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

**Referral 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.
Guidelines for the Assessment of Abnormal Cervical Cytology

Ia: Persistent LSIL/ASCUS

* Positive Predictive Value of ASCUS/LSIL for CIN2+ is 15-25%
Ib: ASC-H, HSIL (Mod), HSIL (Marked)

*Positive Predictive Value of ASC-H for CIN2+ is 50-60%
Positive Predictive Value of HSIL+ (including AGC-FN) for CIN2+ is 70-80%
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.
Ic: Atypical Glandular Cells*

**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.

*Positive Predictive Value of AGC-NOS for CIN2+ is 20-30% and for AGC-FN is 70-80%.*
**Id: Pregnant Women**

**Abnormal Pap in Pregnancy**

- **Persistent LSIL**
  - Impression negative or CIN 1
  - Repeat Colposcopy 2-3 months postpartum (Bx & ECC); (If impression CIN 2, 3 then as per HSIL)

- **HSIL**
  - Impression negative or CIN 1, 2, 3
  - Colposcopy Q3-4 months; last Colposcopy at <32-34 weeks; then 2-3 months postpartum (Bx & ECC)

- **Suspicious for invasion, refer to VGH Colposcopy**
  - Impr suspicious for malignancy - biopsy required

- **Atypical Glandular Cells - Favor Neoplasia**
  - Impression negative or CIN 1, 2, 3
  - Colposcopy Q3-4 months; last Colposcopy at <32-34 weeks; then 2-3 months postpartum (Bx & ECC)

- **Atypical Glandular Cells- NOS**
  - Impression negative or CIN 1, 2, 3
  - Bx: Non-diagnostic or non malignant -> Repeat Colposcopy <2 weeks or refer to VGH

- **Bx: Malignant -> Refer to BC Cancer**

**PRACTICE POINTS:**
- Endocervical sampling is contraindicated during pregnancy.
- Cervical biopsy is safe in pregnancy and is required for diagnosis if suspicious for microinvasion/invasion.
- No treatment in pregnancy unless invasion is suspected.
**Guideline IIa: Guidelines for the Management of Abnormal Colposcopic Evaluations**

**IIa: Satisfactory Colposcopy Evaluation CIN 1**

- Discharge, Pap in 12 months if referral Pap was LSIL Preferred Approach
- Colposcopy in 6 months 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

**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).
Ilb: Unsatisfactory Colposcopy Evaluation CIN 1

**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.
**Ilc: Evaluation CIN 2, 3**

- For women <25yo see guideline IId.

**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. LEEP is preferred.
- Recommended depth of specimen 8-10mm.
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.
**Ile: Evaluation Adenocarcinoma in Situ**

**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 > 10mm. Consider Post-LEEP ECC.
**Guidelines for Follow up of Previously Treated Cervical Disease**

*IIIa: Post-Treatment CIN 2, 3*

- **Treatment for CIN 2, 3**
  - FU time sooner if suspicious for invasion or recurrent/complicated disease (e.g. positive margin)
  - **At 6 months:**
    - Colposcopy, ECC, HPV test*
      - Evaluation negative, HPV non-reactive - Discharge, Pap in 12 months
      - Evaluation negative, HPV reactive - Repeat Colposcopy, ECC, HPV in 6 months
      - Evaluation CIN 2+ Manage per guideline
  - At 12 months HPV non-reactive, biopsy negative/ CIN1** - Discharge, Pap in 12 months
  - At 12 months HPV reactive, biopsy negative for HSIL - Repeat colposcopy, ECC, HPV every 12 months until negative

*Starting in June 2018 HPV testing will be done with Roche Cobas4800 HPV test. This test provides specific results regarding typing for HPV 16, HPV 18 and HPV other (non-16/18). Patients will be managed the same regardless of HPV type for the time being. After 1-2 years, data will be analyzed to see whether type details may help further risk stratify these women to inform future guideline changes.

**With a negative HPV test, the risk of CIN2+ is <2%, which is average risk, so the patient may go back to screening with their next Pap in 12 months. Therefore, women with biopsy results of negative or CIN1 may be discharged if HPV negative.
### IIIb: Post-Treatment Adenocarcinoma in Situ

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<tr>
<th>LEEP/CONE MARGINS</th>
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<tr>
<td><strong>NEGATIVE</strong> FOR AIS</td>
<td><strong>POSITIVE</strong> 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 alternating with 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 pathology review or repeat LEEP or FU in 2-4 months.

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#### @ 5 YEAR visit

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

CONSIDER REVISIT DISCUSSION REGARDING HYSTERECTOMY (CHANCE OF LATE RECURRENCE/DEVELOPMENT OF CANCER)

#### Discharge If:

1. Colposcopy/ ECC are negative AND
2. HPV non-reactive

Repeat pap smear in 12 months.

#### Follow Up If:

Reactive for HPV high risk subtypes

Annual colposcopy, Pap and HPV test.
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.