IMPORTANT POINTS REGARDING CANADIAN STUDY (MILLER ET AL)

Main

According to the American College of Radiology and Society of Breast Imaging, the recent breast cancer screening article (Miller et al) published in the British Medical Journal (BMJ) is an incredibly misleading analysis based on the deeply flawed and widely discredited Canadian National Breast Screening Study (CNBSS). The results of this BMJ study, and others resulting from the CNBSS trial, should not be used to create breast cancer screening policy as this would place a great many women at increased risk of dying unnecessarily from breast cancer.

Specific Technology and Training Criticisms

- The trial used mammography machines which were not state of the art at the time of the trial.iii
- The images were compromised by “scatter,” which makes the images cloudy and cancers harder to see since they did not employ grids for much of the trial. Grids remove the scatter and make it easier to see cancers.v
- Technologists were not taught proper positioning. As such, many women were not properly positioned in the machines, resulting in missed cancers.iv
- The CNBSS radiologists had no specific significant training in mammographic interpretation.v
- The CNBSS own reference physicist stated that “…in my work as reference physicist to the NBSS, identified many concerns regarding the quality of mammography carried out in some of the NBSS screening centers. That quality [in the NBSS] was far below state of the art, even for that time (early 1980s).”vi

Selection Criticisms

- Women had clinical breast exams before entering, allowing investigators to know that many likely had breast cancer before they were assigned to the “screened” or “unscreened” groups. This is a violation of basic protocol and likely explains the unusually high number of deaths which occurred in the “screened” group.vii viii

MAMMOGRAPHY OVERALL

Every major American medical organization with expertise in breast cancer care, including the American Congress of Obstetricians and Gynecologists, American Cancer Society, American College of Radiology, National Accreditation Program for Breast Centers and Society of Breast Imaging recommend that women start getting annual mammograms at age 40

MAMMOGRAPHY LIFESAVING BENEFIT

According to National Cancer Institute data, since mammography screening became widespread in the early 1990’s, the U.S. breast cancer death rate, unchanged for the previous 50 years, has dropped well over 30 percent. By not getting a yearly mammogram after age 40, women increase their odds of dying from breast cancer and that treatment for any advanced cancers ultimately found will be more extensive and more expensive.

- The largest (Hellquist et al) and longest running (Tabar et al) breast cancer screening studies in history, re-confirmed that regular mammography screening cut breast cancer deaths by roughly a third in all women ages 40 and over (including women ages 40-49).
- A recent study (Otto et al) published in Cancer Epidemiology, Biomarkers & Prevention shows mammography screening cuts the risk of dying from breast cancer nearly in half.
A recent study published in *Cancer* showed that more than 70 percent of the women who died from breast cancer in their 40's at major Harvard teaching hospitals were among the 20 percent of women who were not being screened. The most rigorous scientific studies have shown that the most lives are saved by screening beginning at age 40.

Recent case control studies have shown that the death rate from breast cancer was lower among women screened compared to those not screened. Women who were diagnosed with breast cancer were treated in the same way, whether screened or not screened. Therefore, the lower death rate among screened women is due to screening, and cannot be attributed to treatment differences.

While screening can find cancers that might never go on to become clinically evident or have the potential to be lethal (overdiagnosis), best estimates show this is modest, and probably less than 10 percent.

The goal of screening is to detect breast cancer early enough so that a woman's life is saved – a priceless benefit. Nevertheless, mammography has also been shown to be cost-effective compared to other screening studies used in medicine.

Mammography can detect cancer early when it’s most treatable and can be treated less invasively - which not only save lives, but helps preserve quality of life. For more information regarding the proven effectiveness of regular mammography screening at reducing breast cancer deaths, please visit [www.MammographySavesLives.org](http://www.MammographySavesLives.org).

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\[i\] Yaffe MJ. Correction: Canada Study. Letter to the Editor JNCI 1993;85:94.
\[iv\] Kopans DB. The Canadian Screening Program: A Different Perspective. AJR 1990;155:748-749.
\[v\] Kopans DB. The Canadian Screening Program: A Different Perspective. AJR 1990;155:748-749.
\[vi\] Yaffe MJ. Correction: Canada Study. Letter to the Editor JNCI 1993;85:943.