# Management Algorithms for Abnormal Cervical Cytology and Colposcopy

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Standard Colposcopic Definitions:

Used in the Provincial Quality Assurance Program Colposcopy Encounter Form

**Presenting Cytology:** the specific cytological abnormality that led to the colposcopic examination. This is usually the most recent Pap smear prior to the actual colposcopic examination.

**Colposcopic Impression:** the colposcopist’s opinion as to the nature of any lesion seen, based on the classic colposcopic features of surface contour, color tone, borders, intercapillary distance, vascular patterns, etc. Colposcopic impression is the specific diagnosis that the colposcopist would expect to be returned on any accompanying biopsy material based on his or her visual interpretation.

**Colposcopic Biopsy/Pathology:** the histopathological diagnosis of any directed biopsy that was obtained at the time of the colposcopic examination. If more than one biopsy is obtained, the most advanced lesion is recorded.

**Colposcopic Evaluation:** the clinical working diagnosis based on combining the information from both the colposcopic impression and the biopsy/pathology diagnosis. This diagnosis can never be less than the colposcopic biopsy, but may be greater than the colposcopic biopsy if the colposcopist believes the biopsy is not reflecting the most advanced pathology suspected based on their assessment. The presenting cytology is NOT part of the colposcopic evaluation.

E.g. For a patient who presents with a marked squamous dyskariosis Pap smear - if the colposcopic exam is satisfactory and negative (no lesion seen), and all biopsies are negative, they would have a NEGATIVE colposcopic evaluation.

**PRACTICE POINTS:**

- **Satisfactory** colposcopy with lesion identified – endocervical sampling “acceptable”.
- **Satisfactory** colposcopy with **no lesion** identified – endocervical sampling “preferred”.
- **Unsatisfactory colposcopy** – endocervical sampling “required” to rule out high grade disease.
### Guideline 1a. Persistent LSIL/ASCUS

**Persistent LSIL/ASCUS (over 2 years)**

- **Satisfactory Colposcopy**
  - No CIN 2,3
    - Discharge
    - Repeat Pap in 12 m
  - CIN 2,3
    - Manage per guideline

- **Unsatisfactory Colposcopy (ECC Required)**
  - No CIN 2,3
    - Repeat Pap in 6 m
  - CIN 2,3
    - Manage per guideline
**Guideline Ib. HSIL (ASC-H, moderate, severe, marked)**

- **HSIL**
  - Satisfactory Colposcopy
    - Negative or >1 grade discrepancy
      - OPTION to review material
        - Change to benign/low grade - Discharge, Pap in 6m
        - Repeat colpo in 2-4 m
    - CIN 2,3 – manage per guideline
      - OPTION to review material
        - Change to benign/low grade - Discharge, Pap in 6 m
      - Diagnostic excisional procedure
    - Unsatisfactory Colposcopy (ECC required)
      - Negative or CIN 1
        - OPTION to review material
          - Change to benign/low grade - Discharge, Pap in 6 m
        - Diagnostic excisional procedure
      - CIN 2,3 – manage per guideline
        - If <25yo and reliable, repeat colpo in 2-4m; Discharge if negative
        - No change
          - Diagnostic excisional procedure
          - If <25yo and reliable, repeat colpo in 2-4m; Discharge if negative
          - No change
            - Diagnostic excisional procedure
            - If <25yo and reliable, repeat colpo in 2-4m; Discharge if negative
          - Change to benign/low grade - Discharge, Pap in 6m
          - Repeat colpo in 2-4 m
Guideline Ib. HSIL (ASC-H, moderate, severe, marked)

PRACTICE POINTS:

- **Discrepancy between Colposcopic Evaluation and Presenting Cytology:**
  When there is a discrepancy between the **colposcopic evaluation** and the **abnormal cytology of >1 (two or more classes)**, it is the responsibility of the Colposcopist to resolve this discrepancy. **Returning to screening is unacceptable.** Either promptly repeating the colposcopic assessment in a timely manner (i.e. within 2-4 months) and/or a review of the cytology and histology should be performed. If review of cytology is not available and a negative repeat colposcopy would not change management, then diagnostic LEEP may be performed.

- **Special Circumstances:**
  Management options may vary if the patient is pregnant, postmenopausal or an adolescent. For example, for a patient >25yo who has completed child bearing referred with a marked Pap smear, repeat colposcopy MAY not change management even if negative, so it may be appropriate to proceed with a diagnostic excisional procedure if review of material is not an option. Similar considerations exist for a patient who is referred with a moderate Pap smear who has completed child bearing.
  In contrast, for any patient <25yo, or for a patient who is 25 or older referred with an ASC-H Pap smear, repeat colposcopy is likely the most appropriate option.

- **Repeat Pap smears in Colposcopy Clinics:**
  If the abnormal Pap smear is >12 months prior to current assessment, and colposcopic evaluation is negative for HSIL, consider repeating cytology prior to proceeding with diagnostic LEEP.
Guideline Ic. Atypical Glandular Cells

Atypical Glandular Cells

AGC – NOS

ECC required; if age>35 or abnormal bleeding, do endometrial bx

CIN or AIS – manage per guideline

Negative colpo -> discharge repeat Pap in 6m with spatula and cytobrush

AGC- Favor Neoplasia

ECC required; if age>35 or abnormal bleeding, do endometrial bx

Cancer – refer to BCCA

Atypical Endometrial Cells

Endometrial Biopsy + ECC

Negative or CIN/AIS – LEEP (for treatment or diagnosis)

PRACTICE POINTS:

- Colposcopy with endocervical sampling is required for assessment of atypical glandular cells.
- An endometrial biopsy is preferred for assessment of all women over the age of 35, women with abnormal vaginal bleeding, and women with other risk factors for endometrial cancer.
- Atypical endometrial cells – if there are other risk factors for endometrial pathology, further investigations may be needed if colposcopic evaluation is negative.
**Guideline Id. Pregnant Women**

**Abnormal Pap in Pregnancy**

- **Persistent LSIL**
  - Impression negative or CIN 1
  - Repeat colpo 3m postpartum (Bx & ECC); (If impression CIN2,3, then as per HSIL)

- **HSIL**
  - Impression negative or CIN 1,2,3
  - Colpo Q3- 4 m Last colpo @ <32-34 weeks; then 2-3 m post-partum (Bx & ECC)

- **Suspicious for invasion, Refer to VGH Colposcopy**
  - Impr suspicious for malignancy, Bx required
  - Bx: Non-diagnostic or non-malignant-> Repeat colpo <2 weeks or refer to VGH

- **Atypical Glandular Cells - NOS**
  - Impression negative or CIN 1,2,3
  - Bx: Malignant -> Refer to BCCA

- **Atypical Glandular Cells – Favour Neoplasia**
  - Refer to VGH Colposcopy
  - Colpo Q3- 4 m Last colpo @ <32-34 weeks then 2-3 m postpartum (Bx & ECC)

**PRACTICE POINTS:**
- Endocervical sampling is contraindicated during pregnancy.
- Cervical biopsy is safe in pregnancy if required for diagnosis if suspicious for microinvasion/invasion.
- No treatment in pregnancy unless invasion is suspected.
Guideline IIa. Satisfactory Colposcopy Evaluation CIN 1

- Satisfactory Colposcopy Evaluation CIN 1
  - Discharge
    - Repeat Pap 12 m if referral Pap was LSIL
      Preferred Approach
  - Colposcopy @ 6 m if referral Pap was ASC-H or moderate
  - Moderate or marked referral Pap – see
    Guideline Ib. if ≥25yo
    Guideline IIId. if <25yo
  - Treatment: Decision to treat is based on patient and provider preferences

- Negative or CIN 1
  - Discharge, Repeat Pap @ 12 months
- Dysplasia – manage per guideline

PRACTICE POINTS:
- The primary purpose of colposcopy is to rule out HSIL / CIN 2,3 – biopsies and ECC are recommended.
- It is reasonable to treat persistent/recurrent low grade lesions (>12 months) in women >35 years old or upon patient request (although generally most low grade lesions do not need to be followed and should be discharged).
Guideline IIb. Unsatisfactory Colposcopy Evaluation CIN 1

Unsatisfactory Colposcopy Evaluation CIN 1

- FU without treatment acceptable for <25yo or LSIL referral Paps
- Diagnostic Excision (HSIL or AGC referral Pap)

Discharge Repeat Pap @ 6 or 12 m (ASCUS or LSIL Pap)
- Colpo @ 6 months acceptable (ASC-H referral Pap)

- >CIN 1 Manage per guideline
- Negative or CIN 1 – Discharge Repeat Pap in 6 m
- Diagnostic Excision is an option depending on clinical scenario

PRACTICE POINTS:
- An exam that is not satisfactory (entire transformation zone visible AND entire lesion seen) has not necessarily ruled out high grade dysplasia.
- ECC is necessary to help rule out high grade dysplasia.
- Treatment is not recommended for young women <25 years of age.
Guideline IIc. Evaluation CIN 2,3

Evaluation CIN 2,3

For women <25 years old see Guideline IId.

Satisfactory Colposcopy Excision or Ablation Treatment

Unsatisfactory Colposcopy Diagnostic Excisional Treatment

PRACTICE POINTS:

- Cryotherapy is NOT an acceptable treatment for CIN 2,3
- Acceptable treatment approaches for CIN 2,3 are limited to ablative treatment with laser and or excisional treatment with cold knife cone and or LEEP.
- Recommended depth of specimen 8-10mm.
**Guideline IId. <25 Years Old Evaluation CIN 2,3**

- **<25 years old**
  - Evaluation CIN 2,3

  - For Women >25 years old see Guideline Ilc.

- **Colpo Q6 m for up to 2yrs or until 25yo**
  - Biopsy +/- ECC

- **Regresses:**
  - CIN1 or negative
  - Discharge
  - Repeat Pap in 6 months

- **Persistent >24 months or patient attains 25 years**
  - Excisional and/or ablative treatment (if colpo satisfactory)

**PRACTICE POINTS:**

- Given a compliant patient and a reliable follow up system, it is reasonable to follow young women for up to 24 months or up to the age of 25 years (whichever comes first). Treatment recommendations are solely the responsibility of the treating physician. Follow up colposcopy exams should include biopsy +/- ECC.
- If compliance is a concern, then treatment is recommended.
Guideline IIe. Evaluation Adenocarcinoma in Situ

Evaluation AIS

Unsatisfactory & Satisfactory Colposcopy

Diagnostic Excisional procedure (consider post-LEEP ECC)

PRACTICE POINTS:

- Diagnostic excisional procedure is NECESSARY to confirm AIS and rule out invasive adenocarcinoma BEFORE proceeding to a hysterectomy. See Guideline IIIb.
- Ablative methods are NOT acceptable treatment for AIS
- Depth of LEEP should be > 8mm. Consider Post-LEEP ECC.
Guideline IIIa. Post-Treatment CIN 2,3

Treatment for CIN 2,3

FU time sooner if suspicious for invasion or recurrent/complicated disease

@ 6 m Colposcopy, ECC + HPV test

Evaluation negative
HPV non-reactive
- Discharge – Pap in 12 months

Evaluation negative
HPV reactive
- Repeat colpo, ECC, HPV @ 6 m

Evaluation CIN 2+
Manage per guideline

All negative
- Discharge – cytology in 12 months

Evaluation negative, HPV reactive
- Repeat colposcopy every 12 months with ECC and HPV until negative
### Guideline IIIb. Post-Treatment Adenocarcinoma in Situ

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<tr>
<th>LEEP/CONE MARGINS</th>
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<tr>
<td>NEGATIVE FOR AIS</td>
<td>POSITIVE FOR AIS</td>
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**FOLLOW UP**

*Starting at @6 MONTHS post LEEP*

If the patient wishes to retain fertility **AND** has had a consultation reviewing risks and benefits of hysterectomy vs. conservative management:

- **At each visit** Colposcopy & ECC required, and Bx (as indicated)
- **At every other visit** (once per year starting 12 months post LEEP) add HPV test and Pap smear.

**FURTHER TREATMENT**

1. **RECOMMEND HYSTERECTOMY (PREFERRED) OR**
2. LEEP margin positive: Option Repeat LEEP if desire for future fertility.
3. LEEP margin indeterminate: consider repeat LEEP or FU in 2-4 @ 5 YEAR visit

**Colposcopy, ECC, HPV and Pap smear**

**REVISIT DISCUSSION REGARDING HYSTERECTOMY**

(CHANGE OF LATE RECURRENCE/DEVELOPMENT OF CANCER)

**DISCHARGE IF**

1. Colposcopy/ ECC are negative.
2. HPV non-reactive for high risk subtypes are all negative.

Repeat pap smear in 12 months.

**FOLLOW UP IF**

Reactive for HPV high risk subtypes

Annual colposcopy, Pap and HPV test.
Guideline IIIb. Post-Treatment Adenocarcinoma in Situ

PRACTICE POINTS:

- Margin status enters into this guideline.
- Patients should be advised that a hysterectomy is recommended, but for patients who wish to retain fertility, conservative management is reasonable. Patients must be counseled regarding the risks versus benefits of follow-up versus hysterectomy so they can make an informed decision.
- Each time histology is positive, the clock restarts for 5 years of follow-up (if fertility preservation is still desired when hysterectomy again discussed at the time of recurrence) – e.g. if patient has a recurrence at 3 years, should would need another 5 years added to the 3 years for a total of 8 years of follow-up.
- Follow-up at 6 months is for uncomplicated cases. The colposcopist may wish to see the patient sooner, e.g. 2-4 months, if the circumstances warrant it.