Researchers suggest new paradigm for breast cancer screening

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Should we spend more money urging women to use mammography screening on a regular basis or should those dollars and effort be used for discovering and developing better early detection tests?

In an editorial published online June 29 in issue 14 of the Journal of the National Cancer Institute (JNCI), Jeanne S. Mandelblatt, MD, MPH, of the Lombardi Comprehensive Cancer Center at Georgetown University Medical Center in Washington, DC, and Diana S.M. Buist, PhD, MPH of Group Health Research Institute in Seattle, suggest the latter, pointing to the limitations of mammography and calling it an "imperfect technology."

Their editorial accompanies a review and meta-analysis by Sally W. Vernon, MD, and colleagues of the effectiveness of intervention strategies such as educational outreach, counseling and simple reminders to encourage women to get repeat mammograms. In their editorial, Mandelblatt and Buist call the results "sobering" because behavioral interventions appear to only increase repeat screening rates by a small or moderate amount with insufficient evidence to know which approaches are the most effective.

"These results are all the more discouraging since the reviewed studies focused on getting women to undergo only one to two repeat screening examinations, not the 12 to 13 presently recommended for average risk women biennially from age 50 to 74," they write.
The reasons why interventions fail could be because "women are making an informed choice not to use an imperfect technology" the authors write. They point to media attention highlighting the fact that mammograms miss many cancers while detecting lesions that are false positives or ones that are never destined to become cancer.

Noting studies that suggest women with an increased risk of developing breast cancer have greater adherence to routine screening, the authors say interventions might be more effective in such subgroups, though this was not examined by the meta-analysis.

Mandelblatt and Buist also support the use of modeling to help understand the various factors that impact screening. Specifically, they highlight the work of the NCI-funded Cancer Intervention and Surveillance Modeling Network (CISNET) as an excellent example of the application of modeling to determine the most profitable avenues for intervention. Mandelblatt and others from CISNET are collaborating with Buist and her colleagues from the Breast Cancer Surveillance Consortium on modeling research to examine how risk level affects choice of screening modality and optimal ages of use.

Still, the authors offer a strong recommendation in order to realize the promise of eliminating the burden of cancer. "It could be reasonably argued that we should better spend our efforts in discovering better early detection tests.

"New paradigms guided by evidence from modeling, novel trials and new scientific discovery will be needed."

Provided by Georgetown University Medical Center

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