

# Breast Cancer<sup>®</sup>

U P D A T E

An Audio Review Journal for Nurses

Management of Breast Cancer in the Adjuvant and Metastatic Settings

**EDITOR**

Neil Love, MD

**INTERVIEWS**

Harold J Burstein, MD, PhD

Una Hopkins, BSN, MSN, FNP-BC

John Crown, MD

Stephen E Jones, MD

**CNE**  
Approved



## A Continuing Nursing Education Audio Series

### OVERVIEW OF ACTIVITY

Breast cancer is one of the most rapidly evolving fields in oncology nursing. Published results from ongoing clinical trials lead to the continuous emergence of new therapeutic agents and changes in the indications for existing treatments. In order to offer optimal patient care, oncology nurses must be well informed of these advances, the efficacy of new agents and regimens and strategies to minimize and manage associated toxicities. This program provides nurses with access to the latest research developments in systemic therapy and the opinions of oncology nurses and clinical investigators with experience and expertise in the field.

### PURPOSE STATEMENT

To present the most current research developments in breast cancer and to provide the perspectives of medical oncologists and oncology nurses on the diagnosis and treatment of breast cancer.

### EDUCATIONAL OBJECTIVES FOR *BREAST CANCER UPDATE FOR NURSES*

- Integrate validated genomic assays and computerized risk models into the clinical management of hormone receptor (HR)-positive, node-negative and node-positive early breast cancer.
- Assess the effect of biomarker assay quality control on the clinical recommendation for and efficacy of HER2 or endocrine-targeted therapy.
- Counsel premenopausal women with HR-positive early breast cancer about the benefits and risks of treatment with ovarian suppression and/or antiestrogens.
- Apply the results of recent clinical trials when discussing the adjuvant use of aromatase inhibitors or tamoxifen with appropriately selected patients.
- Recall the efficacy, safety and current clinical utility of anthracycline- and nonanthracycline-based chemotherapy regimens when developing treatment strategies.
- Explain the pivotal role of targeted biologic agents in the treatment of early and advanced HER2-positive breast cancer to patients eligible for such therapy.
- Demonstrate knowledge of the evidence-based use of bevacizumab in the treatment of metastatic breast cancer, and describe the rationale for its ongoing investigation in the adjuvant setting.
- Educate patients with early breast cancer about the emerging utility of bisphosphonates as a supportive and therapeutic component of adjuvant systemic treatment.
- Recognize the psychosocial and emotional needs of caregivers, patients and their loved ones facing the diagnosis and treatment of breast cancer.

### ACCREDITATION STATEMENTS

This educational activity for 3 contact hours is provided by Research To Practice during the period of April 2009 through April 2010. Research To Practice is an approved provider of continuing nursing education by the New Jersey State Nurses Association, Provider Number P215-01/07-10. NJSNA is accredited by the ANCC Commission on Accreditation. Provider Approval is valid through January 31, 2010.

### HOW TO USE THIS CNE ACTIVITY

This is an audio CNE program. This book contains CNE information, including learning objectives, faculty disclosures, a Post-test and an Educational Assessment and Credit Form. The corresponding website [ResearchToPractice.com/BCU/Nurses](http://ResearchToPractice.com/BCU/Nurses) also includes links to relevant abstracts and full-text articles. The Post-test and Educational Assessment and Credit Form may be completed in this book and either mailed to Research To Practice, One Biscayne Tower, 2 South Biscayne Blvd, Suite 3600, Miami, FL 33131 or faxed to (800) 447-4310. They may also be completed online. A statement of credit will be issued only upon receipt of a completed Post-test with a score of 70 percent or better and a completed Educational Assessment and Credit Form. Your statement of credit will be mailed to you within three weeks or may be printed online.

*This program is supported by educational grants from AstraZeneca Pharmaceuticals LP, Genentech BioOncology, Genomic Health Inc and Novartis Pharmaceuticals Corporation.*

If you would like to discontinue your complimentary subscription to *Breast Cancer Update for Nurses*, please email us at [Info@ResearchToPractice.com](mailto:Info@ResearchToPractice.com), call us at (800) 648-8654 or fax us at (305) 377-9998. Please include your full name and address, and we will remove you from the mailing list.

## CNE INFORMATION

### EDITOR



#### Neil Love, MD

Medical Oncologist  
Editor, *Breast Cancer Update for Nurses*  
Research To Practice  
Miami, Florida

### FACULTY AFFILIATIONS



#### Harold J Burstein, MD, PhD

Assistant Professor of Medicine  
Harvard Medical School  
Breast Oncology Center  
Dana-Farber Cancer Institute  
Boston, Massachusetts



#### John Crown, MD

Consultant Medical Oncologist  
St Vincent's University Hospital  
Thomas Baldwin Chair in Cancer  
Research  
Dublin City University  
Dublin, Ireland



#### Una Hopkins, BSN, MSN, FNP-BC

Nurse Practitioner  
Department of Medical Oncology  
Montefiore Medical Center  
Bronx, New York



#### Stephen E Jones, MD

Medical Director  
Co-Chair, Breast Cancer  
Research Committee  
US Oncology Research  
Houston, Texas  
Texas Oncology, PA  
Dallas, Texas

### CONTENT VALIDATION AND DISCLOSURES

Research To Practice (RTP) is committed to providing its participants with high-quality, unbiased and state-of-the-art education. We assess potential conflicts of interest with faculty, planners and managers of CNE activities. Real or apparent conflicts of interest are identified and resolved through a conflict of interest resolution process. In addition, all activity content is reviewed by both a member of the RTP scientific staff and an external, independent reviewer for fair balance, scientific objectivity of studies referenced and patient care recommendations.

**FACULTY** — **Dr Burstein** had no real or apparent conflicts of interest to disclose. The following faculty (and their spouses/partners) reported real or apparent conflicts of interest, which have been resolved through a conflict of interest resolution process: **Ms Hopkins** — Advisory Committee: Bristol-Myers Squibb Company, Genentech BioOncology; Consulting Agreements: Bristol-Myers Squibb Company, Sanofi-Aventis; **Speakers Bureau**: Bristol-Myers Squibb Company, Genentech BioOncology, Genomic Health Inc, Novartis Pharmaceuticals Corporation, Sanofi-Aventis. **Prof Crown** — **Speakers Bureau**: GlaxoSmithKline, Pfizer Inc, Sanofi-Aventis. **Dr Jones** — Consulting Agreements: Genentech BioOncology, GlaxoSmithKline, Pfizer Inc, Sanofi-Aventis; **Speakers Bureau**: AstraZeneca Pharmaceuticals LP, Genentech BioOncology, GlaxoSmithKline, Pfizer Inc, Sanofi-Aventis.

**EDITOR** — **Neil Love**: Dr Love is president and CEO of Research To Practice, which receives funds in the form of educational grants to develop CME/CNE activities from the following commercial interests: Abraxis BioScience, AstraZeneca Pharmaceuticals LP, Aureon Laboratories Inc, Bayer Pharmaceuticals Corporation/Onyx Pharmaceuticals Inc, Biogen Idec, Bristol-Myers Squibb Company, Celgene Corporation, Cephalon Inc, Eisai Inc, Eli Lilly and Company, Genentech BioOncology, Genomic Health Inc, Genzyme Corporation, GlaxoSmithKline, ImClone Systems Incorporated, Merck and Company Inc, Millennium Pharmaceuticals Inc, Novartis Pharmaceuticals Corporation, Ortho Biotech Products LP, OSI Oncology, Pfizer Inc, Roche Laboratories Inc, Sanofi-Aventis, Synta Pharmaceuticals Corp and Wyeth.

**RESEARCH TO PRACTICE STAFF AND EXTERNAL REVIEWERS** — The scientific staff and reviewers for Research To Practice have no real or apparent conflicts of interest to disclose.

*This educational activity contains discussion of published and/or investigational uses of agents that are not indicated by the Food and Drug Administration. Research To Practice does not recommend the use of any agent outside of the labeled indications. Please refer to the official prescribing information for each product for discussion of approved indications, contraindications and warnings. The opinions expressed are those of the presenters and are not to be construed as those of the publisher or grantors.*

**Breast Cancer Update for Nurses — Issue 1, 2009****QUESTIONS (PLEASE CIRCLE ANSWER):**

- In the TAILORx study, patients with an intermediate Recurrence Score® according to the Oncotype DX® assay are randomly assigned to receive endocrine therapy with or without \_\_\_\_\_.**
  - Bevacizumab
  - Chemotherapy
  - Lapatinib
  - Trastuzumab
- Which of the following breast cancer features is measured and reported consistently with little or no variation between laboratories?**
  - ER status
  - HER2 status
  - Both a and b
  - Neither a nor b
- Potential side effects of bevacizumab include which of the following?**
  - Hand-foot syndrome
  - Hypertension
  - Wound-healing impairment
  - Both b and c
- In an Austrian randomized clinical trial, \_\_\_\_\_ in breast cancer recurrence was observed among premenopausal patients with hormone receptor-positive breast cancer treated with adjuvant zoledronic acid compared to those who did not receive this agent.**
  - A decrease
  - An increase
- Leukemia and cardiac dysfunction are potential long-term toxicities associated with the use of anthracyclines in the treatment of breast cancer.**
  - True
  - False
- Administration of tamoxifen alone is an effective method of ovarian suppression in the treatment of breast cancer in premenopausal women.**
  - True
  - False
- Arthralgias are more commonly associated with which agent or class of agents in endocrine therapy?**
  - Aromatase inhibitors
  - Fulvestrant
  - Tamoxifen
- Bevacizumab is an antibody known to target \_\_\_\_\_.**
  - ER
  - HER2
  - Vascular endothelial growth factor (VEGF)
  - All of the above
- Clinical trials have reported that adjuvant trastuzumab administered to a patient with HER2-positive breast cancer reduces the risk of recurrence by approximately \_\_\_\_\_.**
  - 10 percent
  - 20 percent
  - 30 percent
  - 50 percent
- To reduce the risk of osteonecrosis of the jaw, patients receiving \_\_\_\_\_ should be advised not to undergo elective or avoidable dental extractions.**
  - Bevacizumab
  - Lapatinib
  - Trastuzumab
  - Zoledronic acid

**Breast Cancer Update for Nurses — Issue 1, 2009**

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 ONE — Please tell us about your experience with this educational activity**

**BEFORE completion of this activity, how would you characterize your level of knowledge on the following topics?**

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

Utility of the <i>Oncotype</i> DX assay for predicting response to adjuvant chemotherapy	4	3	2	1
Rationale for adjuvant endocrine therapy beyond five years of treatment	4	3	2	1
Management of arthralgias secondary to aromatase inhibitors	4	3	2	1
Long-term risks associated with adjuvant anthracyclines	4	3	2	1

**AFTER completion of this activity, how would you characterize your level of knowledge on the following topics?**

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

Utility of the <i>Oncotype</i> DX assay for predicting response to adjuvant chemotherapy	4	3	2	1
Rationale for adjuvant endocrine therapy beyond five years of treatment	4	3	2	1
Management of arthralgias secondary to aromatase inhibitors	4	3	2	1
Long-term risks associated with adjuvant anthracyclines	4	3	2	1

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

Yes  No

If no, please explain: .....

**Will this activity help you improve patient care?**

Yes  No  Not applicable

If no, please explain: .....

**Did the activity meet your educational needs and expectations?**

Yes  No

If no, please explain: .....

**Please respond to the following LEARNER statements by circling the appropriate selection:**

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

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

- Integrate validated genomic assays and computerized risk models into the clinical management of hormone receptor (HR)-positive, node-negative and node-positive early breast cancer .....4 3 2 1 N/M N/A
- Assess the affect of biomarker assay quality control on the clinical recommendation for and efficacy of HER2 or endocrine-targeted therapy.....4 3 2 1 N/M N/A
- Counsel premenopausal women with HR-positive early breast cancer about the benefits and risks of treatment with ovarian suppression and/or antiestrogens. ....4 3 2 1 N/M N/A
- Apply the results of recent clinical trials when discussing the adjuvant use of aromatase inhibitors or tamoxifen with appropriately selected patients. ....4 3 2 1 N/M N/A
- Recall the efficacy, safety and current clinical utility of anthracycline- and non-anthracycline-based chemotherapy regimens when developing treatment strategies. ....4 3 2 1 N/M N/A
- Explain the pivotal role of targeted biologic agents in the treatment of early and advanced HER2-positive breast cancer to patients eligible for such therapy. ....4 3 2 1 N/M N/A
- Demonstrate knowledge of the evidence-based use of bevacizumab in the treatment of metastatic breast cancer, and describe the rationale for its ongoing investigation in the adjuvant setting. ....4 3 2 1 N/M N/A
- Educate patients with early breast cancer about the emerging utility of bisphosphonates as a supportive and therapeutic component of adjuvant systemic treatment. ....4 3 2 1 N/M N/A
- Recognize the psychosocial and emotional needs of caregivers, patients and their loved ones facing the diagnosis and treatment of breast cancer. ....4 3 2 1 N/M N/A

**What other practice changes will you make or consider making as a result of this activity?**

.....  
 .....

**EDUCATIONAL ASSESSMENT AND CREDIT FORM (continued)**

**What additional information or training do you need on the activity topics or other oncology-related topics?**

.....

**Additional comments about this activity:**

.....

**As part of our ongoing, continuous quality-improvement effort, we conduct postactivity follow-up surveys to assess the impact of our educational interventions on professional practice. Please indicate your willingness to participate in such a survey.**

- Yes, I am willing to participate in a follow-up survey.
- No, I am not willing to participate in a follow-up survey.

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

	4 = Excellent	3 = Good	2 = Adequate	1 = Suboptimal	
<b>Faculty</b>	<b>Knowledge of subject matter</b>				<b>Effectiveness as an educator</b>
Harold J Burstein, MD, PhD	4	3	2	1	4 3 2 1
Una Hopkins, BSN, MSN, FNP-BC	4	3	2	1	4 3 2 1
John Crown, MD	4	3	2	1	4 3 2 1
Stephen E Jones, MD	4	3	2	1	4 3 2 1
<b>Editor</b>	<b>Knowledge of subject matter</b>				<b>Effectiveness as an educator</b>
Neil Love, MD	4	3	2	1	4 3 2 1

**Please recommend additional faculty for future activities:**

.....

**Other comments about the editor and faculty for this activity:**

.....

**REQUEST FOR CREDIT — Please print clearly**

Name: ..... Specialty: .....

Credentials:

- MD
- DO
- PharmD
- NP
- CNS
- RN
- PA
- Other.....

Professional License Number: ..... Last 4 Digits of SSN (required): .....

Street Address: ..... Box/Suite: .....

City, State, Zip: .....

Telephone: ..... Fax: .....

Email: .....

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

**To obtain a certificate of completion and receive credit for this activity, please complete the Post-test, fill out the Educational Assessment and Credit Form and fax both to (800) 447-4310, or mail both to Research To Practice, One Biscayne Tower, 2 South Biscayne Boulevard, Suite 3600, Miami, FL 33131. You may also complete the Post-test and Educational Assessment online at [www.ResearchToPractice.com/BCU/Nurses](http://www.ResearchToPractice.com/BCU/Nurses).**

# Breast Cancer®

U P D A T E

<b>Editor</b>	Neil Love, MD
<b>Managing Editor</b>	Kathryn Ault Ziel, PhD
<b>Scientific Director</b>	Richard Kaderman, PhD
<b>Senior Director, Medical Affairs</b>	Aviva Asnis-Alibozek, PA-C, MPAS
<b>Writers</b>	Lillian Sklaver Poltorack, PharmD Douglas Paley
<b>Continuing Education Administrator for Nursing</b>	Sally Bogert, RNC, WHCNP
<b>Content Validation</b>	Margaret Peng Erin Wall Clayton Campbell Jessica McCarrick
<b>Director, Creative and Copy Editing</b>	Aura Herrmann
<b>Creative Manager</b>	Fernando Rendina
<b>Graphic Designers</b>	Jessica Benitez Jason Cunnius Tamara Dabney Claudia Munoz Deepti Nath
<b>Senior Production Editor</b>	Alexis Oneca
<b>Traffic Manager</b>	Tere Sosa
<b>Copy Editors</b>	Margo Harris David Hill Rosemary Hulce Kirsten Miller Pat Morrissey/Havlin Carol Peschke Susan Petrone
<b>Production Manager</b>	Tracy Potter
<b>Audio Production</b>	Frank Cesarano
<b>Web Master</b>	John Ribeiro
<b>Faculty Relations Manager</b>	Melissa Vives
<b>CME Director/CPD Director</b>	Isabelle Vacher
<b>Contact Information</b>	Neil Love, MD Research To Practice One Biscayne Tower 2 South Biscayne Boulevard, Suite 3600 Miami, FL 33131 Fax: (305) 377-9998 Email: <a href="mailto:DrNeilLove@ResearchToPractice.com">DrNeilLove@ResearchToPractice.com</a> Email: <a href="mailto:CE@ResearchToPractice.com">CE@ResearchToPractice.com</a>
<b>For CME/CNE Information</b>	

Copyright © 2009 Research To Practice. All rights reserved.

The compact discs, Internet content and accompanying printed material are protected by copyright. No part of this program may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or utilizing any information storage and retrieval system, without written permission from the copyright owner.

The opinions expressed are those of the presenters and are not to be construed as those of the publisher or grantors.

Participants have an implied responsibility to use the newly acquired information to enhance patient outcomes and their

own professional development. The information presented in this activity is not meant to serve as a guideline for patient management.

Any procedures, medications or other courses of diagnosis or treatment discussed or suggested in this activity should not be used by clinicians without evaluation of their patients' conditions and possible contraindications or dangers in use, review of any applicable manufacturer's product information and comparison with recommendations of other authorities.

# Breast Cancer<sup>®</sup>

U P D A T E

Copyright © 2009 Research To Practice.

This program is supported by educational grants from AstraZeneca Pharmaceuticals LP, Genentech BioOncology, Genomic Health Inc and Novartis Pharmaceuticals Corporation.

## Research To Practice<sup>®</sup>

Sponsored by Research To Practice.

Last review date: April 2009

Release date: April 2009

Expiration date: April 2010

Contact hours: 3