Epithelial Cell Abnormality include both those that:

- represent cervical carcinoma, and
- have changes considered to indicate increased risk of cervical carcinoma.

Changes indicative of increased risk for cervical carcinoma are reported as:
Squamous Cell

- Atypical squamous cells (ASC)
  - of undetermined significance (ASC-US)
  - cannot exclude HSIL (ASC-H)
- Low-Grade Squamous Intraepithelial Lesion (LSIL)
- High-Grade Squamous Intraepithelial Lesion (HSIL)
- Squamous cell carcinoma

Glandular Cell

- Atypical
  - glandular cells (AGC)
  - endocervical cells
  - endometrial cells
- Endocervical adenocarcinoma in Situ (AIS)
- Adenocarcinoma
  - Endocervical
  - Endometrial
  - Extrauterine
  - Not otherwise specified (NOS)

2- High-Risk Human Papillomavirus (hrHPV) Triage Result

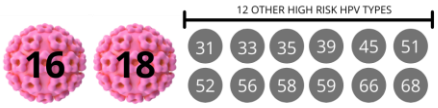
HPV reflex testing will be performed on the following low-grade cytological specimen interpretations:

- Atypical squamous cells of undetermined significance (ASCUS) in patients age 30 and over
- Low grade squamous intraepithelial lesion (LSIL) in patients age 50 and over

If any one of the following three genotyping sequences is **detected**, the HPV triage result will be **positive**.

1- HPV 16 (detected or undetected)
2- HPV 18 (detected or undetected)
3- HPV Other (detected or undetected)

HPV Other refers to the genotyping of 12 other hrHPV types as illustrated here:



The hrHPV triage result will be either:

- **Positive:** high-risk HPV is detected in any one or more of the (3) genotyping sequences (HPV16, HPV18, HPV Other)
- **Negative:** high-risk HPV is undetected in all (3) of the genotyping sequences (HPV16, HPV18, HPV Other)
- **Invalid:** The presence or absence of high-risk HPV could not be determined.

3- Management of Results

Each lab report will contain information about how to manage the results and may or may not include an educational note. The following table shows CervixCheck recommendations for follow-up of all Pap test interpretations and hrHPV results.

MANAGEMENT OF RESULTS

Pap test interpretation	Management
Negative for intraepithelial lesion or malignancy (NILM)	Routine screening with a Pap test in 3 years.
Atypical squamous cells of undetermined significance (ASCUS)	**21 to 29 years of age** Repeat Pap test in 6 months → **Negative** → Repeat Pap test in 6 months → **Negative** → Routine screening Repeat Pap test in 6 months → **Negative** → Repeat Pap test in 6 months → **Abnormal** → Refer for colposcopy Repeat Pap test in 6 months → **Abnormal** → Refer for colposcopy **30 years of age and older** Lab automatically tests the same specimen for hrHPV → hrHPV negative → Routine screening Lab automatically tests the same specimen for hrHPV → hrHPV positive → Refer for colposcopy Lab automatically tests the same specimen for hrHPV → hrHPV invalid → Repeat Pap test in 6 months
hrHPV = high-risk human papillomavirus	
Low-grade squamous intraepithelial lesion (LSIL)	**21 to 49 years of age** Repeat Pap test in 6 months → **Negative** → Repeat Pap test in 6 months → **Negative** → Routine screening Repeat Pap test in 6 months → **Negative** → Repeat Pap test in 6 months → **Abnormal** → Refer for colposcopy Repeat Pap test in 6 months → **Abnormal** → Refer for colposcopy **50 years of age and older** Lab automatically tests the same specimen for hrHPV → hrHPV negative → Routine screening Lab automatically tests the same specimen for hrHPV → hrHPV positive → Refer for colposcopy Lab automatically tests the same specimen for hrHPV → hrHPV invalid → Repeat Pap test in 6 months
Atypical glandular cells (AGC)	Refer for colposcopy and endocervical curettage. If patient is 35 years of age and older or has abnormal bleeding, colposcopy should also include an endometrial biopsy.
Atypical squamous cells, cannot rule out high-grade (ASC-H)	Refer for colposcopy.
High-grade squamous intraepithelial lesion (HSIL)	Refer for colposcopy.
Atypical endocervical cells	Refer for colposcopy.
Atypical endometrial cells	Refer for endometrial biopsy.
Benign endometrial cells	If patient has abnormal bleeding: refer for endometrial biopsy. If patient does not have abnormal bleeding and is - less than 45 years of age: continue routine screening - 45 years of age and older: refer for endometrial biopsy
Adenocarcinoma in situ (AIS)	Refer for colposcopy and endocervical curettage.
Squamous carcinoma, adenocarcinoma, other malignant neoplasms	Refer for colposcopy and gynecologic oncology.
Unsatisfactory	Repeat Pap test in 3 months. If persistent (2 consecutive or 2 within 12 months) unsatisfactory result due to "obscuring blood" or "obscuring inflammation," refer for colposcopy.
Absence of transformation zone cells	Screen according to cytology result.

NOTE: All cytological abnormal results in immunocompromised or HIV positive individuals should be referred for colposcopy (includes LSIL and ASCUS cytology results).

CancerCare Manitoba ActionCancerManitoba
BreastCheck CervixCheck ColonCheck

EDUCATIONAL NOTE

RESULT	WHAT DOES IT MEAN?	WHAT SHOULD I DO?
hrHPV POSITIVE	One or more types of high-risk HPV that are linked to high-grade lesions and cervical cancer has been detected. This patient is at higher risk for cervical cancer. **It does not necessarily mean your patient has cervical cancer or will get cervical cancer.** Colposcopy is required to determine if treatment is necessary.	**Notify patient. Refer patient to colposcopy.** Visit our website for a list of colposcopy services in Manitoba.
hrHPV NEGATIVE	High-risk HPV was not detected and the risk for cervical cancer in the next three years is very low.	**Return patient to routine screening.**
hrHPV INVALID	The presence of absence of high-risk HPV could not be determined.	**Notify patient. Repeat Pap test in 6 months.**

Other Results

Absence of Transformation Zone Cells

The decision to repeat a Pap test should be based on the cytology diagnosis and not the presence or absence of transformation zone cells. Screen according to the cytology result.	Important Information

Sufficient sampling of the transformation zone (TZ) include an adequate number of squamous and endocervical cells (EC) or metaplastic cells or dysplastic cells.

Lack of TZ/EC on a Pap test is often seen in postmenopausal and pregnant clients. In the absence of these clinical scenarios, the lack of TZ/EC may indicate improper screening technique.

Studies show that dysplastic/SIL cells are more likely to be present on Pap tests where TZ/EC are present.[2] However, retrospective cohort studies have shown that women with Pap tests lacking TZ/EC are not more likely to have squamous lesions on follow-up than are women with EC.[3 4] Finally, retrospective case-control studies have failed to show an association between false negative

interpretations of Pap tests and lack of TZ/EC.[5 6] Cross-sectional studies have consistently demonstrated a higher percentage of cytological abnormalities in conventional Pap tests with evidence of TZ sampling than those without.[4 7 8 9] Longitudinal studies have not shown an increased risk of high-grade lesions or cancer in women with Pap tests lacking TZ sampling.[5 10 11]

Clients with Pap test results that are "Negative for Intraepitheleal Lesion or Malignancy", and report an "absence of transformation zone cells," do not need a repeat Pap test.

A Pap test that lacks TZ/EC in clients who have persistent postcoital bleeding (PCB) or intermenstrual bleeding (IMB) should be referred to colposcopy or gynecology.

Rejected Specimen

A specimen may be rejected for one of the following reasons:

- The specimen vial is improperly labeled
- The specimen vial is not labeled with sufficient personal identification
- Discrepancy of information between the specimen vial and the requisition
- Where conventional cytology is used, the slide is broken beyond repair
- The specimen is received without accompanying requisition

Limitations of Pap Test Results

A false negative result occurs when the Pap test fails to detect an abnormality that is present on the cervix. False negatives occur because either:

1. abnormal cells are not present on the slide due to limitations of cervical sampling and Pap test preparation, or
2. the laboratory did not identify abnormal cells in the Pap test.

Repeat screening at regular intervals is necessary to provide adequate lifetime protection from cervical cancer. Most individuals eligible for cervical cancer screening should be screened every three years.	Important Information

Talking to Clients about Abnormal Results

Abnormal cervical cancer screening test results are common. One in four women will have an abnormal Pap test result in her lifetime.[12] The psychological impact of having an abnormal result varies between clients. How an HCP communicates an abnormal result can impact the client's perspective and subsequent psychological response. Before you communicate abnormal results:

1- Review chapter 2 sections entitled:
   a. Natural History
   b. Risk Factors for HPV and Cervical Cancer
2- Review the suggestions below for how to communicate abnormal Pap test results:

EDUCATE

1. Inform the client that their Pap test result is abnormal, meaning that the Pap test has detected abnormal cell changes on the cervix. Abnormal cell changes are caused by the HPV virus.

2. In rare circumstances, and often over a long period of time, abnormal changes caused by HPV can become cancerous.

3. Reassure the client that their abnormal result is most likely not cancer.

4. Normalize HPV. Reassure the client that HPV is very common. Three out of four people will have at least one HPV infection in their lifetime. Most infections will disappear on their own.

5. Use "What you need to know about preventing cervical cancer" booklet (available at cancercare.mb.ca/screening/resources) to help explain the meaning of the result and the recommended follow-up.

CHECK FOR UNDERSTANDING

6. Ensure the client understands the information you have provided her and clarify any misunderstanding.

7. Remind the client that most clients who have abnormal Pap test results and who have follow-up tests and/or treatment will never get cancer of the cancer.

8. Address any fears/barriers that may prevent them from following up on the recommended course of action.

PROVIDE RESOURCES

9. Clients can contact CervixCheck, CancerCare Manitoba for more information.

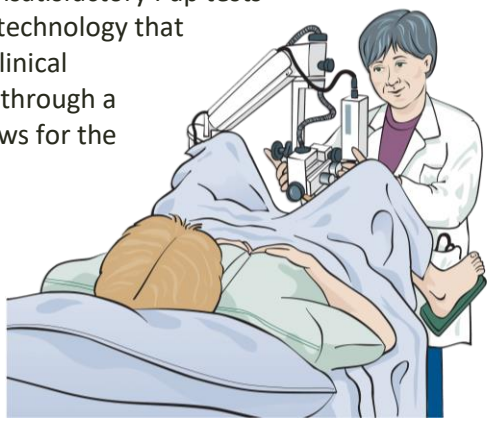
10. Provide the client with a copy of CervixCheck's 'What you need to know about preventing cervical cancer booklet.'

Colposcopy[13]

Clients with high-grade and persistent low grade/unsatisfactory Pap tests results are referred to colposcopy. Colposcopy is a technology that has been used for several decades to identify sub-clinical abnormalities of the cervix. The cervix is magnified through a binocular scope with a high intensity light. This allows for the identification of abnormalities based upon:

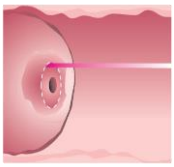
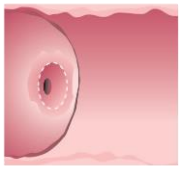
- Epithelial density (white epithelium)
- Vascular patterns (punctation, etc.)

Using these parameters, an area of abnormality can be identified in order to direct a tissue biopsy.

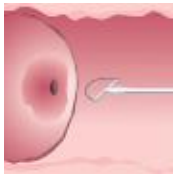
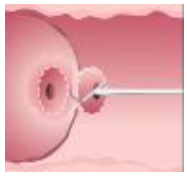
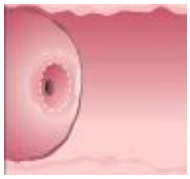


If a high-grade lesion is identified involving the cervix, it can be treated by one of the following methods:

- **Laser surgery** uses an intense, narrow beam of energy to vapourize the abnormal area.

- **LEEP** (loop electro surgical excision procedure) Excision uses an electrical wire loop to remove the abnormal cervical tissue.

- **Cone biopsy** involves the removal of a cone-shaped piece of tissue either for treatment or for diagnosis when a high-grade lesion is suspected but not seen at colposcopy.



To see colposcopy images, as well as carcinoma and other abnormalities of the cervix, please see the Pap Test Learning Module video presentation on “At your cervix: What’s normal anyways?”

Terminology for cervical histopathology specimens has changed over time. Squamous abnormalities have generally been reported using terms including “dysplasia”, “cervical intraepithelial neoplasia” (CIN) and “squamous intraepithelial lesions”. In 2014, the Pan-Canadian Cervical Screening Network (Canadian Partnership Against Cancer) reported on and published Canadian consensus statements for reporting histopathology specimens from the cervix and vagina[14]. Manitoba histo-pathology labs have adopted these consensus statements. The following table provides the current cervical histopathology nomenclature with comparison to previous reporting terminology.

Cervical histopathology nomenclature correlations

Dysplasia terminology	CIN terminology	2014 Consensus Statements (current)
Normal	Normal	Negative
Mild dysplasia	CIN 1	Low-grade squamous intraepitheleal lesion (LSIL)
Moderate dysplasia	CIN 2	High-grade squamous intraepitheleal lesion (HSIL)
Severe dysplasia	CIN 3	
Carcinoma in-situ	CIN 3	
Dysplasia NOS	CIN NOS	Squamous intraepitheleal lesion (SIL), Ungraded
Adenocarcinoma in-situ (AIS)		High-grade adenocarcinoma intraepithelial lesion
Invasive carcinoma	Invasive carcinoma	Superficially Invasive Squamous Cell Carcinoma (SISCCA)
		Invasion

Remember: The colposcopy impression refers to the colposcopist's visual estimate and is not the biopsy result. By a colposcopist stating their impression prior to the histology report, they can participate in Quality Assurance to assist their clinical continued medical education. The **biopsy** result will provide the diagnosis upon which to base follow-up management.

EXAMPLE 1:

Colposcopy:

Impression	HSIL CIN 2 HSIL CIN 3
Biopsy	Low-Grade Squamous Intraepitheleal Lesion (LSIL)
ECC	Endocervical Curettage Biopsy Definitely Not Done
Repeat Colp.	Follow-up in 6 months

INTERPRETATION:

While the **impression** is high-grade; the **biopsy** reveals a low-grade histopathology result that does not require treatment. Most LSIL will resolve without treatment. Upon discharge from colposcopy a screening interval of every 3 years (routine screening is recommended.

EXAMPLE 2:

Colposcopy:

Impression	Low- Grade Squamous Intraepitheleal Lesion (LSIL)
Biopsy	HSIL CIN 2
Treatment	LEEP Excision

INTERPRETATION:

While the **impression** is low grade; the **biopsy** reveals a high-grade result and treatment is recommended. Upon discharge from colposcopy a screening interval, it is recommended that an annual screening interval is adhered to because of a high-grade histology result.

EXAMPLE 3:

July 1, 2017
Colposcopy:

Impression	HSIL CIN 2
Biopsy	Low-Grade Squamous Intraepitheleal Lesion (LSIL)
ECC	Endocervical Curettage Biopsy Definitely Not Done
Repeat Colp.	Follow-up in 6 months

July 1, 2017
Cytology: Atypical Squamous Cells Cannot Exclude a High Grade Squamous Intraepithelial Lesion (ASC-H)

INTERPRETATION:
Although the cytology result from July 1, 2017 is ASC-H (a high-grade result) and the colposcopy **impression** is HSIL CIN 2 (high-grade), the **biopsy** is an LSIL. The biopsy confirms this is a low-grade histopathology result that does not require treatment. Most LSIL will resolve without treatment. Upon discharge from colposcopy result that does not require a more frequent screening interval than every 3 years (routine screening).

Recommended Reading

CervixCheck Resources
Screening Guidelines
What you need to know about preventing cervical cancer booklet
Human Papillomavirus (HPV) – Information for Healthcare Providers

Solomon, D., Davey, D., Kurman, R., Moriarty, A., O'Connor, D., Prey, M., Raab, S., Sherman, M., Wilbur, D., Wright, T., & Young, N. (2002). The 2001 bethesda system terminology for reporting results of cervical cytology. *JAMA*, 287(16): 2114-2119.

The College of Physicians and Surgeons of Manitoba. (2013). *Manitoba laboratory standards.* Winnipeg: Manitoba.

Contemporary Clinical Questions on HPV-Related Diseases and Vaccination: 2nd Edition

1. How are Pap test results interpreted?
2. What is the recommended management for all abnormal cytology results?
3. What is the recommended management for high-risk HPV results?
4. What is the difference between a cytology interpretation and a histopathology result?

Chapter 10
Self-Test

References

[1] Nayar, R. & Wilbur, D. (2015). The Pap Test and Bethesda 2014: Retrieved on February 11, 2016 from: https://www.karger.com/Article/Pdf/381842

[2] Vooijs PG, Elias A, Vander Graaf Y, Veling S.(1985). Relationship between the diagnosis of epithelial abnormalities and the composition of cervical smears. Acta Cytol 29: 323-8.

[3] Mitchell H, Medley G. (1991). Longitudinal study of women with negative cervical smearsaccording to endocervical status. Lancet 337: 265-7.

[4] Kivlahan C, and Ingram E. (1986). Papanicolaou smears without endocervical cells. Are they inadequate? Acta Cytol 30: 258-60.

[5] Mitchell H, Medley G. (1995). Differences between Papanicolaou smears with correct andincorrect diagnoses. Cytopathology 6: 368-75.

[6] O'Sullivan JP, A'Hern RP, Chapman PA, et al. (1998) A case-control study of true-positive versus false-negative cervical smears in women with cervical intraepithelial neoplasia (CIN) III. Cytopathology 9: 155-61.

[7] Elias A., Linthorst G., Bekker B., Vooijs PG. (1983). The significance of endocervical cells in the diagnosis of cervical epithelial changes. *Acta Cytol,* May-June;27(3):225-9.

[8] Killough et al. (1988). Correlation between sytodiagnosis and the presence of endocervical or squamous metaplastic cells in gynecologic smears. *Acta Cytol* 32:758.

[9] Boon, Mathilde E & Albert J.J. Suurmeijer (1993). The Pap Smear. The Netherlends: Colombn Press Leyden.

[10] Anita B. Bos, et al. (2001). Endocervical status is not predictive of incidence of cervical cancer in the years after negative smears. *American Journal of Clinic* Pathology, 115:851-855.

[11] Siebers, A.G. De Leeuw, Verbeek, A.L.M., & A.G.J.N. Hanselaar (2003). Prevalence of squamous abnormalities in women with a rectn smear without andocervical cells is lower as compared to women with smears with endocervical cells. *Cytopathology* 14:58-65.

[12] Manitoba Cervical Cancer Screening Program. (2008). Rates of cervical dysplasia. Manitoba: CancerCare Manitoba.

[13] From Alberta Medical Association. (2003). Guideline for screening for cervical cancer: Revised. Adapted with permission.

[14] Dr. C. Meg McLachlin on behalf of the Pan-Canadian Cervical Screening Initiative Working Group (2014). "Reporting on histopathology specimens from the cervix and vagina: consensus statements from the Pan-Canadian Cervical Screening Initiative. Canadian Journal of Pathology, Winter 2013-2014.

Chapter 11: Elimination of Cervical Cancer

Learning Objectives	On completion of this section, the learner will be able to: 1. Describe the elements of the plan to eliminate cervical cancer 2. List the HPV vaccines approved for use in Canada 3. Identify individuals eligible for MB Health coverage of the HPV vaccine 4. Access points for the HPV vaccine 5. Resources to support education on the HPV vaccine

Elimination of Cervical Cancer

The Canadian Partnership Against Cancer has joined the World Health Organization's Action Plan for the Elimination of Cervical Cancer in Canada. Cervical cancer screening and the HPV vaccine play key roles in the elimination of cervical cancer.

Cervical Cancer Screening

HPV testing is molecular DNA testing for the detection of oncogenic HPV types that can cause cervical cancer and its precursors. In November 2021, Manitoba Health and CervixCheck implemented **HPV triage testing**.

HPV testing can be applied in the following settings: [2,1]

i. **Primary** screening for high-risk HPV types alone or in combination with cytology
ii. **Triage** of women with equivocal cytological results (HPV triage testing), or
iii. **Follow-up** of women treated for precancerous neoplastic lesions to determine success or failure of treatment (test of cure).

The benefits of HPV testing have been well demonstrated and include:

- Compared with the Pap test, HPV testing is much more sensitive to detect high-grade precancerous lesions.
- HPV testing is better at detecting cervical adenocarcinoma
- HPV testing allows for a longer screening interval and earlier cessation of screening
- HPV is testing more attractive as vaccinated cohorts reach screening age to monitor vaccine efficacy and to determine if a HPV vaccine booster is required
- HPV testing provides the opportunity to facilitate self-sampling for unscreened populations

Commercially available tests are constantly evolving and approved by Health Canada.

HPV tests can be distinguished by:

1. their detecting either HPV DNA
2. what high-risk HPV genotypes are detected
3. threshold of HPV copies before a test becomes positive

HPV Vaccines Approved for Use in Canada[2,3]

What is in the vaccine?
The HPV vaccines contain proteins that act like the HPV virus. The body starts making antibodies and white blood cells to fight against these virus-like particles. This builds up immunity to the HPV virus. There is no active virus in the vaccines. Nor are there any antibiotics or preservatives, such as mercury or thimerosal.

Pap Tests and the HPV Vaccine
All three vaccines have demonstrated to be very effective in preventing HPV infection. There are, however, other HPV types not covered in the vaccines that can cause cervical cancer. **Women who receive the HPV vaccine therefore, still need to have regular Pap tests** as recommended by their provincial cervical cancer screening program.

Three HPV vaccines have been approved for use in Canada:

Vaccine type	HPV types covered	Protects against:
Cervarix	16, 18	Over 70% of cervical cancers
~~**Gardasil-4***~~	~~6, 11, 16, 18~~	~~Over 70% of cervical cancers and 90% of genital warts~~
Gardasil-9**	6, 11, 16, 18, 31, 33, 45, 52, 58	90% of cervical cancers and 90% of genital warts

* Gardasil-4 is no longer available (2018).
** Gardasil-9 has been used in the Public – Health program since 2018

Recommendations

Although the Cervical Cancer Screening Learning Module for Healthcare Providers focuses on secondary prevention of cervical cancer, it is important to emphasize the importance of primary prevention of cervical cancer with HPV vaccination. Although HPV vaccines were studied using cervical dysplasia as study end-points, there are other disease sites that benefit from these vaccines (Fig 1).

The single biggest determinant of a parent's decision to vaccinate their child is a strong recommendation from a healthcare provider.

Studies from other countries with higher uptake of vaccination in school-based programs shows that the more knowledgeable the vaccinators, the greater the uptake rate.

The single biggest determinant of a parent's decision to vaccinate their child is a strong recommendation from a health care provider. Studies from other countries with higher uptake of vaccination in school-based programs shows that the more knowledgeable the vaccinators, the greater the uptake rate.

The Manitoba Immunization Program determines its criteria from National Advisory Committee on Immunization (NACI), Provincial Experts, provincial statistics and risk, the medical literature and available funding.

The Manitoba Immunization Program

In the 2008-2009 school year, Manitoba Health introduced a vaccine program for grade 6 girls. In 2016, Manitoba Health added grade 6 boys to the Manitoba HPV Immunization Program. The program is voluntary opt-in program, and is administered by public health nurses. It is important to monitor this website.

Manitoba's Immunization Program: Vaccines Offered Free-of Charge
(Eligibility Criteria for Publicly-Funded Vaccines, 2018)

Vaccines listed here are provided free-of-charge to individuals who are registered with Manitoba Health and Seniors Care (MHSC) and for those who are part-way through an immunization series started in another province or territory as part of a publicly-funded program (pending product availability). MHSC covers all costs associated with administering a publicly-funded vaccine (e.g. physician fees).

Individuals who do not receive a publicly-funded vaccine when it is first recommended are eligible to receive the vaccine at a later time (unless otherwise stated). This is commonly referred to as, *'once eligible, always eligible.'*

- Healthy females born on or after January 1, 1997 and healthy males born on or after January 1, 2002 are eligible to receive the HPV vaccine, routinely provided as part of the grade 6 school-based immunization program.
- For healthy females and males 11 to less than15 years of age, 2 doses are recommended. For those who are 15 years of age and older, a 3-dose schedule is recommended, unless the first dose of vaccine was administered before the age of 15.
- Individuals with at least one of the following high-risk criteria are eligible to receive up to 3 doses:
    - Immunocompetent HIV-infected males 9-26 years of age and females 9-45 years of age.
    - Males 9-26 years of age and females 9-45 years of age who have congenital immune deficiencies (B cell deficient, T cell mixed defects, phagocytic and neutrophil disorders, complement deficiency) or acquired immune deficiencies (pre-solid organ transplant or post-solid organ transplants, hematopoietic stem cell transplant recipients, as per CancerCare Manitoba Blood and Marrow Transplant (BMT) Immunization Schedule).
    - Males ≤ 18 years of age who are, or who have ever been, incarcerated.
    - Individuals who are currently, or who have previously been, diagnosed with recurrent respiratory papillomatosis.
    - Males 9-26 years of age who identify as gay or bisexual

- Transgender males and transgender females 9-26 years of age.
- Females 9-45 years of age who have a newly diagnosed high-grade cervical histopathology result.
- Males 9-26 years of age and females 9-45 years of age who are victims of sexual assault.
- Patients currently under the care of a haematologist or oncologist from CancerCare Manitoba (CCMB) who have the following conditions and have been provided a CCMB directed Immunization Schedule:
    1. Malignant neoplasms (solid tissue and haematological) including leukemia and lymphoma, or clonal blood disorder, and who will receive or have completed immunosuppressive therapy including chemotherapy or radiation therapy, **or**
    2. Hypo- or asplenic (Sickle Cell Disease, etc.)

For minimum intervals between doses of HPV vaccine, please see the Canadian Immunization Guide

HPV Vaccine Access

The vaccine is covered by the Manitoba Health Immunization Program for those listed under the eligibility criteria on the Manitoba Health website. Contact your local pharmacy to inquire about the cost of the HPV vaccine. All individuals who are suitable to receive the HPV vaccine but are not covered by the Manitoba Immunization Program will require a prescription from a healthcare provider and be required to pay for the required doses. Some health plans provide some vaccination coverage.

The HPV vaccine can be accessed in several ways:

1- Primary care provider – Make an appointment to discuss with your primary care provider (nurse, doctor, nurse practitioner, physician assistant). If you require a primary care provider, access Manitoba Doctor Finder:
   - https://www.gov.mb.ca/health/familydoctorfinder/
   - Phone from Winnipeg: 204-786-7111
   - Toll-free: 1-866-690-8260
   - TTY/TDD: 204-774-8618
   - Manitoba Relay Services toll-free: 1-800-855-0511

2- Public health nurse – Public health nurses provide the HPV vaccine to individuals eligible through the School Immunization Program (grade 6):
   - Females born on or after January 1, 1997
   - Males born on or after January 1, 2002

3- Pharmacist –Call ahead to the pharmacy to inquire about the HPV vaccine before attending in person.

Dosage and Schedule

The vaccine is given in 2 or 3 separate doses of 0.5 mL as follows:

- Gardasil: 0, 2 and 6 month intervals.

They are administered intramuscularly in the deltoid or anterolateral upper thigh.

Vaccine Efficacy

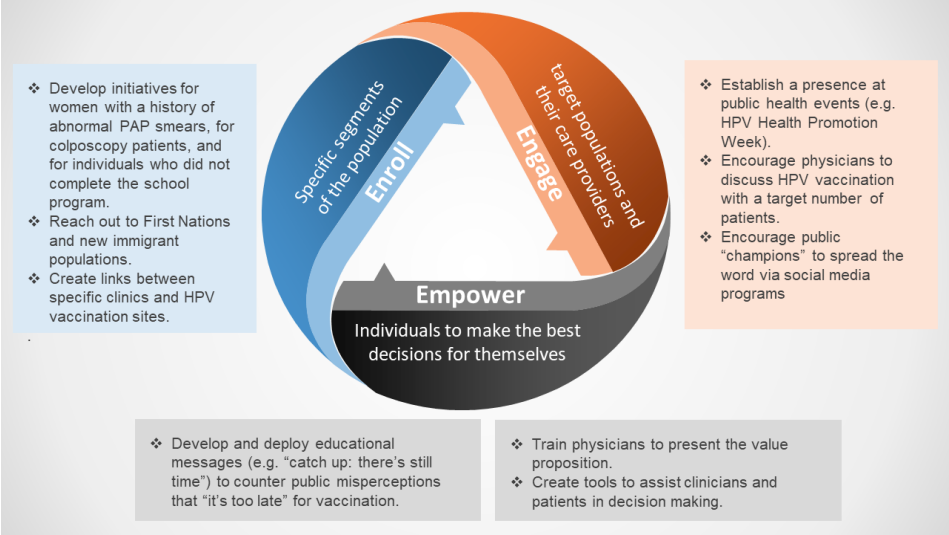
The HPV vaccines are most effective when given to females before they start having sexual contact. If received before exposure to the HPV types covered in the vaccines, it will be almost 100% effective in preventing infection from the HPV types that the vaccine provides protection against. Studies show that females who have already been sexually active may also benefit from receiving the vaccine as it is unlikely they would have been exposed to all HPV types covered in the vaccines. Studies are ongoing to determine if a booster is required to enhance the duration of protection.

Safety

The vaccines are safe. Health Canada has approved the vaccines based on a scientific review of their quality, safety and effectiveness. As with all vaccines, side effects may occur including rare adverse events, e.g. allergic reactions, nausea, dizziness. The most common side effects are soreness, pain and swelling at the injection site.

Vaccine safety is consistently being monitored in Canada and other jurisdictions.

Opportunistic HPV Vaccination: An Expanded Vision



THE SOCIETY OF GYNECOLOGIC ONCOLOGY OF CANADA (2018)

There are several incorrect and unfounded Myths about HPV vaccinations:

1. **MYTH:** Women who have the HPV vaccine do not need to get a Pap test.

   FACT: The HPV vaccine does not protect against all the types of HPV that cause cervical cancer. Women still need Pap tests regularly even if they have been vaccinated against HPV.

2. **MYTH:** The vaccine can give you the virus and cause cancer.

   FACT: The vaccine does not contain a live or killed virus. The vaccine contains a protein shell of different types of the human papilloma virus. When you take the vaccine, your body makes antibodies which fight the real virus if you're ever exposed to it.

3. **MYTH:** The HPV vaccine is only recommended for women up to 26.

   FACT: The HPV vaccines were studied using study parameters between the ages of 9 to 45. Other studies have demonstrated that there is no upper age that individuals stop receiving benefits of this vaccine. Older women may choose to be vaccinated against HPV based on their overall lifetime risk.

4. **MYTH:** There is no benefit to administering the HPV vaccine to individuals treated for cervical dysplasia.

   FACT: Studies show that females who have already been treated for cervical dysplasia may also benefit from receiving the vaccine. It is unlikely they would have been exposed to all HPV types covered in the vaccines. It would also potentially benefit them from HPV disease in other disease sites.

HPV Vaccine Education Resources

CancerCare Manitoba

CervixCheck

PracticePrevention.ca
Resources targeted to parents, educators, and healthcare providers include:

- Eligibility criteria
- Links to Manitoba Health's HPV Vaccine pages
- Education video
- Posters
- Cards
- Brochure
- Toolkit
- Safety

Resources for order available at:
https://www.cancercare.mb.ca/screening/resources

Manitoba Health

Human papillomavirus (HPV) symptoms, causes, treatment, prevention
HPV Public Health Fact Sheet
HPV Fact Sheet for Parents & Guardians
Eligibility Criteria

	Recommended Reading

CancerCare Manitoba Screening Programs' Resources

The Human Papillomavirus (HPV) Vaccine (CancerCare Manitoba)

National Advisory Committee on Immunization

Manitoba Health and Seniors Care: Human Papillomavirus (HPV)

1. What are the nine HPV types that Gardasil-9 protects against when administered prior to sexual activity? 2. Who are the HPV vaccines recommended for? Who is it not recommended for? 3. Describe the three ways that HPV testing can be used.	Chapter 11 Self-Test

References

[1] Canadian Partnership Against Cancer, Screening Portfolio (2012). HPV Testing for Cervical Cancer Screening, Expert Panel: Summary of Evidence. Retrieved June 6th, 2012 from: http://cancerview.ca/idc/groups/public/documents/webcontent/hpv_testing_final.pdf

[2] National Advisory Committee on Immunization. (2007). Statement on Human Papillomavirus vaccine. Retrieved March 4th, 2009 from Public Health Agency of Canada Website: http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/07vol33/acs-02/index-eng.php

[3] National Advisory Committee on Immunization (2012). Update on Human Papillomavirus Vaccines. Retrieved February 6, 2012 from Public Health Agency of Canada Website: http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/12vol38/acs-dcc-1/index-eng.php

Chapter 12: Access to Cervical Cancer Screening

Increasing Access to Cervical Cancer Screening Services: The Cervical Cancer Screening Test Clinic

In an effort to increase access to screening, and reach Manitoba's underscreened and unscreened populations, CervixCheck partners with clinics, nursing stations and health centers around the province to offer enhanced cervical cancer screening services throughout the year.

CervixCheck supports HCPs to offer walk-in or by appointment cervical cancer screening clinics in their communities on a daily, weekly, monthly, bi-monthly or annual schedule. Offering regular clinics helps to:

- break down barriers to service, making it easier for women to access preventative health care.
- create a regular access point to screening services in a community.
- connect clients who receive recall or invitation letters from CervixCheck with a clinic in their community should they not already have access to a cervical cancer screening provider.

Sites are encouraged to register their cervical cancer screening test clinics with CervixCheck so that the program can advertise clinic services upon request. Register your clinic at https://www.cancercare.mb.ca/screening/hcp/supporting-patients#clinicreg

To view Cervical Cancer Screening Test Clinics in Manitoba visit https://www.cancercare.mb.ca/screening/cervix

This chapter identifies CervixCheck resources that are available to HCPs, as well as outlines clinic responsibilities and considerations when initiating a cervical cancer screening test clinic in your community.

For more information on how to initiate a cervical cancer screening test clinic, contact a Health Educator at CervixCheck at Screening@cancercare.mb.ca .

CervixCheck Resources and Support
CervixCheck will support your efforts to operate cervical cancer screening test clinics in your community. We can:

- supply posters and flyers,
- advertise your clinic on our Facebook page,
- post your clinic on our website, and
- provide educational resources for your patients and staff.

Clinic Responsibility
Cervical cancer screening test clinics are a collaborative effort. Your facility should consider:

- advertising the clinic in your community by:
  - distributing posters and flyers,
  - contacting local media (e.g. radio)
- the organization of internal staffing and supplies,
- accepting clients for cervical cancer screening, even if they are not a patient at the clinic,
- referring clients who are looking for a new family doctor/nurse to an appropriate resource, for example the Family Doctor Connection Line, or another clinic that may be accepting new patients, and
- coordinating follow-up on all abnormal results as per the CervixCheck Screening Guidelines.

Preparing for a Cervical Cancer Screening Test Clinic

The following is a list of considerations to plan your cervical cancer screening test clinic.

Pre-Planning:

- Consider your target audience. Who are you trying to reach?
- Consider your target audience's barriers to accessing cervical cancer screening.
- Establish a planning committee. Who are the relevant stakeholders (HCPs, community outreach workers, etc.)?
- Identify the task(s) of each committee member (advertising, cervical cancer screening, scheduling, completing lab requisitions, follow-up of abnormal results, etc.)
- Identify how your Pap test clinic will be evaluated.

Planning

- Determine when cervical cancer screening will be offered.
- Identify which items will be included in the examination:
  - Pap test
  - STI check
  - Pelvic exam
- Determine the length of time each appointment requires.
- Identify a staff member to register and serve as the contact person with CervixCheck. Register your clinic with CervixCheck.
- Order the necessary materials (speculums, drapes, brooms, liquid mediums).
- Identify who will re-stock exam rooms with needed materials.
- Plan advertising of access (posters, radio, tv, etc.).
- Determine how to set-up the waiting area to:
  - provide information about cervical cancer screening (brochures, posters, videos, etc.). Resources can be ordered at no charge from cancercare.mb.ca/screening/resources, and
  - create a safe, inviting environment.

Notify CervixCheck of any changes to your cervical cancer screening test clinic access by:

1- Re-registering you cervical cancer screening test clinic, or
2- Emailing Screening@cancercare.mb.ca

Cervical Cancer Screening Learning Module Post-Test

Please complete the following pre-test prior to proceeding to Section 2.
The Answer Key is provided in Appendix 3.

Instructions for Test Completion

- For **multiple choice questions,** please circle one or more answers as appropriate.
- For **open-ended questions,** please write your answers on the lines provided.
- For **short answer questions,** please write your answers in the space provided.

1. **CervixCheck, CancerCare Manitoba is needed because (select all that apply):**
    - **a.** organized cervical cancer screening programs reduce the cervical cancer incidence and mortality
    - **b.** participating in regular cervical cancer screening can prevent most cervical cancers
    - **c.** all patients who develop cervical cancer in Manitoba have not participated in regular cervical cancer screening
    - **d.** the majority of patients who develop cervical cancer in Manitoba have not participated in regular cervical cancer screening
    - **e.** the program will remind clients and physicians when cervical cancer screening testing or follow-up is overdue

2. **Which of the following is not a risk factor for cervical cancer?**
    - **a.** Not participating in regular cervical cancer screening
    - **b.** Persistent HPV infection
    - **c.** A first degree relative diagnosed with cervical cancer

3. **Name four higher risk groups who may be less likely to be screened for cervical cancer.**
    - **a.** _____
    - **b.** _____
    - **c.** _____
    - **d.** _____

4. **List five reasons why an eligible client may be reluctant to participate in regular cervical cancer screening.**

    a. _____

    b. _____

    c. _____

    d. _____

    e. _____

5. **List six populations that may have special learning, counseling and/or educational needs.**

    a. _____

    b. _____

    c. _____

    d. _____

    e. _____

    f. _____

6. **A persistent high-risk human papillomavirus (hrHPV) infection is recognized as the main risk factor for cervical cancer.**
    a. True
    b. False

7. **If a client appears apprehensive before the exam, it is best to:**
    - **a.** reassure them and press forward
    - **b.** tell them that there is nothing to worry about
    - **c.** ask open-ended questions about their apprehension about the cervical cancer screening procedure

8. **List three things that you can do to increase a client's physical and emotional comfort during the exam.**

    a. _____

    b. _____

    c. _____

9. **According to the post-hysterectomy screening guidelines, screening of the vaginal vault is not necessary if the hysterectomy was performed for a malignant condition.**
    - **a.** True
    - **b.** False

10. **Which of the following clients is at risk for infection with HPV? Select all that apply.**
    - **a.** Mary who has only had sex once in her lifetime over 20 years ago
    - **b.** Eve who has worked as a sex trade worker for the last 15 years
    - **c.** Sally who started having sex at 14 and has smoke a pack of cigarettes every day for the past 5 years

11. **List five abnormal findings of the ectocervix.**

    a. _____

    b. _____

    c. _____

    d. _____

    e. _____

12. Which of the following are abnormal findings on the cervix that should be investigated appropriately or referred to a specialist? Select all that apply.

- **a.** Friable tissue (soft, eroded)
- **b.** Red patchy areas
- **c.** Abnormal bleeding, and inflammation
- **d.** Granular areas, white patches
- **e.** Pink colour
- **f.** Lesions

13. Name the three sampling areas of the cervix.

a. _____

b. _____

c. _____

14. A smaller and narrower speculum should be used with:

- **a.** Clients with vaginismus
- **b.** Nulliparous clients
- **c.** Circumcised clients
- **d.** Clients whose vaginal orifices have contracted post-menopausally

15. It is acceptable to lubricate the speculum with:

- **a.** Lubricating jelly
- **b.** Warm water
- **c.** Vaseline

16. **An acceptable way to insert the speculum is (select all that apply):**
    - **a.** With the blade tips against the upper (anterior) wall of the vagina
    - **b.** At an oblique angle
    - **c.** With the speculum closed
    - **d.** With the speculum slightly opened
    - **e.** The speculum is angled 45° downward toward the small of the client's back

17. **The best way to reposition a speculum for a client with a cervix with posterior orientation is:**
    - **a.** to reinsert less deeply and anteriorly, with the base of the lower blade actually compressing the anterior wall of the vagina.
    - **b.** to insert the speculum more deeply and posteriorly through compression of the perineal tissue. The blade tips will slip under the cervix into the posterior fornix.
    - **c.** by choosing a plastic speculum of a larger size and reinserting as you did prior.

18. **The correct way to obtain a broom specimen is by rotating the broom in the endocervical canal:**
    - **a.** Counterclockwise 360° once.
    - **b.** Clockwise, 360° twice.
    - **c.** Clockwise, 360° five times.

19. **When using the dual sampling technique with a liquid medium, a plastic spatula and plastic cytobrush with perforated ends should be used in order to break off into the liquid medium.**
    - **a.** True
    - **b.** False

20. **If sexually transmitted infections specimens need to be collected, they should be taken prior to the cervical specimen.**
    - **a.** True
    - **b.** False

21. **The broom-like device collects cells from the ectocervix and endocervix simultaneously.**
    - **a.** True
    - **b.** False

22. **If a clinician uses the device pictured below to collect the cervical specimen, they should select 'Cytobrush' when completing the cytology requisition form instrument section.**
    - **a.** True
    - **b.** False

23. **The HCP should avoid touching the head of the broom while detaching it into the liquid medium.**
    - **a.** True
    - **b.** False

24. **The specimen and the cytology requisition should both be labeled with matching (select all that apply):**
    - **a.** First name
    - **b.** Last name
    - **c.** PHIN
    - **d.** Date of birth

25. **List four key things that should be discussed with the client after the examination.**

    a. _____

    b. _____

    c. _____

    d. _____

26. **Name four scenarios in which the laboratory would reject a specimen?**

    a. _____

    b. _____

    c. _____

    d. _____

27. **During a Pap test visit, when does the HCP seek to obtain informed verbal consent from the client?**
    - **a.** At the start of the consultation
    - **b.** After you have explained the external exam, speculum exam and the cervical cancer sceening procedure and before you begin
    - **c.** After completing the external exam, speculum exam and the cervical cancer screening test

28. **Is the HCP legally responsible to protect confidentiality of the client's health information?**
    - **a.** Yes
    - **b.** No

29. **In order for nurses, clinical assistants and physician assistants to properly identify themselves as the specimen taker on the cytology requisition form, they should obtain a CervixCheck Provider Number from CervixCheck.**
    - **a.** True
    - **b.** False

30. **A client had a colposcopy and was investigated and/or treated for a cervical abnormality. They completed their care with the colposcopist and the colposcopist has discharged them back to the routine care of their regular HCP. The HCP has just done a follow-up cervical cancer screen and it shows ASCUS. What is the recommended management?**

31. **A healthcare provider has a 31-year old client who was screened for cervical cancer with a cytology result of ASCUS and a positive high-risk HPV test. What is the recommended management?**

Glossary[1]

A

Adenocarcinoma: A cancer that develops in the lining or inner surface of an organ. Adenocarcinoma is one of the histologies that can occur in the cervix.

Adhesion: Scar tissue occurring in the abdominal cavity, fallopian tubes, or inside the uterus. Adhesions can interfere with transport of the egg and implantation of the embryo in the uterus.

Amenorrhea: Absence of menstrual flow.

Anovulation: Lack of ovulation.

Anteflexed uterus: Normal position in which the uterine corpus is flexed forward.

Anteverted uterus: Uterus that tips forward toward the bladder.

ASC-H: Atypical Squamous Cells, cannot exclude High-grade Squamous Intraepithelial Lesion (HSIL). High-grade lesion.

ASC-US: Atypical Squamous Cells of Undetermined Significance. Low-grade lesion.

Asymptomatic: without obvious symptoms or signs of disease. People with abnormal cervical cell changes are mostly asymptomatic at early stages.

Atypia/atypical: not usual or ordinary.

B

Bartholin's gland: One of two small compound mucous glands located one in each lateral wall of the vestibule of the vagina, near the vaginal opening at the base of the labia majora.

Benign: Cell changes that have nothing to do with cancer.

Biopsy: The removal and examination of a small amount of tissue to establish a diagnosis.

Bisexual: An individual who is emotionally, physically, and/or sexually attracted to males/men and females/women. A bisexual person may not be equally attracted to both sexes, however, and the degree of attraction may vary over time.

Breakthrough bleeding: Vaginal spotting or bleeding that occurs between periods and is caused by the failure of progestin (usually taken in combination with estrogen as an oral contraceptive) to support the endometrium adequately.

Broom: Cervical cancer screening collection instrument that collects from the endocervix and ectocervix. It can also be referred to as a broom-like device. When using this instrument to collect the cervical specimen, indicate the instrument used for collection as 'broom.'

SPECIMEN PREPARATION:		
✓ Liquid based cytology	□ Conventional cytology	
INSTRUMENT(S):		
✓ Broom	□ Spatula	□ Cytobrush

C

Cancer: It is the uncontrolled, abnormal growth of cells that can invade and destroy healthy tissue. Most cancers can also spread to other parts of the body.

Carcinoma: One of the five basic kinds of cancer and the most common. It begins in epithelial tissue (the lining or covering of an organ). It may develop in cells that line the lung, intestines, bladder, breast, uterus, kidney, cervix and prostate or in skin cells.

Carcinoma in situ: The earliest stage of cancer in which young tumour cells have not yet invaded surrounding tissues. Since there is no invasion, it is therefore, not considered a cancer.

Caruncles (of the urethra): Fleshy outgrowths of distal urethral mucosa.

Cervical carcinoma: A cancer of the uterine cervix (the neck of the uterus).

Cervical dysplasia: Cervical cells that are abnormal in appearance. An abnormal tissue growth on the cervix that may progress to cancer, regress spontaneously or remain the same. Cervical dysplasia is detected through a Pap test.

Cervical ectropion: Eversion of the columnar epithelium onto the cervix.

Cervical eversion: When the tissue within the cervix "opens up" onto the outer part of the cervix.

Cervical stenosis: A blockage of the cervical canal from a congenital defect or from complications of surgical procedures. Also see cervix.

Cervicitis: An irritation of the cervix by a number of different organisms. Cervicitis is generally classified as either acute or chronic.

Cervix: The neck or lower end of the uterus or womb that connects the uterus with the vagina.

Chemotherapy: The use of drugs to treat or control cancer.

Colposcopy: Examination of the cervix and vagina using a low-powered magnifying instrument known as a colposcope in order to assess the extent and severity of any problem and to determine appropriate treatment. Small biopsies may be taken during the test.

Competence: The integration and application of knowledge, attitudes, skills and judgement required for performance in a designated role and setting.

Cone biopsy: Also known as conization, cone biopsy refers to a surgical removal of a cone-shaped specimen of tissue for examination under a microscope. The tissue removed provides a more extensive sample for diagnosis than a simple biopsy.

Conization: See cone biopsy.

Cryosurgery: A surgical procedure that uses extreme cold to destroy abnormal tissue by freezing. A general anesthetic is not required.

Cytobrush: Cervical cancer screening collection instrument that collects from the endocervix as part of a dual sampling method. When using this instrument to collect the cervical specimen, the spatula must also be used to collect from the ectocervix, and indicate the instrument used for collection as 'cytobrush.'

SPECIMEN PREPARATION:
☑ Liquid based cytology ☐ Conventional cytology

INSTRUMENT(S):
☐ Broom ☑ Spatula ☑ Cytobrush

The cytobrush is contraindicated in pregnancy.

Cystocele: Herniation of the bladder through the anterior wall (bulging of the bladder into the vagina).

Cytology: the study of cells using a microscope. An example of this procedure is the Pap test, used to detect the cells that may lead to cervical cancer.

D

DES: Diethylstilbestrol.

Diagnosis: Identification of a disease from signs, symptoms, laboratory tests, radiological results and physical findings.

Dysmenorrhea: Menstrual discomfort or pain.

Dyspareunia: Pain in the vagina or pelvis or difficulty during sexual intercourse.

Dysplasia: Cervical cells that are abnormal in appearance. An abnormal tissue growth on the cervix that may progress to cancer if not treated in time. Cervical dysplasia is detected through a Pap test.

E

Endocervical curettage (ECC): The removal of tissue from the inside of the cervix using a spoon-shaped instrument called a curette.

Erythema: Redness.

Excoriation: Loss of skin by e.g. scratching.

Exudate: Fluid or discharge usually as a result of inflammation.

F

False negative report: a negative result when in reality it is positive in nature.

False positive report: a positive result when in reality it is negative in nature.

Female to Male (FTM): A term used to identify a transsexual individual who was assigned the female sex at birth and who currently identifies as male, lives as a man, identifies as masculine, or is in the process of transitioning. Also known or referred to as FTM, FtM, F2M, or a transman.

Female Genital Cutting or Circumcision: Cultural practice in some countries that involve partial or complete removal of female genitalia for non-medical reasons.

Fimbriae: Any structure resembling a fringe or border.

Fissure: A narrow slit or cleft.

Fistula (of the bladder): Abnormal connection between the bladder and another structure such as the vagina or rectum.

Fornix: Upper part of the vagina.

Fourchette: Posterior of labia minora.

Friability: Fragile tissue that may bleed easily (e.g. when a swab is taken).

FSH: Follicle-stimulating hormone.

G

Gay: Male-identified individuals that have emotional, physical and/or sexual attractions to other male-identified individuals. “Homosexual” is a clinical term once used to refer to gay individuals.

Glandular premalignancy and malignancy: A pathology result of atypical glandular cells, endocervical adenocarcinoma in situ, or adenocarcinoma.

Gnrh: Gonadotropin-releasing hormone.

Gravida: Number of pregnancies, regardless of their outcomes.

H

Homogenous: Same consistency throughout.

Homophobia: The fear, hatred, or aversion towards individuals who identify or are perceived as being lesbian, gay, bisexual, transgender, two-spirit, or queer.

HPV: Human Papillomavirus. HPV is the common name for a group of related viruses, some of which occur on the cervix and are risk factors for cervical cancer.

HPV reflex testing: An HPV DNA test of cytology results in women age ≥30 years of age with ASCUS and women age ≥50 years of age with LSIL for the purpose of identifying high risk types of HPV.

HPV primary testing: An HPV DNA test of all cervical specimens that replaces the Pap test. The same collection instruments are used as in liquid based cytology.

HPV testing: HPV testing detects HPV DNA on the cervix. Canadian Agency for Drugs and Technologies in Health (CADTH) identifies the current molecular methods for type-specific HPV detection require a polymerase chain reaction (PCR) amplification of HPV DNA followed by detection by either direct sequencing or hybridization. Direct sequencing identifies the specific HPV types found in a specimen, whereas hybridization finds presence of a high risk type of HPV without direct identification of which type.

HPV vaccine: An HPV vaccine, Gardasil, was approved for use in Canada in July 2006. This vaccine provides protection against 9 types of human papillomavirus: HPV 6, 11, 16, 18, 31, 33, 45, 52, and 58. HPV 16, 18, 31, 33, 45, 52, and 58 cause 90% of all cervical cancers. HPV 6 and 11 cause 90% of all genital warts.

HPV triage testing: Synonym for HPV Reflex Testing.

hrHPV: Synonym for high risk Human papillomavirus.

HSIL: High Grade Squamous Intraepithelial Lesion.

HSV 1 or 2: Herpes simplex virus one and two. HSV 1 causes oral herpes and HSV 2 causes genital herpes. HSV-1 can also cause genital herpes through transmission during oral-genital sex.

Hymenal remnants: The tissue of the hymen that is still present.

Hyperemia: Congestion or increased blood flow to the area.

Hysterectomy: Surgical removal of the uterus. The ovaries and/or cervix (part or whole) may also be removed at the same time.

I

Induration: Abnormally hard spot.

Infertility: The inability to conceive over a period of 1 year of unprotected regular intercourse has many causes, including both male and female conditions. Contributing factors in the woman include abnormalities of the vagina, cervix, uterus, fallopian tubes, and ovaries. Factors influencing fertility in both women and men include stress, nutrition, chemical substance use, chromosomal abnormalities, certain disease processes, sexual and relationship problems, and immunologic response.

Introitus: Opening to the vagina on the perineum.

Invasive cervical cancer: A stage of cancer in which it has spread from the surface of the cervix to healthy tissue deeper in the cervix or to other parts of the body.

L

Laparoscopy: Examination of the pelvic organs through use a small telescope called a laparoscope.

Laser surgery: Treatment that uses an intense, narrow beam of light (called a laser beam) to treat some forms of cancer or abnormal cells. Since a laser beam can be focused precisely on a tiny area, it is used to operate on delicate tissues. General anesthetic is unnecessary.

LEEP: Loop electrosurgical excision procedure. After freezing the cervical area, an electrical wire loop is inserted into the vagina and all the abnormal tissue is sliced off and removed.

Lesbian: Female-identified people that have emotional, physical and/or sexual attractions to other female-identified people.

Leukoplakia: Raised white plaques on cervix, may be due to different causes such as carcinoma or genital warts.

LH: Luteinizing hormone.

Liquid based cytology: With Liquid Based Cytology (LBC), a sample of cells is taken from the cervix using the spatula and brush combination or a broom-like device. The cervical sample is deposited in a liquid medium and sent to the laboratory whereby a slide is prepared for examination.

Lithotomy position: The woman lies on back, legs flexed at the thighs, thighs flexed and abducted. Stirrups may be used to support the feet.

Localized cancer: A cancerous growth that has not spread to other parts of the body.

LSIL: Low Grade Squamous Intraepithelial Lesion.

M

Male to Female (MTF): A term used to identify a transsexual individual who was assigned the male sex at birth and who currently identifies as female, lives as a woman, identifies as feminine, or is in the process of transitioning. Also known or referred to as MTF, MtF, M2F, or a transwoman.

Malignancy: A tumour consisting of cancerous cells. Cells from a malignant growth can break away and start secondary tumours elsewhere in the body.

Malignant: Cancerous.

Menarche: Onset of menstrual periods, usually occurring between age 9 and 17.

Menopause: Cessation of menstrual periods with the decline of cyclic hormonal production and function usually between the ages of 45 and 60 but may stop earlier in life, for example, as a result of illness or the surgical removal of both ovaries. Defined as absence of periods for one year.

Metastasis: The spread of cancer cells from the original tumour to other parts of the body by way of the lymph system or bloodstream.

Molluscum: Skin disease characterized by soft round masses.

Multigravida: A woman who has been pregnant several times.

Multiparity: Condition of having two or more pregnancies that resulted in viable fetuses.

N

Nulliparty: Condition of never having delivered a viable infant.

O

Oncology: The study and treatment of cancerous tumours.

Oncologist: An oncologist is a physician who specializes in diagnosing and treating cancer.

Oophorectomy: Surgical removal of the ovaries.

Oropharyngeal: A type of head and neck cancer.

Orthopnea: Ability to breathe easily only in the upright position

P

Pap test: A test in which cells are removed from the cervix and examined under a microscope. Devised by Dr. George Papanicolaou, the Pap test is an effective way to detect abnormal cells (see cervical dysplasia) or cancer. Since the Pap test (like many medical tests) is not perfect, it is important to be tested on a regular basis to lessen the chance of missing any abnormal cell changes.

Parity: Condition of having delivered an infant or infants, alive or dead, during the viability period (fetus weighing 500 g. or more or having an estimated 20-week gestation). Multiple birth is a single parity.

Partial hysterectomy: A lay term usually used to connotate a hysterectomy (either total or subtotal) with preservation of the ovaries.

Pelvic exam: also called an internal examination. A gynecological examination of a woman's vagina, vulva, cervix, fallopian tubes, ovaries and uterus.

Pelvic inflammatory disease (PID): PID is an inflammatory condition of the pelvic cavity that may involve the uterus, fallopian tubes, ovaries, pelvic peritoneum or pelvic vascular system. Often caused by gonococcal and chlamydial infection, pelvic inflammatory disease may be acute or chronic. Acute PID produces very tender, bilateral adnexal areas. The woman may guard the area. The symptoms of chronic PID are bilateral, tender, irregular, and fairly fixed adnexal areas. Movement of cervix is painful.

Polyp: a cauliflower-like growth of tissue that develops in the mucous membrane lining of the colon, bladder, uterus, cervix, vocal cords, or nasal passage and protrudes into a body cavity.

Puberty: Period when secondary sexual characteristics begin to appear and sexual reproductive ability occurs.

Premenstrual syndrome (PMS): A cyclic cluster of signs and symptoms, such as breast tenderness, fluid retention, retention and mood swings, usually occurring after ovulation and before or during menses; characterized by at least 7 symptom-free days, usually in the first half of the menstrual cycle.

Q

Queer: an inclusive, unifying, sociopolitical umbrella term for people who are gay, lesbian, bisexual, transgender, transsexual, intersexual, genderqueer and/or those whose sexual identity or activities place them outside the mainstream.

R

Rectocele: Herniation of the rectum through the vaginal wall.

Retroflexed uterus: Normal position in which the uterine corpus flexes toward the rectum at an acute angle.

Retroverted uterus: Normal position in which the uterine corpus flexes toward the rectum, but at a less acute angle than if retroflexed.

Risk factor: Anything that increases a person's chances of developing disease. For example, smoking is a risk factor for lung, head/neck and cervical cancer.

Rugose: Marked by ridges, wrinkled.

S

Salpingitis: Inflammation or infection of the Fallopian tube is often associated with PID. Salpingitis causes lower quadrant pain with tenderness on bimanual examination.

Schiller test: a test in which iodine is applied to the cervix. It is used during a colposcopy. They iodine colours healthy cells brown. Abnormal cells remain unstained, usually appearing white or yellow.

Self-sampling: an alternative cervical cancer screening test whereby a woman collects a cervical specimen in the privacy of her home to test for HPV DNA.

Sexually active: Refers to both sexual intercourse and intimate genital contact.

Skene's gland: Glands lying just inside of and on the posterior area of the urethra in the female, one on each side of the floor of the urethra.

Spatula: Cervical cancer screening collection instrument that collects from the ectocervix as part of a dual sampling method. When using this instrument to collect the cervical specimen, the cytobrush may be used to collect from the ectocervix, and indicate the instrument used for collection as 'spatula.'

SPECIMEN PREPARATION:
✓ Liquid based cytology ☐ Conventional cytology

INSTRUMENT(S):
☐ Broom ✓ Spatula ✓ Cytobrush

Speculum: A metal or plastic instrument used to spread the vagina open so that the cervix can be seen.

Squamous cell carcinoma: cancer that begins in squamous cells, which are thin, flat cells resembling fish scales. Squamous cells are found in the tissue that forms the surface of the skin, the lining of the hollow organs of the body, and the passages of the respiratory and digestive tracts.

Sub-total hysterectomy: Removal of the uterus only, leaving the cervix in situ.

Squamous premalignancy and malignancy: A pathology report of ASC-US, ASC-H, LSIL, HSIL, or squamous cell carcinoma.

Stage 1B tumors: The cancerous area is larger than in stage 1A, but is still only in the tissues of the cervix and has not spread.

STI: Sexually transmitted infection.

Stellate cervical laceration: The trauma of difficult deliveries may tear the cervix, producing permanent lacerations. In a stellate laceration, the cervix has a number of slits in a star-like pattern.

Symptomatic: Showing indications of disease or illness.

T

Total hysterectomy: Removal of the uterus and cervix.

Transgender person: An umbrella term that represents many individuals who defy the (binary male and female) 'laws' of gender. This could include transsexuals, intersex folks, cross-dressers, drag performers, genderqueers, two-sprit individuals, androgynous people, and gender non-conformists.

Transphobia: A form of oppression that comprises of the irrational fear, hatred, or aversion towards individuals who identify or are perceived to be transgender, the transgender community, or transgenderism itself. Transphobia may be expressed via discrimination, jokes, stereotypes, harassment, and/or violence.

Transsexual person: A person who typically experiences discomfort with the disparity between their physical bodies and their sense of self and therefore seeks to modify their body through hormones and/or surgical procedures in order to bring their body closer to their sexual and/or gender identity. Most transsexuals want to be perceived as the gender that is congruent with their identity, regardless of what physical changes they have pursued.

Transverse cervical laceration: The trauma of difficult deliveries may tear the cervix, producing permanent lacerations. In a transverse laceration, the cervix appears slit from side to side.

Tubal ligation: Surgical sterilization of a woman by obstructing or tying the fallopian tubes.

Tumor: A mass of abnormally growing cells that serve no useful bodily function. Tumors can be either benign or malignant.

Two-Spirited person: A term in English used to describe the ancient teachings of First Nations people who embodied two spirits (male and female). Encompasses individuals who identify as lesbian, gay, bisexual and transgender.

V

Vaginal vault: Term used to describe the vagina after a hysterectomy when no cervix remains.

Vaginal atrophy: Often a symptom of menopause. The drying and thinning of the tissues of the vagina and urethra. This can lead to dyspareunia (pain during sexual intercourse) as well as vaginitis, cystitis, and urinary tract infections.

Vaginitis: Inflammation of the vaginal mucosa.

Vesicle: Small elevation of the skin containing serous fluid (e.g. blister).

Virus: A tiny organism that invades and grows in cells and thereby alters their function. Viruses cause a variety of infectious diseases and may also induce some types of cancer.

References

[1] This section adapted from Oregon Health & Science University (OHSU) (2004), Alberta Cervical Cancer Screening Program (2002), Faculty of Primary Care Nurse Practitioner Program, Saskatchewan Institute of Applied Science and Technology (2000), Cancer Research Link (2002) & Cervical Screening Initiatives Program of Newfoundland and Labrador (2001).

Appendix 1: Education

A. Cervical Cancer Screening Learning Module Videos

The following three videos accompany the Cervical Cancer Screening Learning Module and should be viewed by the HCP to enhance Pap test competency.

Find videos listed below at:

https://www.cancercare.mb.ca/screening/hcp#education

a. SurePath LBC Collection Video

i. Exam equipment
ii. Sampling the ectocervix and endocervix with the broom
iii. Dropping the broom into the liquid medium

b. ThinPrep LBC Collection Video

i. Exam equipment
ii. Sampling the ectocervix and endocervix with the broom
iii. Sampling the ectocervix with the plastic spatula
iv. Sampling the endocervix with the cytobrush
v. Swishing the broom into the liquid medium

c. At your cervix: What's normal anyway?

i. Illustrates abnormalities and carcinoma of the cervix

d. The Pap Test Procedure Collection Video

https://youtu.be/XHbIC2RKBFg

i. Exam equipment
ii. Speculum exam procedures
iii. Sampling the ectocervix
iv. Sampling the endocervix
v. Securing the specimen

B. Pap Test Procedure Sampling Techniques

Click here to view this resource.

C. Resources & Tools

CervixCheck has a wide range of free resources for HCPs and the public, some of which are multi-lingual.

- CancerCare Manitoba, CervixCheck Website:
    1. Public
    2. Health Care Provider
- Online resource order form for public and professional resources.

CervixCheck staff and Health Educators are also available to answer questions from the public and HCPs. We can be reached at:

Screening@cancercare.mb.ca
1-855-95-CHECK

Appendix 2: Forms

A. Screening History Request Form

B. Cytology Requisition Form

C. Colposcopy Report Form

D. Provider Number Request Form

Request for Cervical Cancer Screening Histories

1. Enter your contact information.
2. Complete the first 3 columns (name, PHIN and birth date).
3. Fax the completed form to CervixCheck at **204-779-5748**.
4. CervixCheck will fax back this form and the screening histories to the requesting clinic.

***Clinic name:** _____

***Contact name:** _____ ***Date:** _____

***Phone number:** _____ ***Fax number:** _____

***Required fields.**

*NAME	*PHIN	*BIRTH DATE (YYYY/MM/DD)	SCREENING HISTORY FOR OFFICE USE ONLY

X-FORM-SCREENING-HISTORY 2021.07

CancerCare Manitoba
ActionCancerManitoba
BreastCheck CervixCheck ColonCheck

1-855-95-CHECK | Fax: 204-779-5748
screening@cancercare.mb.ca
cancercare.mb.ca/screening

CERVICAL CYTOLOGY REQUEST FORM

CancerCare Manitoba
ActionCancerManitoba
BreastCheck CervixCheck ColonCheck

Send specimen to:

☐ **Health Sciences Centre Cytology Laboratory**
820 Sherbrook St (MS337), Winnipeg, MB R3A 1R9
P: 204-787-1352 F: 204-787-1790

☐ **Westman Laboratory**
Unit 1-150 McTavish Ave, E, Brandon, MB R7A 7H8
P: 204-578-4440 / 1-800-661-5458 Ext. 4467
F: 204-578-2819

☐ **St. Boniface Hospital Cytology Laboratory**
409 Taché, Winnipeg, MB R2H 2A6
P: 204-237-2504 F: 204-235-3423

☐ **Dynacare**
830 King Edward St, Ste #100, Winnipeg, MB R2H 0P4
P: 204-944-0757 F: 204-957-1221

Accession # **Date received (dd/mmm/yyyy)** **Specimen collection date (dd/mmm/yyyy)**

PATIENT INFORMATION

* Matching PHIN and first and last name required on vial

Last name First name

PHIN (or military, other prov/terr #) MB Health #

☐ F ☐ M

Date of birth (dd/mmm/yyyy) Gender 3rd party billing

Address

City Prov Postal code

SPECIMEN PREPARATION:
☐ Liquid based cytology ☐ Conventional cytology

INSTRUMENT(S):
☐ Broom ☐ Spatula ☐ Cytobrush

SOURCE:
☐ Cervix ☐ Vagina

PATIENT HISTORY

Last normal menses (dd/mmm/yyyy) Last Pap test (dd/mmm/yyyy)

Previous abnormal Pap test (dd/mmm/yyyy)

☐ Pregnant ☐ Postpartum _____ (# weeks)
☐ Menopausal ☐ Postmenopausal

PREVIOUS TREATMENT:
☐ Colposcopy ☐ Laser ☐ Cryotherapy ☐ LEEP
☐ Knife cone ☐ Irradiation ☐ Wide local excision

Date (dd/mmm/yyyy)

HYSTERECTOMY:
☐ Total ☐ Subtotal

Previous cancer

PRESENT TREATMENT:
Hormonal: ☐ HRT ☐ OCP ☐ IUCD

COMMENTS:

SPECIMEN COLLECTOR INFORMATION

Last name First name

CervixCheck/Provider # Bill to (#)

Send report to (street address)

City/Town Prov Postal code

Phone Fax

Copy report to (name)

Address

DESIGNATION:
☐ Physician ☐ Nurse practitioner ☐ Nurse
☐ Physician assistant ☐ Clinical assistant ☐ Midwife

Specimen collector should identify themselves on the form as follows:

DESIGNATION	CERVIXCHECK/PROVIDER #:	BILL TO (#):
Clinical assistant	22### (CervixCheck provider #)	Physician or NP billing #
Midwife	M6### (Midwife provider #)	Midwife billing #
RN(NP)	Not applicable	Billing #
RN, RN(AP), RPN	N### (CervixCheck provider #)	Physician or NP billing #
Physician	Not applicable	Billing #
Physician assistant	72### (CervixCheck provider #)	Physician or NP billing #

COLPOSCOPY REPORT

ALL HIGHLIGHTED AREAS MUST BE COMPLETED

Colposcopist name: _____

Clinic name: _____

Clinic address: _____

Phone: _____ **Fax:** _____

PATIENT INFORMATION

Name: _____

Date of birth: _____ PHIN: _____
yyyy/mm/dd

Address: _____

Phone: _____

Referring doctor: _____

Fax: _____

PATIENT HISTORY

G_____ P_____ LNMP: _____

	No	Yes	Date yyyy/mm/dd
Pregnancy (EDD)	☐	☐	_____/_____/_____
HPV vaccine	☐	☐	_____/_____/_____
Previous cone	☐	☐	_____/_____/_____
Hysterectomy	☐	☐	_____/_____/_____
Previous cryo	☐	☐	_____/_____/_____
Previous laser	☐	☐	_____/_____/_____
Previous LEEP	☐	☐	_____/_____/_____
Smoking	☐	☐	
Sterilization	☐	T/L ☐	VAS. ☐
Contraception	None ☐	OCP ☐	OTHER ☐ _____

Allergies: _____

Surg/Med Hx: _____

Date of colposcopy examination _____
yyyy/mm/dd

☐ INITIAL VISIT ☐ FOLLOW-UP VISIT #____

Last colposcopy date: _____

INITIAL REASON FOR COLPOSCOPY

Abnormal cervical cancer screening test:

- ☐ Unsatisfactory
  - ☐ blood ☐ inflammation
- ☐ ASCUS (Persistent)
- ☐ ASCUS/HPV+
  - ☐ 16 ☐ 18 ☐ Other
- ☐ LSIL (Persistent)
- ☐ LSIL/HPV+
  - ☐ 16 ☐ 18 ☐ Other
- ☐ AGC
- ☐ ASC-H
- ☐ HSIL
- ☐ AIS
- ☐ Suspicious for invasion:
  - ☐ squamous ☐ glandular ☐ unknown

Other:

- ☐ Clinical Abnormal Cervix
- ☐ Vaginal Dysplasia
- ☐ Vulvar HPV
- ☐ Vulvar Dysplasia
- ☐ DES Exposure
- ☐ Other (specify)

_____

_____

_____

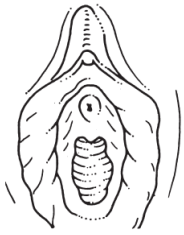
_____

_____

FOLLOW-UP REASON FOR COLPOSCOPY

COLPOSCOPY EXAM

☐ Satisfactory (Type 1 or 2 TZ) ☐ Unsatisfactory (Type 3 TZ)



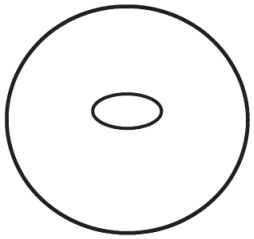
Pelvic/rectal exam:

Uterus

Adnexa

Vaginal vault

COLPOSCOPIC IMPRESSION



- ☐ Negative/Squamous metaplasia
- ☐ Condyloma
- ☐ LSIL
- ☐ HSIL
  - ☐ CIN 2 ☐ CIN 3
- ☐ AIS
- ☐ Invasion
  - ☐ squamous ☐ glandular
- ☐ Radiation changes
- ☐ Atrophic changes

CYTOLOGY

☐ YES ☐ NO

- ☐ Negative
- ☐ Unsatisfactory
  - ☐ blood ☐ inflammation
- ☐ ASCUS
- ☐ LSIL
- ☐ AGC
- ☐ ASC-H
- ☐ HSIL
- ☐ AIS
- ☐ Suspicious for invasion
  - ☐ squamous ☐ glandular

BIOPSY

☐ YES ☐ NO

- ☐ Negative
- ☐ Unsatisfactory
- ☐ LSIL
- ☐ HSIL
  - ☐ CIN 2 ☐ CIN 3
- ☐ SIL, ungraded
- ☐ AIS
- ☐ SISCCA*
- ☐ Invasion
  - ☐ squamous ☐ glandular

ENDOCERVICAL

☐ YES ☐ NO

- ☐ Negative
- ☐ Unsatisfactory
- ☐ LSIL
- ☐ HSIL
  - ☐ CIN 2 ☐ CIN 3
- ☐ SIL, ungraded
- ☐ AIS
- ☐ SISCCA*
- ☐ Invasion
  - ☐ squamous ☐ glandular

Comments:

TREATMENT TODAY

- ☐ None
- ☐ Laser
- ☐ Cryotherapy
- ☐ LEEP excision
- ☐ LEEP conization
- ☐ Knife cone
- ☐ Wide local excision

Site of Treatment:

☐ Cervix ☐ Vagina

Anesthesia:

☐ None ☐ Paracervical

☐ Anesthetic ☐ Cervical

Post procedure bleeding:

Comments:

RECOMMENDATIONS

- ☐ Discharged
  - ☐ Pap every 3 years
  - ☐ Pap every 1 year
- ☐ Repeat colp in _____ months
- ☐ Refer to oncology
- ☐ HPV vaccination

Treatment recommendations

- ☐ Laser
- ☐ Cryotherapy
- ☐ LEEP excision
- ☐ LEEP conization
- ☐ Knife cone
- ☐ Wide local excision
- ☐ Hysterectomy

Planned treatment date:

_____
yyyy/mm/dd

*Superficially invasive squamous cell carcinoma

Signature:_____**MD**

A copy of this report must be sent to CervixCheck within 30 days of the result of the colposcopy being known.

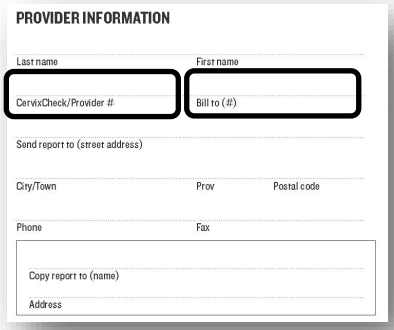
09/2021

CervixCheck Provider Number Request Form

Registered Nurses (RNs), Physician Assistants (PA), and Clinical Assistants (CL.A) should obtain a CervixCheck Provider Number at such point cervical cancer screening becomes part of their practice. The CervixCheck Provider Number identifies the specimen taker on the cytology requisition form, and links them to the cervical cancer screening test (i.e. Pap test) and any subsequent follow-up.

RNs, PAs and CL.As should identify themselves with their CervixCheck Provider Number on the cervical cytology request form in the "CervixCheck/Provider #" field. *For specimens sent to Dynacare lab only:* A billing number must be submitted on the cervical cytology requisition form in the "Bill to (#)" field.

	Record in the *CervixCheck/ Provider #* field	**Record in *Bill To (#)* field**
Clinical Assistant	22###	Physician or NP billing #
Registered Nurse	N###	Physician or NP billing #
Physician Assistant	72###	Physician or NP billing #


PROVIDER INFORMATION

Last name

First name

CervixCheck/Provider #

Bill to (#)

Send report to (street address)

City/Town

Prov

Postal code

Phone

Fax

Copy report to (name)

Address

Important Information

- ✓ All RNs, PAs and CL.As should ensure that their cytology lab captures their CervixCheck Provider Number with each Pap test that is ordered.
    - *For RNs, PAs and CL.As submitting specimens to Dynacare lab:* A billing number must be submitted on the cervical cytology requisition form in the "Bill to (#)" field. A copy of the lab report will be sent to you, but you will not be reflected as the specimen taker *in the CervixCheck registry*. CervixCheck is working with Dynacare for a solution to this.
- ✓ Registered nurses (extended practice), nurse practitioners and physicians do not need a CervixCheck Provider Number. Rather, they can record their billing number as assigned by Manitoba Health in the "Bill to (#)" field of the cytology requisition form.
- ✓ All clinicians shall refer to the CervixCheck Screening Guidelines at https://www.cancercare.mb.ca/screening/hcp to facilitate the required management of all cervical cytology follow-up in Manitoba.

CervixCheck Provider Number Request Form

To obtain a CervixCheck Provider Number, complete the following fields and fax or email to CervixCheck. Your CervixCheck Provider Number will be emailed to you. If you are registered for the CervixCheck Competency Training, you do not need to complete this form. A number will be provided to you on your certificate of participation post-training.

FIRST NAME	LAST NAME	DESIGNATION (RN, PA, CA)
CLINIC NAME		
CLINIC ADDRESS	TOWN/CITY	POSTAL CODE
EMAIL	PHONE	FAX

CONTACT CERVIXCHECK:

- ✓ For screening histories of patients in your care,
- ✓ For education and resources,
- ✓ For questions about screening and patient management, or
- ✓ To host a Pap clinic in your community.

Appendix 3: Assessment Tools

A. Pre and Post Module Test Answer Key

Marking Instructions: Each correct answer scores one mark (i.e. Question #1: 4/4 responses correct = 4 marks, 3/4 correct = 3 marks, etc.). The HCP is required to get (85%) to attain the module requirements for competency.

1. **CervixCheck is needed because (4):**

    a) organized cervical cancer screening programs reduce the cervical cancer incidence and mortality
    b) participating in regular cervical cancer screening can prevent most cervical cancers
    c) the majority of patients who develop cervical cancer in Manitoba have not participated in regular cervical cancer screening
    d) the program will remind clients and physicians when cervical cancer screening testing or follow-up is overdue

e) **Which of the following is not a risk factor for cervical cancer (1)?**
    a. A first degree relative diagnosed with cervical cancer (Chapter 2)

3. **Name four higher risk groups who may be less likely to be screened for cervical cancer(4).**
    a. Clients over the age of 40
    b. Clients of low socioeconomic status
    c. Newcomer clients
    d. First Nation clients over the age of 40
    (Chapter 3)

4. **List five reasons why an eligible client may be reluctant to participate in regular cervical cancer screening (5).**
    - Lack of information and understanding of the Pap test
    - Fear of test
    - Fear of cancer
    - Fear of pain
    - Embarrassment
    - Modesty
    - Religious and social factors

- Inability to understand an invitation to participate in cervical screening because of language barriers
- Difficulty in communicating with some HCPs
- Lack of childcare facilities
- Other peoples' attitudes to the Pap test (i.e. husband, family, religious leaders)
- Accessibility issues
  (Chapter 4)

5. **List six populations that may have special learning, counseling and educational needs (6).**
   - Lesbians, WSW, Transgender People
   - Clients with history of sexual abuse
   - Clients with disabilities
   - Clients from different cultures
   - Clients whose preferred language is not English
   - Clients with barriers to access
     (Chapter 5)

6. **Infection with high-risk Human Papillomavirus (HPV) is recognized as the main risk factor for cervical cancer (1).**
   a. True (Chapter 2)

7. **If a client appears apprehensive before the exam, it is best to (1):**
   c. Ask open-ended questions about their apprehension (Chapter 4)

8. **List three things that you can do to increase a client's physical and emotional comfort during the exam (3).**
   - Position the client so that you have eye contact with her and talk to them and give them reassurance throughout the exam
   - Tell them what you are going to do before you do it
   - Reinforce to the client that at any time they feel uncomfortable, you will stop until they tell you that you can proceed
   - Give the client a mirror so that they can visualize what you are doing and so they can learn about their anatomy
   - Normalize the client's feelings and experience
     (Chapter 4)

9. **According to the post-hysterectomy screening guidelines, screening of the vaginal vault is not necessary if the hysterectomy was performed for a malignant condition. (1)**
    b. False (Chapter 3)

10. **Which of the following clients is at risk for infection with HPV (3)?**
    a. Mary who has only had sex once in her lifetime over 20 years ago
    b. Eve who has worked as a sex trade worker for the last 15 years
    c. Sally who started having sex at 14 and has smoked a pack of cigarettes every day for the past 5 years
    (Chapter 2)

11. **List five abnormal findings of the ectocervix (5).**
    - Abnormal exudates or masses upon the ectocervix
    - Asymmetrical circumoral erythema with irregular borders
    - Blood of unknown origin
    - Cyanosis in a nongravid woman
    - Diffuse erythema
    - Excavations or ulcerations
    - Nodularity or roughness is usually abnormal, but may be attributable nabothian cysts which are common
    - Hemorrhagic lesions
    - Leukoplakia
    (Chapter 6)

12. **Which of the following are abnormal findings on the cervix that should be investigated appropriately or referred to a specialist (5)?**
    a. Friable tissue (soft, eroded)
    b. Red patchy areas
    c. Abnormal bleeding, and inflammation
    d. Granular areas, white patches
    f. Lesions
    (Chapter 6)

13. Name the three sampling areas of the cervix (3)

a. Ectocervix
b. Endocervix
c. Transformation zone
(Chapter 6)

14. A smaller and narrower speculum should be used with (4):

a. Clients with vaginismus
b. Nulliparous clients
c. Circumcised clients
d. Clients whose vaginal orifices have contracted post-menopausally
(Chapter 8)

15. It is acceptable to lubricate the speculum with (1):

b. warm water (Chapter 8)

16. An acceptable way to insert the speculum is (3):

b. At an oblique angle
c. With the speculum closed
e. The speculum is angled 45° downward toward the small of the client's back
(Chapter 8)

17. The best way to reposition a speculum for a client with a cervix with posterior orientation is (1):

b. to insert the speculum more deeply and posteriorly through compression of the perineal tissue. The blade tips will slip under the cervix into the posterior fornix.
(Chapter 8)

18. The correct way to obtain a broom specimen is by rotating the broom in the endocervical canal (1):

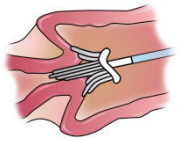
a. Clockwise, 360° five times. (Chapter 9)

19. When using the dual sampling technique with a liquid medium, a plastic spatula and plastic cytobrush with perforated ends should be used in order to break off into the liquid medium (1).

a. True (Chapter 9)

20. **If sexually transmitted infections specimens need to be collected, they should be taken prior to the cervical specimen (1).**
    a. True (Chapter 9)

21. **The broom-like device collects cells from the ectocervix and endocervix simultaneously (1).**
    a. True (Chapter 9)



22. **If a clinician uses the device pictured below to collect the cervical specimen, they should select 'Cytobrush' when completing the cytology requisition form instrument section (1).**
    b. False – Even though the trademark name for the broom is the "Cervex Rovers Brush" it is actually the broom instrument that should be selected in the instrument section of the cytology requisition form.

INSTRUMENT(S):
□ Broom □ Spatula □ Cytobrush

23. The HCP should avoid touching the head of the broom while detaching it into the liquid medium (1).

a. True (Chapter 9)

24. The specimen and the cytology requisition should both be labeled with matching (3):

a. First name
b. Last name
c. PHIN
(Chapter 9)

25. List four key things that should be discussed with the client after the examination (4).

- Exam findings
- How the client can receive their results
- Questions addressed by the client
- Education (CervixCheck library of resources)
(Chapter 4)

26. Name four scenarios in which the laboratory would reject a specimen (4)?

- The specimen is improperly labelled
- When the client is a non-Manitoba resident or, for any other reason, has not been issued a PHIN, the failure to identify the specimen with the client's name or alternate insurance HCP number
- Discrepancy of information between the specimen and the requisition form
- The specimen is received without accompanying requisition
(Chapter 9)

27. During a Pap test visit, when does the HCP seek to obtain informed verbal consent from the client (1)?

b. After you have explained the external exam, speculum exam and the cervical cancer screening procedure and before you begin
(Chapter 8)

28. Is the HCP legally responsible to protect confidentiality of the client's health information (1)?

a. Yes

29. In order for nurses, clinical assistants and physician assistants to properly identify themselves as the specimen taker on the cytology requisition form, they should obtain a CervixCheck Provider Number from CervixCheck (1).

a. True (Appendix 2)

31. A client had a colposcopy and was investigated and/or treated for a cervical abnormality. They completed their care with the colposcopist and the coloposcopist has discharged them back to the routine care of their regular HCP. The HCP has just done a follow-up cervical cancer screen and it shows ASCUS. What is the recommended management (5)?

If a client has completed their care with a colposcopist and has been discharged from colposcopy, they can be screened according to the CervixCheck Screening Guidelines. Subsequent to their discharge from colposcopy, if the Pap test result was ASCUS or LSIL, the Pap test should be repeated in 6 months. If the repeat Pap test is $\geq$ ASCUS (ASCUS, LSIL, AGC, ASC-H, HSIL, AIS, carcinoma or unsatisfactory due to "obscuring blood" or "obscuring inflammation"), refer the client back to colposcopy. If the client has been discharged from colposcopy and any Pap test shows ASC-H, HSIL, AGC or carcinoma, they should be immediately referred (as any client should be) to colposcopy. Any visual abnormalities of the cervix and/or abnormal symptoms should be appropriately investigated regardless of the findings on cytology.

32. A healthcare provider has a client who had a Pap test four years ago and it showed ASCUS. The next Pap test has just been done and it has shown ASCUS. What is the recommended management (5)?

The CervixCheck Screening Guidelines recommend a referral to colposcopy if there has been 2 consecutive unsatisfactory due to obscuring blood or inflammation, ASCUS and/or LSIL Pap tests. However, the guidelines assume the two Pap tests will be taken within a reasonable time frame. Given the interval between the Pap tests, one does not know if this is the same disease or whether it is new disease after the disease self-resolved. If the HCP knows the client is non-compliant, they should consider referring them for colposcopy. However a reasonable option given that the Pap is not more severe, is to repeat the Pap test in 6 months as per the CervixCheck Screening Guidelines.

B. Performance Criteria Checklist for Preceptor

POLICY NOTE: CervixCheck encourages the preceptor to offer feedback to the HCP. It is recommended that a preceptor feedback process be set up in the region.

Once the HCP has indicated readiness for final assessment, the attached tool can be used to assess the HCPs performance during several Pap related visits. The HCP should attain 100% in all aspects of the skills checklist prior to being deemed competent.

External Genitalia, Speculum & Cervical Cancer Screening Examination[1]

Performance Criteria Checklist for Preceptor

CRITICAL ELEMENTS Performs examination according to clinic policies and procedure.	Date	Date	Date	Date
1. Proceeds if health history indicates. Refers client if there are concerns identified in the health history				
2. Explains procedure correctly and validates plan with client (informed, verbal consent)				
3. Checks with client to determine if they need to empty their bladder				
4. Assembles necessary supplies				
5. Labels slide correctly				
6. Drapes client correctly				
7. Positions client correctly				
8. Discusses with client how they can take an active part in the examination				
9. Sits on stool at foot of examining table				
10. Dons examination gloves				
11. Explains each step in the examination before it is done				
12. Touches inner thigh with back of hand before touching vulva				
13. Selects the proper sized speculum				
14. Lubricates the speculum with warm water				
15. Inserts the speculum correctly so that the cervix is in full view				
16. Locks the speculum blades correctly				
17. Inspects the cervix for colour, position, size, shape of os, surface, and cervical secretions				
18. Obtains specimen with broom correctly • Inserts the broom deeply enough into the endocervical canal • Rotates the broom 5 times clockwise • Drops/rinses the broom into the vial without splashing				
19. Removes the speculum correctly				
20. Inspects vaginal wall while removing speculum				
21. Prepares slide and completed requisition correctly for transport to laboratory				
22. Assists client out of lithotomy position				
23. Shares results of examination with client				
24. Provides health information and CervixCheck resources to client				
25. Informs client of how results will be shared				
26. Informs client of when next Pap test is due				
27. Documents results of examination correctly on client's Health Record				
28. Identifies abnormal findings and promptly follows up with client to arrange a repeat Pap test or colposcopy appointment				

Employee #: _____ Preceptor: _____

References

[1] Adapted from Calgary Health Region. (2001).

Appendix 4: Case Studies

A. Case Study Questions

i. **Complete the following case studies.**
ii. **Review answer key in section B and discuss your answers with your preceptor.**

Case Study #1

A 45 year old individual presents at your clinic. They are anxious and tell you they have recently had unprotected sex with a new partner. They request to be "checked for everything." What considerations should be made to appropriately manage their cervical cancer screening?

Case Study #2

A 30 year old pregnant female presents at your clinic for an initial prenatal visit. What, if any, cervical cancer screening considerations should be made?

Case Study #3

A 33 year old individual presents at your clinic seeking a Pap test. They have recently moved to Winnipeg from The Pas and do not know the date of their last Pap test. They vaguely recall an abnormal result in the past. After you review the screening history from CervixCheck, you notice a referral to colposcopy five years ago due to a high grade Pap test result. The biopsy result on the colposcopy report shows "moderate dysplasia." The individual was treated and discharged from colposcopy three years ago, but has not returned to routine screening.

1. How do you proceed?
2. If a Pap test is recommended, how should you rotate the broom when collecting the cervical sample?

Case Study #4

A 55 year old individual presents to your clinic and insists on continuing with annual Pap tests. The screening history does not suggest they should be screened more frequently than routinely (every three years) as per the CervixCheck guidelines. How would you proceed?

Case Study #5

A 38-year-old female presents in clinic. On taking a health history you note that they have not menstruated for a couple of months but they indicate that their periods are often irregular and they don't think they are pregnant. They have never had a Pap test and agree to have one done today. On performing a speculum examination you note a bluish discolouration of the cervix. There is also a thin, creamy, gray-white, vaginal discharge. There is no inflammation on the vaginal wall or cervix.[1]

1. What may be causing the discolouration of the cervix?
2. What may be causing the vaginal discharge?
3. How would you proceed?
4. Outline your educational and counseling strategies for this individual.

Case Study #6

A 42-year-old individual presents for a Pap test. They have not participated in cervical cancer screening in the past. They are very self-conscious about their body, and believe they are overweight; however they have developed a good trusting relationship with you, their HCP. The history is taken and there are no signs to indicate that this will be anything other than a routine screening. However, upon examination the individual becomes tense and anxious. You have trouble finding their cervix. The individual's anxiety continues to increase and they start to cry, saying that the examination is painful.

1. What is the first priority for this individual?
2. What are some ideas to promote comfort for an anxious patient?
3. When the individual starts to cry, what should you do?
4. The cervix is pink and fleshy, but has some "bumps" on it. What might this be and what should you do?

Case Study #7

A 28-year-old individual presents to a community clinic. They have had 3 pregnancies in 4 years, a history of 1 spontaneous abortion, 1 termination at 15 weeks and 1 live birth. The individual states that they do not want their male doctor to examine them and they think they may be pregnant. They tell you that they had an abnormal Pap test 3 years ago. They are adamant that they want a female examiner, know there is a trained provider on site, and refuse to leave if they are not examined.

2. What are your first priorities for this individual?
2. What information do you need to proceed?

Case Study #8

A 25-year-old individual presents at a well-baby clinic in a rural community. Her husband and 4-month-old baby are with her, and she has a 2 and 3 year old at home. She is trying to get pregnant again. Discussion ensues as to a plan for a pregnancy so soon after this birth. They are slow to answer. The husband finally says that his wife has been told that she had an "abnormal cancer test" during her last pregnancy and was referred to the Health Sciences Centre at the 6-week postpartum doctor's visit. They did not attend the post-partum doctor's visit because they were afraid that she might have cancer "down there". They want to have more babies before having surgery and worry that her "womb will be taken out".

1. What is your first priority as a HCP?
2. Should the HCP do cervical screening?
3. What else should be considered?

Case study #9

You work in a low socioeconomic inner city practice with multiple new Canadian patients, many of whom do not have English as a first language. A 65-year-old individual who speaks little English attends your office for the first time to get their blood pressure checked. They have recently moved to stay with their son and help look after her grandchildren. The individual still has monthly periods but they are getting heavier and closer together, i.e. q3 weeks. When asked about previous Pap tests the client said, "I had a few when I was younger, in my 20's and they said one was abnormal, so I had to have more frequent examinations at the physician's office." They tell you they have had no Pap tests since having children (the last child was born 45 years ago), and only rarely have sex with their partner of many years. The client says that they really do not want any more Pap tests and doesn't understand why one would be necessary.

1. If this individual had a history of a hysterectomy, how would you approach their cervical cancer screening needs?
2. How would you discuss the risk of cervical cancer with this individual?
3. What if they refuse the Pap test? What would you do?

Case Study #10

A 35 year old trans male presents to your clinic but does not state on the intake form the reason for the visit. This is the first time you are seeing them. After bringing them into your exam room, the individual discloses they may need to get checked 'down there.' They appear nervous and very uncomfortable.

1. How would you proceed?
2. What can you do at your site to help trans clients feel safer?

How would you manage the clients with the following screening histories?

Case Study #11

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Smith**		
Given Name:	**Jane**		
Middle Name:			
Date of Birth:	**DD/MM/YYYY**	Age:	**48**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
6 months ago	SMITH, Jane	123456789		LAB-CYTOLOGY	17-003888
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
1.5 years ago	SMITH, Jane	123456789		LAB-CYTOLOGY	HSC 123456789
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
2.5 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**A High Grade Squamous Intraepithelial Lesion is Seen consistent with Moderate Dsyplasia**				
3.5 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
5 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				

Case Study #12

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Smith**		
Given Name:	**Jane**		
Middle Name:			
Date of Birth:	**DD/MM/YYYY**	Age:	**48**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
1 year ago	SMITH, Jane	123456789		LAB-CYTOLOGY	17-003888
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
2 years ago	SMITH, Jane	123456789			17-0038887
		COLPOSCOPY CLINIC		Associated Cytology:	HSC 123456789
Colposcopy	**Impression**	**Condyloma**			
	Biopsy	**Negative**			
	Repeat Colp.	**Return to screening as per CervixCheck Guidelines**			
2 years ago	SMITH, Jane	123456789		LAB-CYTOLOGY	HSC 123456789
Same date as above		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
3 years ago	SMITH, Jane	123456789			17-0038887
		COLPOSCOPY CLINIC		Associated Cytology:	HSC 123456789
Colposcopy	**Impression**	**Severe Atypia**			
	Biopsy	**Severe Atypia**			
	Treatment	**Laser**			
3 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
Same date as above		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
4 years ago	SMITH, Jane	123456789			17-0038887
		COLPOSCOPY CLINIC		Associated Cytology:	HSC 123456789
Colposcopy	**Impression**	**Mild Atypia**			
	Biopsy	**Mild Atypia**			
	Treatment	**Follow-up in 6 months**			
4 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
Same date as above		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
5 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**A High-Grade Squamous Intraepithelial Lesion is Seen**				

Case Study #13

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**123456789**	Origin:	**QC**
MHSC Number:	**004545**		
Surname:	**MOUSE**		
Given Name:	**MINNIE**		
Middle Name:			
Date of Birth:		Age:	**72**
Gender:	**F**		

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
A 1 year ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20130705
		MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3			
Cytology:	**Unsatisfactory Specimen due to Insufficient Epithelial Cells**				
A 2 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20130801
		MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3			
Cytology:	**Unsatisfactory Specimen due to the Presence of Mainly Endocervical Cells**				
A 3 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20110716
		MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
A 6 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20090720
		MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
A 7 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20050805
		MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				

Case Study #14

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**123456789**	Origin:	**QC**
MHSC Number:	**004545**		
Surname:	**MOUSE**		
Given Name:	**MINNIE**		
Middle Name:			
Date of Birth:		Age:	**26**
Gender:	**F**		

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
A 1 year ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20130705
	MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3				
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
A 2 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20130801
	MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3				
Cytology:	**Unsatisfactory Specimen due to the Presence of Mainly Endocervical Cells**				
A 4 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20110716
	MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3				
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
A 6 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20090720
	MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3				
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
A 8 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20050805
	MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3				
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				

Case Study #15

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Smith**		
Given Name:	**Jane**		
Middle Name:			
Date of Birth:		Age:	**30**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
One month ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	17-003888
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Atypical squamous cells of unknown significance (ASCUS)**				
HPV Test Result:	**High-Risk HPV Positive**				
	Type 16 Not Detected				
	Type 18 Detected				
	Type Other Not Detected				
9 months ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456800
		ROCKSTAR CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Atypical Cells of Undetermined Significance ASCUS**				
4 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
		HSC COLPOSCOPY CLINIC			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				

Case Study #16

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Smith**		
Given Name:	**Jane**		
Middle Name:			
Date of Birth:		Age:	**30**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
One month ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	17-003888
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Atypical squamous cells of unknown significance (ASCUS)**				
HPV Test Result:	**High-Risk HPV Positive**				
	Type 16 Not Detected				
	Type 18 Detected				
	Type Other Not Detected				
9 months ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456800
		ROCKSTAR CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Atypical Cells of Undetermined Significance ASCUS**				
4 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
		HSC COLPOSCOPY CLINIC			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				

Case Study #17

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Moore**		
Given Name:	**Mabel**		
Middle Name:			
Date of Birth:		Age:	**38**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
2 months ago	MOORE, Mabel	123456789 ROCKSTAR CLINIC, 123 MOORE STREET, WINNIPEG MB, R2H0H0		HEALTH SCIENCES CENTRE-CYTOLOGY	17-003888
Cytology:	**Atypical Squamous Cells of Unknown Significance (ASCUS)**				
HPV Test Result:	**High Risk HPV Negative** **Type 16 Not Detected** **Type 18 Not Detected** **Type Other Not detected**				
3 years ago	MOORE, Mabel	123456789 HSC COLPOSCOPY CLINIC		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
5 years ago	MOORE, Mabel	123456789 HSC COLPOSCOPY CLINIC		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
6 years ago	MOORE, Mabel	123456789 HSC COLPOSCOPY CLINIC		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
Cytology:	**High Grade Squamous Intraepithelial Lesion is Seen**				

Case Study #18

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Smith**		
Given Name:	**Jane**		
Middle Name:			
Date of Birth:		Age:	**29**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
1 year ago	SMITH, Jane	123456789			17-0038887
		COLPOSCOPY CLINIC		Associated Cytology:	HSC 123456789
Colposcopy	**Impression**	**Negative/Squamous Metaplasia**			
	Biopsy	**Negative**			
	ECC	**Endocervical Curettage Biopsy Definitely Not Done**			
	Repeat Colp.	**Follow-up in 6 months**			
1 year ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
Same date as above		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
3 years ago	SMITH, Jane	123456789			17-0038887
		COLPOSCOPY CLINIC		Associated Cytology:	HSC 123456789
Colposcopy	**Impression**	**Low- Grade Squamous Intraepitheleal Lesion (LSIL)**			
	Biopsy	**Low- Grade Squamous Intraepitheleal Lesion (LSIL)**			
	ECC	**Endocervical Curettage Biopsy Definitely Not Done**			
	Repeat Colp.	**Follow-up in 6 months**			
3.5 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Atypical Squamous Cells of Known Significance ASCUS**				
5.5 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
		HSC COLPOSCOPY CLINIC			
Cytology:	**Low Grade Squamous Intraepitheleal Lesion is Seen**				

Case Study #19

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Smith**		
Given Name:	**Jane**		
Middle Name:			
Date of Birth:		Age:	**71**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
Age 71	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	17-003888
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
1 year ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
		HSC COLPOSCOPY CLINIC			
Cytology:	**Atypical Cells of Undetermined Significance ASCUS**				
3 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
		HSC COLPOSCOPY CLINIC			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
5 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456801
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative Intraepithelial Lesion or Malignancy**				
8 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456801
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative Intraepithelial Lesion or Malignancy**				

Case Study #20

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Smith**		
Given Name:	**Jane**		
Middle Name:			
Date of Birth:		Age:	**30**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
1 year ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	17-003888
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Unsatisfactory Specimen due to Obscuring Inflammation** **Unsatisfactory Specimen due to Obscuring Blood**				
2 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Unsatisfactory due to Obscuring Inflammation**				
4 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				

B. Answer Key for Written Case Studies

Case Study #1

A 45 year old individual presents at your clinic. They are anxious and tell you they have recently had unprotected sex with a new partner. They request to be "checked for everything." What considerations should be made to appropriately manage their cervical cancer screening?

- **Eligible?** Are they between ages 21-69? Have they ever been sexually active? Are they a female or transgender?
- **History?** Obtain a screening history from CervixCheck by phone or fax.
- **Due?** Are they eligible for "routine" screening (i.e. age, hysterectomy status, immunocompromised, previous high-grade Pap test results, etc.?)
    - Eligibility for routine screening means they have not had a Pap test in the previous 3 years. Some individuals may need more regular screening. Refer to the cervical cancer screening guidelines for recommendations related to specific screening results.
    - If a Pap test has been completed within the last 3 years refer to cervical cancer screening guidelines for recommendations related to specific screening results.
- **Education:**
  The decision to perform an **STI check** should come after the HCP has performed a thorough risk assessment. The Canadian Guidelines on Sexually Transmitted Infections outlines risk factors for STIs that would inform a HCPs decision to perform a check.

  The decision to perform a **Pap test** depends on the individual's screening history. In the absence of abnormal Pap test results, and other patient characteristics that exclude her from routine screening, and where the individual is "compliant", screening should occur every 3 years.

Case Study #2

A 30 year old pregnant female presents at your clinic for an initial prenatal visit. What, if any, cervical cancer screening considerations should be made?

ANSWER:

- **Eligible?** Are they between ages 21-69? Have they ever been sexually active? Are they a female or transgender?
- **History?** Obtain a screening history from CervixCheck by phone or fax.
- **Due?**
    - If they have a normal (Negative for Intraepitheleal Lesion) screening history within the last 3 years, and no symptoms of cervical cancer and/or visual abnormalities of the cervix, a Pap test should not be performed. Delay routine screening until 3 years from the last normal Pap test.
    - If they are eligible for routine screening and have not had a Pap test in the previous 3 years, they may need to be screened. The benefits and harms of screening should be considered. If the benefits of completing a Pap test outweigh the potential harms then aim to screen during the first 10 weeks of pregnancy. **IMPORTANT:** Only the plastic spatula should be used when performing a Pap test on pregnant clients. **The cytobrush is contraindicated**.
    - If they are eligible for routine, but are over 10 weeks pregnant, consider whether the benefits of screening outweigh the potential harms. If the balance is not in the individual's favour then consider screening at minimum 6-weeks postnatally.

RATIONALE: The cervix undergoes physiological changes during pregnancy. Although cervical neoplasia prevalence rates are similar for pregnant and non-pregnant women, screening during pregnancy may produce a significant number of false positive and false negative results.

Historically cervical screening has been opportunistic, usually because the screening history was unclear. However, CervixCheck can now provide HCPs with patient screening histories so that screening can be individualized.

Screening during pregnancy is unnecessary if the individual:

- has had **routine Negative Pap tests** (screening histories can be obtained from CervixCheck), and
- has **no symptoms** of cervical cancer
- has **no visual abnormality of the cervix**.

False positive results during pregnancy are more likely for the following reasons:

- eversion of the squamocolumnar junction occurs as a consequence of HIGH oestrogen levels and exposed columnar epithelium undergoes squamous metaplasia;
- cervical infiltration by leukocytes occurs in pregnancy;
- decidualisation of the cervix is a frequent finding;
- Trophoblasts may be present in the cervical canal;
- relative immunosuppression may allow greater human papillomavirus (HPV) activity

[From: Luesley D.M., & Kilby M.D. (2016). Obstetrics & Gynaecology: An Evidence-based Text for MRCOG (3rd ed.). Boca Raton, Florida: CRC Press.]

To review a decision-making algorithm for pregnant females, see chapter 3.

Case Study #3

A 33 year old individual presents at your clinic seeking a Pap test. They have recently moved to Winnipeg from The Pas and do not know the date of their last Pap test. They vaguely recall an abnormal result in the past. After you review the screening history from CervixCheck, you notice a referral to colposcopy five years ago due to a high grade Pap test result. The biopsy result on the colposcopy report shows "moderate dysplasia." The individual was treated and discharged from colposcopy three years ago, but has not returned to routine screening.

1. How do you proceed?
2. If a Pap test is recommended, how should you rotate the broom when collecting the cervical sample?

ANSWER:

1. How do you proceed?
    - **Eligible?** Are they between ages 21-69? Have they ever been sexually active? Are they a female or transgender?
    - **History?** Already requested from CervixCheck.
    - **Due?** Yes. The individual should be screened.
        - The screening history shows a high grade cervical biopsy result (≥HSIL/CIN2/moderate dysplasia) which, as indicated on the colposcopy report, should be monitored with Pap tests at annual intervals. **RATIONALE:** Higher risk for cervical cancer after a high-grade pathology result.

3. If a Pap test is recommended, how should you rotate the broom when collecting the cervical sample?
    - Insert the broom deeply enough into the endocervical canal so that the shorter bristles full contact the ectocervix. Rotate the broom 5 times in a clockwise direction.

Case Study #4

A 55 year old individual presents to your clinic and insists on continuing with annual Pap tests. The screening history does not suggest they should be screened more frequently than routinely (every three years) as per the CervixCheck guidelines. How would you proceed?

ANSWER:

- **Eligible?** Are they between ages 21-69? Have they ever been sexually active? Are they a female or transgender?
- **History?** Already requested from CervixCheck.
- **Due?** No.
- **Education?** Initiate a person-centred discussion about the benefits and harms of cervical cancer screening and engage the individual in an informed conversation to determine together whether annual screening is appropriate for the person. The Pap test can expose individuals to the following risks:
    - discomfort and bleeding from the tests;
    - anxiety that may result from abnormal test results;
    - over-diagnosis and over-treatment of abnormal cell changes that can go away on their own;
    - problems with future pregnancies from some treatments during colposcopy (this point is more of a concern during childbearing years)

NOTES:

The goal of the person-centred discussion with your patient is to:

i. foster the individual's understanding of the Pap test and its benefits and potential harms;
ii. engage the individual in an informed decision-making process about screening that is consistent with their preferences and values.

Case Study #5

A 38-year-old female presents in clinic. On taking a health history you note that they have not menstruated for a couple of months but they indicate that their periods are often irregular and they don't think they are pregnant. They have never had a Pap test and agree to have one done today. On performing a speculum examination you note a bluish discolouration of the cervix. There is also a thin, creamy, gray-white, vaginal discharge. There is no inflammation on the vaginal wall or cervix.[2]

1. What may be causing the discolouration of the cervix?
   - Possibly pregnancy

2. What may be causing the vaginal discharge?
   - Likely bacterial vaginosis

3. How would you proceed?
   - Perform a pregnancy test
   - Perform a Pap test with a broom. While cervical screening is not routinely recommended for pregnant clients due to a significant number of false positive results, this individual has never had a Pap test and is a priority to screen. The cytobrush is contraindicated.

4. Outline your educational and counseling strategies for this individual.
   - Discuss the importance of regular Pap tests
   - Provide information about bacterial vaginosis
   - Discuss STI risk and prevention
   - Reinforce use of male or female condoms with regular birth control methods (e.g. pill, patch, depoprovera)
   - Answer questions

Case Study #6

A 42-year-old individual presents for a Pap test. They have not participated in cervical cancer screening in the past. They are very self-conscious about their body, and believe they are overweight; however they have developed a good trusting relationship with you, their HCP. The history is taken and there are no signs to indicate that this will be anything other than a routine screening. However, upon examination the individual becomes tense and anxious. You have trouble finding their cervix. The individual's anxiety continues to increase and they start to cry, saying that the examination is painful.

1. What is the first priority for this individual?
   - Prior to starting an exam, build on the positive relationship
   - Obtain their cervical cancer screening history from CervixCheck
   - Discuss any concerns before the exam

2. What are some ideas to promote comfort for an anxious patient?
   - Provide an opportunity to look at the equipment
   - Provide a choice to leave on as many clothes as possible, including their shoes if they desire
   - Ensure a comfortable examination
   - Give them choices between different exam positions
   - If they have not emptied their bladder, have them void or empty again as this can increase their anxiety
   - Ensure the speculum is warm

3. When the individual starts to cry, what should you do?
   - Stop the exam and discuss how they want to proceed
   - Proceed with test only when they are ready
   - Change this size of the speculum if required

4. The cervix is pink and fleshy, but has some "bumps" on it. What might this be and what should you do?
   - May be nabothian follicles but assess appropriately to determine if they look like genital warts.
   - Refer to colposcopy if you are unsure of a diagnosis.

Case Study #7

A 28-year-old individual presents to a community clinic. They have had 3 pregnancies in 4 years, a history of 1 spontaneous abortion, 1 termination at 15 weeks and 1 live birth. The individual states that they do not want their male doctor to examine them and they think they may be pregnant. They tell you that they had an abnormal Pap test 3 years ago. They are adamant that they want a female examiner, know there is a trained provider on site, and refuse to leave if they are not examined.

4. What are your first priorities for this individual?
    - Consent for treatment and sharing of information. Education, confidence, and trust building are the most important priorities. Obtain a screening history from CervixCheck by phone or fax.
    - Pregnancy test

3. What information do you need to proceed?
    - Cervical screening history from CervixCheck. Are they due for a Pap test? Remember to consider any abnormal Pap test results.
    - Results from pregnancy test

Case Study #8

A 25-year-old individual presents at a well-baby clinic in a rural community. Her husband and 4-month-old baby are with her, and she has a 2 and 3 year old at home. She is trying to get pregnant again. Discussion ensues as to a plan for a pregnancy so soon after this birth. They are slow to answer. The husband finally says that his wife has been told that she had an "abnormal cancer test" during her last pregnancy and was referred to the Health Sciences Centre at the 6-week postpartum doctor's visit. They did not attend the post-partum doctor's visit because they were afraid that she might have cancer "down there". They want to have more babies before having surgery and worry that her "womb will be taken out".

1. What is your first priority as a HCP?
    - Obtain the cervical screening history from CervixCheck
    - Based on their history, determine which direction to move forward with

2. Should the HCP do cervical screening?
    - The cervical screening history will determine if a Pap test is necessary. A Pap test can be completed if their last Pap test required a repeat. However, if the screening history indicates a colposcopy, make another referral to the same colposcopist. Do not perform a Pap test if colposcopy was indicated. Encourage the client to keep their appointment.

3. What else should be considered?
    - Education is important. This includes:
        - explaining the purpose of the Pap test,
        - explaining the etiology of cervical cancer and dysplasia in plain language,
        - emphasizing the importance of keeping all appointments related to cervical screening,
        - discussing follow-up/treatment options specifically related to the client's desire for more children.
    - Ensure follow-up with the client.

Case study #9

You work in a low socioeconomic inner city practice with multiple new Canadian patients, many of whom do not have English as a first language. A 65-year-old individual who speaks little English attends your office for the first time to get their blood pressure checked. They have recently moved to stay with their son and help look after her grandchildren. The individual still has monthly periods but they are getting heavier and closer together, i.e. q3 weeks. When asked about previous Pap tests the client said, "I had a few when I was younger, in my 20's and they said one was abnormal, so I had to have more frequent examinations at the physician's office." They tell you they have had no Pap tests since having children (the last child was born 45 years ago), and only rarely have sex with their partner of many years. The client says that they really do not want any more Pap tests and doesn't understand why one would be necessary.

1. If this individual had a history of a hysterectomy, how would you approach their cervical cancer screening needs?
    - Obtain the cervical cancer screening history from CervixCheck
    - Obtain the hysterectomy pathology report to determine if screening is still necessary.
    - Proceed based on hysterectomy screening recommendations.

2. How would you discuss the risk of cervical cancer with this individual?
    - Discuss relevant risk factors, e.g. history of abnormal Pap tests, lack of regular Pap tests, etc.
    - Work with interpreter services to ensure the individual understands all the information you are providing them.

3. What if they refuse the Pap test? What would you do?
    - Gradually build rapport and trust by helping them with other issues they may have identified during their history
    - Discuss necessity of Pap test and ways to improve their comfort
    - May be helpful to explore language barriers and the meaning of the Pap test
    - Assess if there is a history of abuse which may make the Pap test more challenging for the individual
    - Accept refusal for service and ensure the client is provided with good education about risks and benefits
    - Clearly document educational efforts, resources provided and offered, and the individual's decision to refuse the Pap test

Case Study #10

A 35 year old trans male presents to your clinic but does not state on the intake form the reason for the visit. This is the first time you are seeing them. After bringing them into your exam room, the individual discloses they may need to get checked 'down there.' They appear nervous and very uncomfortable.

4. How would you proceed?
5. What can you do at your site to help trans clients feel safer?

ANSWER:

1. How would you proceed?
    a. Further inquire about the concerns they have re: 'down there.' Avoid making any assumptions.
    b. Consider cervical cancer screening eligibility:
        i. **Eligibility** – Are they between ages 21-69? Have they ever been sexually active? Are they a female or transgender? Review health history form to determine if they have had bottom surgery?
        ii. **History** - Obtain a screening history from CervixCheck by phone or fax.
        iii. **Educate** - If you proceed with the Pap test remember:
            - the vaginal canal will be dry in individuals with no history of bottom surgery who take testosterone. Use a water-based lubricant to make the exam more comfortable.
            - to mark *testosterone* on the cytology requisition form to alert the cytotechnologist. Testosterone affects interpretation of the cytology sample.
    c. Complete your primary care needs as per your normal daily practice.

2. What can you do at your site to help trans individuals feel safer?
    - use gender-neutral pronouns;
    - use the word "partner" rather than girlfriend/boyfriend;
    - ask if they have had previous positive Pap test experiences;
    - understand that sexual reassignment surgery is not necessarily the end goal for trans people;
    - display posters and/or literature that indicate a trans-friendly environment, but only if it actually is a trans-friendly environment;
    - provide intake forms that allow for trans clients to self-identify.

Case Study #11

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Smith**		
Given Name:	**Jane**		
Middle Name:			
Date of Birth:	**DD/MM/YYYY**	Age:	**48**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
6 months ago	SMITH, Jane	123456789		LAB-CYTOLOGY	17-003888
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
1.5 years ago	SMITH, Jane	123456789		LAB-CYTOLOGY	HSC 123456789
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
2.5 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**A High Grade Squamous Intraepithelial Lesion is Seen consistent with Moderate Dsyplasia**				
3.5 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
5 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				

ANSWER:
This individual should have been referred to colposcopy for the high-grade result 2.5 years ago. However, because they had two subsequent negative Pap tests, a conversation between the HCP and the individual is recommended. The benefits and harms of either referring them to colposcopy or repeating the Pap test at this time should be discussed. Based on their values, preferences and beliefs, a person-centred decision can be made about what is best for this person.

When there is a previous high grade cervical **pathology** result (define as: ≥HSIL/CIN2/moderate dysplasia) CervixCheck recommends screening annually after colposcopy discharge. There is no evidence to support how long an individual should be screened annually. A conservative approach would be to screen annually until they are 69 years of age and then discontinue if their results are Negative in previous 10 years.

Case Study #12

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Smith**		
Given Name:	**Jane**		
Middle Name:			
Date of Birth:	**DD/MM/YYYY**	Age:	**48**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
1 year ago	SMITH, Jane	123456789		LAB-CYTOLOGY	17-003888
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
2 years ago	SMITH, Jane	123456789			17-0038887
		COLPOSCOPY CLINIC		Associated Cytology:	HSC 123456789
Colposcopy	**Impression**	**Condyloma**			
	Biopsy	**Negative**			
	Repeat Colp.	**Return to screening as per CervixCheck Guidelines**			
2 years ago	SMITH, Jane	123456789		LAB-CYTOLOGY	HSC 123456789
Same date as above		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
3 years ago	SMITH, Jane	123456789			17-0038887
		COLPOSCOPY CLINIC		Associated Cytology:	HSC 123456789
Colposcopy	**Impression**	**Severe Atypia**			
	Biopsy	**Severe Atypia**			
	Treatment	**Laser**			
3 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
Same date as above		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
4 years ago	SMITH, Jane	123456789			17-0038887
		COLPOSCOPY CLINIC		Associated Cytology:	HSC 123456789
Colposcopy	**Impression**	**Mild Atypia**			
	Biopsy	**Mild Atypia**			
	Treatment	**Follow-up in 6 months**			
4 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
Same date as above		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
5 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**A High-Grade Squamous Intraepithelial Lesion is Seen**				

ANSWER:
Book a Pap test appointment for the individual based on the biopsy result of *severe atypia* on the colposcopy report 3 years ago. This individual should be screened annually.

Follow-up question: Has this individual been discharged from colposcopy? How can you tell? Answer: Yes, discharge from colposcopy is evident by "Return to screening as per CervixCheck guidelines" as listed in the colposcopy report from 2 years ago.

Case Study #13

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**123456789**	Origin:	**QC**
MHSC Number:	**004545**		
Surname:	**MOUSE**		
Given Name:	**MINNIE**		
Middle Name:			
Date of Birth:		Age:	**72**
Gender:	**F**		

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
A 1 year ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20130705
	MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3				
Cytology:	**Unsatisfactory Specimen due to Insufficient Epithelial Cells**				
A 2 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20130801
	MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3				
Cytology:	**Unsatisfactory Specimen due to the Presence of Mainly Endocervical Cells**				
A 3 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20110716
	MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3				
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
A 6 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20090720
	MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3				
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
A 7 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20050805
	MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3				
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				

ANSWER:

This individual could have discontinued screening after they obtained 3 negative Pap tests between the ages of 65 and 69. However they should be re-screened, because they continued to be screened and obtained two unsatisfactory results (one with too many endocervical cells). The individual can discontinue screening if the result is negative and there are no symptoms of cervical cancer and/or visual abnormalities of the cervix.

Case Study #14

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**123456789**	Origin:	**QC**
MHSC Number:	**004545**		
Surname:	**MOUSE**		
Given Name:	**MINNIE**		
Middle Name:			
Date of Birth:		Age:	**26**
Gender:	**F**		

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
A 1 year ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20130705
	MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3				
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
A 2 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20130801
	MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3				
Cytology:	**Unsatisfactory Specimen due to the Presence of Mainly Endocervical Cells**				
A 4 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20110716
	MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3				
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
A 6 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20090720
	MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3				
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
A 8 years ago	MOUSE, Minnie	123456789		Health Sciences Centre-Cytology	HSC20050805
	MANITOBA CLINIC 790 SHERBROOK ST WINNIPEG MB R3A1M3				
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				

ANSWER:
Routine screening every 3 years. A Pap test should be booked for 3 years after the last negative Pap test result.

Case Study #15

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Smith**		
Given Name:	**Jane**		
Middle Name:			
Date of Birth:		Age:	**30**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
One month ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	17-003888
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Atypical squamous cells of unknown significance (ASCUS)**				
HPV Test Result:	**High-Risk HPV Positive**				
	Type 16 Not Detected				
	Type 18 Detected				
	Type Other Not Detected				
9 months ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456800
		ROCKSTAR CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Atypical Cells of Undetermined Significance ASCUS**				
4 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
		HSC COLPOSCOPY CLINIC			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				

ANSWER:
Because this client is 30 years of age with an ASCUS result, her specimen was tested for high-risk HPV (hrHPV). Her hrHPV result was positive because HPV type 18 is detected. This patient should be referred to colposcopy.

Case Study #16

CancerCare Manitoba CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Smith**		
Given Name:	**Jane**		
Middle Name:			
Date of Birth:		Age:	**32**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
One month ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	17-003888
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Atypical squamous cells of unknown significance (ASCUS)**				
HPV Test Result:	**High-Risk HPV Negative**				
	Type 16 Not Detected				
	Type 18 Not Detected				
	Type Other Not Detected				
4 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
		HSC COLPOSCOPY CLINIC			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				

ANSWER:

Because this client is 30 years of age and older, and her Pap test result was ASCUS, her specimen was also tested for hrHPV. The hrHPV result is negative because none of the three high-risk HPV genotype categories (Type 16, Type 18 and Type Other) came back detected. This patient should return to routine screening (in this case every three years).

Case Study #17

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Moore**		
Given Name:	**Mabel**		
Middle Name:			
Date of Birth:		Age:	**38**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
2 months ago	MOORE, Mabel	123456789 ROCKSTAR CLINIC, 123 MOORE STREET, WINNIPEG MB, R2H0H0		HEALTH SCIENCES CENTRE-CYTOLOGY	17-003888
Cytology:	**Atypical Squamous Cells of Unknown Significance (ASCUS)**				
HPV Test Result:	**High Risk HPV Negative** **Type 16 Not Detected** **Type 18 Not Detected** **Type Other Not detected**				
3 years ago	MOORE, Mabel	123456789 HSC COLPOSCOPY CLINIC		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
5 years ago	MOORE, Mabel	123456789 HSC COLPOSCOPY CLINIC		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
6 years ago	MOORE, Mabel	123456789 HSC COLPOSCOPY CLINIC		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
Cytology:	**High Grade Squamous Intraepithelial Lesion is Seen**				

ANSWER:

This individual was never seen in colposcopy. Because the patient had an ASCUS and an hrHPV negative result, she will return to routine screening every 3 years. There is no evidence to support a recommended interval with a high-grade Pap test result (HSIL, ASC-H) with no biopsy/histopathology result. However, because this patient has since had a hrHPV result of negative, it is safe to return to routine screening every 3 years.

Case Study #18

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Smith**		
Given Name:	**Jane**		
Middle Name:			
Date of Birth:		Age:	**29**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
1 year ago	SMITH, Jane	123456789			17-0038887
		COLPOSCOPY CLINIC		Associated Cytology:	HSC 123456789
Colposcopy	**Impression**	**Negative/Squamous Metaplasia**			
	Biopsy	**Negative**			
	ECC	**Endocervical Curettage Biopsy Definitely Not Done**			
	Repeat Colp.	**Follow-up in 6 months**			
1 year ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
Same date as above		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
3 years ago	SMITH, Jane	123456789			17-0038887
		COLPOSCOPY CLINIC		Associated Cytology:	HSC 123456789
Colposcopy	**Impression**	**Low- Grade Squamous Intraepitheleal Lesion (LSIL)**			
	Biopsy	**Low- Grade Squamous Intraepitheleal Lesion (LSIL)**			
	ECC	**Endocervical Curettage Biopsy Definitely Not Done**			
	Repeat Colp.	**Follow-up in 6 months**			
3.5 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Atypical Squamous Cells of Known Significance ASCUS**				
5.5 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
		HSC COLPOSCOPY CLINIC			
Cytology:	**Low Grade Squamous Intraepitheleal Lesion is Seen**				

ANSWER:

This individual was never formally discharged from colposcopy as indicated by the last colposcopy recommendation: *follow-up in 6 months*. Since they have had a negative **pathology** result which confirms the **cytology** result 2 years ago, they can return to routine screening (every 3 years in the absence of high-grade pathology results). However, a person-centred conversation is recommended to assess whether a repeat Pap test should be completed today or to wait until the individual is due for routine screening in 3 years.

Case Study #19

CancerCare Manitoba
CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Smith**		
Given Name:	**Jane**		
Middle Name:			
Date of Birth:		Age:	**71**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
Age 71	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	17-003888
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
1 year ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
		HSC COLPOSCOPY CLINIC			
Cytology:	**Atypical Cells of Undetermined Significance ASCUS**				
3 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
		HSC COLPOSCOPY CLINIC			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				
5 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456801
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative Intraepithelial Lesion or Malignancy**				
8 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456801
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative Intraepithelial Lesion or Malignancy**				

ANSWER:

This individual should have discontinued screening a year ago as recommended in CervixCheck's cervical cancer screening guidelines – "*Discontinue screening if the woman has had 3 negative Pap tests in the previous 10 years"*

Due to the abnormal ASC-US result 1 year ago and more recent negative result, a person-centred conversation is recommended. The benefits and harms of either doing a repeat Pap test or discontinuing screening at this point should be discussed. Based on the individual's values, preferences and beliefs, a decision can be made between the provider and patient about what to do moving forward.

The recommendation to discontinue screening in individuals 70 years and older is based on evidence that:

- individuals with multiple prior consecutive negative cytology results are at low risk for cervical cancer, and
- false positive cytology results incurred from mucosal atrophy in post-menopausal women produces potentially unnecessary follow-up and anxiety in this population.

Case Study #20

CancerCare Manitoba CervixCheck

Patient History Report

Health Number:	**1253456789**	Origin:	**MB**
MHSC Number:	**123456**		
Surname:	**Smith**		
Given Name:	**Jane**		
Middle Name:			
Date of Birth:		Age:	**30**
Gender:			

Screening & Colposcopy History (reverse chronology)

Spec/Service Date	Name	Health Number	Date of Birth	Service Provider	Cytology/Colposcopy
1 year ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	17-003888
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Unsatisfactory Specimen due to Obscuring Inflammation** **Unsatisfactory Specimen due to Obscuring Blood**				
2 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456789
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Unsatisfactory due to Obscuring Inflammation**				
4 years ago	SMITH, Jane	123456789		HEALTH SCIENCES CENTRE-CYTOLOGY	HSC 123456799
		NO NAME CLINIC, 123 SMITH STREET, WINNIPEG MB, R2H0H0			
Cytology:	**Negative for Intraepithelial Lesion or Malignancy**				

ANSWER

This individual has had two results of *Unsatisfactory Specimens due to Obscuring Blood/Inflammation*. This means they should be referred to colposcopy.

Specific concerns for these cytology results:

1. *Obscuring Blood* can reflect menstruation but may also be a sign of disease (i.e. cancer).
2. *Obscuring Inflammation* can indicate infection or necrosis (dying cells, usually due to disease).

References

[1] Adapted from Calgary Health Region. (2001).

[2] Adapted from Calgary Health Region. (2001).