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**AIDS EDUCATION &
TRAINING CENTERS**

**Cervical Cancer Screening in
HIV-Infected Women:
Pap Smears and Pelvic Examination**

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Learning Objectives

1. Identify guidelines for cervical cancer screening in HIV-infected women
2. Recognize Bethesda system for reporting Pap smear results
3. Describe techniques utilized in Pap smear sampling
4. Discuss elements involved in pelvic examination
5. Analyze the algorithm for follow-up and referral of abnormal Pap smears in HIV-infected women

Guidelines for Cervical Cancer Screening in HIV-Infected Women

- Screen twice a year when first diagnosed with HIV or when first present for care
 - If abnormal, follow-up will depend on the abnormality
 - If normal, screen yearly if:
 - No change in sexual partner, use of safe sexual practices, no history of sexual abuse, and no symptoms

Pelvic Exam/Pap

Normal

Repeat in
6 Months

Normal

**New Sexual
Partner**

Repeat Yearly

Abnormal

**Abnormal Pap
Algorithm***

*Abnormal Pap
Algorithm: Slide 20, 21

The Bethesda System

Negative	Organisms	eg, Trichomonas, candida, shift in flora (BV), Actinomyces, cellular changes compatible with HSV	
	Other non-neoplastic findings	Reactive cellular changes	eg, inflammation, radiation, IUD
		Glandular cells s/p hysterectomy	
		Atrophy	
Other	eg, endometrial cells in a woman >40 years of age		
Epithelial cell Abnormality	Squamous Cell	Atypical	ASC-US
			ASC-H
		Low Grade Squamous Intra-epithelial Lesion	
		High Grade Squamous Intra-epithelial Lesion	
	Squamous Cell Carcinoma		
	Glandular Cell	Atypical	Endocervical, endometrial or glandular
		Atypical	Endocervical/ Glandular: Favor neoplasm
Endocervical Carcinoma in-situ			
Adenocarcinoma		Endocervical, endometrial, extrauterine, non-specific (NOS)	

Other Malignant Neoplasms

Pelvic Exam

- Inspection provides information on conditions that may warrant further investigation
 - ✓ Dermatological
 - ✓ Vulvar
 - ✓ Anal
 - ✓ Urological
 - ✓ Vaginal
- Bimanual examination may reveal gynecological conditions otherwise missed
- Opportunity to screen for sexually transmitted diseases (STDs)

Patient Factors Affecting Pelvic Exam

- Age: changes in cervical anatomy
- Race: visibility of lesions
- History of abuse: patient anxiety and willingness to undergo the procedure
- Cultural factors: patient-provider comfort level
- Fear factor: afraid of intrusiveness or results

Components of Clinical Setting

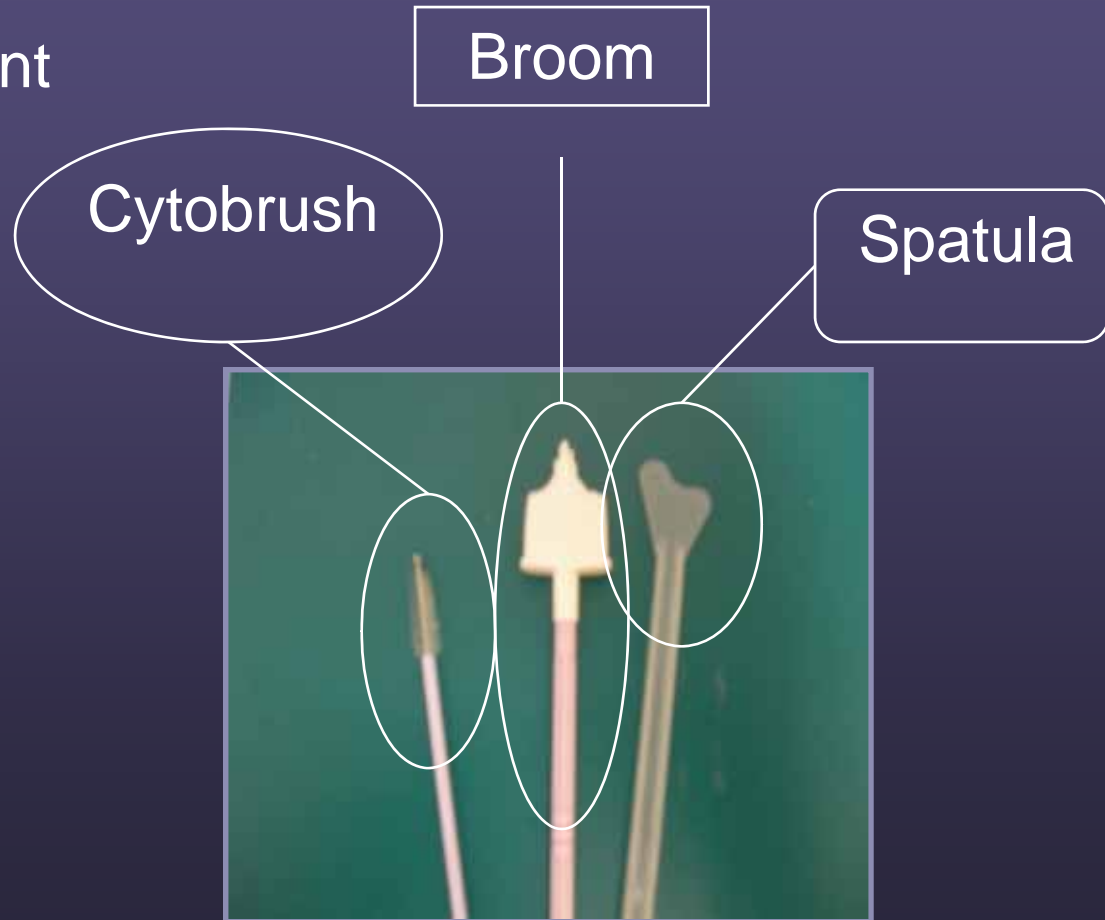
- Privacy
- Appropriate staffing
- Proper set up
 - Table with stirrups
 - Mayo table or small table to hold the instruments
 - Goose neck lamp
 - Light source for disposable speculums
 - Gowns and drapes



Credit: Laura Armas, MD

Examination Materials

- Protective Equipment
- Traditional Pap
 - Spatula
 - Cytobrush
 - Slides
 - Fixative spray
- Liquid-Based Pap
 - Cervical Broom
 - Cytobrush
 - Spatula
- Speculums
- Lubricant
- Labels



Credit: Laura Armas, MD

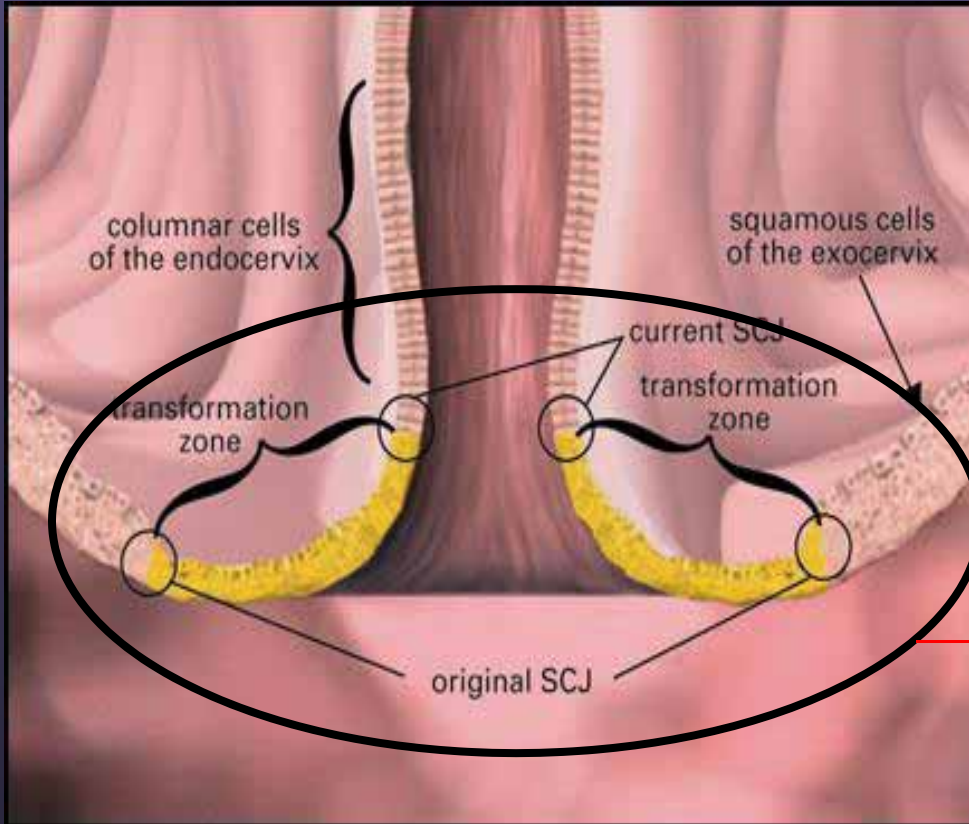
Pap Technique: General Principles

- Explain each procedure to the patient, using plain language, before beginning
- Place the patient in the lithotomy position
- Encourage relaxed deep breaths
- Assure adequate lighting

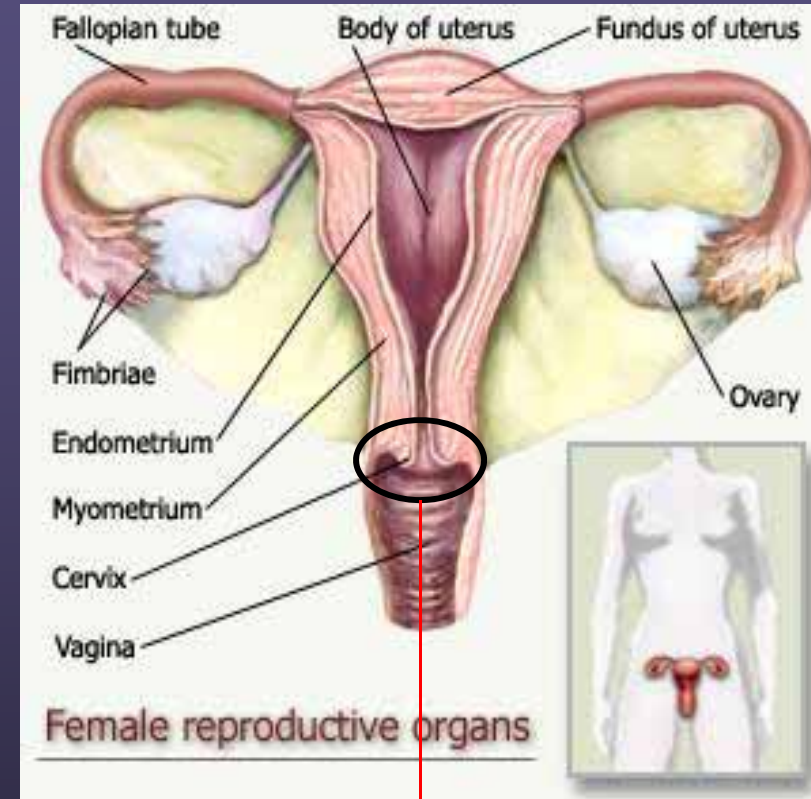
Pap Technique: Procedures

- Prepare patient for exam
- Gently insert the speculum
- Visualize the cervix
- Collect all samples
- Remove the speculum

Transformation Zone



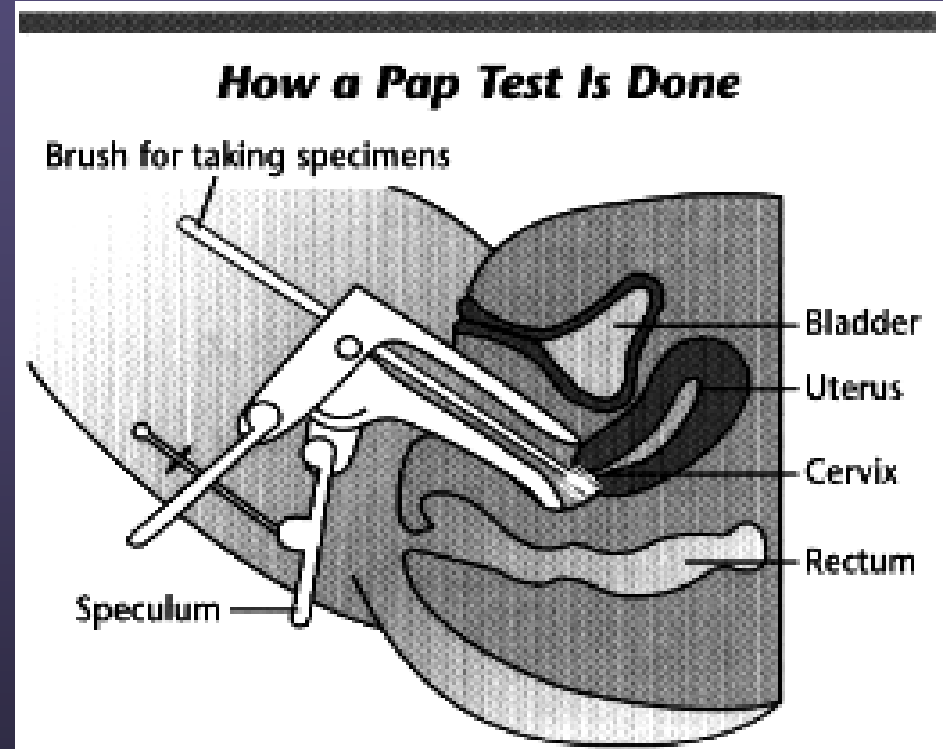
Credit: Merck & Co., Inc.



Credit: Choice to Live With, Inc.

Traditional Pap

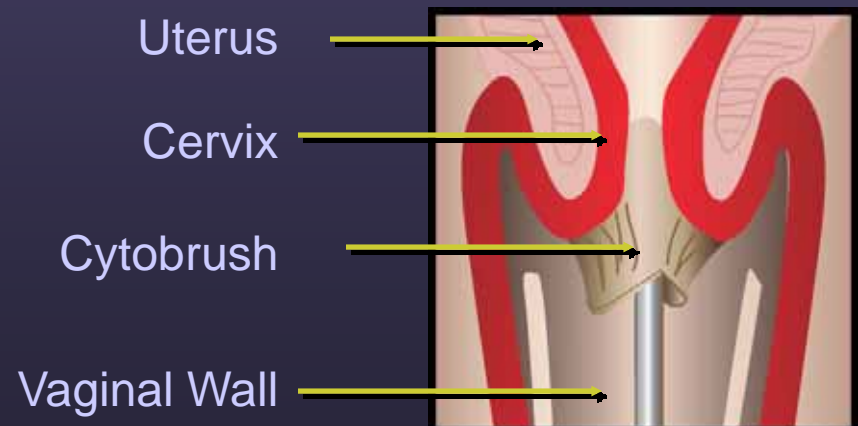
- Sample 360° with spatula anchored at os
- Smear thinly on labeled slide
- Insert endocervical brush, turn to brush all endocervical walls
- Smear (rotate) brush lightly on the same slide
- Spray fixative agent
- Place slide in container



Credit: Center for Young Women's Health,
Children's Hospital Boston

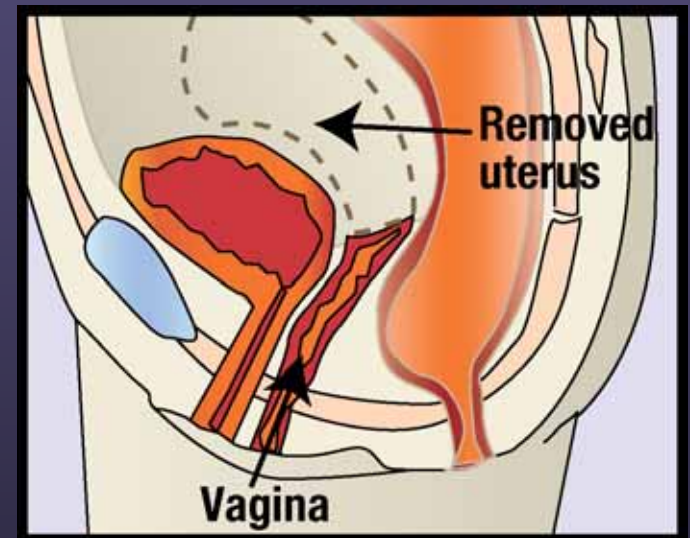
Liquid-Based Pap

- Insert broom, do 6-10 360° sampling turns
- Deposit the sample in the preservative solution:
 - ThinPrep: agitate the broom in the container and remove
 - SurePath: place the broom head into the container and leave



Vaginal Cuff Pap Smear

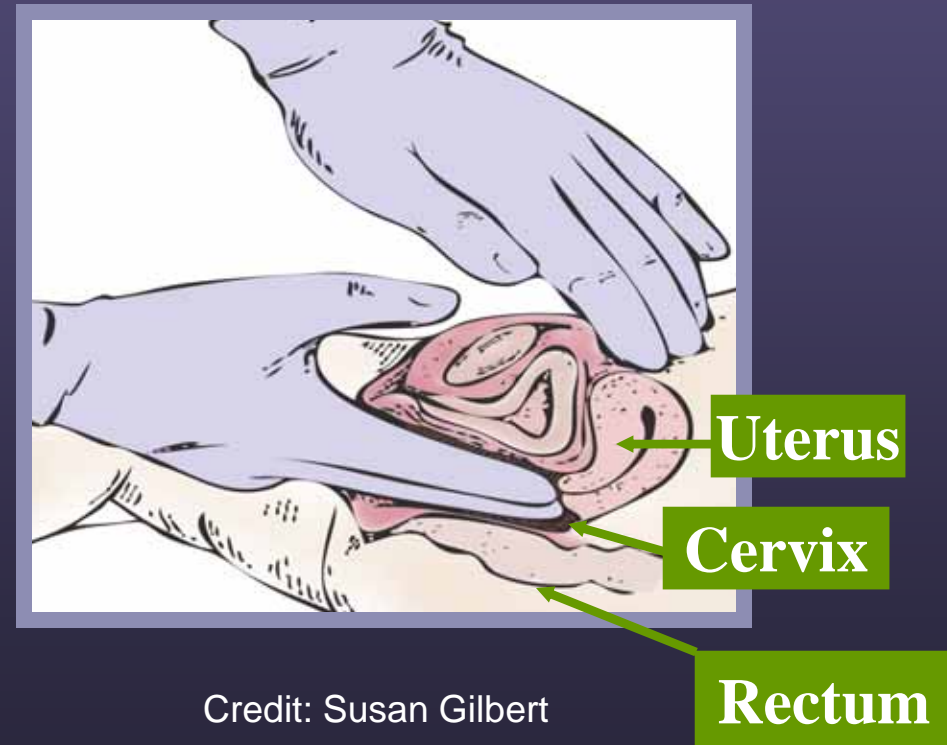
- Status post-hysterectomy
- Sampling from vaginal vault
 - Broom
 - Spatula
 - No brush
- Collection similar



Credit: FXB Center of UMDNJ

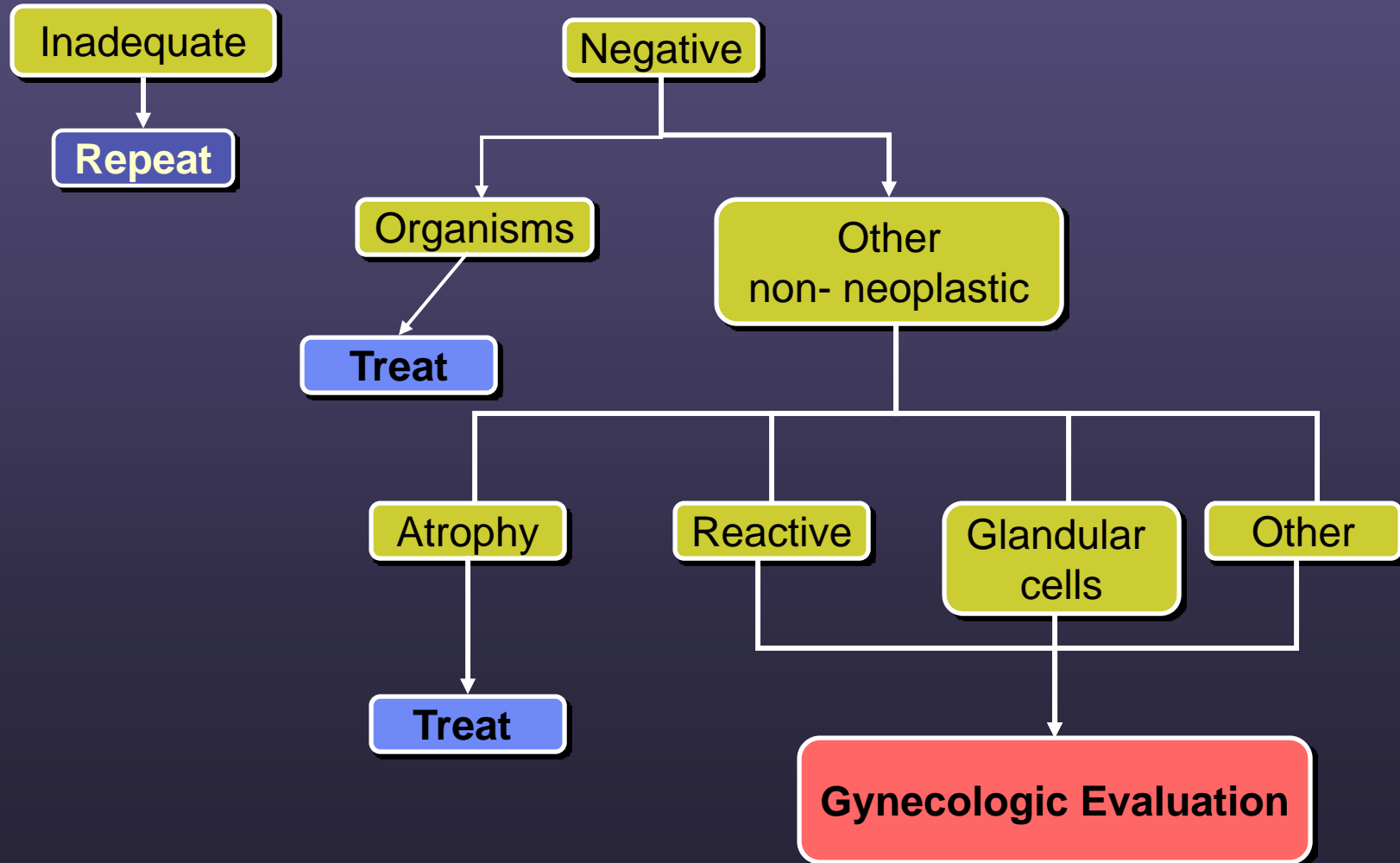
Bimanual Exam

- Lubricate middle and index finger
- Insert lubricated fingers into vagina
- Check for cervical motion tenderness
- Palpate uterus
- Palpate adnexa

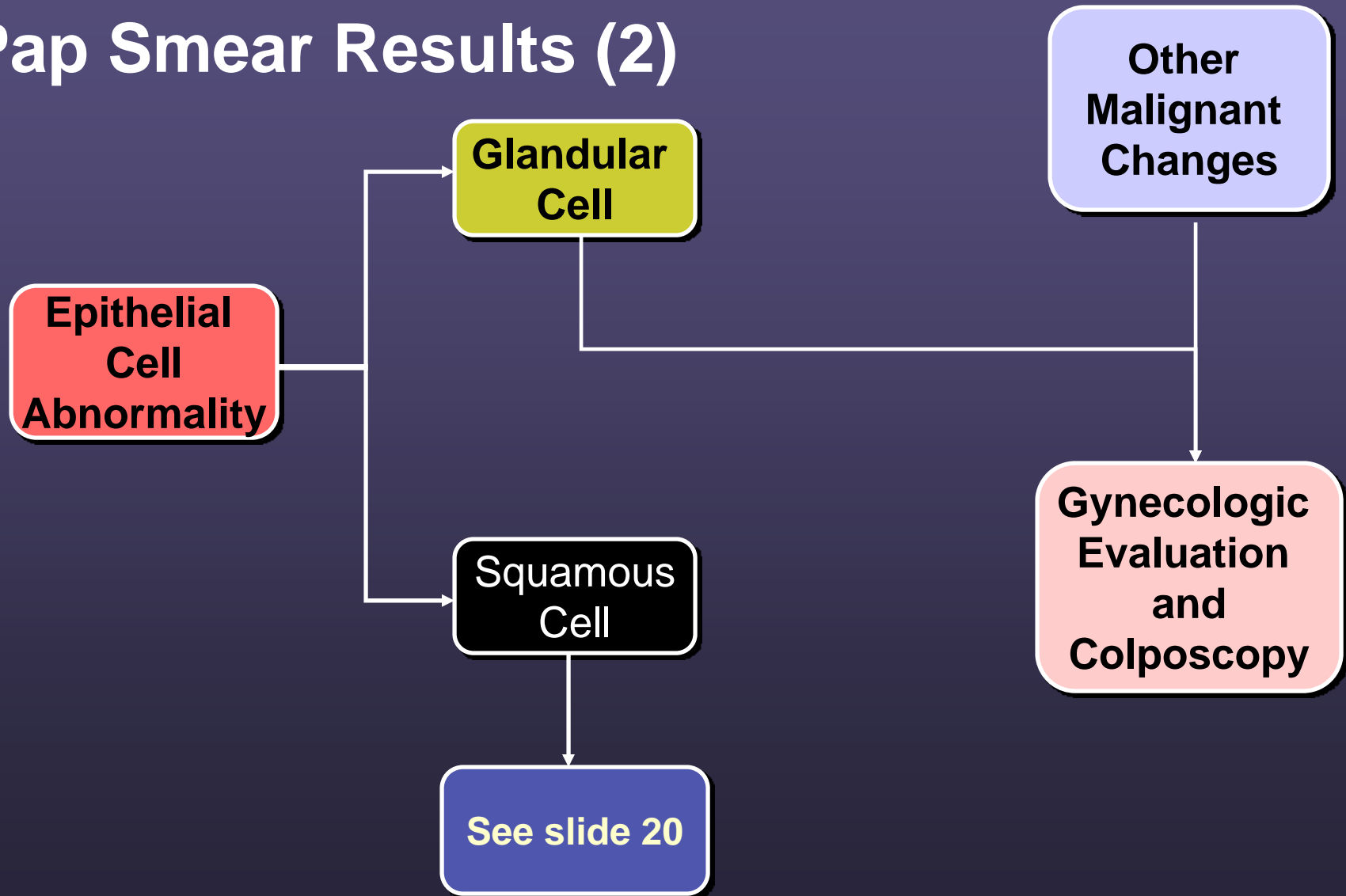


Credit: Susan Gilbert

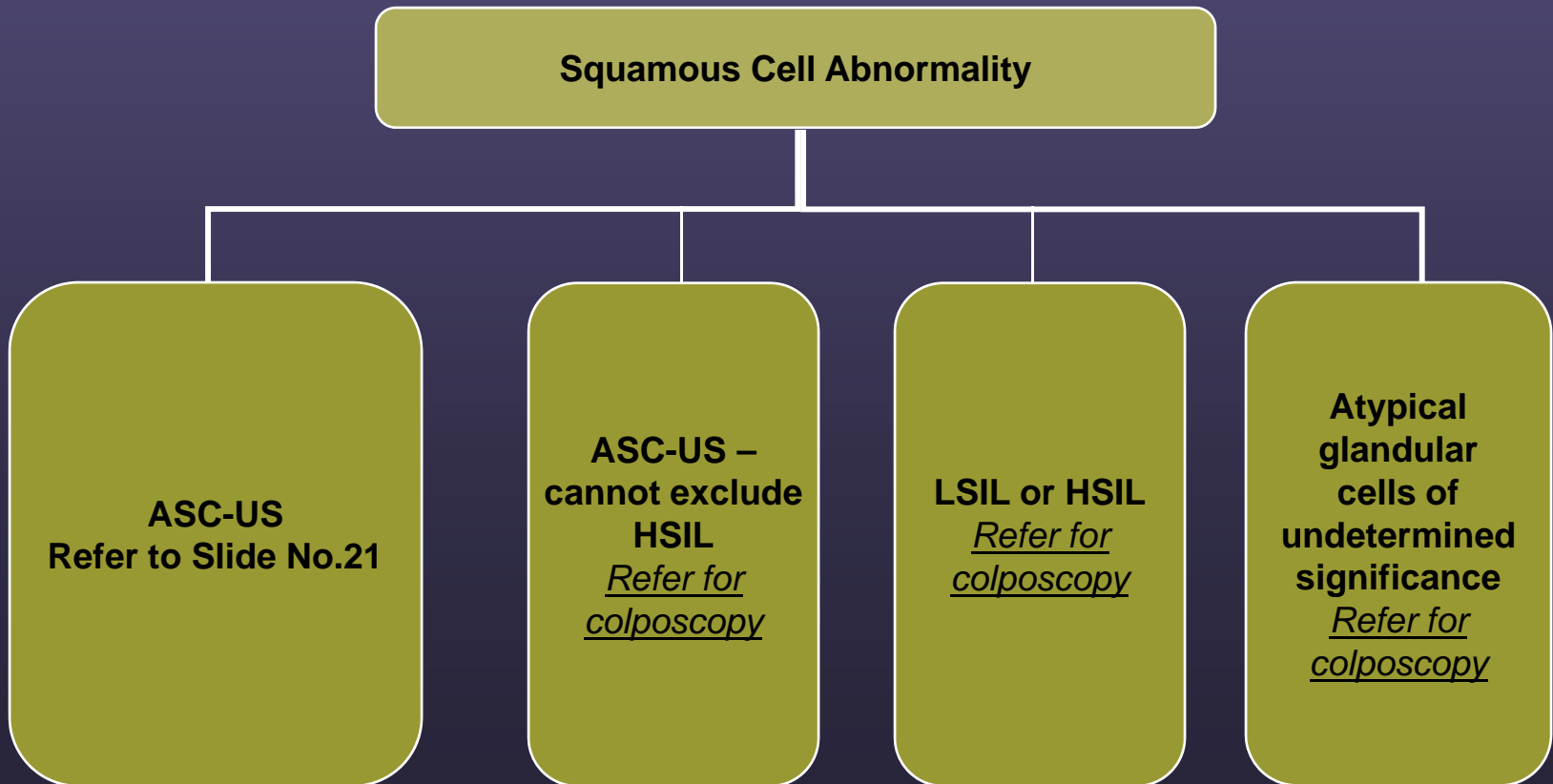
Pap Smear Results (1)



Pap Smear Results (2)



Pap Smear Results (3)



Pap Smear Results (4)

Squamous Cell Abnormality

ASC-US

- Option 1: Perform HPV DNA testing
- Option 2: Repeat cervical cytologic testing
- Option 3: Refer for colposcopy

Pearls of Wisdom

- Patient comfort
 - Void before exam
 - Relaxing the pelvic floor
- Metal vs. plastic speculums
- Endocervical brush
- Use of spatula
- Recto-vaginal exam
- Patient referral
- Note taking

Other tests during GYN visit

- Fecal occult blood test (FOBT)
- Urine analysis
- STD Screening:
 - Syphilis
 - Gonorrhea/Chlamydia
 - Wet prep: Differentiate between trichomoniasis, bacterial vaginosis or candida vaginitis
 - Herpes Simplex Viral culture
- Anal pap test
 - Routine testing is under review

Providing Culturally Competent Care

The following factors can influence a woman's understanding of cervical cancer and need for regular screening:

- Language and literacy level
- Cultural and social background and its impact on her understanding of health, illness, and the female anatomy
- Comfort with discussing sexual health issues
- Comfort and previous experience with pelvic exams and Pap smears
- Ability to follow-up with colposcopy

Conclusions

- Abnormal cervical cytology is more common among HIV-infected women
- In HIV-positive women, thorough inspection of the lower genital tract is essential
- There are many patient factors affecting Pap exams such as age, race, history of sexual abuse, cultural factors, and fear factor
- Pap techniques vary, but the ultimate goal is to get an excellent sample
- In most clinical situations, women with abnormal Pap results (ASC-US or above) will need colposcopy as soon as possible with close follow-up of results

Helpful Resources

- AETC National Resource Center (NRC), www.aidsetc.org
 - *Clinical Manual for Management of the HIV-Infected Adult*
- American Cancer Society,
http://www.cancer.org/docroot/CRI/CRI_2_3x.asp?dt=8
- American Society for Colposcopy and Cervical Pathology (ASCCP), <http://www.asccp.org/>
- AIDSMAP, <http://www.aidsmap.com>
- American Society for Colposcopy and Cervical Pathology,
<http://www.asccp.org/hpv.shtml#provider>

Helpful Resources

- Centers for Disease Control and Prevention,
http://www.cdc.gov/cancer/cervical/basic_info/screening/
 - *Screening Pap Test*
- Health Resources and Services Administration
HIV/AIDS Bureau, <http://hab.hrsa.gov/>
 - *A Guide to the Clinical Care of Women with HIV/AIDS*
- HIVInsite, <http://hivinsite.ucsf.edu/InSite?page=kb-00&doc=kb-06-04-01>
- National Cervical Cancer Coalition (NCCC),
<http://www.nccc-online.org/>
- Planned Parenthood,
<http://www.plannedparenthood.org/utah/pap-test.htm>

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