

Key Areas for Development in Oncoplastic Breast Reconstruction

Bianca J. Molina, MD*
Rita D. Shelby, MD†
Jeffrey E. Janis, MD, FACS*

Background: Oncoplastic breast reconstruction addresses lumpectomy or partial mastectomy defects after breast conserving surgery. A large subset of breast cancer patients may be candidates for oncoplastic partial breast reconstruction, but are likely underserved in the United States due to multiple factors. In this article, the authors provide an understanding of current trends in the literature and an overview of key areas for improvement in the delivery of breast cancer surgical care.

Methods: A literature search of peer-reviewed articles relating to oncoplastic breast reconstruction was performed. In addition, current US laws relating to breast reconstruction, and communication and content from key surgical societies were reviewed. Key areas of improvement were identified after qualitative review of all sources.

Results: Thirty-four relevant resources were included. There is a large potential population need for oncoplastic breast reconstruction, but no current accurate estimate of patients undergoing this type of reconstruction. There are a multitude of definitions and algorithms attempting to define and organize oncoplastic breast surgery. Legislative initiatives could be improved to prevent coverage gaps. Coding and billing for oncoplastic surgery is not standardized, which complicates both clinical implementation and research efforts. Collaboration between national societies is needed.

Conclusions: Oncoplastic partial breast reconstruction is an important part of the total package of care that can be offered to the breast cancer patient. Improvements in legislation, coding, and billing, and unification of national society communications and initiatives can lead to better surgical outcomes for the breast cancer patient. (*Plast Reconstr Surg Glob Open* 2020;8:e3273; doi: [10.1097/GOX.0000000000003273](https://doi.org/10.1097/GOX.0000000000003273); Published online 17 December 2020.)

INTRODUCTION

Oncoplastic breast reconstruction is an important adjunct to breast conserving surgery (BCS) in the appropriate patient, as it addresses the resultant lumpectomy or partial mastectomy defect and asymmetry of the contralateral breast. While BCS has become mainstream in the oncologic surgical treatment of female breast cancer, oncoplastic breast reconstruction is not as widely utilized compared with BCS. This uncoupling of complementary surgical interventions is due to multiple factors.

Oncoplastic breast reconstruction is currently backed by a body of literature that lacks standardization. The aim of this study was to provide an understanding of the context within which oncoplastic breast reconstruction is performed in the USA and to discuss key areas where gains in policy and peer-reviewed literature will enhance the delivery of breast cancer surgical care.

METHODS

A PubMed search was performed using the terms ((oncoplastic) AND (breast)) OR “partial breast reconstruction.” Article titles and abstracts were individually reviewed to ensure they pertained to the topic of partial breast reconstruction. Sources were included if they could help answer the following questions:

1. What is the potential need for oncoplastic (partial) breast reconstruction in the USA?

*From the *Department of Plastic and Reconstructive Surgery, The Ohio State University Wexner Medical Center, Columbus, Ohio; and †Department of Surgery, The Ohio State University Wexner Medical Center, Columbus, Ohio.*

Received for publication July 31, 2020; accepted October 2, 2020.

Drs. Molina, Shelby, and Janis contributed equally to this work.

Copyright © 2020 The Authors. Published by Wolters Kluwer Health, Inc. on behalf of The American Society of Plastic Surgeons. This is an open-access article distributed under the terms of the [Creative Commons Attribution-Non Commercial-No Derivatives License 4.0 \(CCBY-NC-ND\)](https://creativecommons.org/licenses/by-nc-nd/4.0/), where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially without permission from the journal.

DOI: [10.1097/GOX.0000000000003273](https://doi.org/10.1097/GOX.0000000000003273)

Disclosure: *Dr. Jeffrey Janis receives royalties from Thieme and Springer Publishing and is a consultant for LifeCell. All the other authors have no financial interests to declare in relation to the content of this article. No funding was received for this study.*

2. How is oncoplastic breast surgery defined in the literature?
3. How does oncoplastic breast surgery fit into current legislation surrounding breast reconstruction?
4. How is oncoplastic breast surgery being coded and billed for, and who is billing?
5. Are there society-specific efforts focusing on oncoplastic breast reconstruction?

RESULTS

The PubMed search returned 1035 results. Articles that were not in English, or those strictly addressing BCS oncologic safety, cost-effectiveness, postoperative outcomes, reconstruction after mastectomy, or describing a single surgical technique were excluded to contain the scope of this paper. This resulted in 65 resources that were eligible for qualitative analysis. Supplementary information regarding laws and statistics were obtained from verified government and organizational Web sites. Ultimately, 34 references were included for this publication to answer the above questions.

DISCUSSION

Need for Oncoplastic Breast Reconstruction in the USA

Breast cancer is the number one cancer affecting women, with 12.8% of women diagnosed in their lifetime. In 2016, 3,477,866 women were living with breast cancer in the USA. In 2019, there were an estimated 268,600 new cases of female breast cancer, 56% of whom were ≤ 64 years old. Sixty-two percent of women diagnosed with breast cancer had localized disease confined to the primary site, and 30% had regional disease.¹ In the biennial update from the American Cancer Society published in November 2019, 61% of patients with stage I/II breast cancer, 20% with stage III, and 5% with stage IV disease underwent BCS.^{2,3}

From these statistics, we ask, “Who will potentially benefit from oncoplastic breast reconstruction after BCS?” Mostly, it is patients with stage I, II, and some stage III disease who are the majority of candidates for partial mastectomy. The American Cancer Society showed that the majority of women with early stage breast cancer in the USA who are receiving surgical treatment are undergoing BCS. Yet, of these women, it is difficult to know how many underwent oncoplastic reconstructive procedures to address lumpectomy defects or resulting asymmetry in the contralateral breast. With an estimated overall 5-year survival rate of 89.9%, and a 98.8% survival for those with localized disease, many women are living for a significant time period after this diagnosis.¹ The potential for a long-term positive surgical impact is significant for patients undergoing BCS who require reconstruction.

Definitions and Classifications for Oncoplastic Breast Reconstruction

The American Society of Breast Surgeons (ASBrS) definition of oncoplastics is:

“Breast conservation surgery incorporating an oncologic partial mastectomy with ipsilateral defect repair using

volume displacement or volume replacement techniques with contralateral symmetry surgery as appropriate.” This definition was borne out of literature review returning 30 articles providing definitions of oncoplastic surgery, many of which were contradictory and none standardized.⁴ In the majority of published literature, and in practice, “oncoplastic” breast reconstruction centers around techniques addressing partial mastectomy or lumpectomy defects. Although some international publications use the term “oncoplastic” to include reconstructive procedures performed on the breast after BCS and/or mastectomy, literature in the USA does not consider “oncoplastic” to pertain to post-mastectomy reconstruction.⁵

There are two widely referenced, superimposed frameworks to approach oncoplastic breast reconstruction.

Volume Displacement versus Volume Replacement

Volume displacement techniques include local tissue rearrangement with glandular re-approximation or manipulation at the site of the lumpectomy defect, in addition to therapeutic mastopexy and reduction mammoplasty. Volume replacement techniques include the use of implants or flaps, either local or pedicled, and in select cases free flap reconstruction.^{6,7} Oncoplastic breast conserving techniques may fall into 4 main categories: (1) simple wide local excision, (2) therapeutic breast reduction, (3) therapeutic mastopexy, and (4) volume replacement, and the choice of technique is based on the combination of baseline breast size and the percentage of breast tissue removed.⁷ In patients where $>50\%$ of the breast volume is resected, in small-breasted patients with medial tumors, or where there is a need for skin replacement, volume replacement techniques are needed for breast conservation.^{4,6,8} Volume replacement techniques such as the use of implants and pedicled or free flaps are most commonly applied to whole breast reconstruction, which contributes to confusion as to whether “oncoplastic” is specifically addressing defects after BCS versus mastectomy.

Levels

Levels have been assigned to oncoplastic surgery, both according to the volume of tumor removed and to the complexity of the reconstructive procedure required. In the USA, oncoplastic surgery is designated as level I or II according to the volume of tissue removed during tumor extirpation. Level I resections comprise $<20\%$ of the breast volume, and level II up to 50% .⁴ In Canada, level I includes up to 15% resection volume, level II includes 16% – 25% or a tumor in the upper inner quadrant or lower pole, and level 3 includes resections between 26% and 60% of the breast volume and any contralateral symmetrizing procedures⁹ (Table 1).

Levels ascribed to surgical interventions with increasing complexity have been designated I–III, or with descriptors such as “lower, upper, and highest.” Lower level procedures may include lumpectomy, local tissue flaps, re-centralization of the nipple, skin- and nipple-sparing mastectomy, and mastopexy for symmetry. Upper level procedures include reduction mammoplasty, augmentation mammoplasty, mastopexy with implant placement

Table 1. Oncoplastic Breast Surgery Classification Schemes by Level

Volume-based	Level	Percentage of Total Breast Volume Resected (%)	Tumor Location or Contralateral Procedure
United States	Level I	Up to 20	n/a
	Level II	Up to 50	n/a
Canada	Level I	16–25	n/a
	Level II	26–60	Upper inner quadrant, lower pole
	Level III	26–60	Any contralateral symmetrizing procedure
Complexity-based	Surgical Intervention		
Lower	Lumpectomy, local tissue flap, re-centralization of nipple, mastopexy, skin or nipple sparing mastectomy		
Upper	Reduction mammoplasty, augmentation mammoplasty, mastopexy with implant placement, immediate implant-based reconstruction		
Highest	Immediate or delayed implant-based reconstruction, pedicled or free flap reconstruction		

and immediate reconstruction with implants. Highest level reconstructive methods also include implant-based reconstruction, and pedicled or free flap reconstruction^{5,10,11} (Table 1).

Named classifications for oncoplastic breast surgery have also been published out of international centers, but are widely variable.^{12–14} These numerous classification systems and algorithms were published with the intention of organizing and developing guidelines for oncoplastic surgical training programs and for delivery of surgical care.¹² Most frameworks impart delineations between specialties performing surgery, such as general, breast, surgical oncology, and plastic surgeons, but the lines drawn are variable, especially when comparing US and international literature. The variability in classifications, algorithms, and proposed techniques of oncoplastic breast surgery has implications for policymaking, insurance coverage, and advocacy efforts, as these players attempt to parse through complicated literature to guide decision-making.

Legislation and Healthcare Reform Related to Breast Reconstruction

In 1998, the Women's Health and Cancer Rights Act (WHCRA) (public law 105-277) was passed to specifically address the reconstructive needs of the breast cancer patient. The WHCRA aimed to mandate insurance coverage of breast reconstruction in patients specifically undergoing *mastectomy*. Coverage includes: (1) all stages of reconstruction of the breast on which the mastectomy has been performed; (2) surgery and reconstruction of the other breast to produce a symmetrical appearance; and (3) prostheses and physical complications of mastectomy, including lymphedema. Under this law, group health plans, commercial insurance companies, and health maintenance organizations (HMOs) must cover reconstruction if the mastectomy or extirpative surgery is covered.^{15,16} The WHCRA did not, however, impose state-by-state mandates and left coverage gaps. For example, self-insured (self-funded) plans where medical costs are covered directly by the employer are not subject to the WHCRA inclusions.¹⁷

In 2013, the Breast Cancer Patient Education Act (2013) was passed to mandate appropriate educational resources

for racial and ethnic minority groups. Data up to this time showed lower rates of breast reconstruction and a need for culture- and language-specific education materials.¹⁸

These are the only laws that have been enacted that are specific to breast reconstruction, though they focused on reconstruction *after mastectomy*. In the span of over 20 years since the WHCRA passed, breast reconstruction has evolved to include a multitude of surgical options for both whole and partial breast reconstruction, and the intended safeguard of the WHCRA fails to cover the current landscape. Anecdotally, issues have arisen in terms of insurance coverage for reconstruction of partial breast defects, coverage of contralateral symmetrizing procedures, and secondary revisions.

Additionally, overall healthcare reform such as the expansion of Medicaid has impacted breast reconstruction rates. Giladi et al. used New York state as a proxy and showed that in the 5 years after the 2001 Medicaid expansion, there was a higher probability that a Medicaid beneficiary would receive sub-specialty services such as plastic and reconstructive surgery, and a 5.5% increase in the proportion of breast cancer reconstruction cases.¹⁹ Aliu et al. showed that during the same time period there was a 9.6% increase in breast cancer treatment procedures covered by Medicaid, but only a 6.8% increase in breast reconstructive procedures covered. This reflected an increase in breast cancer surgery that was not met by a commensurate increase in breast reconstruction.²⁰ These studies directly examined all breast reconstructive procedures performed in conjunction with a procedure for a diagnosis of breast cancer, not just mastectomy with whole breast reconstruction. However, it must be noted that there are state-to-state variations in both Medicaid participation and coverage for breast reconstructive procedures. Additional population-based studies will aid in our understanding of the true prevalence of oncoplastic reconstruction.

Billing and Coding for Oncoplastic Breast Surgery

Discrepancies in reimbursement for post-mastectomy reconstruction are well-described but are less so for oncoplastic breast surgery and variable coding practices may contribute to this.²¹ For example, coding for oncoplastic breast procedures may be based on level, where level I volume displacement falls under 14,000 Current Procedural

Terminology (CPT) codes, and level II under 19318 (reduction mammoplasty) or 19316 (mastopexy). Codes for implant insertion or flap transfer are also used in volume replacement procedures.⁴ In one published series of 42 women undergoing oncoplastic breast reconstruction, 41% underwent local tissue rearrangement, including pedicled flaps, 28% oncoplastic reduction mammoplasty, 15.2% complex layered closed, 8.7% implant reconstruction, and 6.5% underwent mastopexy.²²

Besides the large number of potential oncoplastic reconstructive procedures, and therefore coding options, insurance status also comes into play. Kaura et al. looked at disparities between Medicare and Medicaid reimbursement for common plastic surgery procedures, including: 14301 (adjacent tissue transfer (ATT), trunk; 30–60 cm²), 15756 (muscle or myocutaneous free flap), and 19318 (reduction mammoplasty). The national median Medicaid discount ranged from -22% to -23% for these procedures, and there were wide variations among states in Geographic Practice Cost Index-corrected reimbursement for the same procedure.²³ The codes detailed above are being used in oncoplastic breast reconstruction; so reimbursement gaps are likely to alter practice patterns on a state-by-state basis.

The Medicare claims database contains a large amount of data on breast surgery, but it is difficult to determine which claims are specific to oncoplastic breast surgery and which surgeons are performing this. Generally, utilization data show which sub-specialties are billing for procedures based on the specific specialty code designated by the Centers for Medicare and Medicaid Services (CMS). However, breast surgeons currently do not have a unique specialty code and may use specialty codes for surgical oncology, general surgery, or general practice. Kimball et al. published on utilization trends of oncoplastic surgery using the Medicare database, but cite limitations in being unable to determine which surgical service was involved beyond the first listed billing surgeon.²⁴ The American Society of Plastic Surgeons (ASPS) Oncoplastic Task Force investigated Medicare claims for member surgeons for the year 2018 and found the codes most often billed for oncoplastic reconstruction were 19366 (breast reconstruction with other technique), 14301 (ATT, trunk; 30–60 cm²), and 14302 (ATT, any area; each additional 30 cm²).²⁵ While potentially representative of plastic surgery involvement in oncoplastic surgery in the Medicare population, the picture is incomplete.

Blankensteijn et al. queried the NSQIP database for CPT codes related to partial mastectomy or lumpectomy and found 159,617 patients had undergone these procedures between 2005 and 2017. They also attempted to capture patients undergoing oncoplastic reconstruction by querying the codes listed in Table 2. Overall, 86.4% of documented reconstructions took place by the primary general surgery team and 13.6% by the plastic surgery team. Nearly 75% of reconstructions coded by general surgery were tissue rearrangements, and 77.5% of reconstructions performed by plastic surgeons included reduction mammoplasty, mastopexy, or reconstruction by other techniques.²⁶

It is clear from the literature that there is no consensus on coding and billing for oncoplastic breast surgery

Table 2. CPT Codes Queried by Blankensteijn et al²⁶

CPT Code	Description
13100	Repair, complex, trunk; 1.1–2.5 cm
13101	Repair complex, trunk; 2.6–7.5 cm
14000	ATT or rearrangement trunk; defect 10 cm ² or less
14001	ATT or rearrangement trunk; defect 10.1–30 cm ²
14301	ATT or rearrangement, trunk; defect 30.1–60 cm ²
15650	Transfer, intermediate, of any pedicle flap, any location
15740	Flap; island pedicle requiring identification and dissection
15770	Formation of direct or tubed pedicle, with or without transfer, trunk
19316	Mastopexy
19318	Reduction mammoplasty
19366	Breast reconstruction with other technique

and the current healthcare system does not provide a standardized context for this considering the multitude of insurance carriers (Table 3). Standardization will be beneficial to research efforts as we attempt to understand how oncoplastic breast reconstruction is being delivered in the USA.

V. Society Efforts in Oncoplastic Reconstruction

The National Accreditation Program for Breast Centers sets the criteria for recognition as a breast center in the USA, and specifies that 50% of patients eligible for breast conserving therapy (BCT), or American Joint Committee on Cancer stage 0, I, II, should be treated with BCT. Surgical oncologists must also offer a referral to a board certified or board eligible plastic surgeon before mastectomy. The guidelines also state that a patient may be deemed inappropriate for a reconstructive referral, at the discretion of the extirpative surgeon.²⁷ Currently, there is no mention of oncoplastic surgery or the need for referral surrounding partial breast reconstruction, despite the target BCT delivery rate of 50%.

The ASPS launched the Tracking Operations and Outcomes for Plastic Surgeons database in 2002, which is referred to in the manual of The National Accreditation

Table 3. CPT Codes Cited in Literature Applying to Oncoplastic Breast Reconstruction

CPT Code	Description
13100	Repair, complex, trunk; 1.1–2.5 cm
13101	Repair complex, trunk; 2.6–7.5 cm
14000	ATT or rearrangement trunk; defect 10 cm ² or less
14001	ATT or rearrangement trunk; defect 10.1–30 cm ²
14301	ATT or rearrangement, trunk; defect 30.1–60 cm ²
15650	Transfer, intermediate, of any pedicle flap, any location
15738	Muscle, myocutaneous, fasciocutaneous flap
15740	Flap; island pedicle requiring identification and dissection
15756	Muscle or myocutaneous free flap
15770	Formation of direct or tubed pedicle, with or without transfer, trunk
19301	Partial mastectomy
19316	Mastopexy
19318	Reduction mammoplasty
19340	Immediate insertion of breast prostheses following mastopexy, mastectomy, or in reconstruction
19350	Nipple areola reconstruction
19366	Breast reconstruction with other technique
19499	Unlisted breast procedure code

Program for Breast Centers as a key clinical tool for assessing outcomes.^{27,28} While outcomes research has been done for both BCT and oncoplastic surgery with positive results, there is still a large need for population-based data.²⁹⁻³¹ Collaboration between extirpative and reconstructive teams in research efforts will be critical to drive clinical excellence. In addition, without standardization of coding for oncoplastic procedures, large volume database research will be limited.

Variability in the literature and in practice regarding oncoplastic breast surgery reflects differences in focus between surgical sub-specialties involved. In 1 survey of 422 ASBrS members and 214 ASPs members regarding attitudes toward oncoplastic surgery, there was strong interest in performing more lumpectomy procedures with oncoplastic reconstruction (59.6% of breast surgeons and 73.3% of plastic surgeons). For the ASPs group, almost 75% felt that “increased awareness among a team of breast and plastic surgeons” would increase utilization of oncoplastic techniques, whereas 66.8% of ASBrS respondents cited “increased training.”³² These differences are important to understand.

Surgeon supply is another barrier to delivery of oncoplastic breast surgery and warrants society-specific attention. In one review of 2012 population data, almost 50% of Health Service Areas (HSAs) contained no plastic surgeon, and 11.5% of regions had <1.0 plastic surgeon per 100,000 population, representing approximately 54 million people in the USA.³³ In another review of ASBrS and ASPs databases, the practice locations of member surgeons performing breast surgery were analyzed to compare geographic spread between specialties. In 2018, nearly 25% of zip codes that contained a breast surgeon did not contain a plastic surgeon within a 10-mile radius, and nearly 10% of zip codes did not contain a plastic surgeon within 20 miles. For all surgeons, 87% were located in an urban setting, 12% suburban, and 1% rural. In urban zip codes, the ratio of breast to plastic surgeon was 1:1.5; in suburban settings it was 1:0.23, and 1:0.06 in rural locations.³⁴ Interdisciplinary cooperation and expansion of plastic surgery services will be critical to close the supply–demand gap that currently exists for breast cancer patients.

CONCLUSIONS

Oncoplastic breast reconstruction after BCS is an important aspect of the comprehensive care of the breast cancer patient, yet the full picture of its delivery in the USA is not completely understood. Delivery of high-quality care to the breast cancer patient who is a candidate for oncoplastic reconstruction will depend on a continued and unified multi-disciplinary effort.

Jeffrey E. Janis, MD, FACS

Department of Plastic and Reconstructive Surgery
The Ohio State University Wexner Medical Center
915 Olentangy River Road
Columbus, OH 43212
E-mail: jeffrey.janis@osumc.edu
Twitter: @jjanismd

REFERENCES

1. National Cancer Institute. SEER Preliminary Cancer Incidence Rate Estimates for 2017, and Diagnosis Years 2000 to 2017. Available at <https://seer.cancer.gov/statistics/preliminary-estimates/>, <https://seer.cancer.gov/statfacts/html/breast.html>. Accessed March 18, 2020.
2. DeSantis CE, Ma J, Gaudet MM, et al. Breast cancer statistics, 2019. *CA Cancer J Clin.* 2019;69:438–451.
3. Miller KD, Nogueira L, Mariotto AB, et al. Cancer treatment and survivorship statistics, 2019. *CA Cancer J Clin.* 2019;69:363–385.
4. Chatterjee A, Gass J, Patel K, et al. A consensus definition and classification system of oncoplastic surgery developed by the American Society of Breast Surgeons. *Ann Surg Oncol.* 2019;26:3436–3444.
5. Kaufman CS. Increasing role of oncoplastic surgery for breast cancer. *Curr Oncol Rep.* 2019;21:111.
6. Smith ML, Molina BJ, Dayan E, et al. Defining the role of free flaps in partial breast reconstruction. *J Reconstr Microsurg.* 2018;34:185–192.
7. Macmillan RD, McCulley SJ. Oncoplastic breast surgery: what, when and for whom? *Curr Breast Cancer Rep.* 2016;8:112–117.
8. McCulley SJ, Macmillan RD, Rasheed T. Transverse Upper Gracilis (TUG) flap for volume replacement in breast conserving surgery for medial breast tumours in small to medium sized breasts. *J Plast Reconstr Aesthet Surg.* 2011;64:1056–1060.
9. Arnaout A, Ross D, Khayat E, et al. Position statement on defining and standardizing an oncoplastic approach to breast-conserving surgery in Canada. *Curr Oncol.* 2019;26:e405–e409.
10. Khayat E, Brackstone M, Maxwell J, et al. Training Canadian surgeons in oncoplastic breast surgery: where do we stand? *Can J Surg.* 2017;60:369–371.
11. de Andrade Urban C. New classification for oncoplastic procedures in surgical practice. *Breast.* 2008;17:321–322.
12. Hoffmann J, Wallwiener D. Classifying breast cancer surgery: a novel, complexity-based system for oncological, oncoplastic and reconstructive procedures, and proof of principle by analysis of 1225 operations in 1166 patients. *BMC Cancer.* 2009;9:108.
13. Clough KB, Ihrai T, Oden S, et al. Oncoplastic surgery for breast cancer based on tumour location and a quadrant-per-quadrant atlas. *Br J Surg.* 2012;99:1389–1395.
14. Weber WP, Soysal SD, Fulco I, et al. Standardization of oncoplastic breast conserving surgery. *Eur J Surg Oncol.* 2017;43:1236–1243.
15. Congress.gov. Public Law 105-277. Sec. 901 Women’s Health and Cancer Rights Act. 112 STAT 436-439. Oct 21 1998. <https://www.congress.gov/105/plaws/publ277/PLAW-105publ277.htm>. Accessed April 3, 2020.
16. Centers for Medicare and Medicaid Services. Women’s Health and Cancer Rights Act (WHCRA). Available at https://www.cms.gov/CCIIO/Programs-and-Initiatives/Other-Insurance-Protections/whcra_factsheet. Accessed April 2, 2020.
17. American Cancer Society. Health Insurance Laws. Available at <https://www.cancer.org/treatment/finding-and-paying-for-treatment/understanding-health-insurance/health-insurance-laws/womens-health-and-cancer-rights-act.html>. Accessed April 2, 2020.
18. Berlin NL, Wilkins EG, Alderman AK. Addressing continued disparities in access to breast reconstruction on the 20th anniversary of the Women’s Health and Cancer Rights Act. *JAMA Surg.* 2018;153:603–604.
19. Giladi AM, Aliu O, Chung KC. The effect of medicaid expansion in new york state on use of subspecialty surgical procedures by medicaid beneficiaries and the uninsured. *J Am Coll Surg.* 2014;218:889–897.
20. Aliu O, Giladi AM, Chung KC. Trends in Medicaid beneficiaries’ receipt of breast reconstruction procedures following pre-Affordable Care Act (ACA) Medicaid expansion in New York State. *Am J Surg.* 2018;216:551–557.

21. Odom EB, Schmidt AC, Myckatyn TM, et al. A cross-sectional study of variations in reimbursement for breast reconstruction: is a healthcare disparity on the horizon? *Ann Plast Surg.* 2018;80:282–286.
22. van Paridon MW, Kamali P, Paul MA, et al. Oncoplastic breast surgery: Achieving oncological and aesthetic outcomes. *J Surg Oncol.* 2017;116:195–202.
23. Kaura AS, Berlin NL, Momoh AO, et al. State variations in public payer reimbursement for common plastic surgery procedures. *Plast Reconstr Surg.* 2018;142:1653–1661.
24. Kimball CC, Nichols CI, Vose JG, et al. Trends in lumpectomy and oncoplastic breast-conserving surgery in the US, 2011–2016. *Ann Surg Oncol.* 2018;25:3867–3873.
25. Email communication. American Society of Plastic Surgeons. March 5, 2020.
26. Blankensteijn LL, Crystal DT, Egeler SA, et al. The influence of surgical specialty on oncoplastic breast reconstruction. *Plast Reconstr Surg Glob Open.* 2019;7:e2248.
27. National Accreditation Program for Breast Centers (NAPBC). 2014 published guidelines. NAPBC 2014 Standards Manual. Available at <https://www.facs.org/quality-programs/napbc/standards>. Accessed March 16, 2020.
28. American Society of Plastic Surgery. Tracking Operations and Outcomes for Plastic Surgeons (TOPS). Available at <https://www.plasticsurgery.org/for-medical-professionals/registries/tracking-operations-and-outcomes-for-plastic-surgeons>. Accessed April 2, 2020.
29. Losken A, Dugal CS, Styblo TM, et al. A meta-analysis comparing breast conservation therapy alone to the oncoplastic technique. *Ann Plast Surg.* 2014;72:145–149.
30. Tong WM, Baumann DP, Villa MT, et al. Obese women experience fewer complications after oncoplastic breast repair following partial mastectomy than after immediate total breast reconstruction. *Plast Reconstr Surg.* 2016;137:777–791.
31. Piper ML, Esserman LJ, Sbitany H, et al. Outcomes following oncoplastic reduction mammoplasty: a systematic review. *Ann Plast Surg.* 2016;76(Suppl 3):S222–S226.
32. Losken A, Kapadia S, Egro FM, et al. Current opinion on the oncoplastic approach in the USA. *Breast J.* 2016;22:437–441.
33. Bauder AR, Sarik JR, Butler PD, et al. Geographic variation in access to plastic surgeons. *Ann Plast Surg.* 2016;76:238–243.
34. Teng TL, Hall R, Graham RA, et al. Poor access to breast reconstruction: a geographical shortage of plastic surgeons relative to breast surgeons in the United States. *Ann Plast Surg.* 2019;82(4S Suppl 3):S256–S258.