Improved DBNs and Assessments: Necessary, Not Nice to Have

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Most radiologists have seen firsthand how dense breast tissue can mask cancer in mammography. As breast density increases, mammography sensitivity decreases while breast cancer risk increases, highlighting the need for optimal approaches to individualized breast cancer screening. In women with dense breast tissue, this is particularly challenging and can equate to the perfect storm, where mammography is less effective but risk of breast cancer is increased.

In May, South Carolina became the 27th state to pass legislation requiring that women with dense breasts receive dense breast notifications (DBNs) following mammography. As more states continue to pass this legislation, DBNs are rapidly becoming a standard component of breast cancer screening and overall patient care.

While this is a very positive step in women's health, a recent study published in the *Journal of the American Medical Association* suggests that some patients may not understand the language used in DBNs received following mammography.(1) The study authors also noted that the

content of these letters can vary from state to state, the language used exceeds the average American's reading level and these communications do not always provide clear next-steps for patients who might benefit from additional screening. To further complicate this, some states require that women be informed if additional screening might detect mammographically occult breast cancer, while others only require that women be informed of what their breast density is, without context to what the implications might be.

This above mentioned study identified a critical area where the medical community can, and should, immediately improve patient care. While critics of this legislation have stated that these laws can cause confusion, anxiety and added costs, advocates of these laws feel DBNs contain crucial information that allows patients to make more informed decisions about their own healthcare.

Time for action

We must take steps to enhance our communications with patients related to breast density to ensure they fully understand their risk for developing breast cancer and whether additional screening may be warranted. We cannot wait for national legislation to introduce uniform standards for these communications.

It should be noted that these communications are intended to initiate rather than replace a dialogue between patient and doctor. It is important for doctors to follow up appropriately after mammography to ensure that patients are well informed about their breast density, their potential risk for developing cancer and whether they might benefit from additional screening.

Radiologists involved in interpretation of mammography are the ones charged with determining breast density. It is our responsibility to communicate these results to patients and their care teams. Though it is not required by law, at George Washington University Hospital, we always inform patients and their referring physicians about the patient's breast density following mammography.

Regardless of how we communicate with our patients about breast density, the bottom line remains that DBNs can only be as effective as the accuracy of the breast density assessment itself. The American College of Radiology recommends the BI-RADS scale as a standardized system to categorize breast density. However, this system is still subjective and both breast imagers and general radiologists report that reader variability is a challenge when determining breast density.(2) An objective, true 3-dimensional approach to determining breast density could standardize the determination of breast density and thereby make the process more straightforward for radiologists and patients.

The advent of advanced software programs also may help to address the issue of reader variability by providing more consistent breast density assessments that are not only accurate but reproducible. This technology automates the same analytical approach used by experienced radiologists as it analyzes digital mammograms, calculates the patient's breast density and determines the appropriate density category corresponding to BI-RADS standards. The use of software also can help alleviate the added burden to radiologist workflow.

Adoption of advanced technology, along with improved DBNs, strategies for efficient and effective determination of breast density and a consistent, comprehensible dialogue with patients can help the radiological community improve patient care. This ultimately can mean the difference between a diagnosis of early, curable breast cancer and detection of breast cancer in more advanced stages, when it is less treatable and potentially fatal.

References

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