

# Meeting the challenge— A surgeon-centered quality program:

## THE AMERICAN SOCIETY OF BREAST SURGEONS MASTERY OF BREAST SURGERY PILOT PROGRAM

by

**Alison L. Laidley, MD, FACS, FRCSC;  
Eric B. Whitacre, MD, FACS;  
Howard C. Snider, MD, FACS;  
and Shawna C. Willey, MD, FACS**

---

**S**urgeons occupy a central role in the management of both benign and malignant breast disease. Breast cancer is the most commonly diagnosed cancer in women, with an estimated one in eight chance for an American woman to develop breast cancer during her lifetime. Numerous organizations have developed quality measures for breast cancer care, and although breast cancer care is multidisciplinary, many of the quality measures are the responsibility of the breast surgeon. However, no standard, readily accessible mechanism for surgeons to report adherence to these measures currently exists.

The American Society of Breast Surgeons (ASBrS) recently developed the Mastery of Breast Surgery Pilot Program, A Continuing Quality Improvement Initiative. It was developed in response to the urgent need for ongoing quality improvement in the practice of breast surgery. The goal of the program is to provide the surgeon with Web-based tools to document quality outcomes in patient care.

In December 2008, the ASBrS introduced the pilot phase of the program, which allows individual surgeons to report and receive feedback on a limited number of quality measures for open surgical procedures for benign or malignant breast disease. The program has met with remarkable success, with 709 physicians registered to participate. In the first 12 months of data collection, more than 380 surgeons have entered nearly 35,000 cases. The following is a description of the initial participation in the pilot program.

## The pilot program

The pilot phase of the Mastery Program is open to all surgeons who meet the eligibility requirements, regardless of practice setting or volume of breast surgery. These criteria are based on recommendations of the Mastery of Breast Surgery Committee and approved by the board of directors of the ASBrS, and represent minimum requirements for surgeons caring for breast patients. Additional requirements may be added as further information becomes available on best practices in breast care. Board certification by the American Board of Surgery (ABS), its international equivalent, or the American

Osteopathic Association is required, unless the surgeon has completed a breast surgery fellowship. Completion of a combined American Society of Breast Disease, American Society of Breast Surgery, Society of Surgical Oncology-approved breast fellowship also confers eligibility. Surgeons who were initially board certified, but have not recertified because of a more focused practice, are also eligible to apply.

Participation in the pilot program requires a minimum of eight hours of breast-specific AMA/PRA category 1 continuing medical education (CME) credits within the previous year, or 16 hours within two years prior to application. The CME credits can be obtained through a variety of courses, including education in breast surgical techniques, breast imaging, radiation physics, breast disease risk assessment, radiation or medical oncology, practice management for breast surgical practices, quality improvement, and public-reporting of quality measures programs. Breast-specific CME can also be obtained through attending breast disease-specific meetings and other surgical meetings.

Participating surgeons are required to enter data for a minimum of three months on three specific quality measures on all open breast surgical procedures for both benign and malignant disease. The simple, but critically important, surgeon-controlled quality measures include:

1. Was a needle biopsy performed to evaluate the breast lesion at some time prior to this procedure?<sup>1,2,3</sup>
2. Was the surgical specimen oriented?<sup>1,4,5</sup>
3. If a non-palpable lesion was localized with image guidance, was there intraoperative confirmation of its removal?<sup>1,6,7</sup>

It is expected that surgeons will continue to participate by entering data on all of their cases after the initial three-month period. Ongoing participation will maintain their standing in the Mastery of Breast Surgery Pilot Program as it grows and develops new quality measures.

## Data entry

The Web-based Mastery data entry screen (see Figure 1, page 25) requires input of limited demographic data in addition to responses for the three quality measures. Although the patient's

**Figure 1: Data entry screen**

tion to be selected from a “Why not?” drop-down menu. There are valid clinical reasons why a needle biopsy might not be done prior to surgery. For example, the lesion might be too close to the skin, chest wall, or implant. Efforts were made to include in the drop-down menu the valid clinical reasons the quality indicator was not met, in order to provide meaningful data for analysis. Additional explanatory comments, if necessary, can be made for each of the measures in the “Other” space. Beside each quality measure are links that supply answers to frequently asked questions. In addition, links to references that support the validity of the quality measures appear beside all three measures. If any data is entered incorrectly, it can be corrected by selecting “View Cases/Edit” from the toolbar.

## Reports

It is expected, as the program continues to develop and be refined, that many more quality reports useful to the surgeon will be available. Selecting “Reports” on the toolbar can currently access two reports. The “Summary of Procedures” report (Figure 2, page 27) allows the surgeon to compare

name and date of birth are required fields, the surgeon may enter a self-generated number or even identifiers such as “x” or “y” in place of the patient’s name. The procedure that most closely matches the one performed is selected from a drop-down menu, or the surgeon can enter unlisted procedures in the “Other” space.

For patients in whom all three quality measures have been met, three “Yes” clicks quickly complete the data entry. Frequently, a “No” response is appropriate but requires an explana-

tion to be selected from a “Why not?” drop-down menu. There are valid clinical reasons why a needle biopsy might not be done prior to surgery. For example, the lesion might be too close to the skin, chest wall, or implant. Efforts were made to include in the drop-down menu the valid clinical reasons the quality indicator was not met, in order to provide meaningful data for analysis. Additional explanatory comments, if necessary, can be made for each of the measures in the “Other” space. Beside each quality measure are links that supply answers to frequently asked questions. In addition, links to references that support the validity of the quality measures appear beside all three measures. If any data is entered incorrectly, it can be corrected by selecting “View Cases/Edit” from the toolbar.

It is expected—and strongly encouraged—that the surgeon will continue to participate in the program by entering data on all of their open surgical breast cases.

---

## Confidentiality of the data

All necessary legal work has been completed to allow surgeons to report on patients using a secure server and encrypted identification numbers. Each individual surgeon's data is kept strictly confidential, and only the de-identified data is available to the ASBrS staff and appropriate committee and board members. The ASBrS will not make individual surgeon data available to the public, insurance companies, advocacy groups, credentialing bodies, or any other interested parties except in strict accordance with the Business Associate Agreement that must be signed to participate in the program. Nevertheless, the ASBrS cannot guarantee that it will not be forced to release data, including individual surgeon data, requested under the compulsion of a legally enforceable subpoena, search warrant, or court order.

## Benefits of participation

It seems inevitable that surgeons will be required in the near future to document the quality of their work in order to obtain reimbursement. The ABS has recently recognized the Mastery of Breast Surgery Pilot Program as an acceptable quality initiative to meet the requirements of Part 4 (Evaluation of Performance in Practice) for ABS Maintenance of Certification. All surgeons who successfully fulfill the requirements of continuous case reporting for a minimum of three months, complete the Mastery application, and have the appropriate level of CME credits will receive a printed certificate attesting to their participation in the Mastery of Breast Surgery Pilot Program.

## Current status

The program was designed to be inclusive of all surgeons who perform breast surgery because of the belief that community or rural general surgeons, regardless of the volume of breast cases, will benefit from participation in the program as much as will dedicated breast surgeons. Participants in the program represent a broad cross-section of surgeons throughout the U.S., with surgeons in the Northeast represent-

ing the largest group (31 percent). The majority of surgeons, 69 percent, are in private practice, 42 percent are in group practice, and 27 percent are in solo practice. Hospital-employed surgeons (21 percent) and academic surgeons (10 percent) comprise the remaining participants. Almost half of the surgeons (48 percent) limit their practice to breast surgery, and 76 percent devote at least half of their practice to breast problems. Most of the participants perform ultrasound (96 percent), ultrasound-guided office procedures (92 percent), and intraoperative ultrasound (90 percent). Seventy-one percent of the surgeons perform stereotactic-guided breast procedures. Many participate in other quality improvement programs.

## Discussion

The Mastery of Breast Surgery Pilot Program was developed on a "proof of principle" basis—essentially a feasibility project. Could we design a Web-based, self-reporting program that would be user-friendly and allow the surgeon to report on open breast surgical cases, whether outpatient or inpatient? Could the data entry site be easily accessible and usable by the participant? Would surgeons be interested in participating in the program? Clearly the wide acceptance by surgeons, and the volume of data entered in a short period of time, answered these questions affirmatively.

The choice of the initial quality measures to launch this program was made after much discussion with members of the Patient Safety and Quality Improvement Committee and the Mastery of Breast Surgery Committee of the ASBrS. The initial three quality measures were selected for the pilot program, not only because of their importance in patient care, but also because they are under the complete control of the surgeon.

Breast surgery has become less invasive and more precise, with emphasis on procedures that minimize morbidity and deformity. The optimal approach for diagnosis is no longer excisional biopsy or needle-localized excisional biopsy, but percutaneous needle biopsy. After a tissue diagnosis is made and the results are determined to be concordant, appropriate surgical management can proceed, usually with a single operation. Performing a preoperative needle biopsy (quality

**Figure 2: Summary of Procedures**



THE AMERICAN SOCIETY OF BREAST SURGEONS  
**MASTERY OF BREAST SURGERY PILOT PROGRAM**  
 A Continuing Quality Improvement Initiative


Home	Enter New Case	View/Edit Cases	Reports ▼	Tools ▼	Contact Us	Logout
------	----------------	-----------------	-----------	---------	------------	--------

**Summary of Procedures**

Summary of Procedures	Your Total	All Members	Your %	All Members %
All	0	34902		
Open surgical biopsy palpable lesion without image guidance	0	4119	0	12
Open surgical biopsy following image guided localization	0	5587	0	16
Nipple exploration with duct excision	0	1111	0	3
Lumpectomy without image guidance	0	743	0	2
Lumpectomy without image guidance and SLN only	0	1137	0	3
Lumpectomy without image guidance and SLN followed by immediate ALND	0	254	0	1
Lumpectomy without image guidance and ALND	0	182	0	1
Lumpectomy with image guidance	0	3871	0	11
Lumpectomy with image guidance and SLN only	0	5228	0	15
Lumpectomy with image guidance and SLN followed by immediate ALND	0	591	0	2
Lumpectomy with image guidance and ALND	0	331	0	1
Re-excision of lumpectomy site (prior surgery by myself)	0	1609	0	5
Re-excision of lumpectomy site (prior surgery by another surgeon)	0	101	0	0
Total mastectomy	0	2081	0	6
Total mastectomy and SLN only	0	3784	0	11
Total mastectomy and SLN followed by immediate ALND	0	938	0	3
Modified radical mastectomy (without SLN procedure)	0	1210	0	3
SLN dissection (separate procedure)	0	422	0	1
Axillary LN dissection (separate procedure)	0	465	0	1
Other	0	1138	0	3

Powered by Whispercom

**Figure 3: Summary of Quality Measures**


THE AMERICAN SOCIETY OF BREAST SURGEONS  
MASTERY OF BREAST SURGERY PILOT PROGRAM  
A Continuing Quality Improvement Initiative

Home
Enter New Case
View/Edit Cases
Reports ▾
Tools ▾
Contact Us
Logout

**Summary of Quality Measures**

Quality Measure:			Your Total	All Members	Your %	All Members %
<b>Was a needle biopsy performed to evaluate this targeted lesion at some time prior to this procedure?:</b>	Yes		0	25403	0	73
	No		0	9497	0	27
<b>If not, why not?</b> (not required)						
Clinical and imaging findings consistent with a benign lesion			0	2057	0	6
Lesion too close to skin, implant, chest wall, etc.			0	1634	0	5
Patient refused needle biopsy			0	1013	0	3
Lesion could not be adequately visualized for needle biopsy			0	994	0	3
Patient condition prevents needle biopsy (weight, breast thickness, etc.)			0	460	0	1
Appropriate needle biopsy not available in my community			0	34	0	0
Open biopsy was previously performed by another physician			0	273	0	1
Duct excision without imaging abnormality			0	913	0	3
Prophylactic mastectomy			0	799	0	2
Other			0	1169	0	3
<b>Was the surgical specimen oriented ?</b>						
	Yes		0	29287	0	84
	No		0	5613	0	16
<b>If not, why not?</b> (not required)						
Clinical and imaging findings consistent with a benign lesion			0	2928	0	8
Tissue fragmented during removal			0	290	0	1
Specimen handling precluded orientation (moved from surgical field, etc.)			0	106	0	8
Orienting specimen would add no value (recurrent disease, etc.)			0	807	0	2
Lymph node procedure			0	521	0	1
Other			0	675	0	2
<b>If a non-palpable lesion was localized with image guidance, was there intraoperative confirmation of its removal?</b>						
	Yes		0	16340	0	47
	No or NA		0	18560	0	53
<b>If not or N/A, why not?</b> (not required)						
Lesion was palpable pre-operatively			0	5911	0	17
Additional surgery for margins			0	1926	0	6
Duct excision without a lesion that could be imaged			0	1038	0	3
The patient had a mastectomy			0	7057	0	20
Appropriate imaging modality was not available for confirmation			0	224	0	1
Lymph node procedure			0	547	0	2
Other			0	890	0	3

Powered by Whispercom

measure 1) is consistent with the recommendations made by the International Consensus Conference II on Image Detected Breast Cancer: State of the Art Diagnosis and Treatment.<sup>1</sup> The Mastery of Breast Surgery Pilot Program does not require the surgeon to perform the needle biopsy, but it does require that a physician, surgeon, or radiologist do a needle biopsy prior to the surgical procedure when appropriate.

Orientation of the surgical specimen (quality measure 2) allows the pathologist to assess the margins of the specimen to determine the adequacy of excision and allow precise re-excision if the margins are not clear. There are reasons why the surgeon would not orient a specimen—such as excising a benign lesion, lymph node procedures, or situations where orienting the specimen would add no value to subsequent management decisions. Specimen orientation will minimize deformity caused by excessive tissue removal from the breast when margin re-excision is necessary. The surgeon can orient the specimen or request the pathologist to do so in the operating room, but orientation is under the surgeon’s control.

Intraoperative confirmation of removal of an image-guided lesion (quality measure 3) is another part of precise, directed surgery that minimizes the risk of removing the wrong tissue or an inadequate amount of tissue. Intraoperative confirmation of excision of the lesion can be done by specimen radiograph, intraoperative ultrasound, palpation of the lesion,

---

immediate serial sectioning by the pathologist, or direct visualization of the surgical specimen by the surgeon. If the target lesion is a cluster of microcalcifications, a specimen radiograph *must* be done to confirm calcifications. Depending on the location of the targeted lesion within the specimen, more tissue can be removed to increase the likelihood of clear margins. Surgeons are responsible for verifying the targeted lesion has been removed before moving the patient from the operating table.

### Future directions of the program

Self-reporting is a fundamental step in improving quality of care. It is evident that a mechanism for data collection is needed in the field of breast surgery, and breast cancer in particular. Through data collection and analysis, a method for defining and validating quality measures for breast surgical care can be established. Furthermore, through the development of a comprehensive reporting system, surgeons will be given the tools to improve the care given to each patient, improve their individual practice, and incorporate quality measures into daily practice.

The ASBrS will now transition the success of reporting on the initial quality measures in the pilot phase to a more robust program. Additional quality measures will be introduced with input from ASBrS members, reviewed by the Mastery Committee, and receive approval by the board of directors. There are plans to collect data specific to breast cancer, and to develop a more comprehensive and sophisticated quality reporting system. Mechanisms are currently under development that should allow surgeons to track their needle biopsy data for practice accreditation in ultrasound and stereotactic procedures. Plans are also under way to develop a series of “synoptic reports” for reporting breast procedures.

### Getting started

Participation in the pilot program is free to members of the ASBrS at this time. Applicants who are not members of the ASBrS must submit an application fee. Nonmembers are encouraged to join the ASBrS and enjoy the benefits of membership.

For surgeons to participate in the pilot program, they are invited to go to the ASBrS Web site, <http://www.breastsurgeons.org>, to complete a brief registration form. They will then be given a link to a data collection software program for entering cases. The Web site has an online application form that must be completed, including reporting the required CME. Surgeons who attend the annual meeting of the ASBrS automatically meet the CME requirements.

There are links to the Mastery Program Web site on the ASBrS Web site for easy access to the program. All documents regarding the Mastery Program are available on the ASBrS Web site and the Mastery Web site. The documents include:

- Frequently asked questions (FAQ)
- Background and history of the program
- User agreement
- Participation agreement

---

**Dr. Laidley** is a breast surgeon at Breast Surgeons of North Texas, Dallas, TX.




---

**Dr. Whitacre** is director of the Breast Center of Southern Arizona, Tucson, AZ.



---

All queries received from participants are acknowledged by e-mail from the ASBrS, via a member of the Mastery Committee. The program has changed significantly in response to these questions and from other feedback from our participants. All queries are stored for reference to ensure continuity of answers, as well as to update the FAQ documents and brochures. 

---

### Acknowledgments

The authors wish to thank the members of the Mastery of Breast Surgery Committee for their dedication to the development and implementation of this project. The members of the committee are: Victor J. Zannis, MD, FACS, Breast Care of the Southwest, Phoenix AZ; Helen A. Pass, MD, FACS, assistant professor of clinical surgery, Lawrence Hospital, Bronxville NY; Richard E. Fine, MD, FACS, Advanced Breast Care, Marietta, GA; Arthur G. Lerner, MD, FACS, Dickson Cancer Treatment Center, White Plains NY; Lorraine Tafra, MD, FACS, Anne Arundel Medical Center, Annapolis MD; and John West, MD, FACS, Breast Care Center of Orange County, Orange CA. Special thanks go to ASBrS staff members Sharon Grutman and Christina Lucara, and to Jane Schuster, the executive director of the ASBrS, for their expert coordination and implementation of this project.

---

### References

1. Silverstein MJ, Lagios MD, Recht A, Allred DC, Harms SE, Holland R, Holmes DR, Hughes LL, Jackman RJ, Julian TB, Kuerer HM, Mabry HC, McCready DR, McMasters KM, Page DL, Parker SH, Pass HA, Pegram M, Rubin E, Stavros AT, Tripathy D, Vicini F, Whitworth PW. Image-detected breast cancer: State of the art diagnosis and treatment. *J Am Coll Surg*. 2005; 201(4):586-597.
2. The American Society of Breast Surgeons. American Society of Breast Surgeons position statement; Percutaneous needle biopsy for image detected breast abnormalities. Approved June 12, 2006. Available at: <http://www.breastsurgeons.org/statements/mibb.php>. Accessed December 14, 2009
3. Brenner RJ, Bassett LW, Fajardo LL, Dershaw DD, Evans WP, Hunt R, Lee C, Tocino I, Fisher P, McCombs M, Jackson VP, Feig SA, Mendelson EB, Margolin FR, Bird R; Sayre JJ. Stereotactic core-needle breast biopsy: A multi-institutional prospective trial. *Radiology*. 2001; 218(3):866-872.
4. Policy Statement on Routine Orientation of Excised Breast Specimens. June 6, 2005. American Society of Breast Disease. Available at: [http://www.asbd.org/downloads/American\\_Society\\_of\\_Breast\\_Disease\\_Statement\\_on\\_Breast\\_Specimen\\_Orientation.pdf](http://www.asbd.org/downloads/American_Society_of_Breast_Disease_Statement_on_Breast_Specimen_Orientation.pdf). Accessed December 21, 2009.
5. Fleming FJ, Hill AD, Mc Dermott EW, O'Doherty A, O'Higgins NJ, Quinn CM. Intraoperative margin assessment and re-excision rate in breast conserving surgery. *Eur J Surg Oncol*. 2004;30(3):233-237.
6. Dixon JM, Ravi Sekar O, Walsh J, Paterson D, Anderson TJ. Specimen-orientated radiography helps define excision margins of malignant lesions detected by breast screening. *Br J Surg*. 1993; 80(8):1001-1002.
7. Chagpar A, Yen T; Sahin A, Hunt KK, Whitman GJ, Ames FC, Ross MI, Meric-Bernstam F, Babiera GV, Singletary SE, Kuerer HM. Intraoperative margin assessment reduces reexcision rates in patients with ductal carcinoma in situ treated with breast-conserving surgery. *Am J Surg*. 2003;186(4):371-377.

---

**Dr. Snider** is medical director of the Alabama Breast Center, Montgomery, AL.



---

**Dr. Willey** is director of the Betty Lou Ourisman Breast Health Center, Georgetown University Hospital, Washington, DC.

