

UPDATE ON CERVICAL CYTOLOGY SCREENING

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Cervical Cancer Screening:
HPV Test Beats Out the Pap
Smear

Confused about when or
what cervical cancer
screen you should get?

How often should
I have a Pap
smear?



When should I stop having Pap
smears?



I've been through menopause; do I still
need to have a Pap smear?

New Pap Smear
Guidelines - Rationing
Healthcare or the Right
Care?

LEARNING OBJECTIVES

- Update the clinician on changes in guidelines & specific recommendations for:
 - Cervical cytology screening
 - HPV testing
 - Management of cervical precancerous changes
- Review **best available medical evidence** to support these guidelines on screening for cervical carcinoma

INTERVENTIONS & PRACTICES CONSIDERED IN THIS PRESENTATION

1. Cervical cancer screening
2. Timing of **initial screening** and **optimal frequency** of screening
3. **Discontinuation of screening** based on age and prior screening results
4. **Discontinuation of screening in women who have undergone hysterectomy** and have no prior history of high grade cervical intraepithelial neoplasia(CIN)
5. **Conventional or liquid-based** cytology screening
6. **Co-testing** using the combination of cytology plus human papillomavirus (**HPV**) deoxyribonucleic acid (DNA) testing
7. Counseling and testing for sexually transmitted diseases and counseling regarding safe sex and contraception in sexually active adolescents

MANAGEMENT

NOT CONSIDERED IN THIS PRESENTATION

- MANAGEMENT OF ABNORMAL CYTOLOGY
- MANAGEMENT OF CIN OR ADENOCARCINOMA IN SITU

Refer to reference algorithms and Consensus guidelines at

- www.asccp.org
- ACOG PRACTICE BULLETIN, #99, December 2008. *Management of Abnormal Cervical Cytology and Histology.*

CERVICAL CYTOLOGY

Guideline Changes & Recommendations

based on:

- Bethesda System, 2001 (cytology reporting system)
- USPSTF* (U.S. Preventive Services Task Force)
- ACS* (American Cancer Society)
- ACOG (2009)
- ASCCP (American Society for Colposcopy and Cervical Pathology): 2006 Consensus Guidelines for the management of Abnormal Cervical Cytology

* *2012 revisions to guidelines pending*

2012 REVISIONS

- USPTSF
- ASCCP
- AMERICAN CANCER SOCIETY

FINAL REPORT/RECOMMENDATIONS
PENDING

Cervical Cancer: INCIDENCE

- Decreased >50% in past 30 years b/c of cervical cytology screening
- 14.8/100,000 in US in 1975
- 6.5/100,000 in US in 2006
- New cases in US in 2010: 12,000
- Deaths in US in 2010: 4,070
- World Wide: 500,000 new cases/year
240,000 deaths/year
- 2nd most common Ca in women; 83% of cases in developing countries

Data from American Cancer Society, 2009; Up to Date, 2010

Background

- 50 % of women in whom cervical cancer is diagnosed have never had cervical cytology testing
- Another 10% had not been screened within 5 years before the diagnosis
- Inadequate follow up of abnormal pap smears in up to 13% of women with invasive cervical carcinoma
- Reminder system helpful for ensuring compliance with follow up

Background

- 50-60 million Pap tests performed in US each year
 - 3.5 million read as abnormal
 - 2.5 million diagnostic colposcopy

Natural History of Cervical Neoplasia

- Human Papilloma Virus (HPV)
 - HPV is necessary component
 - Most HPV infected women will not develop significant cervical cytology abnormalities
 - Risk Factors
 - Early onset intercourse
 - Multiple partners
 - Cigarette Smoking (2-4 x increased risk)

HPV Infections

- Infection with specific high risk strains of HPV is central to the pathogenesis of cervical cancer
- High risk (oncogenic types)
 - **16,18**,31,33,35,39,45,51,52,56,58,59,68,69,82

PREVENTION

■ SCREENING

- *This is considered **secondary prevention** since we are not actually impacting the cause of cervical cancer*

■ SAFE SEX

- *Condoms may reduce HPV transmission by up to 70%*

■ HPV VACCINATION

- *Protection against HPV 16, 18 which accounts for 70% of Invasive cervical ca (**primary prevention**)*

Risks of Screening

- Discomfort and inconvenience
- Psychosocial consequences
 - LABELING YOUNG WOMEN WITH STI & CANCER PRECURSOR
- Adverse health effects
 - LEEP, CKC
- Costs
 - Annual costs in U.S.: \$7.5 billion/year

Concerns with Screening

■ Errors

- Sampling
- Handling
- Interpretation
 - Failure to identify abnormal cells
 - Inaccurately report the findings

Techniques of Cervical Cytology

- Conventional
- Liquid Based (*Thin Prep, Surepath*)

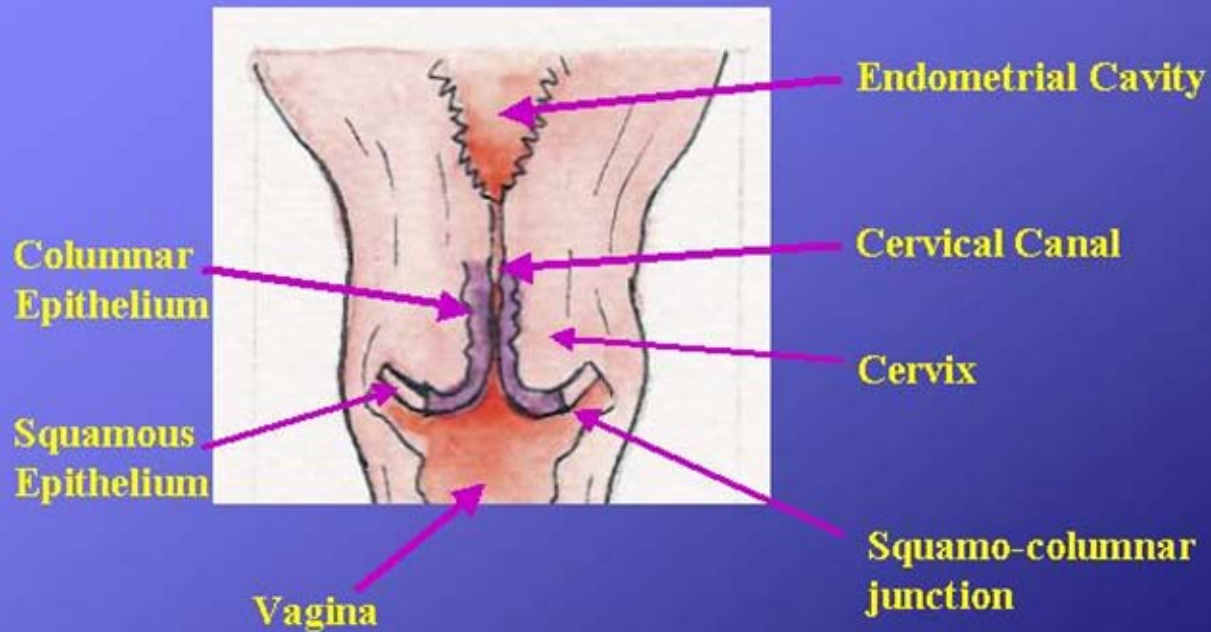
Techniques of Cervical Cytology

- Insufficient evidence to recommend for or against the routine use of new technologies to screen for cervical ca (Level: I = Insufficient)
- Liquid-based & conventional are both acceptable

*I.— The USPSTF concludes that the evidence is insufficient to recommend for or against routinely providing [the service]. *Evidence that the [service] is effective is lacking, of poor quality, or conflicting and the balance of benefits and harms cannot be determined.*

Cervical histology

THE CERVIX



Sample the transformation zone

Fig 21.1

Liquid based cytology

■ Disadvantages:

- Cost
- Decreased specificity (ASCUS)
 - Leading to more false "+", more anxiety, & more procedures (*conflicting studies*)

■ Advantages:

- Increased sensitivity
- HPV reflex testing
- GC and Chlamydia infections testing
- Spin down, eliminate debris

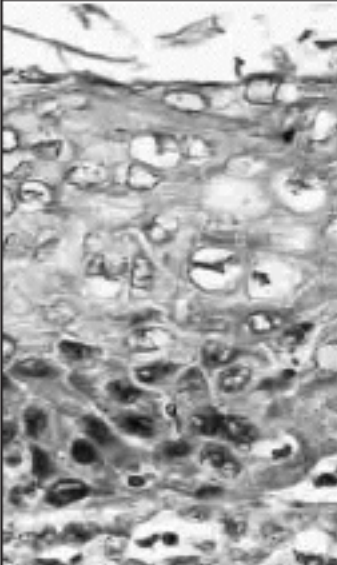
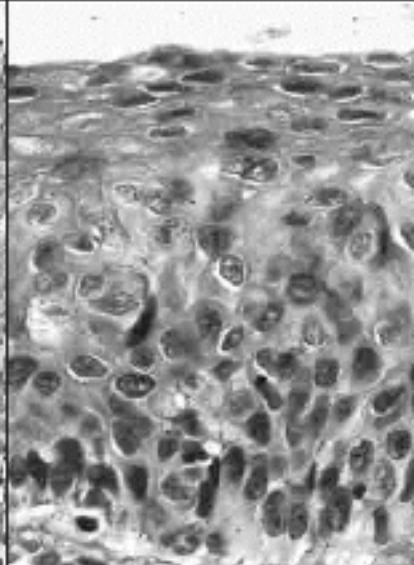
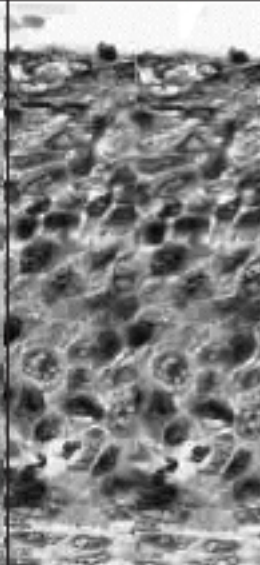
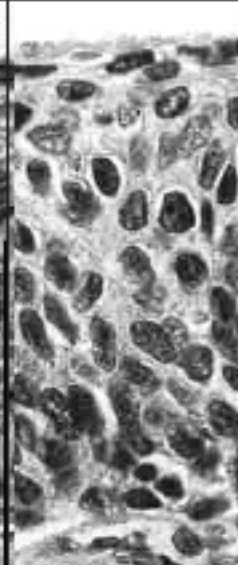
Cytology Reporting: Bethesda System--2001

- **Intent:** to distinguish between abnormalities which are unlikely to progress to cancer and those which are more likely to indicate a precancerous or cancerous lesion
- **Guidelines** for determination of specimen adequacy

Cytology Reporting: Bethesda System--2001

- Specimen adequacy
- Negative FOR Intraepithelial lesion/malignancy
- Epithelial cell abnormalities for squamous cells
 - ASC (Atypical Squamous cells)
 - ASC-US
 - ASC-H
 - AGUS
 - LGSIL
 - HGSIL
- Squamous cell carcinoma

Histology of cervical intraepithelial neoplasia

LSIL	HSIL		
CIN I	CIN II	CIN III	
Mild dysplasia	Moderate dysplasia	Severe dysplasia	Carcinoma in-situ
			

Changes in cervical intraepithelial neoplasia (CIN) terminology with histologic correlates.

LSIL: low grade squamous intraepithelial neoplasia; HSIL: high grade squamous intraepithelial neoplasia; CIN: cervical intraepithelial neoplasia.

UpToDate

From Up to Date, 2010

Who should be screened?

- Women who have been sexually active and have a cervix (level A *evidence)
- Rationale:
 - Screening with cervical cytology reduces the incidence of and mortality from cervical cancer.
 - Use of extended tip spatula & cytobrush—or cervical paintbrush--- to sample endocervix is supported by medical evidence

**A.— The USPSTF strongly recommends that clinicians provide [the service] to eligible patients. The USPSTF found good evidence that [the service] improves important health outcomes and concludes that benefits substantially outweigh harms.*

Who should be screened?

- What is Sensitivity of cytology screen?
 - 60-80%
 - Not a perfect test
 - Therefore, 3 consecutive negative cytology screening tests recommended before extending screening interval

Pap Guidelines

CHOOSE 1

ACOG Cervical cancer screening guidelines(2009) recommend that pap smears should begin

- A. At age 18
- B. Within 1 year of age of onset of sexual activity
- C. At age 21
- D. 3 years after first menses
- E. 3 years after initiation of sexual intercourse

When should screening begin?

- ACS*, USPSTF**
 - 3 years after onset of sexual activity
or
 - Age 21 (*whichever comes 1st*)
 - FINAL 2012 REVISIONS PENDING
 - ALL 3 GROUPS WILL RECOMMEND AGE 21
- ACOG:
 - Age 21 (Nov. 2009)

*American Cancer Society; **U.S. Preventative Services Task Force

HPV

CLICKER: CHOOSE 1

In adolescents, what percentage of women who test positive for High Risk HPV will have persistent infection after 24 months?

- A. 90 %
- B. 70%
- C. 50%
- D. 30%
- E. 10%

Rationale (for later screening)

So why the changes?

- HPV Infection: Natural History
 - Very common in younger women
 - Prevalence of HPV infection decreases as women ages
 - Infects transformation zone, squamous metaplasia active in adolescence
 - **90% of infections cleared** by immune system in 2 years in young women
 - Most HPV '+' patients have normal cytology
 - Risk of neoplasia increases with persistence of infection
 - Most dysplasia in adolescents regresses spontaneously

Rationale (for later screening)

So why the changes?

- Invasive Cervical Ca @ < age 21:
RARE
 - SEER*: 1-2 cases/1,000,000 females age 15-19.
 - No data shows screening women <21y/o impacts future rates of CIN 2-3.
 - No reduction of cervical cancer rates in women < 30y/o.

*Surveillance Epidemiology & End results, 2002-2006

Rationale (for later screening)

So why the changes?

- Based on low incidence of cancer @ < age 21
- Based on potential for **adverse effects associated with follow-up** of young women with abnormal cytology screening results

Rationale (for later screening)

So why the changes?

- ACOG guidelines are consistent with 2006 recommendations of the ASCCP regarding *management of adolescents* with abnormal cytology and cervical biopsy results
 - *In effect, with the newer guidelines, adolescents would not be screened before age 21*
- ACS, USPTF, ASCCP
 - *Emphasizes **CONSERVATIVE APPROACH** to women < age 21 with ASCUS or LSIL*

Rationale (for later screening)

So why the changes?

- Problems with Earlier Screening
 - Increase anxiety
 - Morbidity
 - Expense
 - Emotional impact of labeling adolescent with both an STI & potential cancer precursor.....affecting self image & emerging sexuality

Rationale (for later screening)

So why the changes?

- Problems with Earlier Screening
 - Excess testing and procedures
 - Increased risk of preterm birth with excisional procedures

Optimal Frequency of CYTOLOGY SCREENING

- **ACOG** (2009):
 - AGE 21-29: EVERY 2 YEARS
 - AGE 30 & OLDER: every 3 years,
 - If: 3 consecutive negative paps
- **MORE FREQUENT SCREENING:**
 - HIV +
 - IMMUNOSUPPRESSION
 - DES
 - PRIOR TX FOR CIN 2-3 OR CA

Based on test sensitivity, patient harm, & cost

Optimal Frequency of CYTOLOGY SCREENING

- **HIV Positive:** 2x pap in first year, annually thereafter
- **PRIOR CIN 2-3**
 - At risk for >20 years
 - Annual screen for at least 20 years

Patient Counseling & Education

- Accurate history
- Get records
- Educate patients
 - Cervical cytology
 - Limitations
 - Rationale for screening interval
 - Annual exams appropriate, irrespective of pap smear frequency. Preventative Health counseling, contraceptive & STI counseling

When should screening be discontinued?

■ ACOG, USPSTF, ACS:

- Age 65-70 (level D* Recommendation)
 - Negative screening, 10 years
 - 3 negatives in a row
 - Not at high risk for Cervical Ca
- False positives, invasive procedures
- Continue reassessing risk factors

**D — The USPSTF recommends against routinely providing [the service] to asymptomatic patients. The USPSTF found at least fair evidence that [the service] is ineffective or that harms outweigh benefits.*

Pap Recommendations After Hysterectomy

- Total Hyst for Benign indications
 - No Pap necessary (level *D recommendation)
- SupraCervical Hyst: continue screening
- Assess accuracy of woman's cervical cytology history
- Continue screening if Hx of CIN 2-3

*D — The USPSTF recommends against routinely providing [the service] to asymptomatic patients. *The USPSTF found at least fair evidence that [the service] is ineffective or that harms outweigh benefits.*

Pap Recommendations After Hysterectomy

- Potential harms of continued screening and subsequent procedures outweigh benefits of continued screening
- Costs

SUMMARY OF SCREENING FREQUENCY

TABLE. Guidelines for cervical cytology screening¹⁷

Age	Frequency of screening	Comment
Younger than 21 y	Avoid screening	<ul style="list-style-type: none">• Harm outweighs benefit• Screening is unnecessary
21 to 29 y	Every 2 y	<ul style="list-style-type: none">• Frequency of screening not related to incidence of cervical cancer
30 to 65-70 y	Every 3 y	<ul style="list-style-type: none">• After three consecutive negative cytology results and low risk^a
65 to 70 y	Reasonable to discontinue	<ul style="list-style-type: none">• After three consecutive negative cervical cytology results• No abnormal results in preceding 10 y^b• Continue annual gynecologic examinations

^a Low risk is defined as a negative history for cervical intraepithelial neoplasia (CIN) 2 or CIN3, cervical cancer, in utero exposure to diethylstilbestrol, HIV, or immunosuppression.

^b Women with multiple sexual partners should continue screening. No guidelines are established for the frequency of these examinations.

Indications for HR-HPV Testing include? (T or F)

1. Annually with Pap after age 21?
2. With ASC-US pap
3. With LSIL pap
4. With HSIL pap
5. With Pap after age 30

HPV as primary screening?

- Evidence : *Insufficient
- Role in screening (solely) remains unclear
- When is **HPV testing** indicated?
 - Triage: > age 21 with ASCUS (*reflex*)
 - Triage: Postmenopause—LSIL
 - > age 30 (adjunct to cytology screen)

*I — The USPSTF concludes that the evidence is insufficient to recommend for or against routinely providing [the service]. *Evidence that the [service] is effective is lacking, of poor quality, or conflicting and the balance of benefits and harms cannot be determined.*

PRIMARY HR-HPV SCREENING

- 2 types in U.S.
 - Hybrid Capture 2 [HC2] (FDA, 2003)
 - Cervista HPV HR test (FDA, 2009)
- Designed to identify the 12-14 high risk HPV types
- Genotyping: HPV 16-18 [Cervista HPV 16/18*].... (to stratify risk and management)

** FDA APPROVED*

NO INDICATION FOR LOW RISK HPV

PRIMARY HPV SCREENING

- HPV ALONE:
 - Poor specificity
&
• Poor positive predictive value (especially in younger women)
- Specificity improved over age 30

HPV as primary screening?

- HPV testing should **not** be used in females < age 21 **(NO EXCEPTIONS)**,
&
- If inadvertently performed, a positive result should not influence management
- High prevalence of infection in women < age 30
 - >90% clearance of virus in younger females

SCREENING WITH HPV &/OR CYTOLOGY ???

- HPV
- CYTOLOGY
- HPV & CYTOLOGY
- HPV 1ST, THAN CYTOLOGY IF HPV+

ONGOING STUDIES

HPV + Cytology

- > age 30:
 - Negative cytology & negative high risk HPV DNA = extremely low risk for CIN 2-3 over next 4-6 years
 - Both negative: rescreen 3 years

Use of HPV genotyping to manage HPV HR POSITIVE/CYTOLOGY NEGATIVE in women 30 years and older

- HPV HR POSITIVE/CYTOLOGY NEGATIVE
 - **HPV 16/18 (positive)**
 - PROCEED TO COLPOSCOPY
 - **HPV 16-18(negative)**
 - ---repeat both cytology and HR HPV test at 12 months.
 - *Algorithm available on ASCCP.org*

Situations Where HPV DNA Testing and Genotyping Are **Not** Recommended

- ***Adolescents***, defined as women 20 years and younger (regardless of their cytology results)
- ***Women 21 years and older with ASC-H, LSIL, or HSIL cytology***
(note: “reflex” HPV testing is acceptable in postmenopausal women with LSIL)
- ***Routine screening in women before the age of 30 years***

Situations Where HPV DNA Testing and Genotyping Are **Not** Recommended [continued]

- *In women considering vaccination against HPV*
 - *For routine STD screening*
 - *As part of a sexual assault workup*
 - *For women with ASC-US (at this time)*
 - *As the initial screening test for women 30 years and older*

Summary of US Professional Society recommendations for cervical cancer screening

	Age to initiate screening	Age to discontinue screening	Screening interval for cervical cytology	Post hysterectomy for benign disease*	HPV testing
ACS (2002)•	3 years after onset of sexual intercourse, or by age 21	Women may choose, if ≥ 70 years and ≥ 3 consecutive negative tests and no positive tests within last 10 years Δ	Annual for conventional cytology; every 2 years for liquid-based cytology; for age >30 , every 2 to 3 years after 3 normal consecutive smears and no increased risk \diamond	Not indicated \S	For women ≥ 30 years, as alternative to cytology alone; HPV test combined with cervical cytology no more often than every 3 years
ACOG (2009) Υ	Age 21	Age 65-70 years if ≥ 3 consecutive negative tests and no positive tests within last 10 years Δ	Every 2 years for age 21-29; for age >30 , every 3 years after 3 normal consecutive smears, no history CIN 2 or 3, and no increased risk \diamond	Not indicated**	For women ≥ 30 years, as alternative to cytology alone; HPV test combined with cervical cytology no more often than every 3 years
USPSTF (2003) \ddagger	3 years after onset of sexual intercourse, or by age 21	Age 65, if not at high risk	At least every 3 years	Not indicated	Insufficient evidence

ACS: American Cancer Society; ACOG: American College of Obstetricians and Gynecologists; USPSTF: United States Preventive Services Task Force.

* Cervix not present.

• Saslow, D, Runowicz, CD, Solomon, D, et al. American Cancer Society Guideline for the Early Detection of Cervical Neoplasia and Cancer. CA Cancer J Clin 2002; 52:342.

Δ If hx cervical ca, in utero DES exposure, immunocompromise including HIV, screening should be continued as long as health indicated. Screening at provider discretion for women who have tested HPV-positive.

\diamond In utero DES exposure, immunocompromise including HIV.

\S Usual screening if in utero DES exposure, or history cervical cancer. If definite or possible history CIN 2/3, screen until 3 negative consecutive smears and no abnormal within 10 year period.

Υ Cervical cytology screening. ACOG Practice Bulletin No. 109. American College of Obstetricians and Gynecologists. Obstet Gynecol 2009; 114:1409.

\ddagger US Preventive Services Task Force. Screening for cervical cancer: recommendations and rationale. Agency for Healthcare Research and Quality, Rockville, MD 2003. No 03-515A. January 2003.

** If benign findings can be documented at the time of hysterectomy; ongoing screening if CIN2 or CIN3.

Cervical Cytologic Abnormalities in Adolescents (< age 21)

- Prior normal cytology
 - No further screening until age 21
- ASCUS, LSIL
 - 2 NORMAL PAPS,-- delay further screening until age 21
- HIV OR IMMUNOCOMPROMISED
 - Screen at onset of sexual activity, 6 months x 2, then annual

ADOLESCENTS

- CONSERVATIVE OBSERVATION IS MAINSTAY OF CARE IF CYTOLOGY SCREENING HAS BEEN DONE
- ASCUS, LSIL, CIN-I
 - Repeat cytology q 12 months x 2 years
 - If persistent > 2years, COLPOSCOPY
 - HSIL: Colposcopy

ADOLESCENTS

- ASC-H: Colposcopy
- AGC: Colposcopy and ECC
- CIN II-III Colposcopy & Cytology
q6 months x 24 months

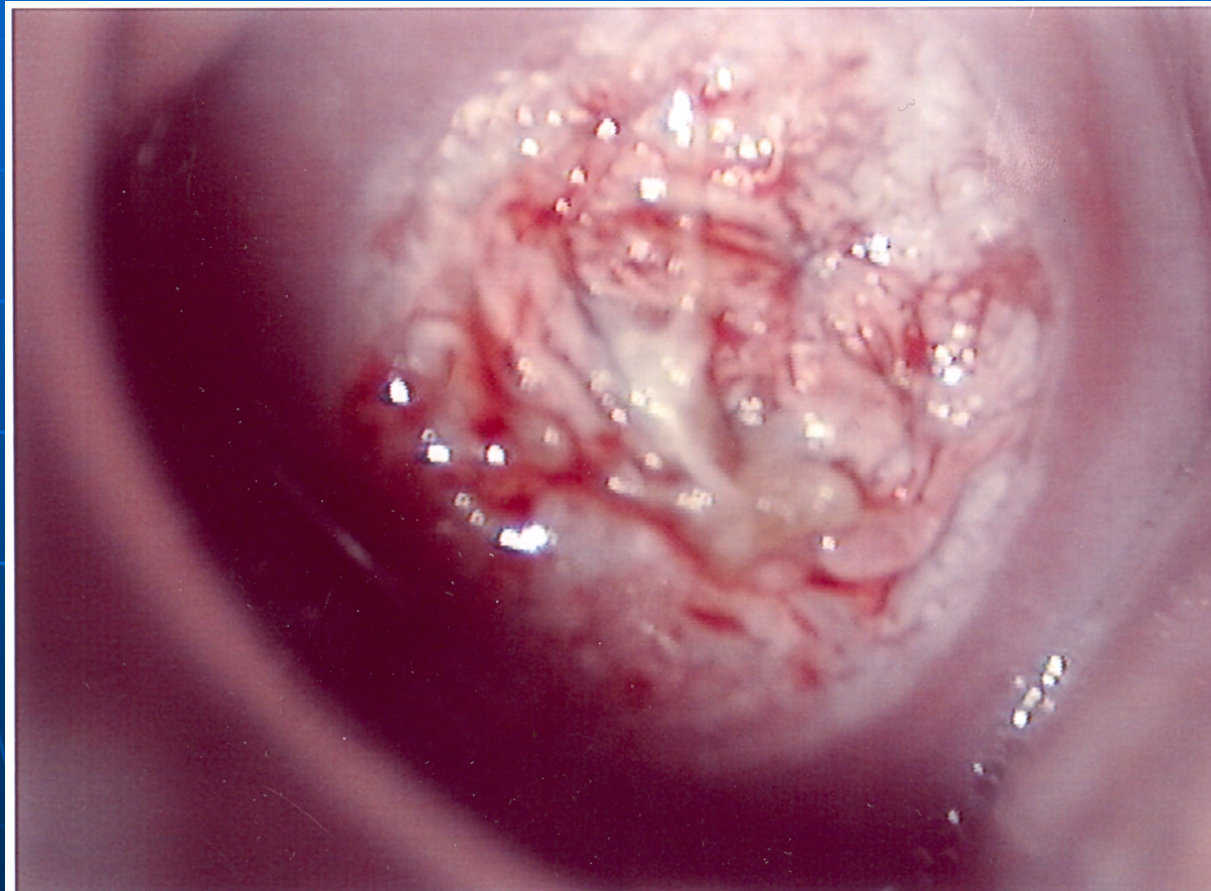
*ACOG Committee Opinion #463, August 2010: "Cervical Cancer in Adolescents: Screening, Evaluation, and Management"

OTHER PAP DILEMMAS

- MANAGEMENT OF **AGUS**
- MANAGEMENT OF **ASC-H**
- MANAGEMENT OF **ENDOMETRIAL CELLS**
ON PREMENOPAUSAL WOMAN
- MANAGEMENT OF **ENDOMETRIAL CELLS**
ON POSTMENOPAUSAL WOMAN

ASC-H pap

3/2010 & 8/2010



Post colpo Path report---ASC-H PAP

Clinical Information

- A. PREOP: Ascus favors HGSIL
POSTOP: Not stated
PROCEDURE: Not stated
NOTE: Received with Thin Prep CG2010-16399

Source

- A. Cervix-biopsy, twelve o'clock; B. Cervix-biopsy, endo

Gross

- A. Submitted in formalin labeled "cervical biopsy 12 o'clock" is a pink white fragment of tissue measuring 0.5 cm. in greatest dimension. Totally submitted in "A1".
- B. Submitted in formalin labeled "endocervical tissue" are fragments of tan and red brown tissue with admixed mucoid material aggregating to 0.5 cm. in greatest dimension. The majority of the specimen is mucoid. Totally submitted in "B1". DP/lmw

Diagnosis

A. CERVICAL BIOPSY AT 12 O'CLOCK POSITION

- HIGH GRADE SQUAMOUS CELL DYSPLASIA (GRADE III).
- NO DIAGNOSTIC INVASIVE CARCINOMA IS IDENTIFIED.
- FURTHER EVALUATION IS NECESSARY.

B. ENDOCERVICAL CURETTINGS

- FRAGMENTS OF HIGH GRADE SQUAMOUS CELL DYSPLASIA INVOLVING GLANDS (CIN III).
- FOCAL KOILOCYTIC ATYPIA IS NOTED.
- DYSPLASTIC FRAGMENTS ARE FRAGMENTED AND THEREFORE ASSESSMENT OF THE INVASION CANNOT BE MADE.

(lw)

CHALLENGES TO IMPLEMENTING GUIDELINES

- POOR ADHERENCE TO DATE (2011)
- 50% Providers still screen 18 y/o virgins
- 80% screening 18y/o with recent onset of sexual activity

Obstacles to Adherence to Guidelines

- Industry pressure (pushing HPV testing)
- Patient Pressure
- Government legislating social mores
- Perceived as rationing/limiting spending as primary goal

Health Care Providers Obstacles

- Lack of awareness of guidelines
- Rejecting evidence
- Care by anecdote (I had a patient who....)
- Loss of pretext for health screening
- Concerns with extended interval—loss of Dr./patient relationship
- Time constraints ('takes too much time to explain why test not being done')

continued

Health Care Providers Obstacles

continued

- Guidelines don't apply to the provider's population ('..not my patients')
- Underestimation of harm by screening too early
- Low esteem for 'guidelines' (cookbook medicine)
- Medical legal if ca missed

Health Care Providers Obstacles

continued

- Marketing: consumers will go elsewhere
- Economic benefits/threats: (loss of income with decreased # procedures)

CARROTS & STICKS

- **CARROTS** (to improve compliance)
 - Provider report cards
 - Positive peer pressure educators
 - Financial rewards for compliance (pay for performance)

CARROTS & STICKS

■ STICKS:

- Poor report cards
- Peer pressure
- Financial penalties
- Sanctions

BARRIERS TO ADOPTING GUIDELINES

- BIG THREE
 - ECONOMICS
 - TRADITION
 - FEAR OF CHANGE

CHANGES REQUIRE

- Multi-level Interventions/education
- Incentives
- Penalties
- Consumer education

Clinicians need to be engaged through

- Interaactive Education
- Clinical reimbursements
- Physician champions
- Outcomes monitoring

MAJOR RECOMMENDATIONS

- Best evidence
- Grades of evidence and levels of recommendation are defined

The following **recommendations** are based on good and consistent scientific evidence (**Level A**):

- Cervical cancer screening should begin at **age 21** years. Screening before age 21 should be avoided because it may lead to unnecessary and harmful evaluation and treatment in women at very low risk of cancer.
- Cervical cytology screening is recommended every 2 years for women between the ages of **21 years and 29 years**.
- Women aged **30 years and older** who have had three consecutive negative cervical cytology screening test results and who have no history of cervical intraepithelial neoplasia (CIN) 2 or CIN 3, are not HIV infected, are not immunocompromised, and were not exposed to diethylstilbestrol in utero may extend the interval between cervical cytology examinations to every 3 years.

The following **recommendations** are based on good and consistent scientific evidence (**Level A**):

- Both liquid-based and conventional **methods of cervical cytology** are acceptable for screening.
- In women who have had a **total hysterectomy** for benign indications and have no prior history of high grade CIN, routine cytology testing should be discontinued.
- **Co-testing** using the combination of cytology plus human papillomavirus (HPV) deoxyribonucleic acid (DNA) testing is an appropriate screening test for women older than 30 years. Any low-risk woman aged 30 years or older who receives negative test results on both cervical cytology screening and HPV DNA testing should be rescreened no sooner than 3 years subsequently.

The following **recommendations** are based on limited and inconsistent scientific evidence (**Level B**):

- Sexually active adolescents (i.e., females **younger than age 21** years) should be counseled and tested for sexually transmitted infections, and should be counseled regarding safe sex and contraception. These measures may be carried out without cervical cytology and, in the asymptomatic patient without introduction of a speculum.
- Because cervical cancer develops slowly and risk factors decrease with age, it is reasonable to **discontinue** cervical cancer screening between **65 years and 70 years** of age in women who have three or more negative cytology test results in a row and no abnormal test results in the past 10 years.

The following **recommendations** are based on limited and inconsistent scientific evidence (**Level B**):

- Women treated in the **past for CIN 2, CIN 3, or cancer** remain at risk for persistent or recurrent disease for at least 20 years after treatment and after initial post-treatment surveillance, and should continue to have annual screening for at least 20 years.
- Women who have had a **hysterectomy** with removal of the cervix and have a **history of CIN 2 or CIN 3—or** in whom a negative history cannot be documented—should continue to be screened even after their period of posttreatment surveillance. Whereas the screening interval may then be extended, there are no good data to support or refute discontinuing screening in this population.

The following **recommendations** are based primarily on consensus and expert opinion (**Level C**):

- Regardless of the frequency of cervical cytology screening, physicians also should inform their patients that annual gynecologic examinations may still be appropriate even if cervical cytology is not performed at each visit.
- Women who have been **immunized** against HPV-16 and HPV-18 should be screened by the same regimen as nonimmunized women.

Strength of the Evidence

- **I:** Evidence obtained from at least one properly designed randomized controlled trial.
- **II-1:** Evidence obtained from well-designed controlled trials without randomization.
- **II-2:** Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group.
- **II-3:** Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence.
- **III:** Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.

Levels of Recommendations*

- **Level A** - Recommendations are based on good and consistent scientific evidence.
- **Level B** - Recommendations are based on limited or inconsistent scientific evidence.
- **Level C** - Recommendations are based primarily on consensus and expert opinion.

*Based on the highest level of evidence found in the data, **recommendations** are provided and graded according to the above categories:

WWW.ASCCP.ORG

- 2006 Consensus Guidelines for the Management of Women with Abnormal Cervical Cancer Screening Tests
- 2006 Consensus Guidelines for the Management of Women with Cervical Intraepithelial Neoplasia or Adenocarcinoma in situ
- 2006 Guidelines FAQs
- 2009 Algorithm: Use of HPV Genotyping to Manage HPV HR Positive/Cytology Negative Women 30 Years and Older
- Managing Women with Negative Paps Lacking Endocervical Cells or Other Quality Indicators and Managing Women with an Unsatisfactory Pap Test
- Bethesda, 2001

WWW.ACOG.ORG

- Cervical Cytology Screening
 - ACOG PRACTICE BULLETIN, #109, DECEMBER 2009

- First *Cervical Cancer Screening* Delayed Until Age 21 Less Frequent ...
- Nov 20, 2009 ... **ACOG** previously recommended that cervical **screening** begin three years after ...
- It is reasonable to stop ***cervical cancer screening*** at age 65 or 70 ... follow the same ***screening guidelines*** as unvaccinated women. Practice Bulletin #109, "Cervical Cytology **Screening**," is published in the December **2009** ...

www.acog.org/from_home/publications/press_releases/nr11-20-09.cfm

USPSTF

- **Screening for Cervical Cancer**
 - **Recommendations and Rationale**

<http://www.uspreventiveservicestaskforce.org/3rduspstf/cervcan/cervcanrr.htm>

REFERENCES

AMERICAN CANCER SOCIETY

American Cancer Society Guideline for the Early Detection of Cervical Neoplasia and Cancer

<http://caonline.amcancersoc.org/cgi/reprint/52/6/342>
(2002)

Thank You

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Case Scenario

- 19 year old pregnant female is referred because of a abnormal Pap demonstrating ASCUS. High Risk HPV testing is Positive.
- Management?
- ASCCP GUIDELINES?

CASE SCENARIO

- 19 YEAR OLD IS REFERRED TO YOU FOR COLPOSCOPY FOR LSIL:
- MANAGEMENT?

CASE SCENARIO

- 24 YEAR OLD IS REFERRED FOR A NORMAL PAP, WITH POSITIVE HIGH RISK HPV TESTING:
- MANAGEMENT?

CASE SCENARIO

- 51 YEAR OLD POSTMENOPAUSAL FEMALE (MENOPAUSE AT AGE 49) PRESENTS WITH A PAP DEMONSTRATING LSIL.
- MANAGEMENT?

CASE SCENARIO

- 44 YEAR OLD FEMALE WITH PAP DEMONSTRATING AGUS.
- MANAGEMENT?

CASE SCENARIO

- 33 YEAR OLD PRESENTS WITH PAP SMEAR NEGATIVE; HIGH RISK HPV POSITIVE. PRIOR PAPS NORMAL.
- MANAGEMENT OPTIONS?

CASE SCENARIO

- 23 YEAR OLD PRESENTS WITH LSIL PAP SMEAR.
- WHAT IS NEXT STEP?
 - ? HPV TESTING
 - LOW RISK OR HIGH RISK OR BOTH?
 - COLPOSCOPY
 - REPEAT PAP IN 6 MONTHS ?