

## First Do No Harm?

Donald Petersen Jr., BS, HCD(hc), FICC(h)

There's no questioning the frightening nature of breast cancer, which strikes one in eight women in the U.S. – eclipsed only by skin cancer in terms of prevalence. Some women with a genetic risk have even elected to have preventive double mastectomies (removal of both breasts) in an effort to eliminate the possibility of developing breast cancer.

While I certainly respect their deeply personal decisions and appreciate the potential danger / risk breast cancer poses, particularly if a high-risk situation exists, it's also important to note that a mounting number of studies suggest there is a considerable amount of *overdiagnosis* when it comes to the disease. These studies bring to light high "false-positive" rates and suggest women not at high risk may want to reconsider whether to have routine mammograms in the absence of additional indications.

For example, a [2012 study](#) in *The New England Journal of Medicine*<sup>1</sup> found breast cancer has been overdiagnosed with the advent of mammograms. Researchers note, "Our estimate of overdiagnosed cancers attributable to mammography over the past 30 years involved more than 1 million women." In the study, the authors question the current value of mammograms:

"Our study raises serious questions about the value of screening mammography. It clarifies that the benefit of mortality reduction is probably smaller, and the harm of overdiagnosis probably larger, than has been previously recognized. And although no one can say with certainty which women have cancers that are overdiagnosed, there is certainty about what happens to them: they undergo surgery, radiation therapy, hormonal therapy for 5 years or more, chemotherapy, or (usually) a combination of these treatments for abnormalities that otherwise would not have caused illness."

A [new study](#) published in *Health Affairs*<sup>2</sup> presents even more information on the issue of unnecessary and harmful care provided to women who are victims of "false-positives" within a given year:

- "The cumulative probability of a false-positive recall after ten years of screening mammography for an individual woman has been [estimated](#) to be 61 percent."<sup>3</sup>
- "Breast cancer overdiagnosis, defined as the diagnosis of lesions that are unlikely to become clinically evident during the lifetime of a patient, exposes patients to the harm of overtreatment. A recent randomized controlled [trial](#) of screening mammography in Canada reported an overdiagnosis rate of 22 percent for all screen detected invasive breast cancer."<sup>4</sup>
- "The US rate of overdiagnosis has been estimated to be 22-31 percent of all breast cancers diagnosed."<sup>1</sup>
- "False-positive mammography results are more common among women ages 40-49 than among older women."
- "A total of 77,729 women (11.1 percent) received a false-positive mammogram that led to further diagnostic workup and breast-related procedures."
- "When we used the estimated false-positive rate of 11 percent shown in our data, we found that 3.2 million women would receive a false-positive mammogram. This translates to a national cost of \$2.8 billion per year."

- "If we assume a false-positive rate of 11 percent and overdiagnosis rates of 22 percent and 86 percent for invasive breast cancer and DCIS (the most common form of non-invasive breast cancer), respectively, the national cost of false-positive mammography results and breast cancer overdiagnoses among women ages 40-59 is about \$4 billion each year."
- "Ultimately, the decision to undergo breast cancer screening must be based on a careful consideration of the trade-off between the benefits and harms of screening."

In short, we have a medical system that is raking in \$4 billion per year solely from false-positives and overdiagnosis. As a result, every year millions of women unwittingly become physically and emotionally scarred by their unnecessary actions. The two take-home messages here are simple:

*Arm Your Patients* – Provide this information to your patients so they can make better-informed choices about when to have a mammogram and how to react to positive results. It doesn't mean they should skip the procedure; it means they should talk to their doctor about its annual necessity as part of a larger discussion about risk factors.

*Honor the Oath* – The Hippocratic Oath maintains the fundamental principle that it may be better to do nothing than to do something more harmful than the illness itself (or lack thereof). The medical profession has apparently forgotten this; chiropractic must not. By putting our patients' health first, doctors of chiropractic will continue to be the providers people trust.

### References

1. Bleyer A, Welch HG. Effect of three decades of screening mammography on breast-cancer incidence. *N Engl J Med*, 2012;367:1998-2005.
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3. Hubbard RA, Kerlikowske K, Flowers CL, et al. Cumulative probability of false-positive recall or biopsy recommendation after 10 years of screening mammography: a cohort study. *Ann Intern Med*, 2011;155(8):481-92.
4. Miller AB, Wall C, Baines CJ, et al. Twenty five year follow-up for breast cancer incidence and mortality of the Canadian National Breast Screening Study: randomised screening trial. *Brit Med J*, 2014;348:g366.

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