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Progress Toward Consensus on Breast Cancer Screening Guidelines and Reducing Screening Harms

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In Reply

Updated American Cancer Society (ACS) breast cancer screening guidelines incorporate major changes that now align with the US Preventive Services Task Force (USPSTF) guidelines including: (1) no longer recommending screening clinical breast examination at any age; (2) biennial screening mammography for women starting in their 50s; and (3) no longer recommending regular screening mammography starting at age 40 years.¹ Importantly, both guidelines acknowledge that women's values and preferences have an important role in screening decisions where the balance of absolute benefits and harms is less certain. The USPSTF states,² "The decision to start screening mammography in women prior to age 50 years should be an individual one. Women who place a higher value on the potential benefit than the potential harms may choose to begin biennial screening between the ages of 40 and 49 years." The ACS states,¹ "Women in their forties should have the choice to begin screening at age 40 or before age 45, based on their preferences and their consideration of the tradeoffs." Thus, both guidelines acknowledge the uncertainty of starting screening at age 40 years and that consideration should be given for women's values and preferences when deciding about mammography screening.

Dr Rapelyea references an observational study³ that reported a 17% mortality reduction among women ages 40 to 44 years invited to screening, and 32% reduction among women ages 45 to 49 years, compared with women not offered mammography. The relative mortality reductions translates into a small reduction of 3 additional breast cancer deaths averted per 100 000 person-years in those invited vs not invited to screening. Not mentioned is the only randomized clinical trial that started screening at age 45 years that did not show a significant reduction in breast cancer mortality for women age 45 to 49 years.⁴

Among 1000 women ages 40 to 49 years screened biennially for 5 rounds, an estimated 1 breast cancer death is averted though 576 false-positive mammograms, 58 false-positive biopsy specimens analyzed, and that 2 overdiagnosis cases occur per death averted.⁵ Among

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1000 women ages 50 to 74 years screened biennially for 13 rounds, an estimated 7 breast cancer deaths are averted though 136 false-positive mammograms, 21 false-positive biopsy specimens analyzed, and that 2.7 overdiagnosis cases occur per death averted.⁵ Thus, contrary to Dr Rapelyea's statement that most lives are saved beginning screening at age 40 years, evidence demonstrates the number of deaths averted from biennial screening during ages 50 to 74 years is larger than in women in their 40s and the number of harms is smaller in absolute numbers and ratio of harms to benefits. Furthermore, all-cause mortality is not reduced among screened compared with nonscreened women.⁴

If deaths averted from breast cancer was the only criterion for establishing breast cancer guidelines, recommendations would start screening at age 30 or 35 years to avert the most deaths from breast cancer. However, updated ACS and USPSTF guidelines for screening are based on the balance of potential benefits and harms leading to the recommendations that women aged 50 years and older undergo biennial screening, and the decision to start screening mammography prior to age 50 years is considered an individual one because the net benefit is likely small and harms significant.^{1,2,6}

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