Impact of the California Breast Density Law on Primary Care Physicians

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Abstract

Purpose: To investigate primary physician awareness of the California Breast Density Notification Law and its impact on primary care practice.

Methods: An online survey was distributed to 174 physicians within a single primary care network system 10 months after California's breast density notification law took effect. The survey assessed physicians' awareness of the law, perceived changes in patient levels of concern about breast density, and physician comfort levels in handling breast density management issues.

Results: The survey was completed by 77 physicians (45%). Roughly half of those surveyed (49%) reported no knowledge of the breast density notification legislation. Only 32% of respondents noted an increase in patient levels of concern about breast density compared to prior years. The majority were only "somewhat comfortable" (55%) or "not comfortable" (12%) with breast density questions, and almost one-third (32%) had referred patients to a breast health clinic for these discussions. A total of 75% of those surveyed would be interested in more specific education on the subject.

Conclusions: Awareness among primary care clinicians of the California Breast Density Notification Law is low, and many do not feel comfortable answering breast density-related patient questions. Breast imagers and institutions may need to devote additional time and resources to primary physician education in order for density notification laws to have significant impact on patient care.

Key Words: Breast density, mammography, legislation, screening

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INTRODUCTION

Patient notification regarding breast density is controversial. In 2009, Connecticut was the first state to mandate patient notification regarding dense breast tissue. Since then, 18 additional states, as of December 2014, have enacted similar laws, although unlike Connecticut, the vast majority of these states do not require health insurance reimbursement for supplemental screening tests. Many additional states are currently in the process of passing similar legislation, and federal legislation regarding breast density notification is currently under review by a congressional committee [1,2].

The California Breast Density Notification Law (SB 1538), effective April 2013, requires that the following language be included in the lay letter sent to patients notifying them of their mammogram results [3]:

> Your mammogram shows that your breast tissue is dense. Dense breast tissue is common and is not abnormal. However, dense breast tissue can make it harder to evaluate the results of your mammogram and may also be associated with an increased risk of breast cancer.
>
> This information about the results of your mammogram is given to you to raise your awareness and to inform your conversations with your doctor. Together, you can decide which screening options are right for you. A report of your results was sent to your physician.

Dense tissue is defined as being either "heterogeneously dense" or "extremely dense" BI-RADS® categories, based on a qualitative assessment by the radiologist [4]. Roughly 50% of women in national studies have breast tissue that is classified as mammographically "dense"; thus, approximately 2 million women in the state of California receive this notification annually [5-7].

With the enactment of breast density notification laws, primary physicians are expected to encounter increased

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patient concerns regarding their breast density, as well as new related management dilemmas. The issues related to breast density include: (1) increased breast cancer risk associated with dense breasts [8,9], (2) decreased sensitivity of mammograms in women with dense breasts, also known as "masking" [10,11], and (3) the utility of supplemental screening modalities, such as ultrasound, MRI, and tomosynthesis [12-16]. These topics traditionally have not been included in primary physician training programs or even in continuing medical education courses.

The breast density laws enacted in California and other states require an action by radiologists that has little impact on patient care unless it is understood by primary clinicians. Although radiologist compliance with the law is straightforward and presumably very high, the actual consequences for patients and primary physicians have not been studied. With that in mind, we investigated primary physicians' awareness of the law, its impact on patient concerns regarding breast density, and physician comfort level in discussing issues of breast density.

METHODS

Survey Design and Contents

A survey using multiple-choice questions was designed with a combination of yes/no, multiple-choice, and Likert-style questions, with response selections ordered in degree of agreement. (Table 1). Respondents remained anonymous, but demographic data including gender, subspecialty, and years in practice were collected.

Survey Sample and Administration

The survey was distributed to 174 internal medicine, family medicine, and obstetric-gynecology outpatient physicians at a single academic medical center in February 2014, which was 10 months after California's breast density law took effect. Survey data collection and analysis were performed using SurveyMonkey (Palo Alto, California) web-based software. Additional analyses were conducted using SAS software, version 9.3 (SAS Institute, Cary, North Carolina), using Fisher's exact test to test for an association of gender and years of practice with survey responses. A P value of $<.05$ was considered statistically significant.

RESULTS

The survey was completed by 77 physicians, representing a 45% response rate; 39% of respondents were from internal medicine, 47% were from family medicine, and 9% were from obstetrics-gynecology departments. A slight majority (53%) were women. A total of 72% had been practicing for >10 years.

In all, 49% of responding physicians were not aware of the breast density legislation before taking the survey. Only about one-third (32%) reported a change in patient level of concern about breast density after April 1, 2013, compared with prior years. Most respondents reported rarely answering patient questions regarding breast density as a result of a mammography result letter (Fig. 1), and 20% of responding physicians reported that they never answer questions related to breast density. The numbers of patient questions that were related to the subjects of breast cancer risk, effectiveness of mammograms, and additional screening tests were roughly equivalent (Fig. 2).

When asked about their comfort level in responding to patient questions regarding breast density, only 6% of surveyed primary physicians described themselves as "completely comfortable" (Fig. 3). About one-third of physicians (32%) referred patients to the health network's subspecialty Breast Health Clinic, which is staffed by physicians with special expertise in benign and malignant breast disease, to discuss questions related to their breast density as revealed by mammogram. Approximately one-quarter of primary care physicians (26%) reported performing breast cancer risk assessments themselves, without statistically significant differences based on specialty. The remainder referred women to the Breast Health Clinic when they thought a risk assessment would be beneficial. The majority (75%) of surveyed primary care physicians were interested in attending a brief educational presentation about breast density and its impact on breast cancer screening.

A greater percentage of women respondents (43%) compared with men (19%) respondents noticed a change in patient levels of concern about breast density in the past 6 months compared with prior years ($P = .05$). Women clinicians reported that patients had asked more breast density—specific questions during clinic visits (Fig. 4). No statistically significant differences in any survey responses were seen based on years of practice.

DISCUSSION

The results of this study suggest that 10 months after enactment of the California Breast Density Notification Law (SB 1538), the intent of the legislation has not been fully realized. Half of all primary physician respondents were not aware of the law's existence, and two-thirds reported no change in patient levels of concern about breast density compared with prior years. The primary responsibility for compliance with the law lies with the radiologist, who must add the required language to patient results letters, yet the purpose of the law is to increase patient awareness of breast density and its effect on both mammographic sensitivity and breast cancer risk. Our results suggest that the law has had