

Data proves that screening mammograms save lives

By Linyee Chang

Published: October 08, 2011 4:00AM PST

October is Breast Cancer Awareness month, and I would like to address this issue of screening mammography. Seven major health care agencies all recommend screening mammography.

Why? Screening mammograms save lives.

The controversy lies in the details. Which population, how frequently? (The data supports annual mammograms for women beginning at age 40.)

As a radiation oncologist on a team composed of specialists who provide coordinated, evidence-based care for women with breast cancer, I deal daily with questions regarding breast cancer. My patients are confused by contradictory media reports. They want to know: What should I do?

As physicians, we have a responsibility to produce the best outcomes. We do this by providing guidance for our patients based on the best available data.

Within medicine, there are varying levels of data, with the highest level consisting of meta-analyses (integrated systematic reviews) of randomized controlled trials and the lowest level consisting of expert opinion and anecdotal observations. Recommendations based upon the highest levels of data are what have been proven to produce the best results. Expert opinions and observations are merely that — they are opinions which have not been validated by evidence.

Evidence-based practice applies the best available data to clinical practice with the goal of producing the best outcomes in medical care. In oncology, the National Comprehensive Cancer Network (NCCN) guidelines represent the gold standard in cancer care. (NCCN is a network of 21 academic cancer centers, which includes our most prestigious institutions such as MD Anderson Cancer Center and Memorial Sloan Kettering Cancer Center.)

The recommendations in the NCCN guidelines are categorized based upon level of evidence and are updated as soon as substantive findings are reported. Since 2004, when we formally adopted these guidelines, evidence-based care has been our standard. By adhering to evidence-based practices that produce the best outcomes, we hold ourselves accountable to the highest standards for cancer care. And those standards include those for screening mammography.

Screening mammography is recommended by the National Comprehensive Cancer Network, the American Cancer Society, the American College of Radiology, the National Cancer Institute (NCI), the American College of Physicians (ACP), the American College of Obstetricians and Gynecologists (ACOG), and the U.S. Preventive Services Task Force (USPTF).

Here's the data: Meta-analyses have demonstrated a reduction in deaths due to breast cancer with screening mammography for women in their 50s and 60s. For women between the ages of 40 and 49, there is a smaller benefit. There is insufficient data for women in their 70s.

Here's the controversy: Who should be screened and at what frequency? The U.S. Preventive Task Force recommends that women between ages 50 and 74 undergo screening mammography every two years, and recommends that women between ages 40 and 49 and women older than 74 individualize their decisions.

What are the downsides? Mammography, like all medical tests, is not perfect (as there can be false positives and false negatives) and the anxiety associated with additional imaging and biopsies is very real. There is radiation exposure with mammograms (the equivalent of five to 10 cross country airline flights). And mammograms can pick up non-invasive breast cancers, which may not require treatment.

The USPTF recommendations were made based upon an analysis of cost-effectiveness with consideration of the risks associated with screening mammography.

The USPTF had to choose between two scenarios:

- 1) Annual mammography that would prevent the maximum number of breast cancer deaths or
- 2) Biennial mammography which would cost half as much and achieve 80 percent of the benefit of annual mammography in terms of lives saved.

They chose scenario number two: biennial mammograms were recommended because it was deemed to be more cost-effective (even though it was acknowledged to not be as effective for preventing deaths from breast cancer).

The NCCN, the American Cancer Society (ACS) and the American College of Radiology (ACR) continue to recommend annual mammography from the age of 40. Cost-effectiveness has not yet factored into their recommendations.

The NCI recommends screening mammograms every one to two years after the age of 40. The ACP recommends screening mammograms every one to two years for women between ages 50 and 74 and to individualize between ages 40 and 49, and the ACOG recommends annual mammograms after age 50 and every one to two years between ages 40 and 49.

What do I tell my patients?

The highest level of data shows a significant reduction in breast cancer mortality in women screened for breast cancer.

So, I follow the evidence-based recommendations that have been issued by the NCCN, the ACS and the ACR.

After the age of 40: get an annual mammogram.

— Linyee Chang, M.D. is clinical director of the Cancer Center of Care at St. Charles.

Published Daily in Bend Oregon by Western Communications, Inc. © 2010

www.bendbulletin.com