



American Society of Clinical Oncology

Making a world of difference in cancer care

**Breast Cancer Follow-Up &
Management in the Adjuvant Setting:
2006 Update**

Clinical Practice Guideline

Introduction

- ASCO convened an Expert Panel to review and update evidence-based strategies for breast cancer follow-up and management in asymptomatic patients following primary, curative therapy.
- These guidelines were originally published in 1997 and previously updated in 1998. Since that time diagnostic testing for breast cancer in the adjuvant setting has become increasingly available.
- The Panel observed the 1996 outcomes criteria that justify the use of a drug or technology in the guideline development process. Therapy was recommended when compelling positive effects to survival, quality of life, toxicity and/or cost-effectiveness was demonstrated.
- This ASCO guideline recommends regular clinical evaluation in conjunction with mammography as the foundation upon which breast cancer follow-up should be based.

Guideline Methodology: Systematic Review

- An ASCO Expert Panel reviewed pertinent information from the literature through March 2006:
 - ✓ MEDLINE
 - ✓ Cochrane Collaboration Library

Guideline Methodology (cont'd): Panel Members

- Nancy E. Davidson, MD, *Co-Chair* Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins
- James L. Khatcheressian, MD, *Co-Chair* VCU/Massey Cancer Center
- Martha Bluming Hematology-Oncology Medical Group of San Fernando Valley
- Laura Esserman, MD University of California San Francisco
- Eva Grunfeld, MD, DPhil Dalhousie University
- Francine E. Halberg, MD Marin Cancer Institute, Marin General Hospital
- Alexander Hantel, MD Loyola University, Edward Hospital Cancer Center
- Alexander Kennedy, MD Dartmouth-Hitchcock Manchester
- Hyman B. Muss, MD University of Vermont
- Thomas J. Smith, MD VCU/Massey Cancer Center
- Victor G. Vogel, MD, MHS
Center Magee-Woman's Hospital, Univ. of Pittsburgh Medical
- Antonio C. Wolff, MD Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins

2006 Update: Recommended Breast Cancer Follow-Up & Management

- History, Physical Examination and Patient Education
- Breast Self-Examination
- Mammography
- Coordination of Care
- Pelvic Examination
- Breast Cancer Surveillance Testing—Not Recommended:
 - ✗ Complete Blood Cell Count
 - ✗ Automated Chemistry Studies
 - ✗ Chest X-rays
 - ✗ Bone Scan
 - ✗ Ultrasound of the Liver
 - ✗ Computed Tomography
 - ✗ FDG-PET Scanning^{New}
 - ✗ Breast MRI^{New}
 - ✗ Breast Cancer Tumor Markers (CA 15-3, CA 27.29, CEA)

History, Physical Exam & Patient Education

- All women should have a careful history and physical examination

Years After Primary Therapy	History & Physical Exam Occurs:
1, 2, 3	Every 3 to 6 months
4, 5	Every 6 to 12 months
6+	Annually

- Physicians should counsel patients about the symptoms of recurrence
 - New lumps
 - Bone pain
 - Chest pain
 - Dyspnea
 - Abdominal pain
 - Persistent headaches

History, Physical Exam & Patient Education (cont'd)

- Women at high risk for familial breast cancer syndromes should be referred to genetic counseling[‡].

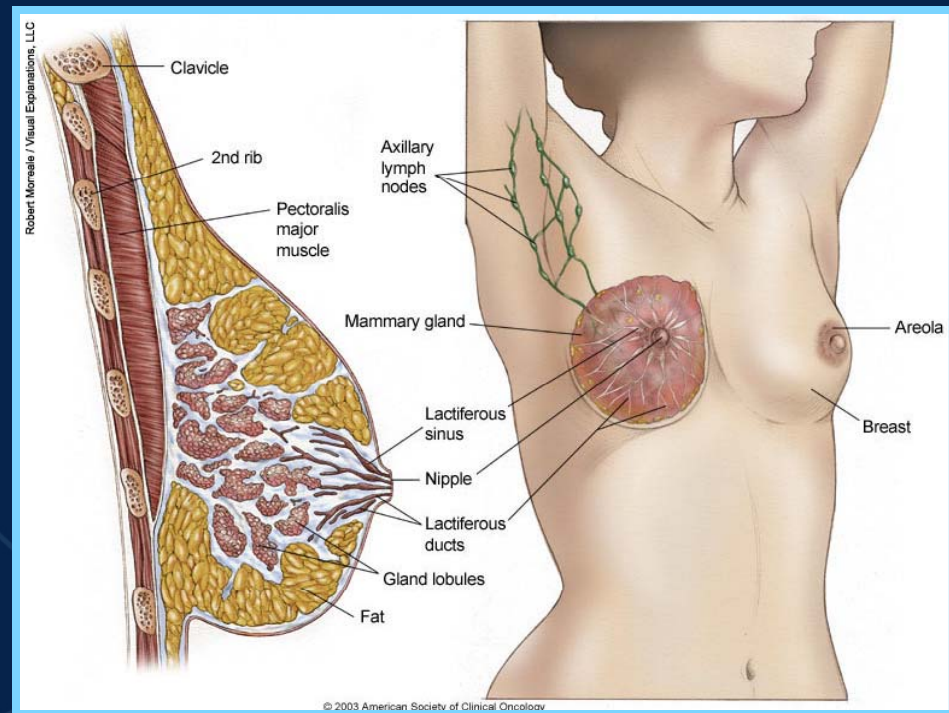
Criteria for Genetic Counseling Referral

- ▶ Ashkenazi Jewish heritage
- ▶ History of ovarian cancer at any age in the patient or any first- or second-degree relatives
- ▶ Any first degree relative with a history of breast cancer diagnosed before the age of 50
- ▶ Two or more first- or second-degree relatives diagnosed with breast cancer at any age
- ▶ Patient or relative with diagnosis of bilateral breast cancer
- ▶ History of breast cancer in a male relative

[‡] U.S. Preventive Services Task Force, *Genetic Risk Assessment and BRCA Mutation Testing for Breast and Ovarian Cancer Susceptibility*

Breast Self-Examination

- Counsel all women to perform monthly breast self-examination (BSE)
- Inform patients that BSE does not replace mammography as a breast cancer screening tool



Mammography

- Post-treatment mammograms should be performed adhering to the following schedule:

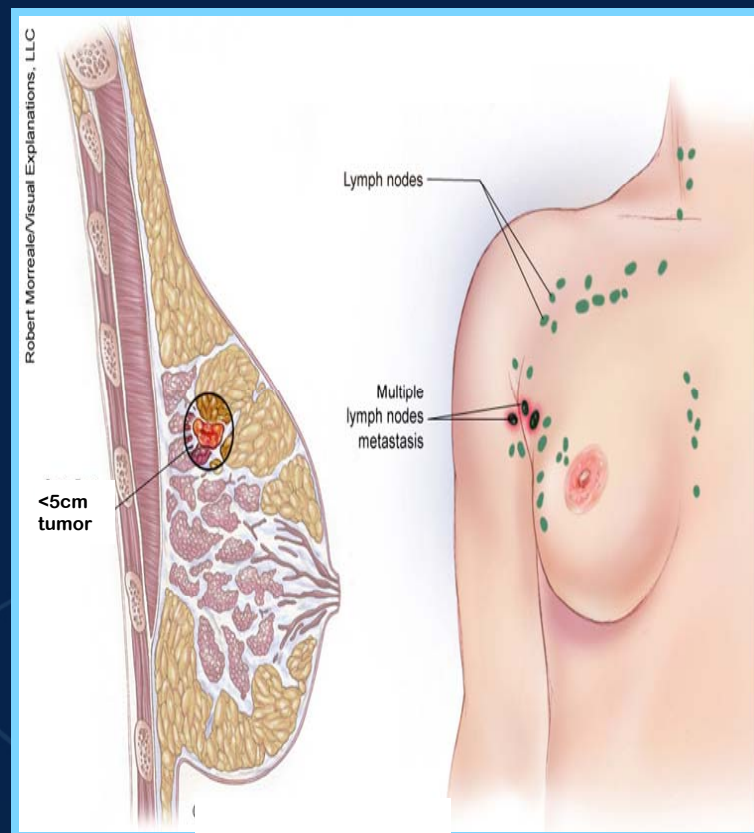
Post-Treatment Mammogram Protocol	
First	No earlier than 6 months after definitive radiation therapy
Subsequent	Every 6 to 12 months for surveillance of abnormalities
Subsequent (Conditional)	Yearly; if stability of mammographic findings is achieved after completion of locoregional therapy

Coordination of Care

- Risk of breast cancer recurrence continues through 15 years after primary treatment and beyond
- Any physician performing continuity of care for breast cancer survivors should be experienced in
 - ▶ Surveillance of cancer patients
 - ▶ Breast examination (including irradiated breasts)

Coordination of Care (cont'd)

- Early stage patients (tumor <5cm and fewer than 4 positive nodes) who desire follow-up exclusively by a PCP may be transferred ~1 year post-diagnosis
- If care is transferred to a PCP, both the PCP and the patient should be informed of the appropriate follow-up and management strategy
- If the patient is receiving adjuvant endocrine therapy she will need to be re-referred for oncology assessment



Pelvic Examination

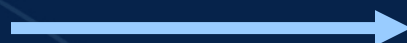
- Regular gynecologic follow-up is recommended for all women
- Patients who receive tamoxifen therapy are at increased risk for developing endometrial cancer and should be advised to report any vaginal bleeding to their physicians
- Longer follow-up intervals may be appropriate for women who have had a total hysterectomy and oophorectomy

Breast Cancer Surveillance Testing—Not Recommended

- Evidence **DOES NOT** support breast cancer surveillance testing (i.e., routine blood tests, imaging studies, tumor markers)*

▶ Well designed randomized controlled trials (RCTs)

▶ Recently updated Cochrane meta-analysis of RCTs



No significant differences between standard and intensive surveillance groups:

- Survival
- Quality of life

**Please see the complete set of ASCO guideline recommendations for a full discussion of the evidence.*

Breast Cancer Surveillance Testing (cont'd)

- The following are **NOT RECOMMENDED** for routine breast cancer surveillance:
 - ✗ Complete blood cell count
 - ✗ Automated chemistry studies
 - ✗ Chest x-rays
 - ✗ Bone scan
 - ✗ Ultrasound of the liver
 - ✗ Computed tomography
 - ✗ FDG-PET scanning
 - ✗ Breast MRI

Breast Cancer Surveillance Testing (cont'd)

- **FDG-PET scanning is not recommended for routine breast cancer surveillance.**
 - While FDG_PETS scanning may demonstrate more sensitivity than conventional imaging in diagnosing recurrent disease, there is no evidence that there is an impact on survival, quality of life, or cost-effectiveness.
- **Breast MRI is not recommended for routine breast surveillance.**
 - There is no evidence that breast MRI improves outcomes when used as a breast cancer surveillance tool during routine follow-up in asymptomatic patients. The decision to use breast MRI in high-risk patients should be made on an individual basis depending on the clinical scenario.

Breast Cancer Surveillance Testing (cont'd): Tumor Markers*

- The following tumor markers are **NOT RECOMMENDED** for routine surveillance of breast cancer patients after primary therapy*
 - ✗ CA 15-3, CA 27.29
 - ✗ Carcinoembryonic Antigen (CEA)

**The ASCO Breast Cancer Tumor Markers Panel will publish guideline recommendations for selected tumor markers.*

Summary

RECOMMENDED BREAST CANCER SURVEILLANCE	
Hx/Physical Exam	Every 3 to 6 months for the first 3 years after primary therapy; every 6 to 12 months for years 4 and 5, then annually.
Patient Education	Counsel patients about the symptoms of recurrence including new lumps, bone pain, chest pain, abdominal pain, dyspnea or persistent headaches.
Referral for genetic counseling	Criteria to recommend referral include Ashkenazi Jewish heritage; history of ovarian cancer in patient or any first- or second-degree relative; any first degree relative with a history of breast cancer diagnosed before age 50; two or more first- or second-degree relatives diagnosed with breast cancer; patient or relative with diagnosis of bilateral breast cancer; or, history of breast cancer in a male relative.
Breast Self-Exam	All women should be counseled to perform monthly breast self-examination.
Mammography	First post-treatment mammogram 1 year after the initial mammogram that leads to diagnosis, but no earlier than 6 months after definitive radiation therapy. Subsequent mammograms should be obtained as indicated for surveillance of abnormalities.
Coordination of Care	Continuity of care for breast cancer patients is encouraged and should be performed by a physician experienced in the surveillance of cancer patients and in breast examination, including the examination of irradiated breasts. If follow-up is transferred to a PCP, the PCP and the patient should be informed of the long-term options regarding adjuvant hormonal therapy for the particular patient. This may necessitate re-referral for oncology assessment at an interval consistent with guidelines for adjuvant hormonal therapy.
Pelvic Examination	Regular gynecologic follow-up is recommended for all women. Patients who receive tamoxifen should be advised to report any vaginal bleeding to their physicians.
BREAST CANCER SURVEILLANCE TESTING - NOT RECOMMENDED	
Routine blood tests	CBCs and liver function tests are not recommended
Imaging Studies	Chest x-ray, bone scans, liver ultrasound, CT scans, FDG-PET scans, and breast MRI are not recommended
Tumor markers	CA 15-3, CA 27.29 and CEA are not recommended.

Additional Resources

- 10-Year Breast Cancer Recurrence Risk Assessment Tool

<http://www.adjuvantonline.com>

- Patient Education Websites

People Living With Cancer (<http://www.cancer.net>)

American Cancer Society (<http://www.cancer.org>)



Additional ASCO Resources

- This slide set, patient flow sheets, and additional breast cancer follow-up and management resources can be accessed at: <http://www.asco.org/guidelines/breastfollowup>



ASCO Guidelines

It is important to realize that many management questions have not been comprehensively addressed in randomized trials and guidelines cannot always account for individual variation among patients. A guideline is not intended to supplant physician judgment with respect to particular patients or special clinical situations and cannot be considered inclusive of all proper methods of care or exclusive of other treatments reasonably directed at obtaining the same results. Accordingly, ASCO considers adherence to this guideline to be voluntary, with the ultimate determination regarding its application to be made by the physician in light of each patient's individual circumstances. In addition, the guideline describes administration of therapies in clinical practice; it cannot be assumed to apply to interventions performed in the context of clinical trials, given that clinical studies are designed to test innovative and novel therapies in a disease and setting for which better therapy is needed. Because guideline development involves a review and synthesis of the latest literature, a practice guideline also serves to identify important questions for further research and those settings in which investigational therapy should be considered.