

New Study Adds to Negative Votes on Mammography

By Kristina Fiore, Staff Writer, MedPage Today

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Reviewed by [Robert Jasmer, MD](#); Associate Clinical Professor of Medicine, University of California, San Francisco.



After 10 years of mammograms, a woman may get more harm than good from the screening, researchers from the U.K. found.



When false positive diagnoses and unnecessary surgeries were taken into account, the quality-adjusted life years (QALYs) gained

were significantly reduced, James Raftery, PhD, of the University of Southampton, and colleagues reported online in *BMJ*.

"Inclusion of the harms from false-positive results and unnecessary surgery reduced the benefits of screening by about half, with negative net QALYs in the early years after the introduction of screening," they wrote.

In 1986, the Forrest report led to breast screening in the U.K., suggesting it would reduce the death rate from breast cancer by almost a third, and with few harms and at low cost.

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Action Points

- This study found that mammography may cause more harm than good with negative quality-adjusted life years (QALYs) for the first seven years of screening.
- Point out that in sensitivity analyses, the results persisted, especially up to 10 years, suggesting that screening may have caused net harm.

Since then, a number of harms associated with screening have been acknowledged, particularly false positives and overdiagnosis of cancers that would never have caused

symptoms. Also, a [recent Cochrane review](#) noted that mortality reductions may be smaller than initially expected, the researchers said.

So to assess the potential benefits of screening in terms of QALYs when those harms were included, Rafferty and colleagues looked at data from eight trials involving 100,000 women from the U.K., ages 50 and up, who had breast screening.

They found that taking the effects of those harms into account reduced the estimate of net cumulative QALYs gained after 20 years by more than half, from 3,301 to 1,536.

And when they changed the reduction in mortality from that suggested by the Forrest study to that suggested by the recent Cochrane review, the net QALYs at year 20 fell to 834, they reported.

That also generated negative QALYs for the first seven years of screening, and only 70 QALYs after 10 years, they reported.

Indeed, in sensitivity analyses, the results persisted, especially up to 10 years, suggesting that screening may have caused net harm, they reported.

"Our study supports the suggestion ... that mammographic breast cancer screening could be causing more harm than good after 10 years," they wrote. After that, net QALYs accumulate, but are much lower than would be expected, they added.

Means of reducing the harms from screening might include less frequent screens, particularly for younger women, the researchers said.

The study was limited because it relies on older clinical trial data regarding mortality and surgery and because the researchers didn't include information on recurrence and or re-operations.

Rafferty and colleagues wrote that more research is needed on the extent of unnecessary treatment and its impact on quality of life. Further study should also focus on identifying patients who stand to benefit most from surgery, they added.

"From a public perspective, the meaning and implications of overdiagnosis and overtreatment need to be much better explained and communicated to any woman considering screening," they concluded.

The researchers reported no conflicts of interest.

Primary source: BMJ

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[Rafferty J, Chorozoglou M "Possible net harms of breast cancer screening: updated modelling of Forrest report" *BMJ* 2011; DOI: 10.1136/bmj.d7627.](#)