

Maximizing the Referral of Older Women for Screening Mammography

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The primary care physician is in a crucial position to facilitate mammography referral of women older than 50 years. Physician underestimation of the importance of the physician role or overestimation of patient resistance can result in lost opportunities for referral. Research is summarized on the impact of physician encouragement on use of mammography and on sources of reluctance to get mammography as reported by patients. Common patients' concerns are discussed. Mammography referral can usually be accomplished successfully by raising the issue and briefly addressing patients' concerns in regard to breast cancer and screening mammography. (Arch Fam Med. 1996;5:174-178)

The benefit of screening mammography for women older than 50 years is well established by scientific data. Current guidelines from the American Cancer Society¹ and the American Cancer Institute² recommend annual screening mammography and annual clinical breast examination for all women 50 years or older. The US Preventive Services Task Force³ recommends mammography for all older women every 1 to 2 years. Increased survival for women with breast cancer is directly related to early detection.^{1,4} Regular screening mammography is the most effective available means for identifying cancers early, and adherence to the mammography guidelines could result in a 25% to 40% decrease in breast cancer mortality.⁴ The 5-year survival rate for women with distant metastases at the time of diagnosis is only 18%, in contrast with 72% for those with regional spread and 93% for those whose cancer is detected when still localized.¹

Given the lifesaving potential of mammography, it is disturbing to note that fewer than half of women over 50 years of age receive yearly mammograms.⁵ Moreover, although the risk of breast cancer increases with age, the use

of mammography decreases; whereas about half of women in their 50s have had mammograms in the previous year, only 36% of women 75 years of age or older have done so.

Physician involvement in breast cancer screening has increased markedly in recent years. Most physicians agree with mammography guidelines, and eight of 10 report emphasizing mammography more than they did 5 years previously.⁶ Nevertheless, a significant gap persists between the beliefs of physicians about the value of mammography and their actual referral of patients for screening. For example, in the latest American Cancer Society survey of physicians, only half those who expressed complete agreement with the screening guidelines reported following or exceeding them with all patients⁶ and, when patient referrals are measured by auditing medical charts, they typically fall well short of the referral patterns reported by physicians on interview.⁷

A number of factors contribute to the disparity between the beliefs of physicians in the importance of screening mammography and their actual practice patterns. Time demands related to the acute care needs of patients, the complexity of medical decision making with patients who are already old and/or seriously ill, the lack of a reminder system, and the absence of financial incentives for counseling about

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preventive screening all may influence whether or not a physician recommends or discusses mammography with a particular woman.

Physician bias may also contribute to the suboptimal screening rates of older women; physicians may underestimate the impact of their recommendations on patient compliance and/or overestimate anticipated patient resistance or inaccurately assess the reasons why women do or do not get mammograms. This possibility is suggested by a comparison of the reasons physicians cite for patient noncompliance and the reasons women themselves give. When physicians are asked why their patients do not get regular mammograms, the majority cite patient concerns about cost, lack of third-party reimbursement, fear of radiation, and fear of pain or embarrassment.^{6,8,9} A review of seven surveys of older women by the National Cancer Institute Breast Cancer Screening Consortium provides the reasons women themselves give for not pursuing mammography.¹⁰ The surveys summarized were population based and included large and diverse samples of women aged 50 to 74 years, in whom breast cancers had never been diagnosed. The collective data from these studies are presented in **Figure 1** and overwhelmingly indicate two principal reasons women themselves cite for never having had mammography.

The reason women gave most frequently for never having had a mammogram was never having thought of it or not believing that there was a problem that warranted mammography. This response, shared by 40% to 67% of respondents across the different surveys, suggests a lack of understanding of the function and importance of early detection through screening, a situation that would be easily remedied by physician counseling. The second most frequently cited reason, shared by 12% to 42% of respondents, was that their physician had never recommended it. These two most frequently given reasons suggest that many women who are currently noncompliant with mammography guidelines could be "converted" if their primary care physicians engaged them in a discussion of the need for screening mammography.

In contrast to physicians' beliefs about patient noncompliance, very few women cited cost or fear of radiation as the reason for not having had a mammogram, and relatively few (4% to 12%) reported never having heard of mammography. Other reasons, a category that included anticipated discomfort with the procedure, were reported by 0% to 31% of women in different samples.

The disparity between reasons that are given by women for never having had a mammogram and the reasons given by physicians to explain patient noncompliance strongly suggests that physicians underestimate the impact that their recommendations and counseling have on patient behavior. This may be a significant factor that contributes to physician-patient encounters becoming "missed clinical opportunities" for mammography referral.¹⁰

PHYSICIAN ENCOURAGEMENT

The positive impact of physician encouragement has been demonstrated in numerous studies of both mammography-

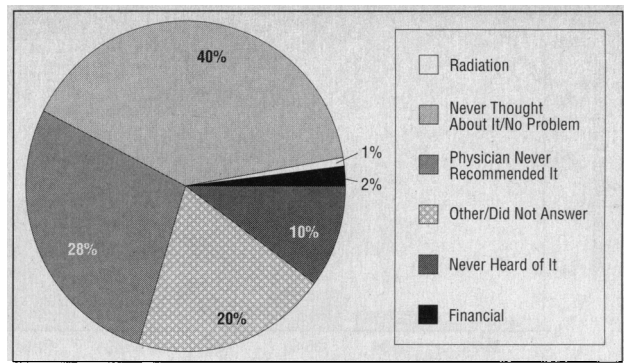


Figure 1. Reasons reported by women for never having had mammography (used from the NCI Breast Cancer Screening Consortium¹⁰).

compliant and noncompliant women and is a powerful predictor of women's screening behavior in both groups.^{8,11-13} Older women who report having received physician encouragement to obtain a mammogram have been found to be four to 12 times more likely to have had mammograms than those who did not.^{13,14} A recent study¹⁵ on patient health beliefs found that physician input accounted for 25% of the variance in patient compliance with mammography in contrast to only 16% for patient beliefs. Physician encouragement consistently emerges as a powerful predictor of patient compliance with mammography independent of objective risk for breast cancer, breast symptoms, patient beliefs about breast cancer, concerns about cost or radiation, or demographic factors.^{10,12,15} Lack of physician encouragement has been implicated in the lower levels of compliance among both older age cohorts^{8,10} and ethnic minorities.¹⁶⁻¹⁸

As the data cited earlier indicate, patients consider physician recommendation to be a crucial factor in determining whether or not they pursue mammography. Physician recognition of the power of influence that they have can go a long way toward increasing patient referrals. As we have seen, however, women cite other reasons for not having had mammography as well. In the remainder of this article, we provide information to address these other sources of patient noncompliance.

EMPHASIZING THE IMPORTANCE OF SCREENING MAMMOGRAPHY

The data reviewed earlier indicate that most women who have never had a mammogram either have not thought about it or believe it is not necessary in the absence of a breast problem. Physician counseling may target one or several related topics: the screening function of mammography, the risk factors for breast cancer, and the risks vs benefits of mammography screening.

The Screening Function of Mammography

Asymptomatic older women need to understand the complementary roles of mammography, the clinical breast examination, and self-examination. A recent study¹⁸ suggests that this understanding may be especially important for women over 65 years of age who were less likely than younger women to believe that mammography could

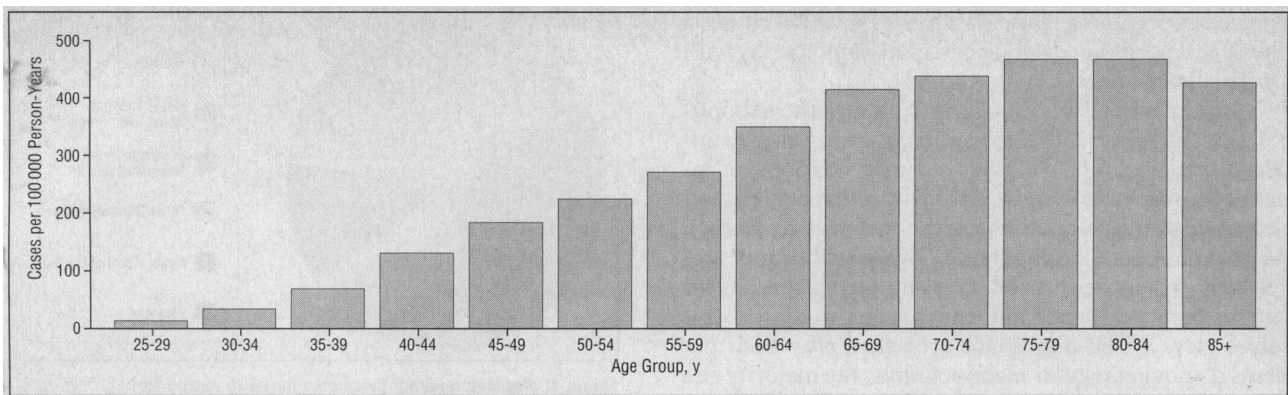


Figure 2. Relationship between age and breast cancer incidence (used from Table IV-2 in Miller et al²²).

pick up tumors before they could be detected by breast self-examination or clinical breast examination. In fact, breast cancers can develop for as long as 6 years before becoming palpable¹⁹ and even longer before producing other symptoms. Typically, there is a period of more than 3 years when a cancer cannot be palpated but can be detected through mammography and, by the time a cancer is palpable, it is already growing at a rapid rate. Hence, the importance of mammography *before* there are symptoms or problems must be stressed. However, many cancers are detected by women themselves and even regular mammography cannot examine all breast tissue; mammography is recommended to complement, and not replace, regular breast self-examination and annual clinical breast examination.

As mentioned earlier, detection of breast cancer in its early stages relates directly to increased survival. While these data are compelling in their own right, women may also appreciate knowing that breast cancer, when found early, is more likely to be treatable with breast-conserving treatment than when found after it has spread.²⁰

Risk for Breast Cancer

Many women have heard that family history predicts breast cancer. However, they are less likely to know that the age at which a mother had cancer is important: having a mother who was affected before 60 years of age is a higher relative risk (typical RR, 2.0) than having a mother affected after 60 years of age (typical RR, 1.4). The risk is highest when two first-degree relatives are affected (typical RR, 4 to 6).⁴ Although reinforcing the role of family history may increase the use of mammography among women with this risk,²¹ care must be taken that it is not emphasized to the exclusion of other risk factors. Women without a family history of breast cancer may need to be reminded that they are still at increasing risk for breast cancer as they age.

Age, the most overlooked risk factor, is also the greatest. The dramatic increase in breast cancer incidence with age, as seen in **Figure 2**, can be shared with patients.²² In fact, the highest incidence rates are for women aged 75 to 84 years. The average incidence rate for women older than 65 years is 435 per 100 000 women compared with only 71 per 100 000 for women younger than 65 years. Yet in surveys, older women indicate that they worry less

about breast cancer than do their younger counterparts.²³

Media coverage of the lifetime risk of breast cancer has resulted in considerable confusion. The well-known, but often misunderstood, lifetime risk of one in eight can be placed in context by comparing it with the lifetime risks for heart disease (one in two), adult-onset diabetes (one in three), alcoholism (one in three), stroke (one in five), and hip fracture (one in seven).²³ A more informative risk figure is based on incidence rates and reflects a woman's chance of developing breast cancer within the next year: for a 30-year-old woman that risk is one in 3700; for a 40-year-old woman, it is one in 790; for a 50-year-old woman, it is one in 450; and for a 60-year-old woman, it is one in 215. Overestimations of personal risk may be as important to address as underestimations, given that anxiety or a sense of cancer as inevitable can be barriers to mammography compliance.

Other factors, such as parity, menstrual history, the presence of benign breast disease, obesity, and alcohol use, are associated with an increased risk.⁴ But it is important for women to understand that having risk factors does not mean that an individual woman will definitely get breast cancer or that a woman without known risk factors has no reason to pursue mammography screening. In fact, it is estimated that about 75% of breast cancers diagnosed each year are those in women without any known risk factors other than age.¹

Risk vs Benefits

In a recent article addressing the issue of deciding which patients to refer for screening, Harris and Leininger²⁴ emphasize the importance of discussing concerns about the risks and benefits of mammography with women. The major risk of screening mammography is that of obtaining a false-positive result. Regardless of whether this leads to further testing (additional views; ultrasonography; and, ultimately, fine-needle aspiration and/or tissue biopsy), receiving a positive mammogram is understandably stressful. If additional testing fails to confirm the result of the mammography, the woman's fears may be allayed but at great cost in terms of time, money, and emotional distress. Risk of false positives decreases significantly as a woman approaches the age of 50 years, because the breast

tissue of premenopausal women tends to be denser and more radiopaque. Coupled with the fact of the increased risk of breast cancer with age, the benefit or risk of screening mammography is much clearer for women older than 50 years than for younger women. All evidence suggests that for the general class of women older than 50 years, the benefits far outweigh the risks. Since this assessment is based on population statistics and a false-positive result may occur with any individual woman, it is judicious to inform women of this risk.

Frequently, the patient who is believed to be reluctant or resistant is merely uninformed. Occasionally, concerns about the risks vs benefits of mammography may need to be addressed among patients who have heard or read about the Canadian study,²⁵ a longitudinal nationwide study of the efficacy of mammography for women 40 years of age and older. In this study, the breast cancer mortality rate for women between 40 and 50 years of age was no lower than that for age-matched controls who had not received mammography screening. Early coverage of the Canadian study suggested that mammography was ineffective or even causally linked to breast cancer (see, for example, Kay et al [*Time*. May 18, 1992;25]). Concerned women need to be informed that questions have been raised about how the study was conducted²⁶ and that the controversy, in any event, is exclusively in regard to the efficacy of mammography for women under the age of 50 years.

CONCERNS ABOUT PAIN

Anticipated discomfort prevents some women from undergoing mammography, and physical discomfort is a problem for a diverse minority of women who undergo mammography.²⁷ Fostering realistic expectations and an understanding of the importance of adequate compression for high-quality mammography may be all that is needed to address patient apprehensions. In fact, the procedure causes no more than mild discomfort in the vast majority of women.²⁷ While anticipated discomfort is associated with greater discomfort, patients typically expect more discomfort than they experience.²⁸

Anxious anticipation may be allayed by preparing the woman for what she can expect and by explaining that the breast compression is accomplished gradually and will be brief. Steps that the woman herself can take to minimize discomfort include the avoidance of caffeine prior to her scheduled mammography and, for premenopausal women, scheduling the procedure for the point in her menstrual cycle when her breasts are least tender, typically the first 2 weeks following menstruation.²⁹ Some women may need to be told that breast compression does not cause cancer.

FINANCIAL CONCERNS

Although women rarely cite cost as a major reason for failing to have a mammography performed, descriptive studies show lower income to be strongly associated with lower use of mammography.³⁰⁻³² Among poor women, even the payment of a modest co-payment that is later reimbursed may be a significant deterrent to mammography.

The vagaries of insurance coverage can be daunting. One recent study³³ found that women who were encouraged by their physicians to get mammograms but did not follow through often did not know whether or not their insurance covered such screening. Women who are worried about the cost of mammography need to be told that mammography is covered by nearly all insurance plans, including Medicare and Medicaid, subject to the usual deductibles and co-payments. Medicare covers only biennial screening mammography, although diagnostic mammography is covered as frequently as needed. When insurance does not cover mammography, the radiology center may offer a reduced rate. The local chapter of the American Cancer Society may also be of assistance in finding a low-cost or no-cost center.

CONCERNS ABOUT RADIATION

The fear of getting cancer by undergoing a mammography screening has its origins in the technology of early mammography equipment and related debates about the risk of radiation exposure vs the risk of finding a cancer. Older patients, who may have first heard of mammography when the risks of the procedure were significant, may need information and reassurance. The amount of radiation received when undergoing a mammography screening with today's sensitive machines averages 0.0025 Gy and may be as little as 0.0010 Gy. The mortality risk of this dose of radiation is comparable to that of 70 miles of air travel, 10 miles of travel by car, smoking one eighth of one cigarette, or being a 60-year-old man for 3 minutes!³⁴

The risk of getting cancer from exposure to radiation is greater when you are young and decreases as you get older. Most experts now believe the radiation risk of mammography after the age of 50 years to be negligible and far outweighed by the benefits of finding breast cancer early. However, any risk needs to be evaluated relative to benefits; the benefit of finding breast cancer early far outweighs the small risk from radiation.³⁴

CONCLUSION

Often physician encouragement alone or with brief educational counseling is all that is necessary to facilitate mammography use by older women. Frequently, the patient who is believed to be reluctant or resistant is merely uninformed. She may readily pursue mammography when encouraged to do so by a physician whom she trusts, given basic information on the value of the procedure, and reassured about particular concerns that she may have.

With the rising incidence of breast cancer, it is imperative that physicians appreciate the impact they have on the health care decisions of their patients in the important arena of breast cancer screening. Only when physicians believe that their words of encouragement will make a difference are they likely to raise the topic of screening mammography. And only when the physician raises the topic of mammography and educates the patient about the importance of screening will the physician have the opportunity to attend to concerns that, unaddressed, may contribute to patient failure to follow

through with her physician's recommendation. The valuable clinical opportunity for primary care physicians to promote breast cancer screening should not be lost as a result of overestimating patient resistance or underestimating the power of the physician's role.

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