Workshop: Case Management of Abnormal Pap Smears and Colposcopies

Rebecca Jackson, MD
Professor
Obstetrics, Gynecology & Reproductive Sciences and Epidemiology & Biostatistics

I have no financial interests to disclose.
Case Based Problems

- Emphasis on 2012 guidelines by ASCCP (American Society of Colposcopy and Cervical Pathology) and how they differ from last
- Changes for <25yos
- Who needs colposcopy vs who can be managed expectantly?
- Next steps after colposcopy
- Treatment options: cryotherapy, laser, LEEP and cone biopsy
- Post-treatment surveillance

Recommended Guidelines

- **ASCCP guidelines 2012**
  - For work-up of abnormal cytology and treatment of CIN: ([just search ASCCP guidelines](http://www.asccp.org/Portals/9/docs/Updated%20ASCCP%20Algorithms%204%2011%2013%20-%20PDF.pdf))

- **Rationale behind guidelines:**
  - ObstetGynecol: 2013; 121(4); 829–846

- **SFGH/ UCSF 2013 guidelines in your syllabus**
  (developed by Dr. George Sawaya, very similar to ASCCP but simpler to read and use)
Laminated cards with tabs at top so can find the algorithm you need

Either enter pt info and it gives you the recommendation and assoc algorithm OR you can simply view the algorithms

- **Good news**: most prior guidelines reaffirmed, easier to read, guidance for no ECC’s on pap & discordant co-test results
- **Bad news**: even more complex than prior guidelines
What's New (2012 ASCCP)

1. **Extend adolescent (age <21) management guidelines to women <25: there are now 2 pathways for most algorithms—One for<25 and one for >25
2. Less aggressive w/u of ASC-US
3. How to manage discordant cotest results: (HPV+/PapNl; HPV-/Pap ≥ ASC-US), unsatisfactory cytology and missing endocervical or t- zone cells
4. Post-colpo management now includes co-testing, even in <25 yo
5. Treat CIN1 on ECC as CIN1 (not as +ECC)

Histology Primer

Cervical intraepithelial neoplasia (CIN)
Graded based on proportion of epithelium involved

- **CIN 1**: indicates active HPV infection; treatment discouraged since spontaneous resolution is high
- **CIN 2**: most are treated, but about 40% resolve over 6 month period; treatment may be deferred in young women
- **CIN 3**: the most proximal cancer precursor, also known as carcinoma *in situ* → *always treat*
- **Adenocarcinoma *in situ* (AIS)**: widely considered a cancer precursor → *always treat*
Cl N2—hard to diagnose

Cervix Normal

NIC I

NIC II

NIC III

NIC III

Ca Invasivo

Diagnosis?

LGSIL - Condyloma
Diagnosis?

HSIL, note atypical vessels

Diagnosis?

LGSIL
Diagnosis?

Case List

0. Pap normal, HPV positive
1. ASC-US, not young
2. 19yo ASC-H; CIN2 on colpo
3. 78yo ASC-USx2, CIN1 on colpo
4. AGC
5. 22yo ASC-US/HPV+, colpo neg
6. 24yo CIN3 on colpo
7. 58yo CIN3, can’t r/o invasion
8. 27yo positive endocervical LEEP margins CIN3
9. 16yo pregnant, HSIL
Case 0

- A 35 yo woman has co-test result: HR-HPV positive, cytology normal.

- What are next steps?

Pap normal, HPV positive

- Remember: Use co-test for screening only in women >30yo (b/c HPV often + in younger women and is transient, whereas is often indicative of persistent infx in older women)

- 2 options:
  1. Repeat co-test at 12 months.
     - If both negative → 3yr co-test
     - If still HPV+ or if >=ASCUS → colposcopy.
  2. HPV genotype-specific typing for 16 & 18
     - If positive for either → colposcopy.
     - If negative → repeat co-test at 12 months.
HPV +, cytology negative

Management of Women ≥ Age 30, who are Cytology Negative, but HPV Positive

- Repeat Cotesting @ 1 year Acceptable
- HPV DNA Typing Acceptable
- Cytology Negative and HPV Negative
- Repeat cotesting @ 3 years
- HPV 16 or 18 Positive
  - >ASC or HPV positive
  - Repeat Cotesting @ 1 year
- HPV 16 and 18 Negative
  - Manage per ASCCP Guideline
  - Manage per ASCCP Guideline

An aside: Cotest q 5yr vs pap q 3yrs?

- HPV: when negative, very reassuring so can extend the period of screening
- However, not as specific, more false positives and therefore more colposcopies. So, don’t want to do more frequently than q 5yr to minimize false positive rate
- ASCCP prefers co-test q5; USPSTF says either ok
Co-testing caveats

- Because of decreased specificity with HPV, if we co-screen more often than q5 years, patients will incur greater harm without benefit
  - Before doing co-test, ensure patient is willing to be screened every 5 years
- HPV-based strategies also lead to more positives
  - Some women will need prolonged surveillance
  - Some women who would otherwise be able to stop at age 65 will require continued screening beyond age 65
- 11% will have normal cytology, + HPV

Case 1

A 32 year old woman’s Pap smear comes back “AS-CUS”

What are your management options?
Repeat cyto at 1 yr (not 6 mos). If neg—pap q 3yr
OR
HPV test. If Neg—cotest at 3 yrs

Case 1: AS-CUS, not adolescent

3 equivalent—2 options (HPV preferred):
1. Repeat cytology at 6, 12 months
   Colpo if >ASC; (if neg→cyto in 3 yrs)
2. Immediate colpo
3. Reflex HPV test (preferred)
   – If neg→rescreen in 12 months with cyto: Cotest at 3 yrs
   – If pos→colposcopy

* 2012 guidelines: Less aggressive w/u of AS-CUS
Case 2
A 19 year old Go woman, sexually active since the age of 15, has a Pap smear read as “ASC-H.”

What are your management options?

Although you wish she hadn’t had the pap given <21, you can’t ignore it...

- ASC-H requires colpo in adults and adolescents.
- HPV not helpful for triage—all get colpo.
- Management after colpo differs greatly for <25yo
Case 2 (19yo ASC-H)

Colposcopy: satisfactory?
Yes

Diagnosis?
CIN2

Management options?

- Read the fine print—lots of info there
- Work-up and treatment differ for <25 yo (longer surveillance prior to treatment, less aggressive treatment options)
  - Regression is common in younger women and usually occurs within 2 yrs
- Note now recommend co-test for f/u (even though it breaks the rule of no HPV co-test in <30yo)
- * If colpo unsatisfactory, diagnostic excisional procedure preferred
Case 3

A 78 year old woman who has never had any abnormal Pap smears now has a Pap smear read as ASC-US. She has not been sexually active for over 15 years. A repeat pap in 12 months is also ASC-US.

Options?

Again, you wish she hadn’t had a pap (stop age= 65 in women with prior normals). However, can’t ignore.....

Two consecutive paps with ASC-US → colpo

No difference in management of ASCUS for post-menopausal women. However, reflex HPV testing is more efficient than in younger women b/c fewer women will be referred to colposcopy.
**Case 3: (78yo ASCUSx2)**

- Colposcopy Satisfactory?  
  - No
- If no lesions, what test should be done if colpo unsat?  
  - ECC. ECC=CIN1
- Management options?

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**Management of Women with No Lesion or Biopsy-confirmed Cervical Intraepithelial Neoplasia — Grade 1 (CIN1) Preceded by “Lesser Abnormalities”**

- Observation ok for CIN1 preceded by ASC-US, LSIL, HPV +. Only treat if persists for 2 years.
- HPV testing may help to avoid colpo if negative.
Case 4

A 43 year old woman has a Pap smear read as AGC (atypical glandular cells)-not otherwise specified (NOS).

What is the differential diagnosis of AGC?
What are your management options?

Differential diagnosis of AGC

- Atypical endocervical cells
- Adenocarcinoma-in-situ
- Adenocarcinoma
- Squamous CIN
- Endometrial hyperplasia
- Endometrial adenocarcinoma
- Ovarian carcinoma
AGC needs more thorough work-up than ASC-US because underlying abnormalities are more serious and more common (40% have SIL, AIS, endometrial hyperplasia)
→ Colpo plus ECC plus EMB (in many)
Case 4 (43 yo AGC)

Pt reports occasionally irregular periods. Colposcopy is satisfactory without lesions. ECC is normal. EMB is normal.

Given it it AGC-NOS, you follow as per guidelines with co-test at 12 and 24 months

24 month pap is AGC again. Now what?

Repeat AGC: pelvic ultrasound to evaluate ovaries/tubes. If ultrasound negative, cone biopsy
Case 5

An 22-year-old transfers care to your practice. 8 months ago, she had “ASC-US with HPV DNA test positive for a high-risk type.” She then had colposcopy at other practice, 6 mos ago, which was noted to be satisfactory with no lesions seen.

Next steps?
- Cytology preferred for f/u AS-CUS in young women (reflex HPV testing ok)
- If HPV pos→repeat cytology only at 12 mos (ie shouldn’t have had colpo)

- What to do when pts receive testing that was not recommended per guidelines or who are lost to f/u after abn pap and then have repeat pap nl?
- In general, act on most severe abnormality. EG, If 30yo had LSIL pap then lost to f/u and has repeat nl pap, still needs colpo
- In this case, can follow per guidelines after nl colpo b/c f/u is essentially the same as if she hadn’t had colpo
Case 6

A 24 yo G0 woman has biopsy-proven CIN 3, a satisfactory colposcopy and a negative endocervical curettage.

What are your management options?
What if the ECC were positive?

Potential adverse effects of LEEP

- Preterm delivery: RR 1.7
- Extreme PTD (<28w): RR 2.3
- Low birth weight: RR 1.8-2.5
- PPROM: RR 1.7-1.9
- No increase in death

Lancet 2006 367:489-98
Heinonen, ObGyn, 2013, Jin Arch Gyn Ob, 2014

Potential adverse effects of cone biopsy

- Perinatal mortality: 187%
- Severe preterm delivery: 178%
- Extreme low birthweight: 186%

No randomized trials.

BMJ 2008 Sep 18;337
Ablation and excision are equally efficacious in RCTs
Choose ablation for women desiring fertility (as long as colpo satisfactory, ECC negative and lesion <2cm and completely visible)

Case 7
A 58 year old widow has a Pap smear read as ASC-US and you send a test for HPV. It is positive.

Colposcopy is unsatisfactory.
ECC shows severe dysplasia (CIN 3) cannot rule out invasion.

What are your management options?
Case 7: CIN3, can’t r/o invasion

- Typically, CIN3 is treated with LEEP
- However, if can’t r/o invasion, cone biopsy is indicated in order to get a pathologic specimen from which depth of invasion can be assessed

Case 8

- A 29 yo with biopsy proven CIN3 had a LEEP showing CIN3 with positive endocervical margins.
- What are the management options?

What is shown here? Abnormal vessels
†If CIN2,3 is identified at the margins of an excisional procedure or post-procedure ECC, cytology and ECC at 4-6mo is preferred, but repeat excision is acceptable and hysterectomy is acceptable if reexcision is not feasible.

Positive LEEP margins

- 5 fold higher rate of recurrence compared to complete excision
- High grade dz post-treatment in 18% (82% didn’t develop it) vs 3% with complete excision
  

- Endocervical vs Ectocervical margins:
  - ASCCP doesn’t differentiate.
  - In our practice, we do ECC plus colpo in 6 mos for positive endocervical margins, colpo only for + ectocervical margins

- Repeat Excision “acceptable” ? Given 82% do not have persistent high grade dz, we advise f/u
How long to follow after CIN3?

- 20 years follow-up, regardless of age. Eg if 55 at diagnosis, follow until age 75.

Case 9

A 16 year old is pregnant within six months of becoming sexually active. She was late to care at 22 weeks at which time she had a Pap smear that was read as HSIL.

What are your management options?
Case 9: pregnant, hsil

- Although you wish she’d never gotten the pap, now you must act on the HSIL
- In pregnancy, colpo should be done by experienced colposcopist b/c biopsy will only be done if lesion appears to be invasive cancer.

Biopsy or not?
**General rules**

1. Less is better for adolescents/<25yo (start screening later, space out surveillance, less aggressive treatment)
2. Don’t use HPV test in <30yo unless it is to follow colpo (possibly can decrease need for repeat colpo, if negative)
3. AGC is worse than ASC-US. Requires extensive work-up
4. Don’t treat CIN1 unless persists
5. Don’t re-excise for positive LEEP margin
6. Use ablation over excision for young women

**Pearls**

- Make sure women have adequate education about HPV if HPV DNA testing is used
- Involve women in decisions when uncertainty exists in guidelines
- Stress smoking cessation
- Consider HIV testing for women with biopsy proven dysplasia
- Consider getting pap/path results re-read if discordant
Final Thoughts

- Cervical cancer screening will never completely eliminate cervical cancer: must balance benefits (which occur rarely) and harms (which affect a large number of women).

- Goal: optimal strategies aim to identify HPV-related abnormalities that are likely to progress to invasive cancers while avoiding treating lesions not destined to become cancerous.
Additional summary from 2012 ASCCP guidelines
**Unsatisfactory or Absent endocervical cells**

- **Unsatisfactory cytology:**
  - No HPV done or Neg HPV: repeat cytology 2-4 mos
  - Pos HPV: either repeat cyto 2-4 mos or colpo
  - 2 consec unsats: colpo

- **Cytology Neg but absent/insuff EC/TZ:**
  - <30yo: Routine screening (don’t’ do HPV)
  - >30yo, no HPV: Do HPV (pap 3 yr also ok)
  - >30, HPV neg: routine screening
  - >30 HPV pos: co-test in one year

**Excision vs ablation**

- **Excision:**
  - CIN2+ AND unsatisfactory colpo
  - ECC showing CIN2+
  - Recurrent cin2+
  - Negative colpo preceded by AIS, AGC-favor neoplasia, HSIL papx2

- **Ablation:**
  - Preferred in younger women (possibly less chance of preterm delivery)
  - Lesion < 2 cm and completely visible
Case 2: CIN 2/3 in young women

- Treatment (excision or ablation) OR observation
- For CIN2—observation is preferred (as long as colpo is satisfactory*) and patient is reliable (If CIN3→ excision/ablation)
- Colposcopy plus cytology q 6 months for 1 yr
  - If normal cytology x2→ co-test 1 yr later, if nl, co-test q 3yr
  - If colpo worsens or high grade cytology or colpo lesion persists x 1yr→ repeat biopsy
- Treat only if CIN2 persists for >2 yrs

* If colpo unsatisfactory, diagnostic excisional procedure preferred

Case 6

A 24 yo G0 woman has biopsy-proven CIN 3, a satisfactory colposcopy and a negative endocervical curettage.

What are your management options?
What if the ECC were positive?
Updated Consensus Guidelines for Managing Abnormal Cervical Cancer Screening Tests and Cancer Precursors
Introduction

Cytology
Since the publication of the 2006 consensus guidelines, new cervical cancer screening guidelines have been published and new information has become available which includes key cervical cancer screening and follow up, and cervical precancer management data over a nine year period among more than 1 million women cared for at Kaiser Permanente Northern California. Moreover, women under age 21 are no longer receiving cervical cancer screening and cotesting with high-risk HPV type assays, and cervical cytology is being used to screen women 30 years of age and older.

Therefore, in 2012 the American Society for Colposcopy and Cervical Pathology (ASCCP), together with its 24 partner professional societies, Federal agencies, and international organizations, began the process of revising the 2006 management guidelines. This culminated in the consensus conference held at the National Institutes of Health in September 2012. This report provides updated recommendations for managing women with cytological abnormalities.

A more comprehensive discussion of these recommendations and their supporting evidence was published in the Journal of Lower Genital Tract Disease and Obstetrics and Gynecology and is made available on the ASCCP website at www.asccp.org.

Histopathology
Appropriate management of women with histopathologically diagnosed cervical precancer is an important component of cervical cancer prevention programs. Although the precise number of women diagnosed with cervical precancer each year in the U.S. is not known, it appears to be a relatively common occurrence. In 2001 and 2006, the American Society for Colposcopy and Cervical Pathology and 28 partner professional societies, federal agencies, and international organizations, convened processes to develop and update consensus guidelines for the management of women with cervical precancer. Since then, considerable new information has emerged about management of young women, and the impact of treatment for precursor disease on pregnancy outcomes. Progress has also been made in our understanding of the management of women with adenocarcinoma in-situ, also a human papillomavirus (HPV)—associated precursor lesion to invasive cervical adenocarcinoma. Therefore, in 2012 the ASCCP, together with its partner organizations, reconvened the consensus process of revising the guidelines. This culminated in the September 2012 Consensus Conference held at the National Institutes of Health. This report provides the recommendations developed for managing women with cervical precancer. A summary of the guidelines themselves—including the recommendations for managing women with cervical cytological abnormalities — are published in JLGTD and Obstetrics & Gynecology.
Although the guidelines are based on evidence whenever possible, for certain clinical situations limited high-quality evidence exists. In these situations the guidelines are based on consensus expert opinion. Guidelines should never be a substitute for clinical judgment. Clinical judgment should always be used when applying a guideline to an individual patient since guidelines may not apply to all patient-related situations. Finally, both clinicians and patients need to recognize that while most cases of cervical cancer can be prevented through a program of screening and management of cervical precancer, no screening or treatment modality is 100% effective and invasive cervical cancer can develop in women participating in such programs.

The 2001 Bethesda System terminology is used for cytological classification. This terminology utilizes the terms low-grade squamous intraepithelial lesion (LSIL) and high-grade squamous intraepithelial lesion (HSIL) to refer to low-grade lesions and high-grade cervical cancer precursors respectively. For managing cervical precancer, the histopathological classification is two-tiered applying the terms cervical intraepithelial neoplasia grade 1 (CIN 1) to low-grade lesions and CIN2,3 to high-grade lesions. If using the 2012 Lower Anogenital Squamous Terminology (LAST), CIN1 is equivalent to histopathological LSIL and CIN2,3 is equivalent to histopathological HSIL. Please note that cytological LSIL is not equivalent to histopathological CIN 1 and cytological HSIL is not equivalent to histopathological CIN2,3. The current guidelines expand clinical indications for HPV testing based on studies using FDA-approved, validated HPV assays. Management decisions based on results using HPV tests not similarly validated may not result in outcomes intended by these guidelines. HPV testing should be restricted to high-risk (oncogenic) HPV types. Testing for low-risk (non-oncogenic) HPV types has no role in evaluating women with abnormal cervical cytological results. Therefore, whenever “HPV testing” is mentioned in the guidelines, it refers to testing for high-risk (oncogenic) HPV types only.
Unsatisfactory Cytology

- HPV unknown (any age)
  - Manage per ASCCP Guideline

- HPV negative (age ≥30)
  - Repeat Cytology after 2-4 months
    - Abnormal
      - Manage per ASCCP Guideline
    - Negative
      - Routine screening (HPV-/unknown) or Cotesting @ 1 year (HPV+)
    - Unsatisfactory
      - Colposcopy

- HPV positive (age ≥30)
  - Colposcopy
Cytology NILM* but EC/TZ Absent/Insufficient

Ages 21-29+

- HPV negative: Repeat cytology in 3 years (Acceptable)
  - HPV testing (Preferred)

- HPV unknown: Repeat cytology in 1 year
  - HPV positive
  - Cytology + HPV test in 1 year
  - Genotyping
  - Manage per ASCCP Guideline

Age ≥30 years

- HPV unknown: Repeat cytology in 1 year
  - HPV positive
  - Cytology + HPV test in 1 year
  - Genotyping
  - Manage per ASCCP Guideline

Routine screening

*Negative for intraepithelial lesion or malignancy
*HPV testing is unacceptable for screening women ages 21-29 years
Management of Women $\geq$ Age 30, who are Cytology Negative, but HPV Positive

- **Repeat Cotesting**
  - @ 1 year
  - Acceptable
  - Cytology Negative and HPV Negative
  - Repeat cotesting @ 3 years

- **HPV DNA Typing**
  - Acceptable
  - $\geq$ASC or HPV positive
  - HPV 16 or 18 Positive
  - HPV 16 and 18 Negative
  - HPV 16 and 18 Negative
  - Repeat cotesting @ 1 year

- **Colposcopy**
  - Manage per ASCCP Guideline

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Management of Women with Atypical Squamous Cells of Undetermined Significance (ASC-US) on Cytology*

**Repeat Cytology**  
@ 1 year  
Acceptable

- **Negative**
  - Routine Screening*

- **> ASC**
  - **Colposcopy**  
    Endocervical sampling preferred in women with no lesions, and those with inadequate colposcopy; it is acceptable for others

**HPV Testing**  
Preferred

- **HPV Positive**  
  - (managed the same as women with LSIL)
  - **Repeat Cotesting** @ 3 years

- **HPV Negative**
  - **Repeat Cytology** @ 3 years

*Management options may vary if the woman is pregnant or ages 21-24.  
*Cytology at 3 year intervals

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Management of Women Ages 21-24 years with either Atypical Squamous Cells of Undetermined Significance (ASC-US) or Low-grade Squamous Intraepithelial Lesion (LSIL)

Women ages 21-24 years with ASC-US or LSIL

- Repeat Cytology @ 12 months Preferred
  - Negative, ASC-US or LSIL
    - Repeat Cytology @ 12 months
      - Negative x 2 > ASC
      - Routine Screening
  - ASC-H, AGC, HSIL
    - HPV Positive
      - Reflex HPV Testing Acceptable for ASC-US only
    - HPV Negative
      - Routine Screening

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Management of Women with Low-grade Squamous Intraepithelial Lesions (LSIL)*

- **LSIL with negative HPV test**
  - Preferred → Repeat Cotesting @ 1 year
  - Cytology Negative and HPV Negative
    - Repeat Cotesting @ 3 years
  - ≥ ASC or HPV positive

- **LSIL with no HPV test**
  - Acceptable → Colposcopy
    - Non-pregnant and no lesion identified
    - Inadequate colposcopic examination
    - Adequate colposcopy and lesion identified

- **LSIL with positive HPV test**
  - CIN2,3 → Manage per ASCCP Guideline
  - No CIN2,3
    - Endocervical sampling “preferred”
    - Endocervical sampling “acceptable”

* Management options may vary if the woman is ages 21-24 years (see text)
Management of Pregnant Women with Low-grade Squamous Intraepithelial Lesion (LSIL)

Pregnant Women with LSIL

Colposcopy
Preferred

No CIN2,3^ 
Postpartum follow-up

CIN2,3
Manage per ASCCP Guideline

Defer Colposcopy
(Until at least 6 weeks postpartum)
Acceptable

^ In women with no cytological, histological, or colposcopically suspected CIN2,3 or cancer

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Management of Women with Atypical Squamous Cells: Cannot Exclude High-grade SIL (ASC-H)*

Colposcopy
Regardless of HPV status

No CIN2,3

Manage per ASCCP Guideline

CIN2,3

Manage per ASCCP Guideline

* Management options may vary if the woman is ages 21-24.
Management of Women Ages 21-24 yrs with Atypical Squamous Cells, Cannot Rule Out High Grade SIL (ASC-H) and High-grade Squamous Intraepithelial Lesion (HSIL)

Colposcopy
(Immediate loop electrosurgical excision is unacceptable)

No CIN2,3

CIN2,3

Observation with colposcopy & cytology *
@ 6 month intervals for up to 2 years

High-grade colposcopic lesion or HSIL
Persists for 1 year

Biopsy

CIN2,3

Manage per AASCP Guideline

Manage per AASCP Guideline for young women with CIN2,3

*If colposcopy is adequate and endocervical sampling is negative. Otherwise a diagnostic excisional procedure is indicated.
*Not if patient is pregnant

Two Consecutive Cytology Negative Results and No High-grade Colposcopic Abnormality

Routine Screening

Other results

HSIL
Persists for 24 months with no CIN2,3 identified

Diagnostic Excisional Procedure*

HSIL

ASC-H and HSIL: Age 21–24

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Management of Women with High-grade Squamous Intraepithelial Lesions (HSIL)*

Immediate Loop Electrosurgical Excision

Or

Colposcopy (with endocervical assessment)

No CIN2,3

CIN2,3

Manage per ASCCP Guideline

* Management options may vary if the woman is pregnant, postmenopausal, or ages 21-24
* Not if patient is pregnant or ages 21-24
Initial Workup of Women with Atypical Glandular Cells (AGC)

All subcategories (except atypical endometrial cells)

Colposcopy (with endocervical sampling) and Endometrial sampling (if ≥ 35 yrs or at risk for endometrial neoplasia*)

Atypical Endometrial Cells

Endometrial and Endocervical Sampling

No Endometrial Pathology

Colposcopy

*Includes unexplained vaginal bleeding or conditions suggesting chronic anovulation.
**Subsequent Management of Women with Atypical Glandular Cells (AGC)**

- **Initial Cytology is AGC - NOS**
  - *No CIN2+, AIS or Cancer*
    - **Cotest at 12 & 24 months**
      - Both negative: **Cotest 3 years later**
      - Any abnormality: **Colposcopy**
  
- **Initial Cytology is AGC (favor neoplasia) or AIS**
  - **CIN2+ but no Glandular Neoplasia**
    - **Manage per ASCCP Guideline**
    - Any abnormality: **Colposcopy**
  
- **No Invasive Disease**
  - **Diagnostic Excisional Procedure**
    - *Should provide an intact specimen with interpretable margins. Concomitant endocervical sampling is preferred*
Management of Women with No Lesion or Biopsy-confirmed Cervical Intraepithelial Neoplasia — Grade 1 (CIN1) Preceded by “Lesser Abnormalities”*∞

Follow-up without Treatment

Follow-up or Treatment †

Cotesting at 12 months

≥ ASC or HPV(+)

Cytology Negative

Age appropriate retesting

HPV(-)

3 years later

Cytology negative

+/- HPV(-)

Routine screening*

No CIN

CIN2,3

CIN1

Manage per ASCCP Guideline

If persists for at least 2 years

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* “Lesser abnormalities” include ASC-US or LSIL Cytology, HPV 16+ or 18+, and persistent HPV

∞ Management options may vary if the woman is pregnant or ages 21-24.

+ Cytology if age <30 years, cotesting if age ≥30 years

† Either ablative or excisional methods. Excision preferred if colposcopy inadequate, positive ECC, or previously treated.
Co-testing at 12 and 24 months* 

HPV(-) and Cytology Negative at both visits 

Age-specific Retesting in 3 years* 

HPV(+) or Any cytology abnormality except HSIL 

Colposcopy 

HSIL at either visit 

Diagnostic Excision Procedure* 

Review of cytological, histological, and colposcopic findings 

Manage per ASCCP Guideline for revised diagnosis 

*Only if colposcopy was adequate and endocervical sampling is negative 

^ Except in special populations (may include pregnant women and those ages 21-24) 

*Cytology if age <30, cotesting if age ≥30 years
Management of Women Ages 21-24 with No Lesion or Biopsy-confirmed Cervical Intraepithelial Neoplasia — Grade 1 (CIN1)

**After ASC-US or LSIL**

- Repeat Cytology @ 12 months
  - < ASC-H or HSIL
  - > ASC-H or HSIL
    - Repeat Cytology @ 12 mos
      - Negative
      - > ASC
        - Colposcopy
  - Routine Screening

**After ASC-H or HSIL**

- Manage per ASCCP Guideline for Women Ages 21-24 with ASC-H or HSIL using postcolposcopy path for No CIN2,3

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Management of Women with Biopsy-confirmed Cervical Intraepithelial Neoplasia — Grade 2 and 3 (CIN2,3)*

*Management options will vary in special circumstances or if the woman is pregnant or ages 21-24

1If CIN2,3 is identified at the margins of an excisional procedure or post-procedure ECC, cytology and ECC at 4-6mo is preferred, but repeat excision is acceptable and hysterectomy is acceptable if re-excision is not feasible.

Adequate Colposcopy

Either Excision† or Ablation of T-zone*

- Cotesting at 12 and 24 months
  - 2x Negative Results
  - Any test abnormal

Inadequate Colposcopy or Recurrent CIN2,3 or Endocervical sampling is CIN2,3

Diagnostic Excisional Procedure†

Colposcopy

With endocervical sampling

Repeat cotesting in 3 years

Routine screening

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Management of Young Women with Biopsy-confirmed Cervical Intraepithelial Neoplasia — Grade 2,3 (CIN2,3) in Special Circumstances

**Young Women with CIN2,3**

Either treatment or observation is acceptable, provided colposcopy is adequate. When CIN2 is specified, observation is preferred. When CIN3 is specified, or colposcopy is inadequate, treatment is preferred.

- **Observation — Colposcopy & Cytology**
  @ 6 month intervals for 12 months

  - 2x Cytology Negative and Normal Colposcopy
    - Cotest in 1 year
    - Both tests negative
      - **Cotest in 3 years**
  - Cotest in 1 year
    - Either test abnormal

- **Treatment using Excision or Ablation of T-zone**

  - Colposcopy worsens or High-grade Cytology or Colposcopy persists for 1 year
    - Repeat Colposcopy/Biopsy Recommended
    - CIN3 or CIN2,3 persists for 24 months
      - Treatment Recommended
Management of Women Diagnosed with Adenocarcinoma in-situ (AIS) during a Diagnostic Excisional Procedure

**Hysterectomy — Preferred**

**Conservative Management**
Acceptable if future fertility desired

- **Margins Involved or ECC Positive**
  - **Re-excision Recommended**

- **Margins Negative**
  - **Re-evaluation**
  @ 6 months — acceptable

Long-term Follow-up

* Using a combination of cotesting and colposcopy with endocervical sampling

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Interim Guidance for Managing Reports using the Lower Anogenital Squamous Terminology (LAST) Histopathology Diagnoses

Low Grade Squamous Intraepithelial Lesion (LSIL)*

 Manage like CIN1

High Grade Squamous Intraepithelial Lesion (HSIL)*

 Manage like CIN2,3

*Histopathology Results only.
**Definitions**

- **Colposcopy** is the examination of the cervix, vagina, and, in some instances the vulva, with the colposcope after the application of a 3-5% acetic acid solution coupled with obtaining colposcopically-directed biopsies of all lesions suspected of representing neoplasia.

- **Endocervical sampling** includes obtaining a specimen for either histopathological evaluation using an endocervical curette or a cytobrush or for cytological evaluation using a cytobrush.

- **Endocervical assessment** is the process of evaluating the endocervical canal for the presence of neoplasia using either a colposcope or endocervical sampling.

- **Diagnostic excisional procedure** is the process of obtaining a specimen from the transformation zone and endocervical canal for histopathological evaluation and includes laser conization, cold-knife conization, loop electrosurgical excision procedure (LEEP), and loop electrosurgical conization.

- **Adequate colposcopy** indicates that the entire squamocolumnar junction and the margin of any visible lesion can be visualized with the colposcope.

- **Endometrial sampling** includes obtaining a specimen for histopathological evaluation using an endometrial aspiration or biopsy device, a “dilatation and curettage” or hysteroscopy.

**Terms Utilized in the Consensus Guidelines**

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L. Stewart Massad, M.D., Washington University School of Medicine, St. Louis, MO; Mark H. Einstein, M.D., Albert Einstein College of Medicine, Bronx, NY; Warner K. Huh, M.D., University of Alabama School of Medicine, Birmingham, AL; Hormuzd A. Katki, Ph.D., Division of Cancer Epidemiology and Genetics, National Cancer Institute, Bethesda, MD; Walter K. Kinney, M.D., The Permanente Medical Group, Sacramento, CA; Mark Schiffman, M.D., Diane Solomon, M.D., Division of Cancer Prevention, National Cancer Institute, Bethesda, MD; Nicolas Wentzensen, M.D., Division of Cancer Epidemiology and Genetics, National Cancer Institute, Bethesda, MD; Herschel W. Lawson, M.D., Emory University School of Medicine, Atlanta, GA, on behalf of the 2012 ASCCP Consensus Guidelines Conference

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