

# Screening mammography: A continued debate over the appropriate guidelines

Breast cancer is the second leading cause of death from cancer among American women, and approximately one out of every eight women will be diagnosed with breast cancer in her lifetime.<sup>1</sup> Because screening mammography has been successful at reducing mortality from breast cancer by 30 to 40 percent,<sup>2,3</sup> most medical organizations have recommended yearly mammography starting at age 40 since the 1990s.

However, there has been recent controversy regarding the appropriate age at which screening mammography should begin, as well as the frequency of screening. In 2009, the U.S. Preventive Services Task Force (USPSTF) recommended that screening be done every other year for women aged 50 to 74 and recommended against screening in women under age 50 or over age 74.<sup>4,5</sup> These recommendations were finalized in January 2016.<sup>6</sup> Although they did find a benefit to screening women under age 50, they called that benefit “small” in their cost-benefit analysis and felt the number of lives saved did not justify the cost.

In 2015, the American Cancer Society (ACS) updated their recommendations for breast cancer screening to the following:<sup>7</sup>

- Women with an average risk of breast cancer should undergo regular screening mammography starting at age 45 years, but women should have the opportunity to begin annual screening between the ages of 40 and 44 years.



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- Women aged 45 to 54 years should be screened annually.
  - Women 55 years and older should transition to biennial screening or have the opportunity to continue screening annually.
  - Women should continue screening mammography as long as their overall health is good and they have a life expectancy of 10 years or longer.
- The ACS concluded that even though women in their early 40s can benefit from breast cancer screening, they are more likely than older women to receive false-positive results and experience anxiety that may accompany such results.<sup>7</sup> Technology has been addressing these concerns. New imaging techniques, including 3D mammography (tomosynthesis), decrease false-positive rates and the need for additional imaging by approximately 37 percent.<sup>8</sup> Furthermore, as shown in a recent study, an informational talk by a trained radiologist about the logistics and outcomes of screening mammography can significantly decrease patient anxiety.<sup>9</sup>

Another factor in the ACS's change of guidelines was their concern about “overdiagnosis,” especially about the overdiagnosis of ductal carcinoma in situ (DCIS). Overdiagnosis is the

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finding and treating a cancer that would not have presented clinically within a patient's lifetime. Interestingly, an analysis of 5.2 million women in the United Kingdom showed that detecting and treating DCIS lowers the number of invasive breast cancers found over the ensuing three years.<sup>10</sup> For every three cases of DCIS detected and treated, one fewer case of invasive cancer was diagnosed than would have been without early intervention.<sup>10</sup> When there are fewer invasive cancers and when the invasive cancers are detected at an earlier stage, they can be treated less aggressively, at less cost, and with better survival rates than larger and more advanced cancers.<sup>11</sup> There is, of course, the possibility that some breast cancers may remain indolent without treatment. However, because it is not possible at this time to predict which cancers need treatment and which do not, we need to continue rigorous screening programs and treatment for

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all breast cancers so that treatable cancers do not become advanced-stage through lack of screening.

The American College of Radiology (ACR), Society of Breast Imaging (SBI) and American College of Obstetricians and Gynecologists continue to recommend that women with an average risk of breast cancer undergo annual screening mammography beginning at age 40. The ACR and SBI believe that the implementation of the ACS and USPSTF guidelines would result in thousands of unnecessary deaths each year, as well as more extensive and more expensive treatment protocols for cancers found by biennial screening or by palpation versus those

detected by annual mammography. Studies have shown that the benefits of beginning annual screening for an average-risk patient at age 40 outweigh the concerns of false-positive results, overdiagnosis, or anxiety. The ACR recently reported that “the largest (Hellquist et al) and longest running (Tabár et al) breast cancer screening studies in history reconfirm that regular screening cut breast cancer deaths by roughly a third in all women ages 40-and-over – including those 40-49 – and disprove the lower USPSTF estimates. According to the National Cancer Institute, since mammography screening became widespread in the mid-1980s, the U.S. breast cancer death rate, unchanged for the previous

50 years, has dropped 36 percent.”

The following facts highlight the importance of annual screening beginning at age 40:<sup>12</sup>

- The 10-year risk for developing breast cancer in a 40-year-old woman is one in 69.
- One in six breast cancers occur in women aged 40-49.
- The number of years lost to breast cancer is greatest among women in their 40s than among any other decade.
- Annual screening starting at 40 saves up to 6,500 more lives per year than biennial screening starting at age 50.

Therefore, given such benefits, the ACR guidelines for screening asymptomatic women remain as follows:<sup>13</sup>



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## Women age 40 and older with an average risk for breast cancer who are asymptomatic should undergo annual mammography

**There is no defined upper age limit at which mammography may not be beneficial and screening mammography should be considered as long as the patient is in good health and is willing to undergo additional testing, including biopsy, if an abnormality is detected**

The implications of the ACS's and USPSTF's more relaxed guidelines are twofold: insurers could choose to provide limited coverage for screening mammography, and women may stop getting mammograms altogether if they feel that major medical organizations cannot agree on a uniform set of recommendations. Recently, a bill (the Protecting Access to Lifesaving Screenings Act or PALS Act) was passed in Congress which mandates complete insurance coverage for annual screening mammography for women

age 40 and over and postpones implementation of any new breast cancer screening policies for two years. While this ensures access to mammography for two years, the differences among the guidelines persist. Because of the potential for women to withdraw from potentially life-saving screening due to the confusion over the various guidelines, it is crucial that physicians have open and informed communication with their patients regarding risk factors, options and the importance of mammography. Mammography has saved

countless lives. It is imperative that the medical community not allow secondary economic or social concerns to override the proven life-saving benefits of screening for women beginning at age 40.

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