

Q: Is there an age at which we should stop performing screening Pap smears and mammography?

PATRICIA HARRIS, MD, MS

Department of Medicine, University of Wisconsin-Madison Medical School

MOLLY CARNES, MD, MS

Professor of Medicine, University of Wisconsin-Madison Medical School

A: Not necessarily. The decision to stop screening depends on several factors, including individual risk factors, previous screening history (especially with regard to Papanicolaou [Pap] smears), patient life expectancy, ability to undergo treatment if cancer is detected, and ability to cooperate with and tolerate the screening procedure.

In addition, screening guidelines do not apply to women with DES exposure, women with known increased risk for breast cancer (eg, with the *BRCA-1* or *BRCA-2* mutations), or women with histories of carcinoma-in-situ or cancer of the breast or cervix.

■ MAMMOGRAPHY: DIVERGENT GUIDELINES

The American Cancer Society recommends screening mammograms yearly as long as the woman is in good health, without suggesting an upper age limit.¹

The US Preventive Services Task Force recommends screening every 1 to 2 years in women over age 70 as long as they are appropriate candidates and desire the test.²

The American Geriatrics Society similarly recommends that women 75 or younger receive annual or biannual mammograms, and that women over 75 receive mammograms biannually or at least every 3 years, as long as their life expectancy is 4 or more years.³

Although there are no published data to show that screening mammograms are effective in women over age 75, decision analysis

methods suggest that mammograms (and breast cancer treatment) should decrease mortality in women as old as 85.⁴ At a minimum, a life expectancy of 5 years or more would seem to be a reasonable criterion for screening.

False-positive results are common

Another important factor to discuss with patients is the risk of false-positive mammograms, which occur frequently. False-positives can be costly and also can increase anxiety, especially if the recommendations are for a second mammogram at 6 months or if a biopsy is delayed.

In fact, about 9% of mammograms in women age 65 and older are reported as positive, and only a fraction of these (approximately 8%) are truly positive. One study found that the positive predictive value for screening mammography was only 0.08 for women age 65 to 69 and 0.14 for those age 70 and older.⁵

If a woman is unable or not willing to undergo further evaluation, then she may not want to continue with screening.

■ CERVICAL CANCER SCREENING

Screening for cervical cancer is somewhat more complex.

As with breast cancer, the rate of cervical cancer does increase with age, from an overall incidence of 7/100,000 in women under 65 to 14.9/100,000 in women 65 and older (mortality rates are 2.1/100,000 for women under 65 and 8.7/100,000 for women 65 and older).⁶ However, cervical neoplasia is a slowly evolving process with a long preclinical phase, and a history of normal Pap tests (three in a row is the current consensus) may be adequate to stop screening at some point.

Mammograms are reasonable if life expectancy is at least 5 years



The US Preventive Services Task Force recommends stopping Pap screening after age 65 in women who have had regular previous screenings⁷; the American Geriatrics Society recommends age 70.⁸

However, in the unscreened population (approximately 60% of women 65 and older have not had a Pap test in the past 3 years, and as many as 24% may have never had a Pap test⁹), an initial screening Pap test is warranted. There is little evidence to continue screening beyond age 70 *in a woman who has previously been screened and has had normal results*.

Currently, Medicare will pay for a screening Pap test every 2 years.

False-positives do occur with Pap tests, especially with yearly testing, and this possibility should be discussed with patients.¹⁰

Women who have had a hysterectomy may still have a cervix and should be assessed for the presence of a cervix before stopping screening. If the hysterectomy was performed for a nonmalignant condition, screening can be discontinued. Women who have a history of neoplasia (cervical, uterine, or vaginal) should be screened yearly—there are no recommendations for stopping.

A final indication for screening is if the patient asks for it. Patients may benefit from education regarding the prudence of continued screening and may be dissuaded from undergoing unnecessary tests, especially if they are informed of the possibility of working up a falsely positive result. However, screening recommendations are simply guidelines, and the wishes of individual patients should take precedence over generalized suggestions. ■

■ REFERENCES

1. **Leitch AM.** American Cancer Society guidelines for the early detection of cancer. *CA Cancer J Clin* 2000; 50:34–49.
2. **US Preventive Services Task Force.** Screening for breast cancer. *Guide to Clinical Preventive Services*, 2nd ed. Baltimore: Williams and Wilkins, 1996:73–87.
3. **American Geriatrics Society Clinical Practice Committee.** Breast cancer screening in older women. *J Am Geriatr Soc* 2000; 48:842–844.
4. **Mandleblatt JS, Wheat MF, Monane M, et al.** Breast cancer screening for elderly women with and without comorbid conditions—A decision model. *Ann Intern Med* 1992; 166:722–730.
5. **Welch HG, Fisher ES.** Diagnostic testing following screening mammography in the elderly. *J Natl Cancer Inst* 1998; 90:1389–1392.
6. **National Cancer Institute.** Surveillance, epidemiology and end results, cervix cancer. <http://seer.cancer.gov/FastStats/html/CERVIX.html#mort>. Accessed 1/23/02.
7. **US Preventive Services Task Force.** Screening for cervical cancer. *Guide to Clinical Preventive Services*, 2nd ed. Baltimore: Williams and Wilkins, 1996:105–117.
8. **American Geriatrics Society.** Screening for cervical carcinoma in older women. *J Am Geriatr Soc* 2001; 49:655–657.
9. **US Department of Health and Human Services.** State and sex-specific prevalence of selected characteristics—Behavioral Risk Factor Surveillance System, 1992 and 1993. *CDC Surveillance Summaries. MMWR* 1996; 45(SS-6):24.
10. **Sawaya GF, Grady D, Kerlikowske K, et al.** The positive predictive value of cervical smears in previously screened postmenopausal women: The Heart and Estrogen/progestin Replacement study (HERS). *Ann Intern Med* 2000; 133:942–950.

ADDRESS: Patricia Harris, MD, MS, University of Wisconsin Center of Excellence in Women's Health, Meriter Hospital, 6 West, 202 South Park Street, Madison, WI 53715; e-mail pf.harris@hosp.wisc.edu.

Pap smears can be stopped after age 70 if the patient was previously screened