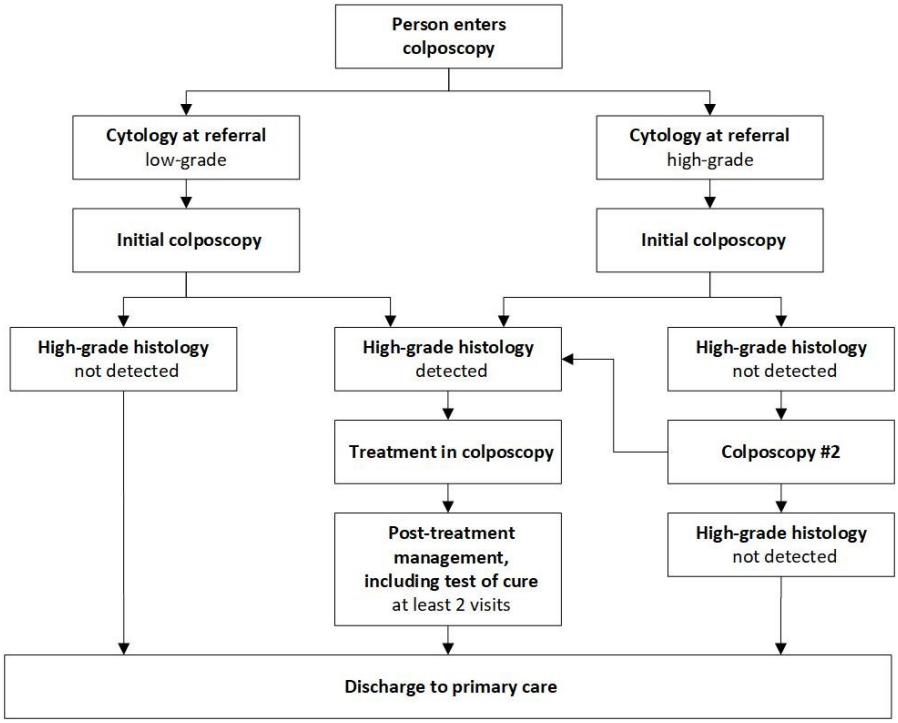
Ontario Health
Cancer Care Ontario

Ontario Cervical Screening Program (OCSP): Guide to Colposcopy

This document provides an overview of the OCSP's **seven pathways** for investigation and management of abnormal cervical screening results. These pathways are informed by someone's immediate risk and five-year risk of developing cervical pre-cancer (high-grade squamous intraepithelial lesion or adenocarcinoma in situ histology) or invasive cancer. The pathways outline key decisions, such as number of colposcopy visits, necessary interventions, tests, discharge eligibility and the recommended post-discharge screening intervals.

High-level example of possible episodes of care in colposcopy

Referral to colposcopy is indicated for certain combinations of human papillomavirus (HPV) and cytology screening test results in primary care (see page 2). **Initial management in colposcopy is based on the cytology results of people who are HPV-positive.**



In colposcopy, an examination of the cervix is used to rule out the presence of cervical pre-cancer. If a pre-cancer is detected, biopsy and treatment are performed in colposcopy, with follow-up to detect potential recurrence.

Multiple visits in colposcopy may take place over an episode of care. The number of visits depends on the results of the cervical screening test in primary care, findings of the initial colposcopy visit and, when indicated, findings post-treatment. Regardless of referral cytology, most people referred to colposcopy will not have high-grade histology detected. These people will not need treatment and will be discharged to primary care after one or two visits.

Discharge from colposcopy

If someone has no high-grade histology or they have successfully undergone treatment, they should be discharged back to primary care after the recommended number of colposcopy investigations has been completed. Colposcopists are expected to provide clear screening interval recommendations to the referring provider based on the colposcopy pathways in this document.

Reference Guide for Investigation and Management in Colposcopy

Referral to colposcopy is indicated for certain combinations of HPV and cytology screening test results in primary care. The appropriate colposcopy management pathway is determined by someone's cytology result at referral.

- **Table 1** outlines when a colposcopy referral should be declined.
- **Table 2** outlines colposcopy indications and the relevant clinical pathways for investigation and management in colposcopy.

Table 1. Decline referral to colposcopy: The following cervical screening results are not eligible for colposcopy
• HPV-negative results at first or repeat test, with no visible cervical abnormalities or abnormal symptoms indicated at referral • HPV-positive (other high-risk types) with NILM, ASCUS or LSIL cytology results at first test • HPV-negative results at the time of hysterectomy or on a vaginal vault test

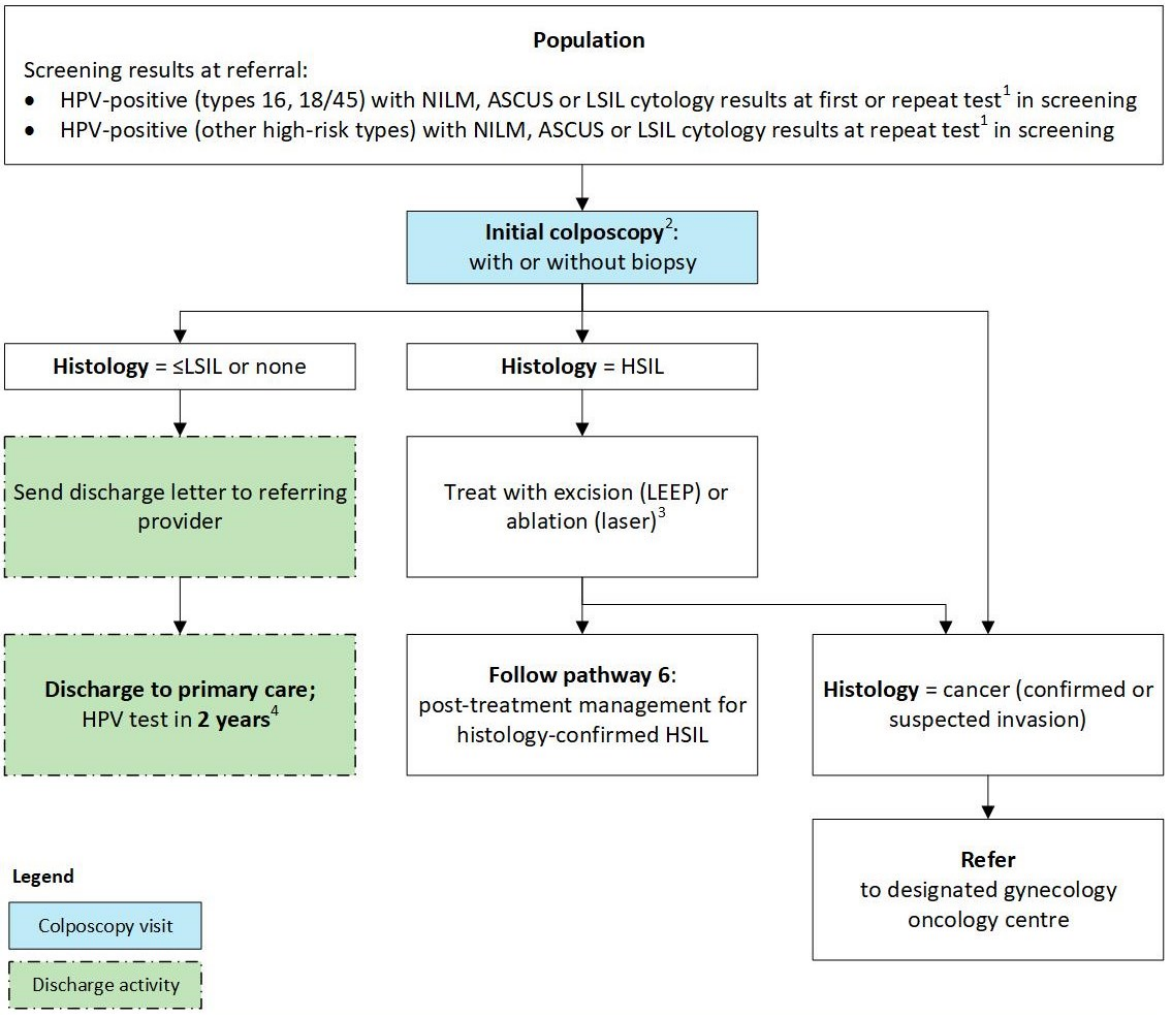
Table 2. Colposcopy indication: The following cervical screening results should be investigated and managed in colposcopy[a]		
Cytology results	**HPV status**	**Colposcopy pathway**
NILM, ASCUS or LSIL	• HPV-positive (types 16, 18/45) at first or repeat test[b] • HPV-positive (other high-risk types) at repeat test[b]	Pathway 1 (page 3)
ASC-H, LSIL-H or HSIL	• HPV-positive (types 16, 18/45) at first or repeat test[b] • HPV-positive (other high-risk types) at first or repeat test[b]	Pathway 2 (page 4)
AGC-NOS, AEC-NOS, AGN-N or AEC-N	• HPV-positive (types 16, 18/45) at first or repeat test[b] • HPV-positive (other high-risk types) at first or repeat test[b]	Pathway 3 (page 5)
AIS	• HPV-positive (types 16, 18/45) at first or repeat test[b] • HPV-positive (other high-risk types) at first or repeat test[b]	Pathway 4 (page 6)
SCC, ACC, ACC-E or PDC	• HPV-positive (types 16, 18/45) at first or repeat test[b] • HPV-positive (other high-risk types) at first or repeat test[b]	Pathway 5 (page 7)

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

Footnotes:

a. Pathways 1 through 5 outline investigation and management for people in colposcopy. Pathways 6 and 7 provide post-treatment guidance in colposcopy.
b. A repeat test is defined as an HPV test (with reflex cytology for people with HPV-positive results) in screening performed two years following first-time HPV-positive (other high-risk types) results with normal or low-grade cytology.

Colposcopy pathway 1: People referred with HPV-positive and normal (NILM) or low-grade cytology (ASCUS, LSIL) results

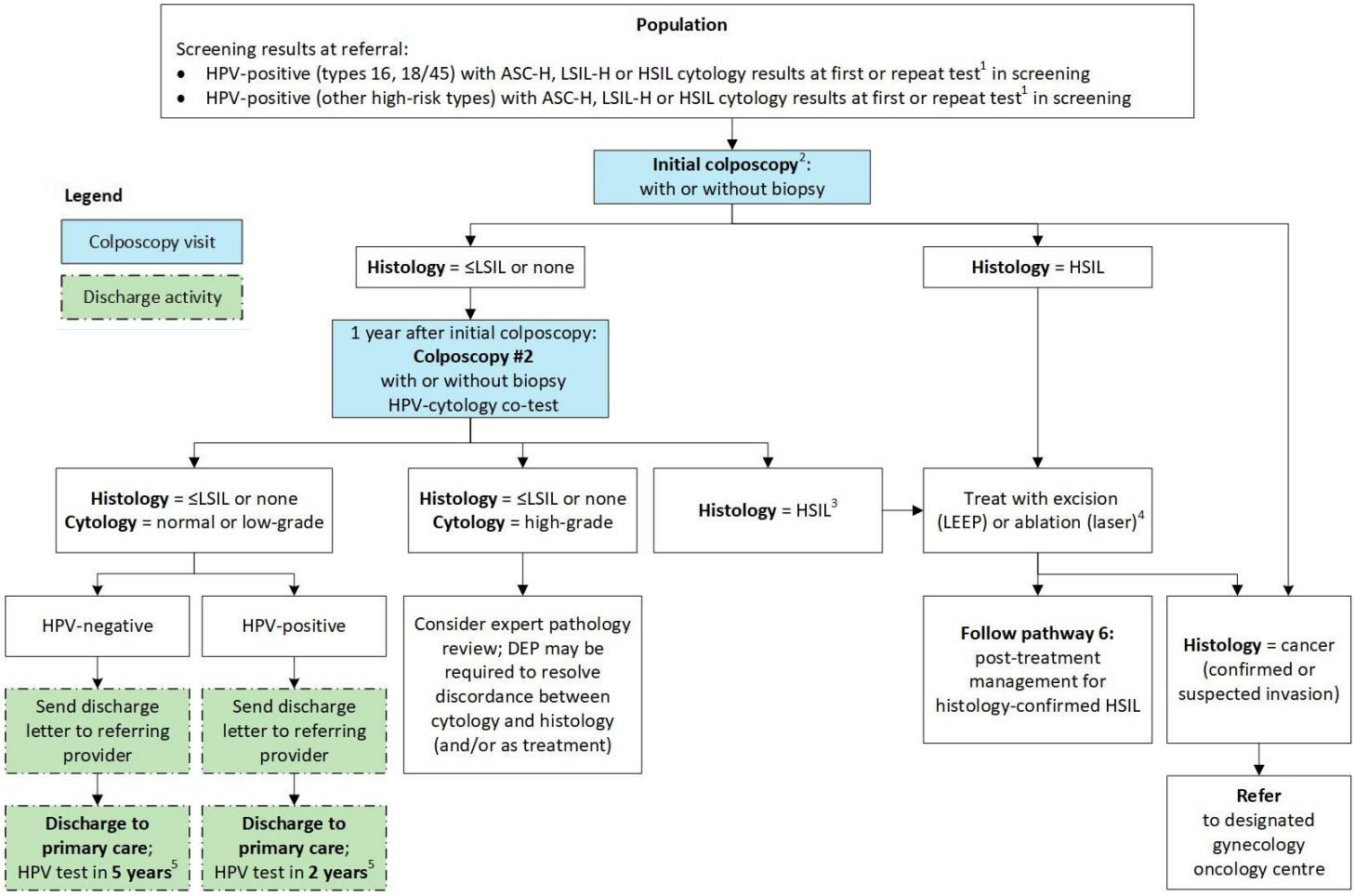


ASCUS = atypical squamous cells of undetermined significance; HPV = human papillomavirus;
HSIL = high-grade squamous intraepithelial lesion; LEEP = loop electrosurgical excision procedure;
LSIL = low-grade squamous intraepithelial lesion; NILM = negative for intraepithelial lesion or malignancy

Footnotes:

1. A repeat test is defined as an HPV test (with reflex cytology for people with HPV-positive results) in screening performed two years following first-time HPV-positive (other high-risk types) results with normal or low-grade cytology.
2. Routine repeat cytology in colposcopy is not recommended, except for people referred to colposcopy with two consecutive unsatisfactory cytology results, or HPV-positive (types 16, 18/45) results and unsatisfactory cytology.
3. Cryotherapy is not recommended for the treatment of HSIL. Tissue sampling is preferred. However, the mode of treatment is at the discretion of the colposcopist.
4. If someone is age 70 and over, they can be discharged from colposcopy and stop screening. Refer to the Ontario Cervical Screening Program: Guide to Cervical Screening at ontariohealth.ca/OCSP-recommendations for more information about cessation criteria.

Colposcopy pathway 2: People referred with HPV-positive and high-grade cytology (ASC-H, LSIL-H, HSIL) results, excluding AIS

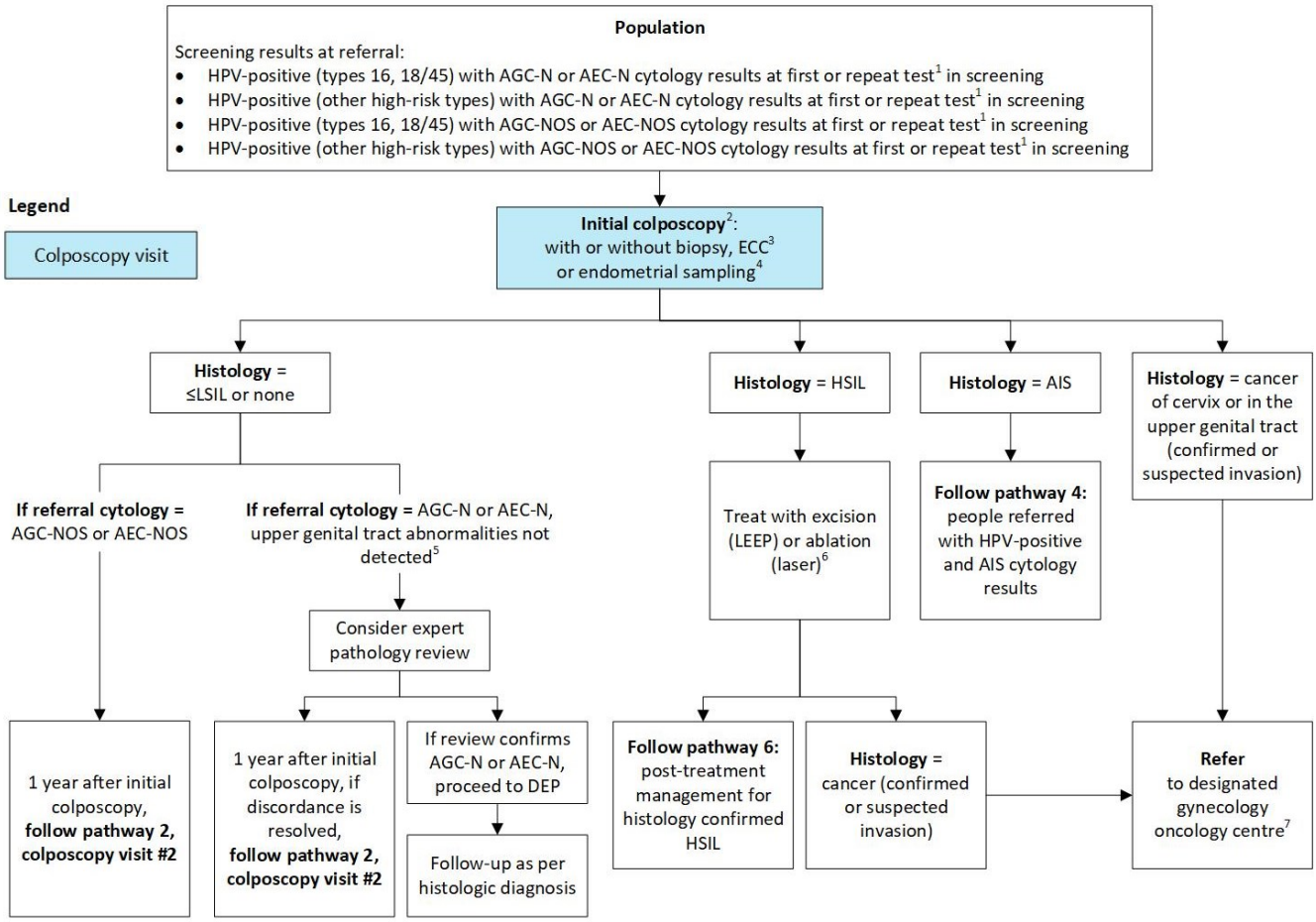


AIS = adenocarcinoma in situ; ASC-H = atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesion;
DEP = diagnostic excisional procedure; HPV = human papilloma virus; HSIL = high-grade squamous intraepithelial lesion;
LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion;
LSIL-H = low-grade squamous intraepithelial lesion, cannot exclude HSIL

Footnotes:

1. A repeat test is defined as an HPV test (with reflex cytology for people with HPV-positive results) in screening performed two years following first-time HPV-positive (other high-risk types) results with normal or low-grade cytology.
2. Routine repeat cytology in colposcopy is not recommended, except for people referred to colposcopy with two consecutive unsatisfactory cytology results, or HPV-positive (types 16, 18/45) results and unsatisfactory cytology.
3. Regardless of HPV test result.
4. Cryotherapy is not recommended for the treatment of HSIL. Tissue sampling is preferred. However, the mode of treatment is at the discretion of the colposcopist.
5. If someone age 70 to 74 is HPV-negative, they can be discharged from colposcopy and stop screening. If someone age 70 and older is discharged from colposcopy to primary care and has a negative result at the 2-year screening test, they can also stop screening. Anyone discharged after age 74 can stop screening, regardless of the pathway interval. Refer to the Ontario Cervical Screening Program: Guide to Cervical Screening at ontariohealth.ca/OCSP-recommendations for more information about cessation criteria.

Colposcopy pathway 3: People referred with HPV-positive and AGC or AEC cytology (AGC-NOS, AGC-N, AEC-NOS and AEC-N) results

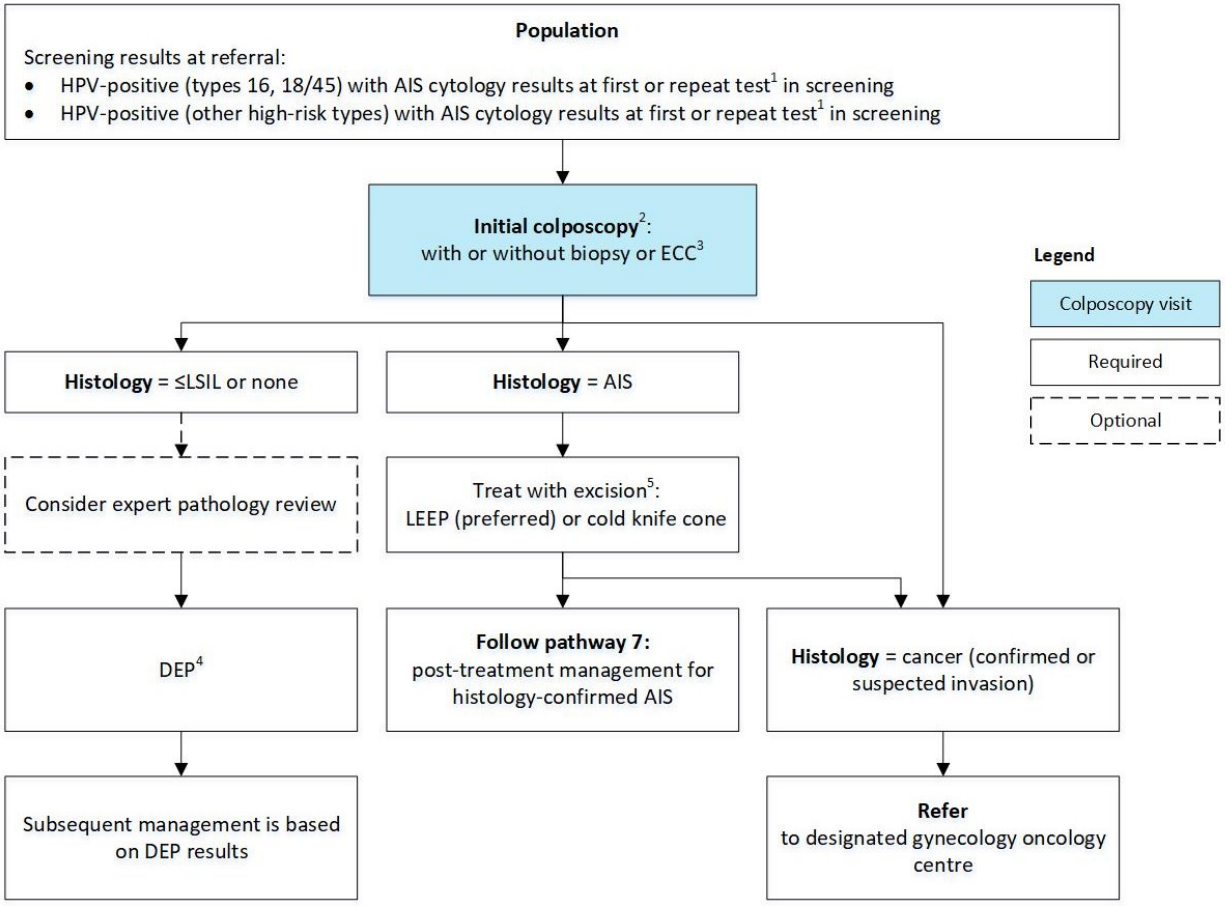


AEC-N = atypical endocervical cells, favour neoplastic; AEC-NOS = atypical endocervical cells, not otherwise specified; AGC-N = atypical glandular cells, favour neoplastic; AGC-NOS = atypical glandular cells, not otherwise specified; AIS = adenocarcinoma in situ; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus; HSIL = high-grade squamous intraepithelial lesion; LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion

Footnotes:

1. A repeat test is defined as an HPV test (with reflex cytology for people with HPV-positive results) in screening performed two years following first-time HPV-positive (other high-risk types) results with normal or low-grade cytology.
2. Routine repeat cytology in colposcopy is not recommended, except for people referred to colposcopy with two consecutive unsatisfactory cytology results, or HPV-positive (types 16, 18/45) results and unsatisfactory cytology. In the absence of cervical pathology, consider pelvic ultrasound to address potential upper genital tract abnormalities.
3. If separate endocervical sampling is desired and ECC is not possible, consider vigorous sampling with endocervical brush.
4. Endometrial sampling may be required in appropriate clinical circumstances (e.g., endometrial cells in someone who is post-menopausal). In the Ontario Cervical Screening Program, people with AGC-N cytology will have HPV-positive results, so the risk of cervical malignancy is high. However, in circumstances where HPV status is negative or unknown, refer to the Ontario Health (Cancer Care Ontario) Endometrial Cancer Diagnosis Pathway for guidance on endometrial sampling.
5. Refer to designated gynecology oncology centre as appropriate if upper genital tract lesion is suspected.
6. Cryotherapy is not recommended for the treatment of HSIL. Tissue sampling is preferred. However, the mode of treatment is at the discretion of the colposcopist.
7. Grade 1, stage 1 endometrial cancers can be managed by a general gynecologist. Stage 2 disease should be excluded before hysterectomy.

Colposcopy pathway 4: People referred with HPV-positive and AIS cytology results

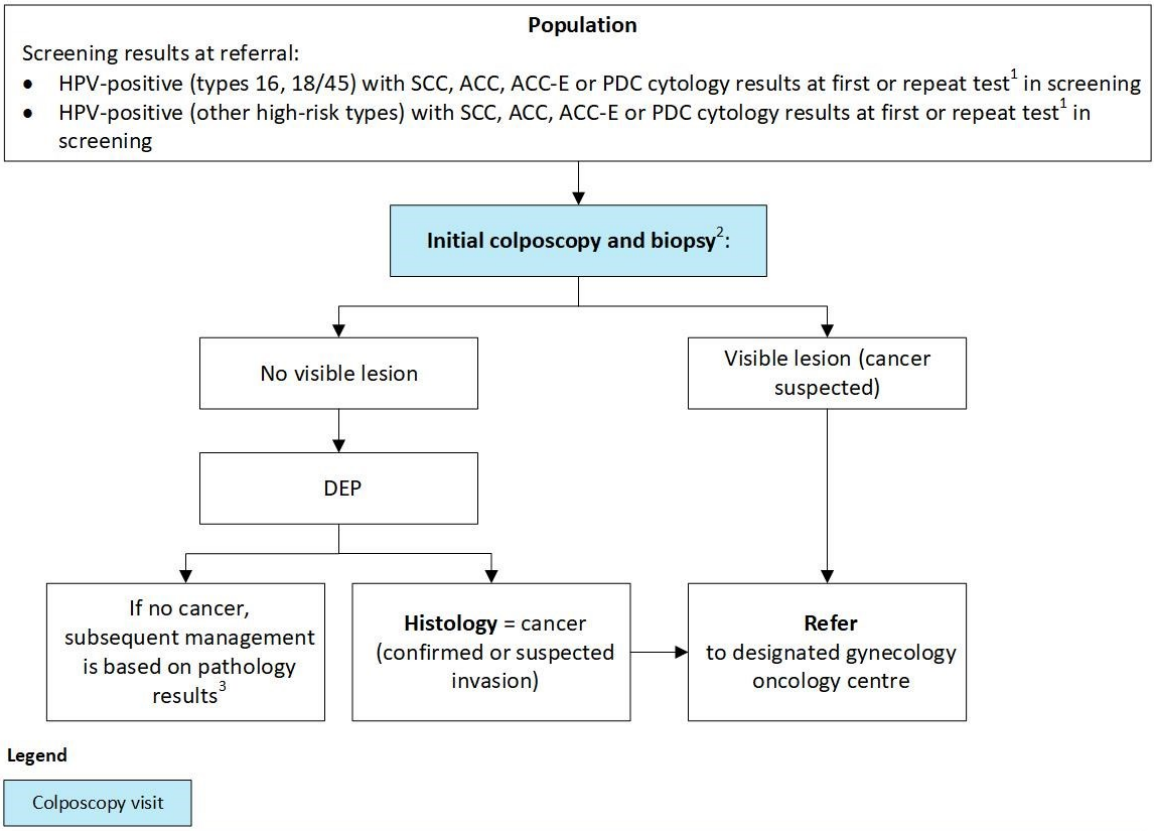


AIS = adenocarcinoma in situ; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus; LEEP = loop electrosurgical procedure; LSIL = low-grade squamous intraepithelial lesion

Footnotes:

1. A repeat test is defined as an HPV test (with reflex cytology for people with HPV-positive results) in screening performed two years following first-time HPV-positive (other high-risk types) results with normal or low-grade cytology.
2. Routine repeat cytology in colposcopy is not recommended, except for people referred to colposcopy with two consecutive unsatisfactory cytology results, or HPV-positive (types 16, 18/45) results and unsatisfactory cytology.
3. If separate endocervical sampling is desired and ECC is not possible, consider vigorous sampling with endocervical brush.
4. Due to the high positive predictive value of AIS cytology, DEP is almost always required.
5. To treat people with histology-confirmed AIS, LEEP is acceptable in most cases. The decision to perform a cone biopsy for AIS should be based on the topography of the cervix, the diagnosis and the purpose of intervention (i.e., to confirm histologic diagnosis and ideally achieve negative margins).

Colposcopy pathway 5: People referred with HPV-positive and SCC, ACC, ACC-E or PDC cytology results

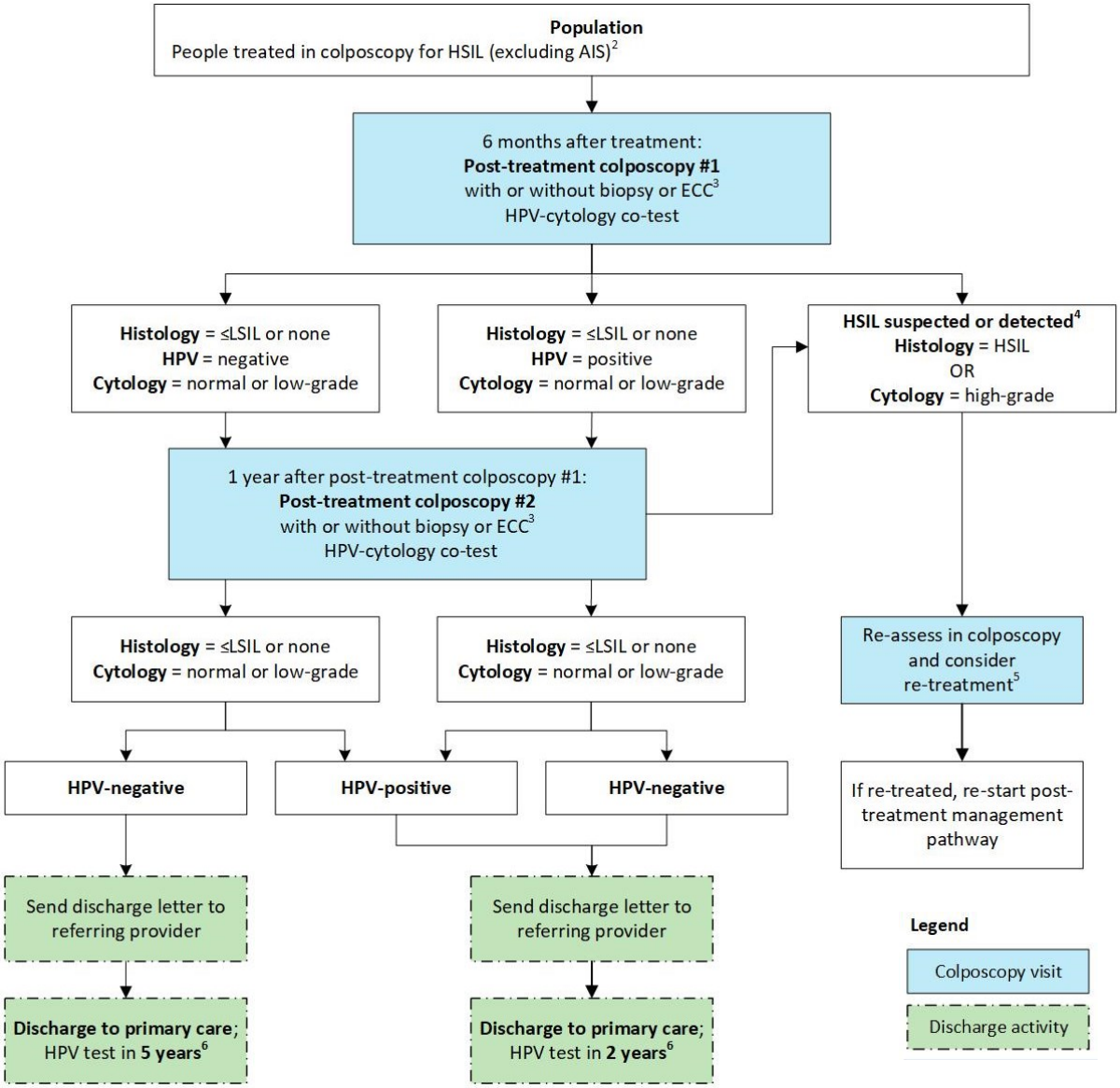


ACC = adenocarcinoma; ACC-E = endocervical adenocarcinoma; DEP = diagnostic excisional procedure; HPV = human papillomavirus; PDC = poorly differentiated carcinoma; SCC = squamous cell carcinoma

Footnotes:

1. A repeat test is defined as an HPV test (with reflex cytology for people with HPV-positive results) in screening performed two years following first-time HPV-positive (other high-risk types) results with normal or low-grade cytology.
2. Routine repeat cytology in colposcopy is not recommended, except for people referred to colposcopy with two consecutive unsatisfactory cytology results, or HPV-positive (types 16, 18/45) results and unsatisfactory cytology.
3. When someone's cytology is suggestive of cancer and they have a negative DEP, the risk of a non-cervical malignancy remains. Consider further investigation in colposcopy or expert consultation (e.g., Regional Cancer Centre).

Colposcopy pathway 6: Post-treatment management for histology-confirmed HSIL[1]

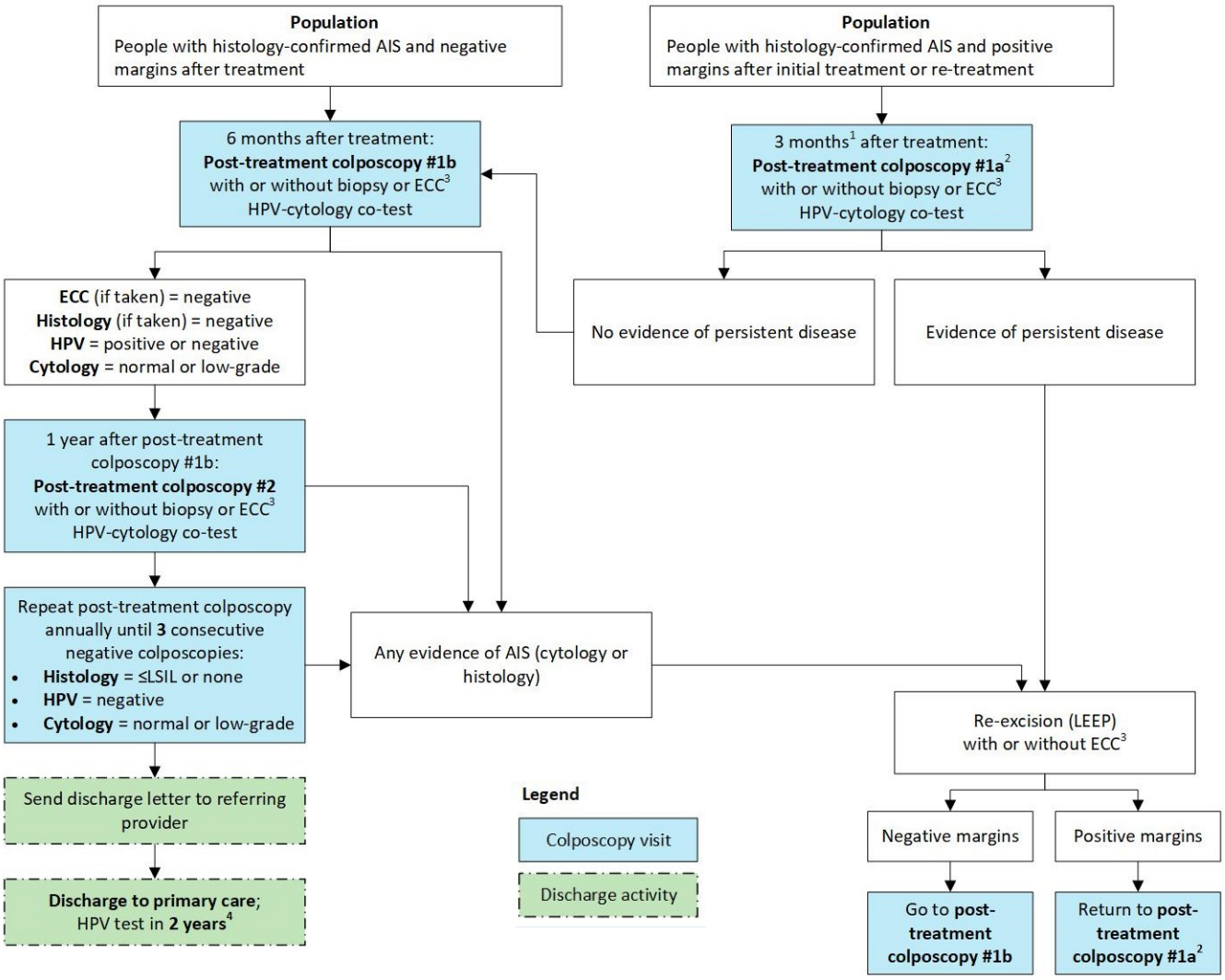


AIS = adenocarcinoma in situ; ECC = endocervical curettage; HPV = human papillomavirus;
HSIL = high-grade squamous intraepithelial lesion; LSIL = low-grade squamous intraepithelial lesion

Footnotes:

1. This pathway refers to squamous lesions only. For AIS, please refer to Pathway 7.
2. Follow post-treatment pathway regardless of margin status at treatment. If treatment results in hysterectomy, refer to the Ontario Cervical Screening Program's Vaginal Vault Testing Guidance at ontariohealth.ca/Vaginal-vault for more information.
3. If separate endocervical sampling is desired and ECC is not possible, consider vigorous sampling with endocervical brush.
4. Regardless of HPV result.
5. Repeat excision required if persistent disease is identified during post-treatment visits in colposcopy.
6. If someone age 70 to 74 is HPV-negative, they can be discharged from colposcopy and stop screening. If someone age 70 and older is discharged from colposcopy to primary care and has a negative result at the 2-year screening test, they can also stop screening. Anyone discharged after age 74 can stop screening, regardless of the pathway interval. Refer to the Ontario Cervical Screening Program: Guide to Cervical Screening at ontariohealth.ca/OCSP-recommendations for more information about cessation criteria.

Colposcopy pathway 7: Post-treatment management for histology-confirmed AIS



AIS = adenocarcinoma in situ; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus; LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion

Footnotes:

1. Wait approximately three months to reevaluate the cervix for adequate healing and to improve the accuracy of colposcopic evaluation.
2. For hysterectomy recommendations, refer to the Ontario Cervical Screening Program's recommendations for cervical screening and colposcopy with HPV testing in Ontario at ontariohealth.ca/OCSP-recommendations. If treatment results in hysterectomy, refer to the Ontario Cervical Screening Program's Vaginal Vault Testing Guidance at ontariohealth.ca/Vaginal-vault for more information.
3. If separate endocervical sampling is desired and ECC is not possible, consider vigorous sampling with endocervical brush.
4. If someone age 70 and older is discharged from colposcopy to primary care and has a negative result at the 2-year screening test, they can stop screening. Anyone discharged after age 74 can stop screening, regardless of the pathway interval. Refer to the Ontario Cervical Screening Program: Guide to Cervical Screening at ontariohealth.ca/OCSP-recommendations for more information about cessation criteria.

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