I. Pap Screening Guidelines

BACKGROUND

In 1988, while not all public and private professional organizations agreed, there were consensus guidelines that stated that all women who are or have been sexually active, or who have reached age 18, should have an annual Pap smear and pelvic examination. These recommendations also stated that after a woman had three or more consecutive, satisfactory, normal annual examinations, the Pap smear may be performed less frequently at the discretion of the woman and her clinician.[14]

Cervical Cancer Screening

- The purpose of screening, in addition to detecting cervical cancers at an early stage, is to detect and remove high-grade lesions and thus prevent potential progression to cervical carcinoma. Even if all women had yearly Paps there would still be some invasive cervical cancer, but found at an early stage.[13]
- Since 1940 when the Papanicolaou (Pap) smear was developed, cervical cancer in the USA has decreased over 75%, primarily due to Pap smear screening.
- Women with a preinvasive lesion have a five-year survival rate of nearly 100%.
- If all women were screened annually, it is estimated that there would be 1.5 cases of cervical cancer per 100, 000 women having a negative (normal) cytology result within 0-18 months and at least three prior consecutive normal results.[13]

In 2002, the American Cancer Society (ACS) published new guidelines.[13] The ACS worked closely with representatives of other key organizations to develop these new guidelines. These guidelines incorporate new screening tests and clarify the screening interval and other issues. As of November, 2002 the ACS guidelines were supported by: American College of Obstetricians and Gynecologists (ACOG), American Social Health Association (ASHA), American Society of Colposcopy and Cervical Pathology (ASCCP), Association of Reproductive Health Practitioners (ARHP), Gynecologic Cancer Foundation (GCF), National Association of Nurse Practitioners in Women's Health (NANPWH), and Society of Gynecologic Oncologists (SGO).

The U.S. Preventive Services Task Force (USPSTF) uses an evidence-based approach to develop recommendations for screening and other preventive measures. In 2003, after a year of research and deliberation, new recommendations and rationale for screening for cervical cancer and precursors were released.[15]

The Oregon screening recommendations in this document are primarily based upon the 2003 USPSTF recommendations. Where these differ from the ACS 2002 Guidelines, this is indicated. These guidelines are supplemented with evidence from the recent medical literature.

WHEN TO START SCREENING

The Pap smear is important for sexually experienced women. Pap smears are recommended to begin about 3 years after the onset of vaginal sexual activity. Evidence indicates an advantage to delaying onset of Pap smear screening for a few years, until women have been exposed to HPV, and had time for immune control (thus avoiding detecting transient borderline changes).[15] Screening should begin approximately three years after a woman begins having vaginal intercourse, but ACS suggests starting no later than 21 years of age. There is little or no value from screening women who have never had sex or been sexually molested. Women who have only had sex with women (exclusively lesbian women) are at lower, but not negligible risk of cervical cancer, and do need Pap screening.[16]

HOW OFTEN TO SCREEN

BCC POLICY:
After 3, consecutive, technically satisfactory, normal/negative cytology (Pap tests) within a 5-year period, the Pap test shall be performed every 3 years.

Women should be screened every three years. Because the sensitivity of a single Pap test may only be 60% to 80%, most experts in the U.S. recommend annual Pap smears until they have 2 or 3 consecutive normal Pap smears before lengthening the screening interval. The USPSTF found no direct evidence that annual screening achieves better outcomes than screening every 3 years. Modeling studies suggest little added benefit of more frequent screening for most women.[17] The majority of cervical cancers in the U.S. occur in women who have never been screened or who have not been screened within the past 5 years. ACS recommends Pap smears every one (convention Pap) to two (liquid-based cytology) years until age 30. After age 30, women who have had 3 consecutive, technically satisfactory normal/negative cytology results may be screened every 2 to 3 years.[13]

Women who are HIV positive, were exposed to DES *in utero*, or are immunocompromised by organ transplantation, chemotherapy or chronic systemic corticosteroid treatment should have, at least, annual screening. Other risk factors such as early onset of sexual activity, multiple sexual partners, or smoking are no longer considered acceptable rationales for more frequent screening.[13,17-30]

Exceptions to Standard Screening Guidelines

- Women who are HIV+ or are immunocompromised by organ transplation, chemotherapy, or chronic corticosteroid treatment.
- Women exposed to DES in utero
- Adolescents who have been sexually abused
- Women with a history of cervical cancer or pre cancer

Not considered acceptable rationales for more frequent screenings

- Early onset of sexual activity
- Multiple sexual partners
- Smoking

This screening frequency does not apply to women after abnormal Pap smear results. These women with abnormal cytologic results are no longer part of the pool of asymptomatic women to be screened.

WOMEN WHO HAVE HAD A TOTAL HYSTERECTOMY

Thirty three percent to 40% of women in the USA have had a hysterectomy. Women often don't know why the hysterectomy was done and almost never have records of previous Paps. However, women usually know if they had an HSIL Pap, as they assume it was "cancer." Thus, women with a negative history are very unlikely to have had HSIL.

Guidelines:
- Review any available prior Pap reports to document results were normal
- Document presence or absence of cervix
- Review any available pathology report from surgery to ascertain reasons for hysterectomy

Who **do not** need continuing Pap screening after a hysterectomy:[15]
- Complete cervix was removed, and
- Hysterectomy done for noncancerous reason (eg. fibroids).

Who **do** need continuing Pap screening after a hysterectomy:[15]
- Women who still have a cervix
- Women with a history of invasive cervical cancer

ACS and ACOG also recommend (data sparse):[13]
- Continuing screening until three documented, consecutive, satisfactory normal/ negative Paps and no abnormal Paps within a 10-year period are achieved, if;
    - Unable to document previous normal Paps, or
    - There is a history of biopsy proven CIN 2/3
- Continuing screening of women with a history of DES exposure in utero.

BCC POLICY:
BCC funds may not be used for Pap smears in woman after a hysterectomy (with complete removal of the cervix), unless the hysterectomy was for cervical neoplasia. If a cervical stump remains, Pap smears should be continued on a regular (every 3 years) basis.

Review the history of women who had a hysterectomy:
- History of prior abnormal Pap smears
- Date of hysterectomy
- Reason for hysterectomy
- Type of hysterectomy
    - Abdominal - is there a cervical stump? If unsure, do a speculum examination, and/or pelvic exam.
    - Vaginal - cervix is always removed

WOMEN WHO SHOULD STOP BEING SCREENED

The optimal age to discontinue screening is not clear, but risk of cervical cancer and yield of screening decline steadily through middle age. Stop Pap smears in **well screened** women with normal results after age 65 (ACS says age 70), unless they had prior cervical cancer.[15] *Well screened* means more than five Pap smears in the past, including one or more after age 60 years. If the woman had treatment for HSIL in the past, she should have at least 3 documented, consecutive negative Pap smears within the last 3 years before stopping screening. Below is a chart that compares the USPSTF recommendations with ACS for Pap screening.

Due to maturation of the transformation zone, postmenopausal women have a very low risk of developing new lesions. There is general consensus that the incidence of cervical cancer in older women is almost entirely confined to the unscreened and underscreened. Evidence suggests there is very low risk of cervical cancer for women aged 50 and older in countries with organized screening programs (well screened populations).[6,31-43] Since few studies provide data on women over 65, the ACS choice of age 70 is based on the opinion of an expert panel, mathematical modeling and demographic trends.

Summary of 2003 USPTF Recommendations:[15]

- Cervical cancer screening should begin 3 years after onset of sexual activity or age 21 (whichever comes first).
- Repeat Pap screening every 3 years.
- Recommends against routinely screening women older than age 65 if they have had adequate recent screening with normal Pap smears and are not otherwise at high risk for cervical cancer.
- Recommends against routine Pap screening for women who have had a hysterectomy (including removal of the cervix) for benign disease (eg, no evidence/history of cervical neoplasia or cancer).
- Evidence is insufficient to recommend for or against the routine use of new technologies to screen for cervical cancer (e.g. liquid-based cytology) in the place of conventional Pap tests.
- Evidence is insufficient to recommend for or against the routine use of HPV testing as a primary screening test for cervical cancer.

Summary of ACS 2002 Screening Guidelines:[13]

- Cervical cancer screening should begin approximately three years after a woman begins having vaginal intercourse, but no later than 21 years of age.
- Repeat every year with regular ("conventional") Pap tests or every two years using liquid-based tests until age 30.
- Beginning at age 30, women who have had three normal tests results in a row may be screened every two to three years (see exception).
- Women 70 years of age (with an intact cervix) who have had at least three documented, consecutive, technically satisfactory normal/negative cervical cytology tests, and no abnormal Pap tests in the last 10 years may decide, to stop cervical cancer screening.
- Women who have had a hysterectomy (including removal of the cervix) do not need to undergo cervical cancer screening, unless the surgery was done as a treatment for cervical precancer or cancer (see p.9 for exception for biopsy-proven CIN 2/3).

WOMEN WHO ARE NOT WELL SCREENED:

Most screening in USA is opportunistic, often related to contraception, pregnancy, hormone replacement therapy, or gynecological problems. Approximately half of the cervical cancers diagnosed in the USA are in women who have **never** been screened and an additional 10% of cancers occur in women who have not been screened within the past five years. Various studies have identified some characteristics of hard to reach women.[44-52] Women who commonly lack Pap smear screening:

- are low income
- lack insurance coverage or a regular health care provider
- are less educated
- are new immigrants
- are members of racial or ethnic minorities
- are socially or culturally isolated, including homeless women
- live in rural areas
- are women who have sex with women (lesbian)
- are physically or mentally disabled
- are older (over age 40, postmenopausal, etc.)

Interventions that Increase Screening

Clinicians and clinics should try to provide screening according to the frequencies described in these guidelines. The effectiveness of the various approaches to promote cancer screening is largely unknown. Interventions that increase screenings have been evaluated.[53] See Appendix G for effective strategies.

> **BCC POLICY:** BCC Programs will ensure that at least 20% of the women being screened for cervical cancer will not have had a Pap Smear in the last 5 years. These women are defined by the BCC Program as "rarely or never screened."