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POLICY FORUM

Mammography Quality Standards Act: Gains and Losses in Women's Health Care

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Mammography is one of the best ways to detect breast cancer early enough that treatment can be expected to lead to good outcomes. And because breast cancer is the leading non-skin cancer in women and the second most common cause of cancer-related mortality in women [1], encouraging regular mammograms is an excellent preventive strategy.

At least in part because of the increased demand for breast imaging, the federal government has taken a marked interest in mammography services. Congress passed the Mammography Quality Standards Act (MQSA) in 1992 to better regulate the field of breast imaging. Specifically, the act sought to correct four areas of concern: (1) poor quality equipment, (2) a lack of quality assurance procedures, (3) poorly trained radiologic technologists and interpreting physicians, and (4) a lack of facility inspections or consistent governmental oversight [2].

Whether or not the MQSA has succeeded in resolving these problems in mammography remains an open question—there have been clear gains and losses in breast imaging as a result of the act. This commentary will discuss several of these.

Standards and Access

Prior to the implementation of the MQSA, the quality of breast imaging varied greatly by geography. Accreditation programs at the time were strictly voluntary; only half of all mammography facilities had applied for accreditation by 1991, and only half of those that applied had earned accreditation [3]. Many of the failures had to do with substandard equipment that produced images that were difficult to interpret correctly. As a result of the MQSA, equipment had to be upgraded or replaced to meet federal standards for image quality. Ensuring a high-quality image reduces the number of scans women must endure and enables physicians to report findings more accurately. Therefore, many believe that the MQSA improved the standard of care for women having mammograms.

Of course, an increase in the standard did not come without cost. Mammography facilities that could not meet the equipment or personnel requirements were forced to close or merge with others. Often financial considerations drove these changes. There is some evidence of long wait times for patients to access mammography services [4], but it is not clear whether there was a significant decrease in overall

access as a result of the regulations and subsequent facility closures and mergers [5]. This point is particularly applicable in areas with few mammography providers [6]. Regardless, it is clear that the MQSA did not *increase* access for women. Given that many of the small, community-based facilities that serve the health care needs of the poor and underserved are unlikely to be able to afford the equipment and personnel required by the MQSA, access remains a main area of concern.

Personnel

The MQSA established rigorous training and continuing education criteria for radiologists and mammography technologists. In fact, some claim that the training and reporting requirements are unique in medicine with respect to the governing of daily practice [6]. The standards require interpreting radiologists to read 240 mammograms during a six-month period to qualify for initial certification and then to read another 960 mammograms during the next two years [7]. Mammography technologists must, among other things, perform 25 supervised examinations to qualify for certification and then must perform at least 200 mammography examinations in the next 24 months to be certified [7]. There are also quality assurance procedures to ensure compliance with these and all other provisions of the regulations. Supporters of the act herald the experiential requirements as a way to improve the quality of care for women by requiring that mammograms be conducted and interpreted by individuals experienced with breast imaging technology.

Despite these stringent requirements, some evidence suggests that the current standards for radiologists are still insufficient. The more screening exams a radiologist interprets, the more accurate she is likely to be [8], but one survey of radiology residents found that they desired to spend less than one-quarter of their time on breast imaging [9]. The high rate of litigation and lower rate of compensation associated with this area of the specialty have been offered as possible reasons for decreased interest in breast imaging [4].

There is a corresponding shortage in mammography technologists. Some credit expanded career opportunities, especially those with better compensation, for the shift away from this predominately female career [4]. Satisfying the requirements for continuing education specified by the MQSA often means attending sessions offered only during uncompensated time at night or on weekends, which may serve as a disincentive to choose this specialty [4]. No matter what the reason, staffing has not increased to match the growing demand for high-quality mammography services.

Broader Implications

Despite the stated goal of the MQSA—to address deficiencies in mammography—the act itself does not specify directions for further refinement of the quality standards for mammography. For example, “increasing physician accuracy in interpreting mammograms” speaks to striving for greater specificity in reading scans. What it does not describe is the rate of false-positive (or false-negative) results that is acceptable in the quest for maximized specificity [8]. The false-positive rate in the United States is much higher than it is in some other countries [8]. Given that this

disease and its associated tests carry with them significant psychological burdens for women, this fact is alarming.

The psychological burden of breast cancer leads to the final set of considerations. Some laud initiatives like the MQSA that direct considerable health care resources towards an important aspect of women's health. Evidence remains strong that women receive different treatment in medicine [10-12], and therefore attending to an area that affects *women* specifically is an important shift in priorities.

Others, however, question the focus on breast cancer as the best way to improve women's health. Despite breast cancer's being the second leading cause of cancer-related deaths for women, it accounts for only 3.9 percent of all causes of death among women in the U.S. [13]. Diverting resources to the prevention of heart disease, increasing overall access to health care, and providing funding for transportation and child care would improve women's health more profoundly than higher mammography standards will [14, 15]. There may be other, more subtle motivations at work here related to the historic tendency to pathologize women's anatomy and to assuage guilty consciences over past diagnostic and therapeutic miscalculations [16].

What is clear overall about the 1992 MQSA is that the act established uniform quality among breast imaging facilities and ensured that professional staff involved in mammography met minimal qualifications. Whether or not these regulations resulted in overall positive changes for women and women's health has yet to be determined.

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