VOL 16 | ISSUE 1

Breast Cancer® UPDATE

An Audio Review Journal for Surgeons

Bridging the Gap between Research and Patient Care

FACULTY INTERVIEWS

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EDITOR

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This activity provides Category 1 CME that may be used as self-assessment credit toward Part 2 of the American Board of Surgery MOC Program.

CME Certified

Breast Cancer® UPDATE

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Breast Cancer Update for Surgeons

A Continuing Medical Education Audio Series

OVERVIEW OF ACTIVITY

Historically, surgery has been the primary mode of treatment for early breast cancer. The complexity of the diagnostic, surgical and medical management of this disease, however, has escalated because of numerous advances in novel technologies and available adjunctive therapies. Hence, the multifaceted treatment of breast cancer now requires the input of an interdisciplinary group of expert care providers, and this paradigm shift has created the challenge of ensuring that knowledge of major clinical advances in local and systemic therapy is effectively disseminated among all members of the cross-functional team. To bridge the gap between research and patient care, *Breast Cancer Update* for Surgeons uses one-on-one interviews with leading breast cancer investigators to efficiently distill the latest research developments so they may be incorporated into clinical practice as appropriate. By providing access to cutting-edge data and expert perspectives, this CME program assists breast surgeons in the formulation of up-to-date clinical management strategies.

LEARNING OBJECTIVES

- Appreciate the information provided by genomic platforms to assess risk and individualize therapy for patients with ductal carcinoma in situ and early breast cancer.
- Develop an evidence-based approach to the management of the axilla in patients with localized breast cancer and a positive sentinel lymph node biopsy.
- Individualize the selection of evidence-based neoadjuvant and adjuvant chemobiologic regimens for patients with HER2-positive early breast cancer.
- Consider which patients may be appropriate candidates for intraoperative radiation therapy, and compare the efficacy and cosmetic outcomes of this approach to those of whole-breast radiation therapy.
- Counsel appropriately selected patients with breast cancer about participation in ongoing clinical trials.

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This activity is supported by an educational grant from Genomic Health Inc.

Release date: December 2017; Expiration date: December 2018

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FACULTY — The following faculty (and their spouses/partners) reported relevant conflicts of interest, which have been resolved through a conflict of interest resolution process: **Dr Willey** — Speakers Bureau: Genentech BioOncology, Invuity Inc, Medtronic Inc, Pacira Pharmaceuticals Inc. **Dr Geyer** — Consulting Agreements: Celgene Corporation, Noveome Biotherapeutics; Contracted Research: AstraZeneca Pharmaceuticals LP, Merck.

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Interview with Shawna C Willey, MD

Tracks 1-15

Track 1	**Case:** A 58-year-old woman with ER/PR-positive ductal carcinoma in situ (DCIS), lobular carcinoma in situ and columnar cell changes desires a good cosmetic outcome in her breasts
Track 2	Role of the DCIS Recurrence Risk Score in patients being considered for radiation therapy (RT)
Track 3	Use of the DCIS Recurrence Risk Score in clinical practice
Track 4	Patient selection for intraoperative RT (IORT)
Track 5	Cosmetic outcomes with IORT
Track 6	Controversy surrounding the efficacy of IORT versus whole-breast irradiation
Track 7	External beam partial-breast irradiation
Track 8	**Case:** A 57-year-old woman with a 1.5-cm, ER/PR-positive, HER2-positive, node-positive breast cancer receives neoadjuvant chemotherapy, trastuzumab and pertuzumab
Track 9	Axillary node management after neoadjuvant chemotherapy
Track 10	Utility of genomic assays in the neoadjuvant setting
Track 11	Alliance A11202 and NSABP-B-51 Phase III studies of axillary treatment after neoadjuvant chemotherapy for patients with node-positive versus node-negative disease
Track 12	Novel strategies for high-risk HER2-positive breast cancer: Addition of pertuzumab to adjuvant chemotherapy/trastuzumab and postadjuvant neratinib
Track 13	**Case:** A 37-year-old woman with B-cup breasts has a 5.5-cm, strongly ER/PR-positive, HER2-negative, node-negative breast cancer and a 21-gene signature Recurrence Score® (RS) of 16
Track 14	Use of genomic assays for patients with node-positive breast cancer
Track 15	Mastectomy and re-excision rates in relation to adoption of a consensus guideline on surgical margins

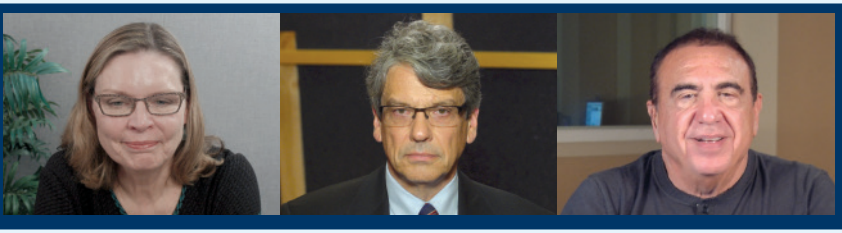
Interview with Charles E Geyer Jr, MD

Tracks 1-9

Track 1	**Case:** A 69-year-old woman with a 1-cm, strongly ER-positive, HER2-negative breast cancer has a 2.4-cm positive axillary node
Track 2	Neoadjuvant therapy for patients with node-positive, HER2-positive or triple-negative breast cancer and a tumor size of 2 centimeters or larger
Track 3	Management of the axilla in patients with node-negative or node-positive disease after neoadjuvant therapy
Track 4	Neoadjuvant endocrine therapy for strongly ER-positive breast cancer
Track 5	Use of the 21-gene signature assay to choose neoadjuvant endocrine therapy or chemotherapy for patients with ER-positive breast cancer
Track 6	Use of genomic assays to guide treatment decision-making for patients with ER-positive, HER2-negative breast cancer
Track 7	RxPONDER study of adjuvant endocrine therapy with or without chemotherapy for patients with hormone receptor-positive, HER2-negative invasive breast cancer, 1 to 3 positive nodes and an RS of 25 or lower
Track 8	Overview of breast cancer genomic assays
Track 9	Using genomic assays to predict benefit from extended adjuvant endocrine therapy

Video Program

View the corresponding video interviews with (from left) Drs Willey and Geyer by Dr Love at www.ResearchToPractice.com/BCUS217/Video



QUESTIONS ADDRESSED BY THE FACULTY INCLUDE:

- In patients with DCIS, does radiation therapy compromise cosmetic outcome?
- How, if at all, do you use the DCIS Recurrence Risk Score in practice?
- Can you provide an update on intraoperative radiation therapy?
- Does a belief exist in the community that intraoperative radiation therapy may not be as effective as whole breast irradiation?
- How do you approach the use of genomic assays in patients with node-positive breast cancer?
- Would you comment on nipple-sparing mastectomy and how you incorporate it into your practice?
- Would you comment on the issue of contralateral prophylactic mastectomies?
- How do you typically approach patients with clinically gross axillary node involvement in terms of neoadjuvant chemotherapy?
- Do genomic assays have a role in deciding whether to administer neoadjuvant endocrine therapy?
- Would you comment on Dr Harry Bear's study using the 21-gene signature assay to choose neoadjuvant endocrine therapy or chemotherapy for patients with ER-positive breast cancer?

Have Questions or Cases You Would Like Us to Pose to the Faculty?

Submit them to us via Facebook or Twitter and we will do our best to get them answered for you

Facebook.com/ResearchToPractice or Twitter @DrNeilLove

SELECT PUBLICATIONS

A phase III, randomized clinical trial of standard adjuvant endocrine therapy +/- chemotherapy in patients with 1-3 positive nodes, hormone receptor-positive and HER2-negative breast cancer with Recurrence Score (RS) of 25 or less. RxPONDER: A clinical trial Rx for positive node, endocrine responsive breast cancer. NCT01272037

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Program for the assessment of clinical cancer tests (PACCT-1): Trial assigning individualized options for treatment: The TAILORx trial. NCT00310180

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Vaidya JS et al; TARGIT trialists' group. **Risk-adapted targeted intraoperative radiotherapy versus whole-breast radiotherapy for breast cancer: 5-year results for local control and overall survival from the TARGIT-A randomised trial.** *Lancet* 2014;383(9917):603-13.

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QUESTIONS (PLEASE CIRCLE ANSWER):

1. **Which of the following risks is quantified by the DCIS Recurrence Risk Score?**
   a. Risk of ipsilateral invasive breast cancer
   b. Risk of DCIS local recurrence
   c. Both a and b

2. **Which of the following patients meet the eligibility criteria for receiving IORT?**
   a. A patient with ER/PR-positive, HER2-negative, node-positive DCIS
   b. A patient with ER/PR-positive, HER2-negative, node-negative IDC
   c. Both a and b

3. **During IORT, approximately how far outside the tumor cavity does the radiation effect occur?**
   a. One centimeter
   b. Two to 3 centimeters
   c. Four to 5 centimeters

4. **The Alliance A11202 Phase III trial is evaluating the role of axillary lymph node dissection versus no axillary lymph node dissection after neoadjuvant chemotherapy for patients with sentinel lymph node-positive disease.**
   a. True
   b. False

5. **Advantages of IORT as compared to whole-breast irradiation include _____.**
   a. Improved cosmetic outcomes
   b. The fact that it is performed immediately after surgery (approximate 20-minute to 1-hour procedure time) rather than requiring multiple postoperative visits to the clinic
   c. Both a and b
   d. Neither a nor b

6. **The goal of the MINDACT trial, for which initial results were recently published, was to evaluate the benefit of genomic profiling with the _____ in addition to standard clinical-pathological criteria for identifying patients with early breast cancer and 0 to 3 positive lymph nodes who might safely forgo chemotherapy without compromising outcome.**
   a. PAM50 assay
   b. 70-gene signature
   c. 21-gene signature

7. **Which of the following outcomes has been observed since the publication of the 2014 SSO-ASTRO consensus guidelines endorsing "no ink on tumor"?**
   a. Fewer re-excisions after lumpectomy
   b. Fewer mastectomies
   c. Both a and b

8. **A study published by Bear and colleagues that randomly assigned patients with hormone receptor-positive, HER2-negative breast cancer and an intermediate 21-gene RS to neoadjuvant chemotherapy or neoadjuvant endocrine therapy demonstrated a higher pathologic complete response rate in favor of endocrine therapy.**
   a. True
   b. False

9. **Which of the following categories reflects the mechanism of action of neratinib?**
   a. Antibody-drug conjugate
   b. Anti-PD-1/PD-L1 antibody
   c. Tyrosine kinase inhibitor

10. **A logistical challenge to using the 70-gene signature assay is that it continues to require only fresh frozen tissues.**
    a. True
    b. False

EDUCATIONAL ASSESSMENT AND CREDIT FORM

Breast Cancer Update for Surgeons — Volume 16, Issue 1

Research To Practice is committed to providing valuable continuing education for oncology clinicians, and your input is critical to helping us achieve this important goal. Please take the time to assess the activity you just completed, with the assurance that your answers and suggestions are strictly confidential.

PART 1 — Please tell us about your experience with this educational activity

How would you characterize your level of knowledge on the following topics?

4 = Excellent 3 = Good 2 = Adequate 1 = Suboptimal

	BEFORE	AFTER
Design and objectives of the ongoing Phase III Alliance A11202 and NSABP-B-51 studies evaluating axillary treatment for patients after neoadjuvant chemotherapy	4 3 2 1	4 3 2 1
Information provided by different gene signature assays regarding the risk of recurrent DCIS and invasive breast cancer	4 3 2 1	4 3 2 1
Diverse role of genomic assays in guiding treatment decision-making in the neoadjuvant, adjuvant and locoregionally recurrent settings	4 3 2 1	4 3 2 1
RxPONDER: A Phase III trial of adjuvant endocrine therapy with or without chemotherapy for patients with node-positive invasive breast cancer and an RS of 25 or lower	4 3 2 1	4 3 2 1

Practice Setting:

☐ Academic center/medical school ☐ Community cancer center/hospital ☐ Group practice
☐ Solo practice ☐ Government (eg, VA) ☐ Other (please specify).....

Approximately how many new patients with breast cancer do you see per year? ..... patients

Was the activity evidence based, fair, balanced and free from commercial bias?

☐ Yes ☐ No

If no, please explain:.....

Please identify how you will change your practice as a result of completing this activity (select all that apply).

☐ This activity validated my current practice
☐ Create/revise protocols, policies and/or procedures
☐ Change the management and/or treatment of my patients
☐ Other (please explain): .....

If you intend to implement any changes in your practice, please provide 1 or more examples:

.....

.....

.....

The content of this activity matched my current (or potential) scope of practice.

☐ Yes ☐ No

If no, please explain:.....

Please respond to the following learning objectives (LOs) by circling the appropriate selection:

4 = Yes 3 = Will consider 2 = No 1 = Already doing N/M = LO not met N/A = Not applicable

As a result of this activity, I will be able to:

- Appreciate the information provided by genomic platforms to assess risk and individualize therapy for patients with ductal carcinoma in situ and early breast cancer. . . . . 4 3 2 1 N/M N/A
- Develop an evidence-based approach to the management of the axilla in patients with localized breast cancer and a positive sentinel lymph node biopsy. . . . . 4 3 2 1 N/M N/A
- Individualize the selection of evidence-based neoadjuvant and adjuvant chemobiologic regimens for patients with HER2-positive early breast cancer. . . . . 4 3 2 1 N/M N/A

EDUCATIONAL ASSESSMENT AND CREDIT FORM (continued)

As a result of this activity, I will be able to:

- Consider which patients may be appropriate candidates for intraoperative radiation therapy, and compare the efficacy and cosmetic outcomes of this approach to those of whole-breast radiation therapy. . . . . 4 3 2 1 N/M N/A
- Counsel appropriately selected patients with breast cancer about participation in ongoing clinical trials. . . . . 4 3 2 1 N/M N/A

Please describe any clinical situations that you find difficult to manage or resolve that you would like to see addressed in future educational activities:

. . . . . .

. . . . . .

. . . . . .

Would you recommend this activity to a colleague?

☐ Yes ☐ No If no, please explain: . . . . . .

. . . . . .

Additional comments about this activity:

. . . . . .

. . . . . .

. . . . . .

PART 2 — Please tell us about the faculty and editor for this educational activity

4 = Excellent 3 = Good 2 = Adequate 1 = Suboptimal

Faculty	Knowledge of subject matter	Effectiveness as an educator
Shawna C Willey, MD	4 3 2 1	4 3 2 1
Charles E Geyer Jr, MD	4 3 2 1	4 3 2 1
Editor	**Knowledge of subject matter**	**Effectiveness as an educator**
Neil Love, MD	4 3 2 1	4 3 2 1

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Signature: . . . . . Date: . . . . .

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This activity is supported by an educational grant from
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Release date: December 2017
Expiration date: December 2018
Estimated time to complete: 1.5 hours

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