Sarah’s Choice: Breast Cancer and Mammogram Screening Decisions

Amy Price, Centre for Evidence Based Medicine, University of Oxford, Oxford, UK

ABSTRACT

The utility of screening mammograms is debated amidst reviews of lead-time bias and high false positive rates. Medical communities are highly invested with equipment and labor to fulfill screening mandates. It is an emotive topic, as 1 in 12 women will be diagnosed with breast cancer. Survival rates are rising but still death from breast cancer is tragic and painful. It is against this backdrop the author assists Sarah (pseudonym), who is a 39 year old woman make a choice about mammogram screening.

Keywords: Breast Cancer, Decision Aids, Early Intervention, Informed Choice, Magnetic Resonance Imaging Screening Diagnosis, Mammogram Screening, Sojourn Time, Ultrasound Screening Diagnosis

INTRODUCTION

A mammogram is a low-dose x-ray breast examination used to locate abnormal changes in breast tissue and as a screening process to rule out breast cancer. The breast tissue ducts or tubes that carry milk to the nipple, the lobules or glands that make milk or the connective tissue and fat are areas cancer strikes. Breast cancer can occur in men although it is more common in women who face a 1 in 8 or 12% chance of contracting breast cancer in their lifetime. Breast cancer was responsible for 31% of all cancers in British women in 2008 with a rate of 26 deaths per 100,000 women. This means only lung cancer is a higher cancer killer of women. Four out of every five or 80% of new cases diagnosed are in women aged 50 + with cases peaking in the 60 to 64 age group after which they drop to 14% of all new cases.

Earlier detection and improved treatment for breast cancer means survival rates have risen. Age-standardized mortality rates for female breast cancer in the UK increased until the late 1980s and then fell rapidly. It is estimated that 75% of women diagnosed with breast cancer in 2008 will survive 10 years or more with 2/3 surviving beyond 20 years. Survival rates are highest amongst affluent women. Approximately 90% of women with stage 1 breast

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cancer will survive more than 5 years but this drops to about 10% for those first diagnosed with stage 4 disease.

Mammogram screening is said to be responsible for an 85% rise in incidence rates and (Gotzsche & Neilsom, 2009) see lead-time bias is inflating recovery rates. They voice concern that a false positive rate of 20% is a waste of resources, leading to psychological distress and even unwarranted mastectomy. Some suggest screening mammography could do more harm than good (Gotzsche & Neilsom, 2009). This sounds convincing in a cost to benefit analysis. What may not be considered is the leverage this can create for cost containment enterprises such as health insurance companies. These organizations have quickly put into place guidelines denying mammograms for women under 40 citing the premise of doing no harm and the exercise of fiscal responsibility. The challenge with this mindset is the potential collateral damage to a woman like Sarah who will be told women her age hardly ever get cancer. Her doctor may be pressured to reduce ‘unnecessary’ mammograms and could be rewarded with a financial incentive for meeting a target of reduced routine mammography. It is against a scenario like this that women like Sarah can be denied timely and necessary diagnosis.

Notwithstanding the 5-year survival rate for women aged 15-99 years in England in 2008, was 83% (NHS, 2009). Even though the prognosis for complete recovery with localized breast cancer is promising, the concern remains that left undiagnosed and therefore untreated breast cancer could metastasize (spread to other body areas) and lead to death. Debates increase concerning the viability of five year survival rates as they may be an artifact reflecting changed diagnostic patterns rather than increases in survival (Welch, Schwartz, & Woloshin, 2000). Screening for breast cancer in normal populations under age 39 has become controversial and it is against this backdrop we present our clinical query.

**CLINICAL SCENARIO**

“You have just seen Sarah, a 45 year woman asking for advice. Her older sister, Rita, who is 60 years old, was diagnosed with breast cancer two weeks ago following her noticing a lump in her right breast. Rita opted out of the national screening program for breast cancer because she found mammography to be painful. Two other sisters, aged 56 and 52 are following the usual screening program schedule. Six month ago one of them had a positive finding followed by more tests, had a biopsy with no clear result, and finally had a nodule removed that was diagnosed as benign.”

**REFRAMING THE PERSPECTIVES**

Reframing the perspectives around mammography for Sarah would include sharing the way mammography cell changes are read and evaluated. She will be informed breast cancer is not just one disease but many and that the forming of cancer is on a continuum which makes it challenging to predict and stage. Showing Sarah how mammograms and cancers are staged may clarify the process for her as she relates with her own situation with that of her sister with breast cancer and the other sister with a benign reading after unclear biopsy results. Explanations about the uncertainties can provide transparency as she assesses her values and personal risk choices (Evans et al., 2006).

Sarah is in the age group where mammogram screening detects fewer cancers, as they tend to occur at a later age. There is also the risk of more false positives due to benign calcifications and false negatives because of the density of the breast tissue, underlying hormonal changes that impact on breast tissue and the tendency for cancers in younger women to be more aggressive.
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