Cases from the Community

Clinical Investigators Provide Their Perspectives on Actual Breast Cancer Cases and the Implications of Emerging Research

CME Information

TARGET AUDIENCE

This activity is intended for medical oncologists, breast surgeons, radiation oncologists and other healthcare professionals involved in the diagnosis and treatment of breast cancer.

OVERVIEW OF ACTIVITY

The current clinical management of breast cancer is multidisciplinary and includes surgical resection of local disease with or without radiation therapy and the treatment of systemic disease with cytotoxic chemotherapy, endocrine therapy, biologic therapy or combinations of these approaches. The indication and/or utility of these local and systemic treatment options is largely based on a number of prognostic and predictive risk factors present within the patient or her tumor at the time of diagnosis. Increasingly, an emphasis is being placed on a "personalized medicine" approach that promises to more effectively identify specific treatments that will benefit individuals based on specific patient- and disease-related characteristics. In conjunction with this approach, researchers are developing novel agents and immunotherapeutic strategies with the aim of enhancing the efficacy of existing treatments or overcoming resistance to endocrine therapy, chemotherapy or biologic agents. The pace of change in the field of breast medical oncology has been rapid, creating an important need for education about the unique mechanisms of action, toxicities and effectiveness of novel agents to properly prepare clinicians for their appropriate use in clinical practice. Several consensus- and evidence-based treatment guidelines are available and aim to assist clinicians with making breast cancer management decisions in the face of this dynamic clinical and research environment, but despite the existence of these tools many areas of controversy persist within academic and community settings.

These proceedings from a CME symposium during the San Antonio Breast Cancer Symposium explore the most significant therapeutic advances during the previous year by using the perspectives of leading breast cancer experts on challenging cases and questions submitted by clinicians in the community to frame a relevant discussion of how this information has aided in the refinement of current routine clinical practice and ongoing research. This CME activity will help medical oncologists find answers to the individualized questions and concerns that they frequently encounter and in turn provide high-quality cancer care.

LEARNING OBJECTIVES

- Consider published data to guide the use of biomarkers and genomic classifiers to assess risk and customize therapy for patients with hormone receptor-positive breast cancer in the neoadjuvant, adjuvant and extended-adjuvant settings.
- Appraise available and emerging research evidence to individualize the selection and duration of neoadjuvant and adjuvant chemobiologic regimens for patients with HER2-overexpressing early breast cancer.
- Implement a long-term clinical plan for the management of metastatic HER2-positive breast cancer, incorporating existing and investigational targeted treatments.
- Develop an evidence-based algorithm for the treatment of advanced hormone receptor-positive pre- and postmenopausal breast cancer, including the use of endocrine, biologic and chemotherapeutic agents.
- Consider published research findings and patient preferences in the selection and sequencing of available and investigational therapeutic agents for patients with metastatic ER/PR-negative, HER2-negative breast cancer.
- Develop an understanding of the mechanisms of action of, available data with and potential clinical roles of novel targeted and immunotherapeutic approaches in preparation for their potential introduction into future breast cancer clinical practice.
- Identify ongoing trials of investigational approaches in breast cancer, and obtain consent and refer patients for study participation.

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Please note, this program has been specifically designed for the following ABIM specialty: **medical oncology**.

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Kimberly L Blackwell, MD
Professor of Medicine
Director, Breast Cancer Program
Duke Cancer Institute
Durham, North Carolina

Advisory Committee: Advaxis Inc, Bayer HealthCare Pharmaceuticals, Eisai Inc, MacroGenics Inc, Merck, Novartis, Pfizer Inc, Pierian Biosciences, Syndax Pharmaceuticals Inc; **Consulting Agreements:** Celgene Corporation, Coherus BioSciences, G1 Therapeutics, Genentech BioOncology, Lilly, Novartis, Pfizer Inc, Puma Biotechnology Inc, Roche Laboratories Inc, Sandoz; **Contracted Research:** Celgene Corporation, Genentech BioOncology, Novartis, Pfizer Inc.

Kathy D Miller, MD
Co-Director, IU Simon Cancer Center Breast Cancer Program
Ballvé-Lantero Scholar in Oncology
Professor of Medicine, Division of Hematology/Oncology
Indiana University Melvin and Bren Simon Cancer Center
Indianapolis, Indiana

Contracted Research: AbbVie Inc, Astellas Pharma Global Development Inc, Medivation Inc, a Pfizer Company, Merrimack Pharmaceuticals Inc, Novartis, Pfizer Inc.

Joyce O'Shaughnessy, MD
Chair, Breast Cancer Research Program
Baylor Charles A Sammons Cancer Center
Celebrating Women Chair in Breast Cancer Research
Texas Oncology
US Oncology
Dallas, Texas

Advisory Committee and Consulting Agreements: Amgen Inc, AstraZeneca Pharmaceuticals LP, Celgene Corporation, Eisai Inc, Genentech BioOncology, Lilly, Merck, Novartis, Pfizer Inc, Roche Laboratories Inc, Sanofi Genzyme, Takeda Oncology; **Contracted Research:** Merck.

George W Sledge Jr, MD
Professor of Medicine
Chief, Division of Oncology
Department of Medicine
Stanford University School of Medicine
Stanford, California

Advisory Committee: Syndax Pharmaceuticals Inc, Taiho Oncology Inc; **Contracted Research:** Genentech BioOncology.

Sara M Tolaney, MD, MPH
Dana-Farber Cancer Institute
Associate Director of Clinical Research
Susan F Smith Center for Women's Cancers
Senior Physician
Assistant Professor in Medicine
Harvard Medical School
Boston, Massachusetts

Advisory Committee: AstraZeneca Pharmaceuticals LP, Merck, NanoString Technologies, Nektar, Puma Biotechnology Inc; **Consulting Agreements:** AstraZeneca Pharmaceuticals LP, Merck, NanoString Technologies, Nektar, Puma Biotechnology Inc; **Contracted Research:** AstraZeneca Pharmaceuticals LP, Exelixis Inc, Genentech BioOncology, Lilly, Merck, Nektar, Novartis, Pfizer Inc.

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Hardware/Software Requirements:
A high-speed Internet connection
A monitor set to 1280 x 1024 pixels or more
Internet Explorer 11 or later, Firefox 56 or later,
Chrome 61 or later, Safari 11 or later, Opera 48 or later
Adobe Flash Player 27 plug-in or later
Adobe Acrobat Reader
(Optional) Sound card and speakers for audio

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Select Publications

Neil Love, MD

A randomized phase III post-operative trial of platinum based chemotherapy vs. capecitabine in patients with residual triple-negative basal-like breast cancer following neoadjuvant chemotherapy. NCT02445391

Bear HD et al. **Using the 21-gene assay from core needle biopsies to choose neoadjuvant therapy for breast cancer: A multi-center trial.** *J Surg Oncol* 2017;115(8):917-23.

Kimberly L Blackwell, MD

Cortazar P et al. **Pathological complete response and long-term clinical benefit in breast cancer: The CTNeoBC pooled analysis.** *Lancet* 2014;384(9938):164-72.

Gianni L et al. **5-year analysis of neoadjuvant pertuzumab and trastuzumab in patients with locally advanced, inflammatory, or early-stage HER2-positive breast cancer (NeoSphere): A multicentre, open-label, phase 2 randomised trial.** *Lancet Oncol* 2017;17(6):791-800.

Gianni L et al. **Neoadjuvant and adjuvant trastuzumab in patients with HER2-positive locally advanced breast cancer (NOAH): Follow-up of a randomised controlled superiority trial with a parallel HER2-negative cohort.** *Lancet Oncol* 2014;15(6):640-7.

Goldhirsch A et al; Herceptin Adjuvant (HERA) Trial Study Team. **2 years versus 1 year of adjuvant trastuzumab for HER2-positive breast cancer (HERA): An open-label, randomised controlled trial.** *Lancet* 2013;382(9897):1021-8.

Goss PE et al; TEACH Investigators. **Adjuvant lapatinib for women with early-stage HER2-positive breast cancer: A randomised, controlled, phase 3 trial.** *Lancet Oncol* 2013;14(1):88-96.

Jimenez MM et al. **Neratinib after trastuzumab (T)-based adjuvant therapy in early-stage HER2+ breast cancer (BC): 5 year analysis of the phase III ExteNET trial.** *Proc ESMO* 2017;**Abstract 1490**.

Perez EA et al. **Trastuzumab plus adjuvant chemotherapy for human epidermal growth factor receptor 2-positive breast cancer: Planned joint analysis of overall survival from NSABP B-31 and NCCTG N9831.** *J Clin Oncol* 2014;32(33):3744-52.

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Von Minckwitz G et al; APHINITY Steering Committee and Investigators. **Adjuvant pertuzumab and trastuzumab in early HER2-positive breast cancer.** *N Engl J Med* 2017;377(2):122-31.

George W Sledge Jr, MD

Albain KS et al. **Prognostic and predictive value of the 21-gene recurrence score assay in postmenopausal women with node-positive, oestrogen-receptor-positive breast cancer on chemotherapy: A retrospective analysis of a randomised trial.** *Lancet Oncol* 2010;11(1):55-65.

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Roberts MC et al. **Breast cancer-specific survival in patients with lymph node-positive hormone receptor-positive invasive breast cancer and Onco*type* DX Recurrence Score results in the SEER database.** *Breast Cancer Res Treat* 2017;163(2):303-10.

Straver ME et al. **The 70-gene signature as a response predictor for neoadjuvant chemotherapy in breast cancer.** *Breast Cancer Res Treat* 2010;119(3):551-58.

Sara M Tolaney, MD, MPH

Barroso-Sousa R et al. **Clinical development of the CDK4/6 inhibitors ribociclib and abemaciclib in breast cancer.** *Breast Care (Basel)* 2016;11(3):167-73.

Cristofanilli M et al. **Fulvestrant plus palbociclib versus fulvestrant plus placebo for treatment of hormone-receptor-positive, HER2-negative metastatic breast cancer that progressed on previous endocrine therapy (PALOMA-3): Final analysis of the multicentre, double-blind, phase 3 randomised controlled trial.** *Lancet Oncol* 2016;17(4):425-39.

Dickler MN et al. **Phase III trial evaluating letrozole as first-line endocrine therapy with or without bevacizumab for the t reatment of postmenopausal women with hormone receptor-positive advanced-stage breast cancer: CALGB 40503 (alliance).** *J Clin Oncol* 2016;34(22):2602-9.

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Finn RS et al. **Targeting the cyclin-dependent kinases (CDK) 4/6 in estrogen receptor-positive breast cancers.** *Breast Cancer Res* 2016;18(1):17.

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Hortobagyi GN et al. **Ribociclib as first-line therapy for HR-positive, advanced breast cancer.** *New Engl J Med* 2016; 375(18):1738-48.

Sledge GW et al. **MONARCH 2: Abemaciclib in combination with fulvestrant in women with HR+/HER2- advanced breast cancer who had progressed while receiving endocrine therapy.** *J Clin Oncol* 2017;35(25):2875-84.

Vora SR et al. **CDK 4/6 inhibitors sensitize PIK3CA mutant breast cancer to PI3K inhibitors.** *Cancer Cell* 2014;26(1):136-49.

Kathy D Miller, MD

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Ramakrishna N et al. **Recommendations on disease management for patients with advanced human epidermal growth factor receptor 2-positive breast cancer and brain metastases: American Society of Clinical Oncology clinical practice guideline.** *J Clin Oncol* 2014;32(19):2100-8.

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Swain SM et al. **Incidence of central nervous system metastases in patients with HER2-positive metastatic breast cancer treated with pertuzumab, trastuzumab, and docetaxel: Results from the randomized phase III study CLEOPATRA.** *Ann Oncol* 2014;25(6):1116-21.

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Joyce O'Shaughnessy, MD

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Miller TW et al. **Mutations in the phosphatidylinositol 3-kinase pathway: Role in tumor progression and therapeutic implications in breast cancer.** *Breast Cancer Res* 2011;13(6):224.

Mouw KW et al. **DNA damage and repair biomarkers of immunotherapy response.** *Cancer Discovery* 2017;7(7):675-93.

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Nitulescu GM et al. **Akt inhibitors in cancer treatment: The long journey from drug discovery to clinical use (Review).** *Int J Oncol* 2016;48(3):869-85.

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