

than mammography in women at high risk due to genetic predisposition or in women with very dense breast tissue, but specificity may be lower. An increase in overdiagnosis may accompany the higher sensitivity. The impact of MRI on breast cancer mortality with or without concomitant use of mammography has not been evaluated in a randomized controlled trial.

CERVICAL CANCER Screening with Papanicolaou (Pap) smears decreases cervical cancer mortality. The cervical cancer mortality rate has fallen substantially since the widespread use of the Pap smear. With the onset of sexual activity comes the risk of sexual transmission of HPV, the fundamental etiologic factor for cervical cancer. Screening guidelines recommend regular Pap testing for all women who have reached the age of 21 (before this age, even in individuals that have begun sexual activity, screening may cause more harm than benefit). The recommended interval for Pap screening is 3 years. In all cases, screening more frequently adds little benefit but leads to important harms, including unnecessary procedures and overtreatment of transient lesions. Beginning at age 30, guidelines also include HPV testing with or without Pap smear. The screening interval for women who test normal using this approach may be lengthened to 5 years.

An upper age limit at which screening ceases to be effective is not known, but women age 65 years with no abnormal results in the previous 10 years may choose to stop screening. Screening should be discontinued in women who have undergone a hysterectomy with cervical excision for noncancerous reasons.

Although the efficacy of the Pap smear in reducing cervical cancer mortality has never been directly confirmed in a randomized, controlled setting, a clustered randomized trial in India evaluated the impact of one-time cervical visual inspection and immediate colposcopy, biopsy, and/or cryotherapy (where indicated) versus counseling on cervical cancer deaths in women age 30–59 years. After 7 years of follow-up, the age-standardized rate of death due to cervical cancer was 39.6 per 100,000 person-years in the intervention group versus 56.7 per 100,000 person-years in controls.