Breast cancer is a leading cause of premature mortality among women in the United States. Early detection has been associated with reduced breast cancer morbidity and mortality. Controversy remains regarding the frequency of screening mammography. In October 2015, the American Cancer Society (ACS) published an update of their breast cancer screening for women at average risk in the *Journal of the American Medical Society*. Table 1 summarizes these new guidelines. These guidelines deviate in several ways from prior recommendations:

- Initial screening at age 45, as opposed to 40
- Annual screening to age 54 with transition to biennial screening at 55 continuing with that as long as the woman is in good health with a life expectancy of 10 or more years
- Elimination of screening clinical breast exam in asymptomatic patients of any age. There is the allowance for the opportunity for women 40-44 to begin annual screening as well as for women 55 and over to continue annual screening as qualified recommendations.

**TABLE 1 American Cancer Society Guidelines for Breast Cancer Screening 2015**

These guidelines represent guidance from the American Cancer Society (ACS) for women at average risk of breast cancer: women without a personal history of breast cancer, a suspected or continued genetic mutation known to increase risk of breast cancer (e.g., BRCA) or a history of radiotherapy to the chest at a young age.

The ACS recommends that all women should become familiar with the potential benefits, limitations and harms associated with breast cancer screening.

*continued on page 2*
TABLE 1 American Cancer Society Guidelines for Breast Cancer Screening 2015 continued

Recommendations:

- Women with average risk of breast cancer should undergo regular screening mammography starting at age 45 years. (Strong Recommendation)
  - la. Women aged 45-54 years should be screened annually. (Qualified Recommendation)
  - lb. Women 55 years and older should transition to biennial screening or have the opportunity to continue screening annually. (Qualified Recommendation)
  - lc. Women should have the opportunity to begin annual screening between the ages of 40 and 44 years. (Qualified Recommendation)

- The ACS does not recommend clinical breast examination for breast cancer screening among average-risk women at any age. (Qualified Recommendation)

A strong recommendation conveys the consensus that the benefits of adherence to intervention outweigh the undesirable effects that may result from screening. Qualified recommendations indicate there is clear evidence of the benefit of screening, but less certainty about the balance of benefits and harms, or about patients' values and preferences, which could lead to different decisions about screening.

The ACS says that the incidence of breast cancer begins to “noticeably increase around the age of 40 years” and that early breast cancer detection reduces deaths, extends life expectancy, and improves life quality. However, the burden of false positives and the over-diagnosis of cancers that would not lead to mortality, and the potential harm of additional imaging and biopsies have been the major factors in changing the ages and time interval recommendations for screening.

In response to the 2015 ACS guidelines, The American College of Radiology (ACR) and the Society of Breast Imaging (SBI) released a statement recommending continuing the new ACS guidelines – continuing yearly screening starting at age 40, as well as in women 55+ with the goal to save the most lives possible. They note that even the ACS admits that over-diagnosis claims are vastly inflated due to key methodology flaws in many studies. Published research also shows that nearly all women who experience a false-positive exam endorse regular screening and want to know their status. The ACR/SBI believe these burdens are outweighed by the 35% reduction in breast cancer mortality and lives saved by screening mammography.

It is also important to note that imbedded in the 'average risk' group in these standards are people who would be considered at intermediate, 15-20% estimated lifetime risk for invasive breast cancer or high risk, >20% lifetime risk of invasive breast cancers based on available breast cancer risk estimate models such as the Gail, Tyrer-Cuzick, Claus and BRCA Pro models. It is imperative that providers who plan to implement the new ACS guidelines look very closely at the individual woman's risk level to make sure that the minimum standards in these guidelines are appropriate for her and to discuss the woman's preference while acknowledging the potential burdens and benefits of testing.

The American Society of Breast Surgeons (ASBrS) released a consensus statement on screening mammography in October after the 2015 ACS screening recommendations were released. These recommendations delineate separate screening approaches based on estimated lifetime risk for breast cancer in asymptomatic women: average (15% or), intermediate (>15 and <20%) and high risk (20-25% or greater) asymptomatic women.
For the average risk group the ASBrS recommends:

- **Age 40-44** — Discussion between the woman and her physician to consider screening mammography based on balanced discussion of risk and benefits recognizing decreased mortality but higher false positives.

- **Age 45-54** — Annual as per the new ACS guidelines.

- **Age 55 and older** — Annual or biennial screening based on shared decision making discussion about risks and benefits of timing.

- **Biennial screening over age 75 if estimated life expectancy >10 years**

ASBrS also recommends consideration of breast tomodens, or 3D mammography, an advanced technique used in the routine screening of breast cancer in women. This advanced 3D technology used during screenings typically results in greater accuracy, increased cancer detection rates and decreased recall rates.

Neither the ACR/SBI nor ASBrS guideline statements address the exclusion of clinical breast exam (CBE) in the new ACS guidelines. This may be influenced by the types of practice of the physicians who belong to these associations. Radiologists do not typically do breast exams, particularly not in a screening situation, and breast surgeons typically initially see patients who are symptomatic. It is true that clinical breast exam in asymptomatic women is an inferior screening tool that can lead to increased false positives, especially in more inexperienced hands. However, there are still cancers that are detected on clinical breast exam that could go undetected for longer, especially if mammography is delayed to age 45 and only done biennially in some women. Perhaps the discussion of pros and cons of CBE should be part of the screening mammogram shared decision-making discussion. Adoption of the 2015 ACS guidelines into practice will likely be a very selective process for providers and the women for whom they care.

References


The last few years have seen a number of exciting and innovative advances in the field of breast cancer treatment. These improvements have been seen across the landscape of breast cancer management.

Breast Imaging Technology
New breast imaging technology such as 3D mammogram, or tomosynthesis, has been adopted at a number of institutions, including Mercy Medical Center. These new exams are conducted similarly to the traditional 2D mammogram, however there is a significant increase in data acquired allowing for higher rates of detection of new cancers as well as fewer false alarms and fewer callbacks for additional imaging.

New Surgical Techniques
Breast surgeons have newer techniques available to them as well. Traditionally women who undergo mastectomies have their nipple removed and later have the option of nipple reconstruction and/or tattoos. Nipple sparing mastectomies are now more commonly used in certain women depending on the stage and location of their cancer. This approach when applicable allows women more options when considering the cosmetic result of their surgery.

Innovative Radiation Therapies
Radiation oncologists are now offering additional methods of delivering treatment. A standard course of radiation has typically lasted for approximately six weeks. A new schedule in which higher dose fractions are delivered over a shorter period of time is appropriate for certain women and can allow the same treatment to be completed more quickly. Another option for some women is the use of intraoperative radiation or IORT offered here at Mercy. In these situations the entire radiation dose is delivered at the same time that surgery is performed. These women are carefully selected prior to their surgery to ensure that this is an appropriate treatment option.

Advances in Medical Oncology
There have been significant advances in the field of medical oncology. Premenopausal women with estrogen sensitive breast cancer who are at higher risk for recurrence may have improved survivals if they receive injections to cause menopause or undergo surgical removal of their ovaries. Women whose cancers overexpress a protein called HER-2 have been shown to have better outcomes when they receive chemotherapy prior to surgery along with two medications that block the HER-2 protein. Mercy is also involved in a number of cutting edge clinical trials involving medications to prevent cancers from becoming resistant to estrogen blockers, as well as medications that allow cancers to become more sensitive to a woman’s own immune system.

We hope to see continued progress in breast cancer treatment in the coming months and years lead to better outcomes and survival for the many women who continue to be diagnosed with this disease.
Partners For Cancer Care And Prevention (PFCCAP) is an international, non-profit health organization driven by the vision that early detection of breast and cervical cancer saves women’s lives. Founded in 2012 by Armando Sardi, M.D., Medical Director of The Institute for Cancer Care at Mercy, PFCCAP has worked to decrease the individual and community burdens of breast and cervical cancer in Cali, Colombia, by mitigating the obstacles women face during their cancer journey. The cancer stage at diagnosis is a leading determinant of survival. In Colombia, nearly 80% of women are diagnosed with advanced breast and cervical disease due to lack of awareness, cultural misconceptions and limited access to care. The social and economic impact on families and children is devastating.

In Colombia, PFCCAP has taken the initiative to organize an innovative coalition of health experts, governments, universities, businesses and community leaders to collaborate on effective, high-quality, health care policies and efficient community healthcare for women.

PFCCAP aims to pilot a breast and cervical cancer early diagnosis and treatment program that breaks down access to care barriers and can be replicated in rural community centers, Level One hospitals in Cali and other cities in Colombia and Latin-America.

Since its inception, PFCCAP has provided medical and nursing education seminars and monthly telemedicine programs to hundreds of Colombian healthcare professionals. Many of these seminars have been lead by Mercy Medical Center physicians including Armando Sardi, M.D., Maria Jacobs, M.D., Director of Radiation Oncology and Teresa Diaz-Montes, M.D., Associate Director of The Lya Segall Ovarian Cancer Institute. Through philanthropic support from individuals and foundations, life-saving medical equipment and technology have been provided to make access to early diagnosis and treatment easier for women and their families. PFCCAP has also developed, in partnership with the Susan G. Komen Foundation, a model patient navigation program that guides women through their cancer and health care experience.

Cancer Care Beyond The Walls of Mercy Medical Center
The Cancer Doctors at Mercy

The Cancer Doctors at Mercy offers:

- One-of-a-kind cancer treatment center
- A multi-disciplinary team of physician experts
- Dedication to advancing breakthrough treatments for cancer management
- Cutting-edge cancer treatment with access to the latest clinical trials
- Pioneering and complex surgical techniques
- Innovative cancer therapies to meet clinical as well as personal needs for each patient
- Survivorship wellness programs for patients

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