Health Benchmarks®
Clinical Quality Indicator Specification

Measure Title	CERVICAL CANCER SCREENING FOR WOMEN 18 – 64 YEARS OF AGE
Disease State	Cervical Cancer **Indicator Classification**[1] Screening
Strength of Recommendation[2]	A
Physician Specialties	Family Practice, Gerontology, Internal Medicine, Obstetrics/Gynecology

Clinical Rationale

Disease Burden

- There are approximately 13,000 new cases of cervical cancer diagnosed and 4,100 deaths attributable to cervical cancer annually.[1]
- All sexually active women are at risk of cervical cancer, however, the disease is more prevalent in women who have had multiple sexual partners, women who became sexually active at an early age, and women who smoke.[2-5]

Reason for Indicated Intervention or Treatment

- The United States Preventive Services Task Force (USPSTF) found that screening with cervical cytology (Pap smears) reduces mortality from cervical cancer.[6]

Evidence supporting Intervention or Treatment

- Epidemiological studies from the United States, Europe, and Canada have detected a dramatic reduction in invasive cervical cancer disease and a 20-60% reduction in cervical cancer mortality after the implementation of universal screening for cervical cancer with the Pap smears.[7-14]
- Case control studies have also shown that screening is protective by demonstrating a strong negative association between screening and invasive disease.[15-19]
- No randomized, controlled trials of screening with Pap smears have been conducted.

Clinical Recommendation

- The USPSTF “strongly recommends” cervical cancer screening in all women who are sexually active and who have a cervix.[6]
- The USPSTF recommends against routine screening of women aged 65 and older if they have had “adequate recent screening” and are not at high risk of the disease.[6]
- The USPSTF concluded that the evidence is insufficient to recommend for or against the routine use of technologies other than the conventional Pap smear.[6]
- The American Cancer Society recommends that women be screened for cervical cancer beginning 3 years after the onset of sexual activity but not later than age 21. Screening should be performed either annually with Pap smears or every 2 years if liquid based cytology is used, until age 30. Based on past screening results and risk factors, the screening interval may be extended to 2-3 years.[1]
- Other organizations which recommend screening starting at age 18 or with the onset of sexual activity include: American Academy of Family Physicians (AAFP), American College of Obstetricians and

	Gynecologists (ACOG), American College of Preventive Medicine (ACPM), American Medical Association (AMA), the Canadian Task Force on Preventive Health Care (CTFPHC), and the American Academy of Pediatrics (AAP), among others.[20-24]
Source	Health Plan Employer Data and Information Set (HEDIS®) 2006 Technical Specification
Denominator	Continuously enrolled women ages 21 – 64 years by the end of measurement year.
Denominator Exclusion	Women with a hysterectomy with no residual cervix at any time prior to the end of the measurement year.
Numerator	Members who had at least one cervical cancer screening test during the measurement year or within the two years prior to the measurement year.
Interpretation of Score	High score implies better performance.
Physician Attribution	Score all physicians (in the selected specialties) who saw the member during the reporting year.
External Files Required for Analysis	None

References

1. Smith, R.A., V. Cokkinides, and H.J. Eyre, *American Cancer Society guidelines for the early detection of cancer, 2004.* CA Cancer J Clin, 2004. **54**(1): p. 41-52.
2. Schottenfeld, D. and F. Jfe., *Cancer Epidemiology and Prevention*. Second ed. 1996, New York: Oxford University Press.
3. de Vet, H.C., F. Sturmans, and P.G. Knipschild, *The role of cigarette smoking in the etiology of cervical dysplasia.* Epidemiology, 1994. **5**(6): p. 631-3.
4. Lyon, J.L., et al., *Smoking and carcinoma in situ of the uterine cervix.* Am J Public Health, 1983. **73**(5): p. 558-62.
5. Winkelstein, W., Jr., *Smoking and cervical cancer--current status: a review.* Am J Epidemiol, 1990. **131**(6): p. 945-57; discussion 958-60.
6. Berg, A.O., *Screening for Cervical Cancer: Recommendations and Rationale*. 2003, Agency for Healthcare Quality and Research.
7. Cramer, D.W., *The role of cervical cytology in the declining morbidity and mortality of cervical cancer.* Cancer, 1974. **34**(6): p. 2018-27.
8. Miller, A.B., J. Lindsay, and G.B. Hill, *Mortality from cancer of the uterus in Canada and its relationship to screening for cancer of the cervix.* Int J Cancer, 1976. **17**(5): p. 602-12.
9. Anderson, G.H., et al., *Organisation and results of the cervical cytology screening programme in British Columbia, 1955-85.* Br Med J (Clin Res Ed), 1988. **296**(6627): p. 975-8.
10. Laara, E., N.E. Day, and M. Hakama, *Trends in mortality from cervical cancer in the Nordic countries: association with organised screening programmes.* Lancet, 1987. **1**(8544): p. 1247-9.
11. Boon, M.E., et al., *Effect of regular 3-yearly screening on the incidence of cervical smears: the Leiden experience.* Cytopathology, 1990. **1**(4): p. 201-10.
12. Costa, M.J., et al., *Cervicovaginal cytology in an indigent population. Comparison of results for 1964, 1981 and 1989.* Acta Cytol, 1991. **35**(1): p. 51-

6.
13. Benedet, J.L., G.H. Anderson, and J.P. Matisic, *A comprehensive program for cervical cancer detection and management.* Am J Obstet Gynecol, 1992. **166**(4): p. 1254-9.
14. Sigurdsson, K., *Effect of organized screening on the risk of cervical cancer. Evaluation of screening activity in Iceland, 1964-1991.* Int J Cancer, 1993. **54**(4): p. 563-70.
15. La Vecchia, C., et al., *"Pap" smear and the risk of cervical neoplasia: quantitative estimates from a case-control study.* Lancet, 1984. **2**(8406): p. 779-82.
16. Clarke, E.A. and T.W. Anderson, *Does screening by "Pap" smears help prevent cervical cancer? A case-control study.* Lancet, 1979. **2**(8132): p. 1-4.
17. Aristizabal, N., et al., *The impact of vaginal cytology on cervical cancer risks in Cali, Colombia.* Int J Cancer, 1984. **34**(1): p. 5-9.
18. Berrino, F., et al., *Efficacy of screening in preventing invasive cervical cancer: a case-control study in Milan, Italy.* IARC Sci Publ, 1986(76): p. 111-23.
19. Herrero, R., et al., *Screening for cervical cancer in Latin America: a case-control study.* Int J Epidemiol, 1992. **21**(6): p. 1050-6.
20. AAFP. *American Academy of Family Physicians Summary of Policy Recommendations for Periodic Health Examinations*. 2001 [cited 2004 November 4th].
21. ACOG, *American College of Obstetricians and Gynecologists Guidelines for Women's Health Care*. Second ed. 2002, Washington DC: ACOG.
22. Hawkes, A.P., et al., *Cervical cancer screening: American College of Preventive Medicine practice policy statement.* Am J Prev Med, 1996. **12**(5): p. 342-4.
23. AMA. *American Medical Association Cancer Screening Guidelines.* [cited 2004 November 4th]; Available from: www.ama-assn.org
24. AAP, *American Academy on Pediatrics Guidelines for Health Supervision III.* 1997, Elk Grove Village, IL: America Academy of Pediatrics.
25. Swan, J., et al., *Progress in cancer screening practices in the United States: results from the 2000 National Health Interview Survey.* Cancer, 2003. **97**(6): p. 1528-40.
26. *Commercial HEDIS 2004 Means, Percentiles and Ratios*. 2004, National Committee for Quality Assurance Washington, D.C.

[1] **Indicator Classification** (Adapted from Health Plan Employer Data Information Set (HEDIS®) technical specifications)

Diagnosis	Measures applicable to patients receiving diagnostic workups for a symptom or condition that delineate appropriate laboratory or radiological testing to be performed (e.g. evaluation of thyroid nodule; pregnancy test in patients with vaginal bleeding or abdominal pain)
Effectiveness of Care	
Prevention	Measures applicable to asymptomatic individuals that are designed to prevent the onset of the targeted condition (e.g. immunizations).
Screening	Measures applicable to asymptomatic patients who have risk factors or pre-clinical disease, but in whom the condition has not become clinically apparent (e.g. pap smears; screening for elevated blood pressure).
Disease Management	Measures applicable to individuals diagnosed with a condition that are part of the treatment or management of the condition (e.g. cholesterol reduction in patients with diabetes; radiation therapy following breast conserving surgery; appropriate follow-up after acute event).
Medication Monitoring	Measures applicable to patients taking medications with narrow therapeutic windows and / or potential preventable significant side effects or adverse reactions (e.g. thyroid stimulating hormone (TSH) testing after levothyroxine dose change; hepatic enzyme monitoring for patients using antimycotic pharmacotherapy)
Medication Adherence	Measures applicable to patients taking medications for chronic conditions that are designed to assess patient adherence to medication (e.g. adherence to lipid lowering medication).
Utilization	Measures applicable to patients receiving treatment for a symptom or condition that advocate appropriate utilization of laboratory and pharmaceutical resources (e.g. conservative use of imaging for low back pain; inappropriate use of antibiotics for viral upper respiratory infection).

[2] Strength of Recommendation

Strength of Recommendation Based on a Body of Evidence

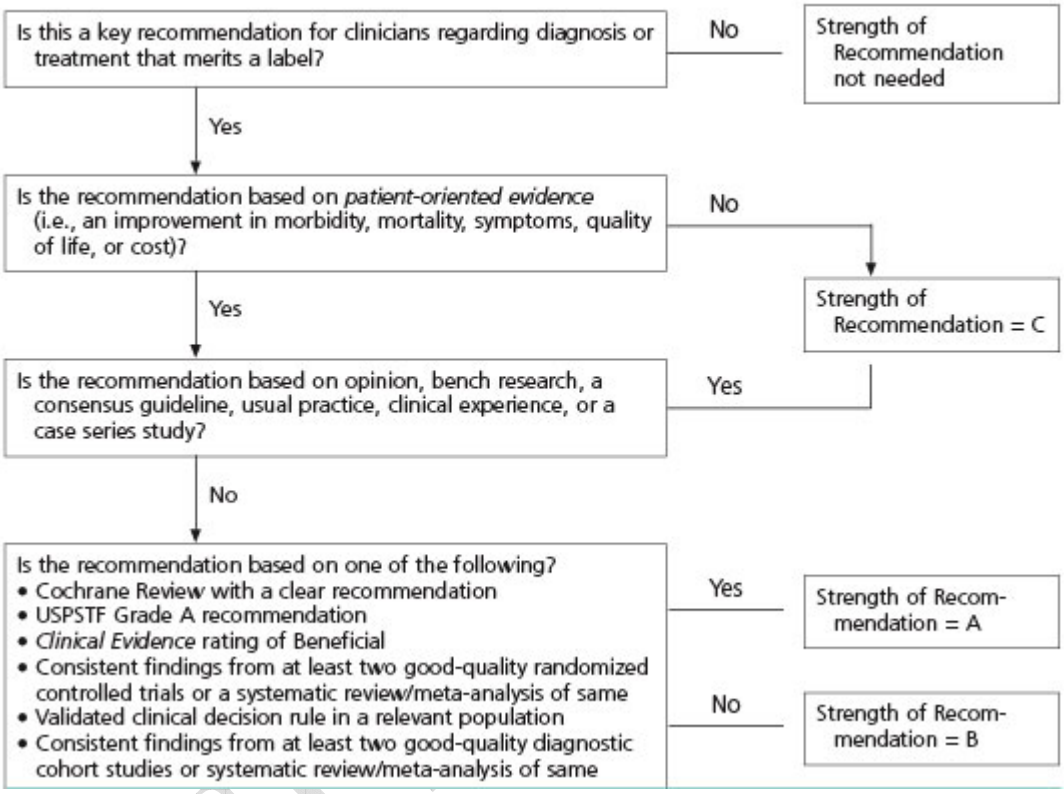

FIGURE 2. Algorithm for determining the strength of a recommendation based on a body of evidence (applies to clinical recommendations regarding diagnosis, treatment, prevention, or screening). While this algorithm provides a general guideline, authors and editors may adjust the strength of recommendation based on the benefits, harms, and costs of the intervention being recommended. (USPSTF = U.S. Preventive Services Task Force)