

Reducing the fear and anxiety associated with breast cancer screening

A paper on 'Deliver outcomes that matter to patients'
with Emily Sedgwick, MD

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Paper

Reducing the fear and anxiety associated with breast cancer screening

Executive summary

Breast cancer is the leading cause of cancer deaths among women worldwide. Methods for early detection of breast cancer have improved in recent years, as have treatment processes. But patients must take the first step, participating in necessary screening. This is particularly important for those at greater risk, for example women with a personal or family history of breast cancer.

Many women, however, choose not to participate in timely screening, either through ultrasound imaging, mammography, or MRI scans. Avoiding or delaying such tests and the early detection of possible breast cancer can have serious consequences, limiting subsequent treatment options and compromising their effectiveness. This can have significant impact on patients, their families, and on the healthcare system.

The reasons women choose to avoid or postpone timely screening are varied, but many have to do with the stress and anxiety that accompany such medical tests. If the factors that contribute to this stress and anxiety can be reduced, the likelihood that more women will participate in timely screening can be increased.

This is precisely what Emily Sedgwick, MD, accomplished at the Baylor Clinic in Houston, Texas, through a combination of technological innovation, staff training, standardization of protocols, and a series of patient-friendly reforms.

Breast cancer is impacting

2.1 million women

each year¹



The results are clear:

- more accurate and timely diagnosis leading to better patient outcomes
- a demonstrably better patient experience
- increased revenue, largely as a result of higher patient numbers

This paper examines how Emily Sedgwick achieved these impressive results, and offers insights on how others working in comparable treatment pathways, can deploy similar techniques.

The challenge

Breast cancer remains the world's leading cause of cancer deaths among women.² It is also one of the diseases women fear most, often creating intense fear in those who receive a breast cancer diagnosis, as well anxiety among those who dread the thought that they might one day feel a lump in their own breast or get that call after a mammogram.

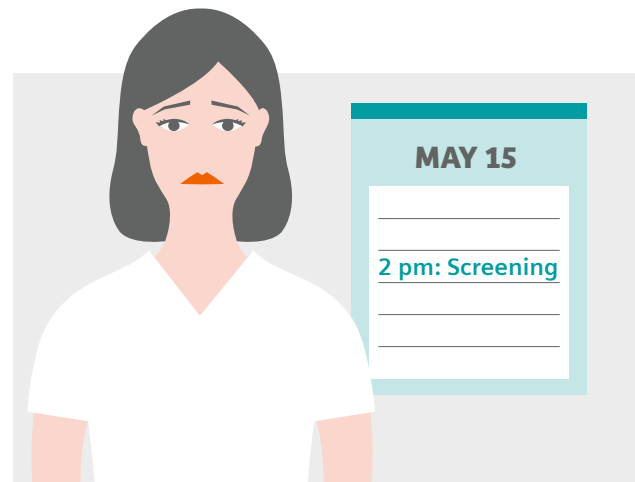
Effectively managing breast cancer screening – along with its accompanying fears and complications – is a central challenge facing healthcare providers. A more efficient process can contribute to earlier detection, better treatment, and a more effective allocation of healthcare resources.

In the past, the screening process was complex and time-consuming. In the U.S., the median time from the initial detection of an abnormal mammogram to biopsy was 14 days. The median time from biopsy to subsequent treatment was 23 days.

The fear and anxiety associated with breast cancer screening has real consequences, both direct and indirect. These occur throughout the screening process, including the time before and after the actual testing.

Before screening

Fear of breast cancer screening discourages many women, even those identified as being at greater risk (e.g. those with a family history of breast cancer), from undergoing timely examination. Both initial attendance as well as follow-up are negatively impacted.³



“A more efficient breast cancer screening process can contribute to earlier detection, better treatment, and more effective allocation of healthcare resources.”

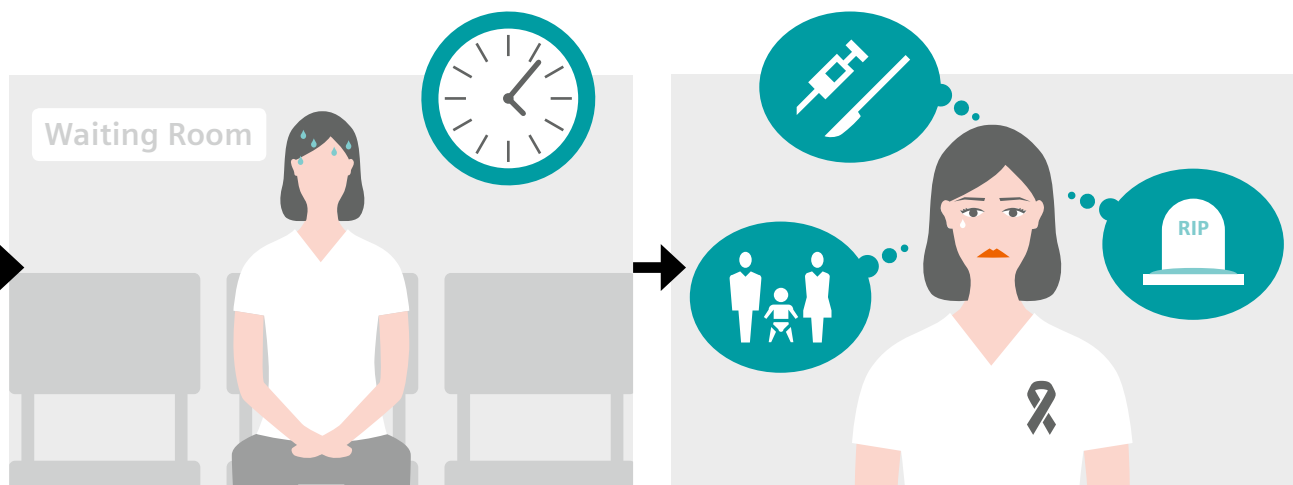
Emily Sedgwick, MD

During screening

The screening process itself is difficult for many patients. All medical tests, particularly those for a potentially life-threatening illness, are challenging, and the time spent at clinics and in waiting rooms can be highly stressful. Mammography compression, with its accompanying pain and discomfort, can be particularly unpleasant for many women. The period of waiting for exam results can also be a time of great stress, particularly if this period of uncertainty lasts for days or even weeks. A patient's ability to cope with this anxiety depends on numerous factors including their own vulnerability and resilience.^{4,5,6,7,8} It is never a pleasant time and any measures that can shorten this waiting period are to be welcomed. Just the thought of a positive cancer diagnosis can cause emotional distress as well as physical symptoms including restlessness, tachycardia, shortness of breath, sweating, and muscle tension.

After screening

For those women who do receive a cancer diagnosis, this news can be particularly harmful. There is a strong association between cancer and a variety of emotional disorders including anxiety and clinical depression.⁹ Studies suggest that more than the half of patients diagnosed with cancer react with moderate to high anxiety and depression. The risk that a woman with a breast cancer diagnosis will suffer from an anxiety disorder is four to five times greater than the risk among healthy women.^{4,5} Research also suggests that women are more psychologically susceptible to debilitating reactions of this type than men.



Delaying treatment from two weeks to more than six weeks can lower the five-year survival rate of breast cancer patients by as much as

10%¹⁰

Recurring screening

For many women, breast screening is a recurring experience. Breast cancer screening guidelines in the U.S. recommend that women between the ages of 25 and 40 at average breast cancer risk undergo a clinical breast examination once a year.² Women over the age of 40 should have an annual mammogram in addition to the annual breast examination. For woman with dense breast tissue, ultrasound exams may also be recommended. For women of above-average breast cancer risk, a clinical exam every six months may be recommended. For many women, this adds up to frequent screening visits, each accompanied by fear and anxiety.¹¹

This fear and anxiety – before, during, and after screening – can act an impediment to mammography tests for many women. A study of women identified as having particularly dense breast tissue who were invited to undergo MRI breast screening found that only 59% chose to participate. A common reason cited for non-participation was “anxiety”. Research suggests that initial attendance for screening as well as follow-up are both negatively impacted by patient fear and anxiety.^{12,13}

Partly as a result of the harmful effects caused by this fear and anxiety, the National Health Service in the UK has amended their screening guidelines, reducing the recommended frequency of exams for woman of average and low risk.

Clinical parameters clearly demonstrate a high correlation between early treatment breast cancer and success in combating the disease. Early and comfortable breast cancer screening is not only about having a better diagnostic experience, it also improves therapy outcomes that matter to patients.

The solution

Delivering outcomes that matter through a better diagnostic experience.

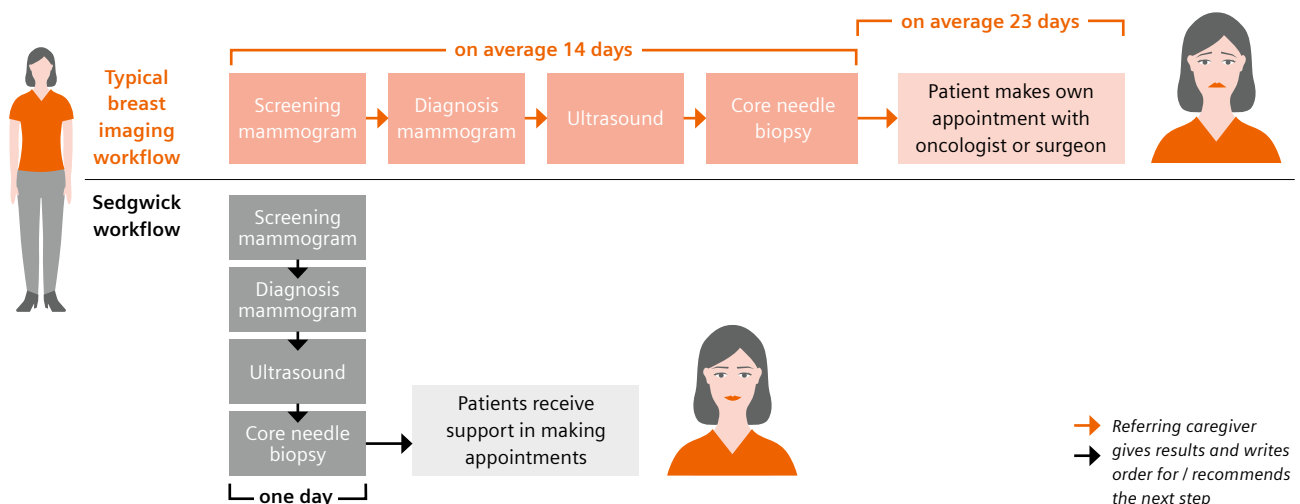
The Baylor Clinic, part of the Baylor College of Medicine in Houston, Texas, is home to many of the world's leading breast health specialists: physicians and scientists with expertise in prevention, diagnosis, and treatment of both breast cancer as well as benign breast conditions. The breast imaging teams working at the Baylor Clinic see patients struggling with the screening process every day.

Many patients arrive at the clinic already burdened by fears and uncertainties. And once they arrive at the clinic, many patients exhibit signs of anxiety well before any results being available to them. Once examinations have been completed, for those women whose tests do not indicate any abnormalities or signs of cancer, receiving

this news promptly is welcome good news. For those who do require further tests or treatment, the sooner they have this information the sooner they can proceed with appropriate treatment. This too reduces anxiety and increases the likelihood that treatment will be effective.

With these goals in mind – faster results, quicker care for those who need it, and less anxiety for all patients – the team at the Baylor Clinic, led by Emily Sedgwick, MD, set out to design an improved and more effective patient experience. Their mission was to redesign their entire diagnostic experience, to offer all patients quicker service, quicker results and, when required, quicker access to treatment.

A smoother and more seamless screening process would result in better, more efficient internal workflows, reducing the burden on employees and physicians, and allowing resources to be deployed more effectively.



“My ambitious goal was to perform mammography, biopsy, and then deliver outcomes that matter to patients, all in one day.”

Emily Sedgwick, MD

An Improved Patient Experience through a one-day breast biopsy program.

To address these issues, Emily Sedgwick, MD, and her team set out to redesign the entire patient experience of women receiving breast cancer screening at the Baylor Clinic. Sedgwick’s ambitious and groundbreaking idea was to perform mammography, biopsy and then deliver outcomes that matter to patients, all in one day. This package of same-day service would not only deliver outcomes to patients in a more timely way, it would also make treatment available as early as the next day, if signs of cancer or abnormal results were detected.

As a result of Sedgwick’s innovations, patients at the Baylor Clinic today can have their mammograms, speak with a radiologist, and proceed with any recommended further imaging or biopsy tests all on the same day. One day later, patients can get their biopsy results, usually by speaking with a radiologist over the phone, saving them the trouble of another visit. Another appointment is then set up, if needed.

To provide focus and direction to this program, Emily Sedgwick developed the following Five Step Process:

1 Engage with patients and their families

The program developed by Sedgwick redesigned all workflows and care from a patient’s perspective. Patients and family members were asked to complete patient experience surveys to gain insights into how patients perceive the care they received, and to identify areas for improvement in relations between the patient and the care team. The goal now is to educate every patient about procedures in advance and to build realistic expectations.

2 Hone talent and ensure staff acceptance

To expand their services, the Baylor Clinic recruited certified mammography technologists and breast ultrasound technologists. In addition, one nurse position dedicated to coordinating breast biopsies and arranging breast oncology or breast surgery follow-up was created. These changes to the breast imaging team contributed to the overall success of the program. The working environment was made more flexible, and staff were trained to reduce patient anxiety. Daily staff huddles were used to proactively identify problems that could cause workflow bottlenecks and to improve buy-in and support to accept additional day patients for same-day evaluations.

3 Standardize protocols and optimize image interpretation

The Baylor Clinic changed the set-up of the radiologists interpreting mammograms, implemented a range of standardized processes including common imaging scenarios and protocols as well as weekly stakeholder meetings with breast imaging radiologists, administrative staff and technologists. In addition, core needle biopsy management algorithms were created for easy reference.

4 Enhance imaging referral

Steps were taken to define a new breast imaging order process where a radiologist was permitted to perform diagnostic mammography, ultrasound or breast biopsy, if needed. An electronic medical record was used to send a report to the referring physician at each step of the process, and the referring physician was called if a biopsy was recommended for a patient, with the electronic medical record notifying the physician of the biopsy result. At the same time, a breast imaging radiologist or nurse would contact the patient to discuss the biopsy result.

5 Implement patient-friendly technology

In the breast imaging community, multiple methods have been tested to reduce patients' fear and anxiety when undergoing screening for possible breast cancer, such as spa-like décor, offering patients robes, and playing music during procedures. Technological innovations have also been developed to improve patient comfort including radiolucent adhesive pads on the mammography paddles, which are curved to accommodate the lines of a woman's body and reduced mammography compression. One of the most effective interventions to reduce patient fear and discomfort in the exam room is the mammography technologist. Technologists were encouraged to permit patients freedom to express their needs, such as feeling cold or pain, and have been taught to explain technology in a patient-friendly way.



Suggested follow ups

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- Health Catalyst: How care redesign and process improvement can reduce patient fear
 - Insights Series 3: A blueprint for setting up an impactful patient experience program
 - HBR Paper: A four part approach to delivering the care patients want and need
 - Economist paper: Improving patient experience
-

I have been to several breast care centers in different states, Baylor stands out. Not with just the friendliness of staff and techs, but learning our results, receiving an ultrasound and biopsy if necessary on the same day ... is a blessing to women.

Patient voice

Conclusion

Emily Sedgwick's overhaul of the entire patient experience at the Baylor Clinic produced tangible results, for patients and for the Clinic. Measurable improvements include:

Better diagnostics and outcomes

Cancer detection rates at the Baylor Clinic are now 6.1 cancers per 1,000 women (compared to a benchmarks of >2 per 1,000 women). The recall rate – that is, patients who must return because of inaccurate or faulty tests during their first visit – has dropped to 6.2% (at the low end of the MQSA national benchmark of 5–12%)

An improved patient experience

Compared to its neighboring academic peers, the overall patient experience at the Baylor Clinic has ranked above the 96th percentile for three years within the HCAHPS/Press Ganey scores.

Increased revenue

Largely as a result of the changes introduced by Emily Sedgwick, annual imaging revenue at the Baylor Clinic has increased from \$500,000 in 2009 to \$2,500,000 in 2018.

Focusing on improving the patient experience and developing solutions from the patient perspective can be a game changer for hospitals. Others have observed the changes at the Baylor Clinic and have asked Emily Sedgwick to implement similar programs for their organizations.

For example, at the Harris Health System in Texas, Emily Sedgwick was able to successfully apply many of the innovations she had introduced at the Baylor Clinic program, with more than 35,000 patients already benefiting. Since 2010, Harris Healthcare has seen wait times from abnormal results to first day of treatment improve by almost 70%. Wait times to biopsy improved by an even more impressive 88.9%. Wait times from abnormal results to biopsy improved by 66.9%.

As impressive as these results are, there is still room for further progress. AI-driven decision support, for example, could support pathologists and contribute to even more substantial improvement.



Literature

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About the authors



Emily Sedgwick, MD

Emily Sedgwick is Chief Medical Officer at HCA Houston Healthcare West. She is nationally recognized for her clinical expertise and innovation, having received Press Ganey's prestigious Physician of the Year award in 2018 for dramatically reducing wait times for breast biopsies in Houston. Emily Sedgwick previously served as Chief Quality Officer for Baylor College of Medicine and completed her residency at Harvard Medical School's Brigham & Women's Hospital.



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Ralph Wiegner and his team engage in thought leadership and portfolio-related activities for improving the patient experience. He is a member of both The Beryl Institute and the Solutions Provider Advisory Board at The Beryl Institute. Prior to joining Siemens Healthineers, he spent several years with McKinsey & Company, where he worked on various European and international assignments. Ralph holds a PhD in theoretical physics from the University of Erlangen, Germany, and completed a number of research engagements at Oklahoma State University, USA.

At Siemens Healthineers, our purpose is to enable health-care providers to increase value by empowering them on their journey toward expanding precision medicine, transforming care delivery, and improving patient experience, all made possible by digitalizing healthcare. An estimated 5 million patients globally benefit every day from our innovative technologies and services in the areas of diagnostic and therapeutic imaging, laboratory diagnostics, and molecular medicine, as well as digital health and enterprise services.

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