

Breast Self-Examination: What Now?

On May 1, 2003, the American Cancer Society (ACS) published new guidelines for breast cancer screening (ACS, 2003). Although mammography guidelines were retained, the recommendations for breast self-examination (BSE) were revised significantly. The 1997 guidelines stated that, starting at age 20, women should perform BSE monthly. New guidelines state that, beginning in their 20s, women should be told about the benefits and limitations of BSE. Furthermore, a statement is included that women may choose to perform or not to perform BSE, or they may do it occasionally.

Why the change? For years, women have been told to examine their breasts monthly. Nurses have been encouraged to teach BSE to all women, and millions of dollars have been spent on promoting BSE as a method of detecting breast cancer early and saving lives. In fact, BSE was the primary method of breast cancer screening before mammography. Because they can do it themselves, many women have been the first to discover their breast cancer. Considering that we know that mortality is decreased if breast cancer is discovered early, why did ACS change BSE recommendations and what does this mean for oncology nurses?

Before it is appropriate to recommend a population-based screening test for cancer, we should have evidence that the test is accurate in finding cancer at a stage in which mortality can be decreased. A test also should minimize false positives because of the costs and stress of further testing. To assess study results, one must look at the type of research design, the strongest being a randomized prospective design in which subjects in an intervention group are compared to subjects in a control group over time. The outcome for comparison of groups in this context is the death rate resulting from breast cancer.

What do the data indicate regarding BSE as a screening test? Herein lies the problem. Studies examining the effectiveness of BSE as a screening tool began more than 20 years ago; to date, they have not been able to establish a clear mortality or morbidity benefit as a result of BSE practice. Unfortunately, because large randomized studies are very expensive, researchers often have searched for

answers using less rigorous study methods, such as case control, cohort, or descriptive designs.

When considering the most rigorous designs, three large randomized studies have been conducted on BSE (Semiglazov et al., 1996; Semiglazov, Sagaidak, Moiseenko, & Mikhailov, 1992; Thomas et al., 1997). Data currently published from these studies do not indicate a mortality advantage for women who practice BSE, but design issues raise some questions about results. A large trial in the United Kingdom (UK Trial of Early Detection of Breast Cancer Group, 1993) did not find an overall mortality advantage for BSE practitioners, although at least one district within the United Kingdom did suggest a BSE advantage.

In contrast, other researchers have presented data from nonrandomized studies indicating a mortality benefit for women practicing BSE, especially when quality of the procedure was considered. These data have come from two case-control studies (Harvey, Miller, Baines, & Corey, 1997; Locker et al., 1989) and several cohort studies (Gastrin et al., 1994; Holmberg, Ekblom, Calle, Mokdad, & Byers, 1997). Although weaknesses were noted in the study designs, practice of BSE was associated with lower mortality. Weaker designs, such as case-series studies, have mixed results: Three suggested a mortality benefit (Foster, Worden, Costanza, & Solomon, 1992; Huguley, Brown, Greenberg, & Clark, 1988; Kuroishi et al., 1992), whereas two did not (Auvinen, Elovainio, & Hakama, 1996; Costanza & Foster, 1984).

What does this mean for nurses who want to promote screening? Should we just ignore BSE or continue to advocate the procedure? Certainly, data are not convincing enough to promote BSE as a primary method of detecting breast cancer across populations, but should we completely discontinue teaching BSE or recommending it to our patients? Mammography, of course, should be strongly encouraged, but mammograms may miss up to 10% of breast lumps that potentially could be palpated. All women must be instructed to report any breast changes they notice to healthcare providers. BSE, if taught properly, may help motivated women discover a lump

that might otherwise not be detected. If a woman desires to continue BSE, this should be encouraged, but information regarding limitations should be discussed. For many women, an important benefit of BSE is that it allows them to actively participate in managing their own health. For women who are not interested in BSE, however, we might better serve them by making sure they are getting routine mammography and perhaps encouraging monthly visual inspection.

In summary, nurses need to be aware of the data regarding limitations of BSE practice but also realize that, for some women, BSE can supplement regular mammography and clinical breast examination. BSE is not an easy skill to learn. Nurses will have to make clinical judgments as to the appropriateness of recommending and teaching BSE versus simply encouraging women to report any breast changes immediately to a healthcare professional. We should encourage all women to visually inspect their breasts and report any changes to healthcare professionals. If women currently are performing BSE and want to continue, nurses should check their technique. Based on the new guidelines, we need to reexamine the need to teach all women BSE and have as our primary concern encouraging regular mammography screening.

American Cancer Society. (2003). *Cancer facts and figures 2003*. Atlanta, GA: Author.

Auvinen, A., Elovainio, L., & Hakama, M. (1996).

Breast self-examination and survival from breast cancer. *Breast Cancer Research and Treatment*, 38, 161-168.

Costanza, M.C., & Foster, R.S. (1984). Relationship between breast self-examination and death from breast cancer by age groups. *Cancer Detection and Prevention*, 7, 103-108.

Foster, R.S., Worden, J.K., Costanza, M.C., &

Victoria L. Champion, DNS, RN, FAAN, is a professor and an associate dean for research in the School of Nursing at Indiana University in Indianapolis.

Digital Object Identifier: 10.1188/03.ONF.723-724

- Solomon, L.J. (1992). Clinical breast examination and breast self-examination—Past and present effect on breast-cancer survival. *Cancer*, 69, 1992–1998.
- Gastrin, G., Miller, A.B., To, T., Aronson, K.J., Wall, C., Hakama, M., et al. (1994). Incidence and mortality from breast cancer in the Mama Program for breast screening in Finland, 1973–1986. *Cancer*, 73, 2168–2174.
- Harvey, B.J., Miller, A.B., Baines, C.J., & Corey, P.N. (1997). Effect of breast self-examination techniques on the risk of death from breast cancer. *Canadian Medical Association Journal*, 157, 1205–1212.
- Holmberg, L., Ekbom, A., Calle, E., Mokdad, A., & Byers, T. (1997). Breast cancer mortality in relation to self-reported use of breast self-examination. A cohort study of 450,000 women. *Breast Cancer Research and Treatment*, 43, 137–140.
- Huguley, C.M., Brown, R.L., Greenberg, R.S., & Clark, W.S. (1988). Breast self-examination and survival from breast cancer. *Cancer*, 62, 1389–1396.
- Kuroishi, T., Tominaga, S.O., Ota, J., Horino, T., Taguchi, T., Ishida, T., et al. (1992). The effect of breast self-examination on early detection and survival. *Japanese Journal of Cancer Research*, 83, 344–350.
- Locker, A.P., Caseldine, J., Mitchell, A.K., Blamey, R.W., Roebuck, E.J., & Elston, C.W. (1989). Results from a seven-year programme of breast self-examination in 89,010 women. *British Journal of Cancer*, 60, 401–405.
- Semiglazov, V.F., Moiseenko, V.M., Protsenko, S.A., Bavili, I.L., Orlov, A.A., Ivanova, O.A., et al. (1996). Preliminary results of the Russia (St. Petersburg)/WHO program for the evaluation of the effectiveness of breast self-examination. *Voprosy Onkologii*, 42(4), 49–55.
- Semiglazov, V.F., Sagaidak, V.N., Moiseenko, V.M., & Mikhailov, E.A. (1992). Study of the role of breast self-examination in the reduction of mortality from breast cancer: The Russian Federation/World Health Organization Study. *European Journal of Cancer*, 29A, 2039–2046.
- Thomas, D.B., Gao, D.L., Self, S.G., Allison, C.J., Tao, Y., Mahloch, J., et al. (1997). Randomized trial of breast self-examination in Shanghai: Methodology and preliminary results. *Journal of the National Cancer Institute*, 89, 355–364.
- UK Trial of Early Detection of Breast Cancer Group. (1993). Breast cancer mortality after 10 years in the UK trial of early detection of breast cancer. *Breast*, 2, 13–20.