Cervical Screening

Disclaimer

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Red Flags

- Visible suspicious cervical mass

Background

About cervical screening

- Nearly all cases of cervical cancer are caused by persistent infection with oncogenic subtypes of HPV.
- 70 to 80% of cases are associated with HPV 16 and 18.
- The majority of HPV infections are spontaneously cleared but, if persistent, may cause cancerous change over an extended period (usually 10 to 15 years.)
- Cervical cancer is the third most common gynaecological malignancy in Australia, after uterine and ovarian cancer, affecting approximately 900 women in 2016.
- Victorian data has shown that more than 80% of women diagnosed with invasive cervical cancer have never been screened or were underscreened.
- The National Cervical Screening Program (NCSP) will invite women aged 25 to 74 years to have a Cervical Screening Test (a primary HPV DNA test with partial genotyping and reflex liquid-based cytology (LBC) on all HPV positive tests) every 5 years. HPV testing with partial genotyping allows separate detection of certain high-risk HPV genotypes.
- Patients are managed according to their risk of developing significant cervical abnormalities, which is determined by their HPV test result and subsequent reflex LBC result, if indicated.
- The recommendations are expected to further reduce rates of both cervical cancer, and deaths from cervical cancer, by up to 30%.
- A National Screening Register has replaced state and territory registers.

Assessment

Practice Point - Arrange further assessment if symptomatic

Arrange further assessment for a patient with symptoms (e.g., abnormal vaginal bleeding) or abnormal examination, even if they have a negative cervical screening result.

1. Take a history:
   - Menstrual and gynaecological, particularly abnormal bleeding or discharge
   - Previous cervical screening history

2. Consider additional support for patients who are under-screened or never screened.

Under-screened or never-screened patients

In Australia four out of five cases of cervical cancer are in women who have never been screened or who do not screen regularly. Inviting under-screened or never-screened women to screen is essential to reducing cases of cervical cancer.
➢ Aboriginal and Torres Strait Islander women – Aboriginal Medical Services are available to conduct Well Women's checks.
➢ Women from culturally and linguistically diverse backgrounds, including women who have experienced female genital cutting – these women may prefer to access screening from Migrant and Refugee Health Services.
➢ Women who identify as lesbian or bisexual or who are same-sex attracted.
➢ People who identify as transgender and have a cervix.
➢ Women who have experienced sexual abuse and/or assault.
➢ Women with a disability.

3. **Check the screening recommendations.**

### Screening recommendations

- Screening is recommended for all asymptomatic women, aged 25 to 74 years. This includes all woman who have ever been sexually active, including women who:
  - have had intimate sexual skin-on-skin contact.
  - have sex with women.
  - are no longer sexually active.
  - have received the HPV vaccination.
  - are in a monogamous relationship.
  - use condoms.
- Start screening at age 25 years.
- Screen every 5 years if oncogenic HPV is not detected.
- During transition, screen asymptomatic women aged 25 to 74 years when they are due for their next 2-yearly pap smear.
- Invite asymptomatic women aged > 70 years to have an "exit test" and discontinue screening if negative for HPV.
- Screen women aged ≥ 75 years who have never been screened, or have not had a screening test in the previous 5 years, if they request screening.

4. Consider additional screening requirements for:

- **patients with symptoms.**

### Patients with symptoms

- Co-test (HPV and LBC) patients of any age with symptoms e.g.:
  - postcoital, unexplained intermenstrual, or any postmenopausal bleeding.
  - unexplained, persistent, unusual vaginal discharge (especially if offensive or bloodstained).
- Request co-test on pathology request form, select or add symptomatic to indications.
- Arrange appropriate further investigation if clinically indicated, irrespective of a negative co-test result.

- **patients who began sexual activity at a young age** (before aged 14 years).
Patients who began sexual activity at a young age

A single cervical screening test may be considered for women between the ages of 20 and 24 years who experienced their first sexual activity at a young age (e.g., before aged 14 years), who had not received the HPV vaccine before sexual activity started.

- **immune-deficient patients.**

**Immune-deficient patients**

- Offer Cervical Screening Test every 3 years to patients who are:
  - HIV-positive.
  - solid organ transplant recipients.

- Consider 3-yearly screening for patients:
  - with congenital (primary) immune deficiency.
  - who are being treated with immunosuppressant therapy for **Autoimmune diseases**
    - For example:
      - Inflammatory bowel disease
      - Systemic lupus erythematosus (SLE)
      - Rheumatoid arthritis
      - Neuromyelitis optica
      - Sarcoidosis
      - allogenic bone marrow transplant recipients treated for graft versus host disease.

- **diethylstilboestrol-exposed patients.**

**Diethylstilboestrol-exposed patients**

Offer annual co-test (HPV and LBC) and colposcopic examination of the cervix and vagina indefinitely.

*See Cancer Council NSW – Diethylstilbestrol (DES) and Cancer.*

- **pregnant patients.**

**Pregnant patients**

Offer cervical screening at any stage of a patient’s antenatal care, if they are due or overdue, in accordance with national policy and guidelines.

- Advise the patient that vaginal spotting may occur after the procedure. Explain that this comes from the cervix, poses no risk to the pregnancy, and is self-limiting.
- Do not use the **endocervical brush** if the patient is pregnant.
- The **cytobroom** is recommended for pregnant patients to collect a cervical screening specimen.
- Some patients may wish to defer their cervical screening – advise them that it will be recommended again at the postnatal visit.
- Colposcopy is safe during pregnancy.
• **patients who have had a hysterectomy.**

### Patients who have had a hysterectomy

- **Subtotal hysterectomy** – Cervical Screening Test every 5 years.
- **Total hysterectomy:**
  - No further surveillance is required if:
    - performed for benign indications (e.g., menorrhagia or fibroids), and
    - normal previous screening history, and
    - no cervical pathology at hysterectomy.
  - If past history of high-grade squamous intraepithelial lesion (HSIL) – no further surveillance is required if both the following apply:
    - no evidence of cervical pathology was detected on the hysterectomy specimen.
    - the patient has been treated for histologically confirmed HSIL, and has completed “test of cure”.
  - If the patient has been treated for adenocarcinoma-in-situ (AIS), offer the co-test (HPV and LBC) every year indefinitely.

For more information and clinical scenarios, see NCSP – [Vaginal Screening after Total Hysterectomy](#).

• **patients with cervical and vaginal atrophy.**

### Patients with cervical and vaginal atrophy

If a previously atrophic smear, or a post-menopausal patient with vaginal atrophy, consider 2 weeks of vaginal oestrogen, but stop 2 nights before screening.

5. Explain about the **renewed National Cervical Screening Program (NCSP)**, and provide written information.

### Renewed NCSP

- A speculum examination is still required. A small sample of cervical cells (squamous and, when possible, endocervical) will be taken and placed into an LBC medium for HPV testing.
- HPV-vaccinated patients still need to be screened for cervical abnormalities, because the current HPV vaccine does not protect against all types of HPV that can cause cervical cancer.
  - If HPV is detected, a reflex LBC test will be performed on the same cervical specimen in clinician-collected samples.
- If HPV 16 or 18 is detected, patients will be referred for colposcopy, regardless of cytology result.

6. Explain sample collection procedure and obtain consent:

- Encourage the patient to follow the standard screening pathway (clinician-collected sampling), as self-collection is not as reliable and is less efficient.
- If a patient declines clinician-collected sample, offer **self-collection** if the patient is eligible.
Self-collection

For under-screened or never screened patients.

Pregnant patients and patients with symptoms are not eligible for self-collection.

➢ Patient must:
  o be ≥ 30 years
  o have declined a clinician-collected sample
  o be asymptomatic
  o not be pregnant
  and either:
    ▪ have never been screened, or
    ▪ be overdue for cervical screening by more than 2 years (4 years since last Pap smear during transition, or 7 years since last Cervical Screening Test).

➢ Self-collection must be performed on the premises of the healthcare professional.

➢ Use a simple dry flocked swab.

➢ Provide self-collection fact sheet and instruction guide, or obtain advice from the pathology provider.

➢ Advise the patient that:
  o if HPV 16 or 18 is detected on the self-collected sample, they will be referred directly for colposcopy at which time a cervical sample for LBC will be collected.
  o if an oncogenic HPV type (not 16 or 18) is detected, they will be asked to return for a clinician-collected LBC cervical sample to inform management.

7. Perform speculum examination:
   • Follow related protocol and consider a chaperone.
   • Visual inspection of vulva, vagina, and cervix.

Cervix appearance

• Cervical cancer may be visible as an ulcer or a growth on the cervix.
• Use the Cervix Sampling Card.
• Cervical polyps and nabothian cysts may be found at the time of routine cervical screening.

Nabothian cysts
  o Benign mucus-filled cysts on the surface of the cervix
  o Occur when stratified squamous epithelium of the ectocervix grows over the columnar epithelium of the endocervix, blocking cervical crypts and trapping cervical mucus

• Some patients have a squamocolumnar junction (SCJ) that is wide out on the ectocervix and may be referred to as ectopy or an ectropion.
**Ectropion**

- Large reddish area on the ectocervix surrounding the external os.
- More common in younger women and women on oestrogen-containing contraceptives, and is a normal finding.
- Collect a cervical sample from the outer edge of the ectropion.

8. **If increased risk of sexually transmitted infection (STI),** offer **STI screening** and collect samples at the time of cervical screening.

**Increased risk of sexually transmitted infection (STI)**

*Includes patients:*

- younger than 25 years.
- who self-identify as being at increased risk of STI.
- who have had a new sexual partner in the last 3 months.
- with a history of STI in the past 12 months.
- with genital symptoms e.g., bleeding, discharge, rash.
- who have a sexual partner with an STI.

**STI screening**

- Either endocervical swab or first pass urine for PCR testing.
- Consider chlamydia, gonorrhoea.
- *Mycoplasma genitalium* is an emerging STI. There is currently insufficient evidence to suggest routine screening for this in asymptomatic patients.
- High vaginal culture swab for microscopy, culture, and sensitivity (MCS). Collect sample, using dry cotton swab, from lateral vaginal wall or fornix.
- Other swabs if indicated e.g., herpes simplex virus PCR swab of visible lesions.

9. **Take a quality cervical sample.**

**Quality cervical sample**

- Collect sample of cells from cervix using a plastic spatula, brush, or broom sampling device according to the **manufacturer’s instructions.**

**Manufacturer’s instructions**

- ThinPrep specimen collection instructions:
- **Brush and spatula protocol** (page 1).
- **Broom-like device protocol** (page 2) – can be used with or without the endocervical brush, depending on the clinical situation.
  - **SurePath liquid-based Pap test instructions**
    LBC is not compatible with lubricants containing carbomer. Check the list of compatible lubricants if using lubricant.

  - Place sample in a liquid suspension (ThinPrep or SurePath) for HPV partial genotyping.

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### Management

1. Refer for urgent gynaecology referral if:
   - visible suspicious cervical mass, even if results are normal.
   - persistent abnormal bleeding, even with a normal cervical screening test result.
   - invasive cancer e.g., SCC or glandular.

2. Manage according to screening test results:
   - **Clinician-collected sample test results**
     - **Clinician-collected sample test results**
       - If oncogenic HPV is not detected, re-screen in 5 years (low-risk).
       - If oncogenic HPV types 16 and/or 18 detected, refer for colposcopy. The reflex LBC result will inform the colposcopist and should not delay the referral (higher risk).
       - If other oncogenic HPV types (not 16 or 18) are detected, manage according to reflex LBC result:
         - a possible or definite high-grade squamous intraepithelial lesion (HSIL), or any suspected or definitive glandular abnormality, refer for colposcopy (higher risk).
         - negative cytology, or possible or definite low-grade intraepithelial lesion (LSIL):
           - Repeat test (for HPV and reflex cytology if indicated) in 12 months (intermediate risk).
           - If the repeat HPV test no longer detects oncogenic HPV, re-screen in 5 years (low risk).
           - If the repeat HPV test is positive, request colposcopy (regardless of LBC result).
       - If the patient is aged between 70 to 74 years and tests positive for any oncogenic HPV type, refer directly for colposcopy.

   For more information, see National Cervical Screening Guidelines:
   - Cervical Screening Pathway.
   - Management of Cytological Glandular Abnormalities.

- **Self-collected vaginal sample test results**
Self-collected vaginal sample test results

- If the patient tests negative for HPV, re-screen in 5 years (low-risk).
- If the patient tests positive for oncogenic HPV types 16 and/or 18, request colposcopy. Cervical sample for LBC will be taken at the time of colposcopy.
- If the patient tests positive for oncogenic HPV types (not 16 or 18), recall for a clinician-collected sample for LBC and manage according to LBC results.

See also Cancer Council Australia – Cervical Screening Pathway for Self Collection.

3. During transition:
   - In asymptomatic patients aged < 25 years whose previous Pap smear results were normal, explain and reassure that:
     - the change is evidence-based.
     - they will receive a letter from the National Cervical Screening Program informing them of the change.
     - they will be invited to recommence screening when they turn 25 years old, or 2 years after their last Pap smear (whichever is later).
   - Consider an STI risk assessment and contraception advice if appropriate.
   - Advise patients to return if they develop any symptoms.

4. If the patient is currently being followed up after an abnormal result:
   - manage according to the Guidelines for Women with Existing Abnormalities.
   - encourage any patient who has been treated for histologically confirmed HSIL to complete test of cure if they have not yet done so.

Test of cure after treatment of high-grade squamous intraepithelial lesion (HSIL)

If the patient has been treated for HSIL (CIN2/3), arrange a co-test (HPV and LBC) at 12 months after treatment and then annually, until they receive a negative co-test on two consecutive occasions. Once test of cure is completed, the patient can return to routine 5-yearly screening.

See also NCSP – Test of Cure Following Treatment for High-grade Squamous Abnormalities.

5. If cervical screening results are normal, but cervix appears abnormal or symptoms are present, refer for urgent or routine gynaecology referral.

6. If the patient is immune-deficient and has a positive test result for oncogenic HPV (any type), request colposcopy. For more information, see Cancer Council Australia – Management of Screen Detected Abnormalities in Immune-deficient Women.

7. If history of diethylstilboestrol exposure, refer for urgent or routine gynaecology referral for ongoing management.
8. Ensure that results are viewed, and actions and recall systems within the practice or practice
software are effective. The National Register will send out invitations, recall, and reminder letters,
unless the patient opts out.

9. For more information on the guidelines, policy, or managing screen-detected abnormalities,
screening in specific populations, and investigations of abnormal vaginal bleeding, see the
renewed NCSP guidelines.

### Referral

- Refer for **urgent gynaecology referral** if:
  - visible suspicious cervical mass, even if results are normal.
  - persistent abnormal bleeding, even with a normal cervical screening test result.
  - invasive cancer e.g., SCC or glandular.
- Refer for **colposcopy** if:
  - positive HPV types 16 or 18 detected.
  - Positive HPV detected (not types 16 or 18), and either:
    - possible or confirmed high-grade squamous intraepithelial lesions (HSIL) or
glandular abnormality on LBC, or
    - recurrent HPV detected, regardless of LBC result, or
    - patient is aged between 70 and 74, or
    - patient is immunodeficient.
  - patient has history of diethylstilboestrol exposure.
  - gynaecology assessment recommended by cytology service.

### Information

**For health professionals**

**Education**

NPS MedicineWise Learning – [National Cervical Screening Program](#)

**Further information**

- Cancer Council Australia:
  - [Investigation of Cytological Glandular Abnormalities](#)
  - [Management of Screen Detected Abnormalities in Immune-deficient Women](#)
  - [National Cervical Screening Program: Guidelines for the Management of Screen-detected Abnormalities, Screening in Specific Populations and Investigation of Abnormal Vaginal Bleeding](#)
  - [Transitioning to the Renewed National Cervical Screening Program](#)
- NCBI – [Abnormal Cervical Appearance: What to Do, When to Worry?](#)

**For patients**

- Cancer Council – [Cervical Cancer](#)
- HealthPathways – [Cervical Screening Has Changed](#)
- Sexual Health Quarters – [Don’t Fear the End of the Smear!](#)
References


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