Lawmakers, technology unite to improve awareness of breast density

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The medical community and lawmakers have taken steps to improve communications to women about breast density.

The reason is clear: Mammograms are less sensitive for women with dense breast tissue, and these women have higher risk for developing breast cancer. Dense tissue can hide a cancer from view on a mammogram.

More than half of the states in the United States require that women receive some level of dense breast notification (DBN) after a mammogram.

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In general, mammography facilities in these states are required to inform a woman if she has dense breasts in the letter with the results of her mammogram. This communication is designed to raise awareness and to encourage women to ask their health care providers about breast density, how it can affect the detection of breast cancer and whether additional screening options may be appropriate.

As more states continue to enact these laws, DBNs increasingly will be positioned as an important component of breast cancer screening.

Room for improvement

Connecticut passed a DBN law in 2009. Colorado, Kentucky, Iowa and Nebraska have followed suit.

But even with a total of 32 states mandating the use of DBNs following mammography, many women still do not understand what breast density means and how it can affect the detection of breast cancer.

A study of 1,000 women in Virginia aged 35 to 70 years showed that only 25% of respondents demonstrated awareness of the relationship between breast density and cancer risk. These findings indicate that DBNs are not helping many women understand breast density, and then use that information to make informed decisions about their health care.

Despite the expanding use of DBNs, many experts note that the content of these communications can vary widely from state to state.

Often, the language used in DBNs is overly clinical and well above the average reading level for residents of that state. In some cases, DBNs do not provide clear guidance on next steps for women who might benefit from additional screening following a mammogram.

Further, some states require that women be informed if additional screening could help detect hidden breast cancer, whereas others only require women be informed about their breast density without context regarding the potential implications and suggested course of action.

Some experts feel that DBN laws cause unwarranted anxiety for patients with dense breasts and can lead to unnecessary testing. But, there have also been many cases of women who felt that their cancers would have been detected earlier had they known about their breast density. Based on these and other factors, there increasingly is a call for national standards and guidelines to make the content of DBNs clearer and more consistent to improve women's understanding of breast density and the associated risks.

In calling for these standards, many experts also note that women should not rely solely on these communications for information about their breast density. It is essential for patients to talk with their doctor about their risk for developing breast cancer and whether additional screening may be warranted.

Technological advances

Coupled with efforts to improve communications with patients, advances in technology are improving our ability to assess breast density. This could play a vital role in improving both guidance and quality of care in the years ahead.

DBNs can only be effective if breast density assessments are accurate. The American College of Radiology defines four categories of breast density; however, the categories are not clear cut and require radiologists to interpret density based on a range of factors, which can lead to wide variation in results. Inaccurate results can lead to unnecessary additional tests for patients.

New technologies are available from several companies — such as iCAD and Volpara — that can help to overcome the challenges associated with reader variability by providing a more precise breast density assessment.

For example, iCAD's PowerLook Density Assessment automated breast density solution uses an appearance-based approach — instead of a volume-based approach — that categorizes breast density based on the structure, texture, dispersion and volume of fibroglandular tissue.

Automated breast density assessment solutions can help radiologists better identify patients who might benefit from additional screening, such as digital breast tomosynthesis, ultrasound or MRI. It can also lead to faster results, helping to streamline workflow for radiologists and medical practices.

It is also important to note that mammography sensitivity and specificity decrease as breast density increases, meaning that women with more dense breasts are at even greater risk.

The availability of cutting-edge technology, such as standardized breast-density assessment, is a key element in early and accurate cancer detection. Technology combined with clear, accurate communications about breast density can significantly enhance our opportunities to improve outcomes for millions of women at risk for breast cancer.

References:

Guterbock TM, et al. *J Am Coll Radiol*. 2017;doi:10.1016/j.jacr.2016.07.003.

Kressin NR, et al. *JAMA*. 2016;doi:10.1001/jama.2016.1712.

Sprague BL, et al. *Ann Intern Med*. 2016;doi:10.7326/M15-2934.

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