

Breast Cancer Surveillance Guidelines

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The American Society of Clinical Oncology (ASCO) has updated the 2006 version of its breast cancer surveillance guidelines. In short, there are no changes to the guidelines. It is worth reviewing the gist of the guidelines, as summarized in Table 1, compared with what oncologists reported they do in a survey. The low averages do not adequately represent the true variation—we all know oncologists who routinely perform these tests. Unpublished reports show some 30% to 40% of practices routinely measure serum tumor markers and perform computed tomography or positron emission tomography scans. The data are hard to find, given that practitioners have not been supposed to do these tests for a decade.

What Is Behind the Practice of Too-Active Surveillance?

This practice is not driven by profit motives. Grunfeld et al² studied practice patterns in Ontario and found that one quarter of asymptomatic women were undergoing imaging such as computed tomography or bone scans, and there was no way for the physicians involved to own their facilities or profit from the tests.

The practice is not driven by lack of time to discuss the guidelines and give the evidence against tests. I used a stopwatch with consecutive patients and found that the average discussion of the guidelines was approximately 6 minutes, if I had a printed copy on which to write.³

My understanding is that aggressive surveillance testing results from several things. First, it is hard to tell a patient that even if we find his or her cancer sooner, it will not make a difference in curability or even survival time—particularly if the oncology group competition does perform the tests.

Second, some physicians believe that the newer drugs for breast cancer are so much better that we can give people longer and better survival if we find their disease sooner. There is to date absolutely no evidence that any of the newer drugs or

radiation therapies lead to more cures than doxorubicin or the taxanes available when the randomized surveillance trials were conducted. There is no evidence that people live longer when they have a single asymptomatic liver breast cancer metastasis ablated by whatever means. We all know that human epidermal growth factor receptor 2–directed therapy leads to longer survival in breast cancer, and we hope for better therapy for the rest. Those of us who support the evidence-based guidelines could just as effectively argue that better therapies will allow us to salvage a patient found with a 1.6-cm symptomatic bone metastasis instead of a 1-cm asymptomatic metastasis. We have always demanded evidence to change our practice, and surveillance should be no exception.

These are not trivial issues. If there are 1,000,000 female breast cancer survivors, requiring each to undergo a positron emission tomography scan every other year and a cancer antigen 27.29 test once a year will be an absolute waste of a lot of money, not to mention the additional radiation exposure and the opportunity cost of using those billions of dollars for unhelpful tests when newer drugs are available. With current projections that half of all household income will be dedicated to health care by 2017,⁴ we clearly must find ways to reduce costs without compromising quality too much.

Getting to “No”

ASCO has recognized the wastefulness of these practices and placed the reduction of unhelpful surveillance on its top-five list of oncology goals.⁵ This will give insurance companies the scientific background and administrative gumption they need to decline payment for these tests. Already, Medicare does not pay for the tumor marker tests. Practice-by-practice and practitioner comparisons will allow us to monitor our practices with the Quality Oncology Practice Initiative⁶ and identify the practices in which 40% of women undergo serum tumor

Table 1. Guideline Dos and Don'ts and Actual Practice

	Recommendation	Actual Practice ¹
Do	History and physical examination every 3 to 6 months for 3 years, then every 6 to 12 months for the next 2 years, then annually	3.4 in year 1, falling to two in year 5
	Yearly mammogram	1.6 in year 1, falling to 1.3 in year 2
Don't do	Routine blood tests such as CBC, LFT	Two
	Serum tumor markers	0.4, CEA; 0.7, CA 15.3
	Chest x-rays, CTs, bone scans, PET scans in patients without symptoms	0.1 for all with SD of 0.4 to 0.6

Abbreviations: CA, cancer antigen; CBC, complete blood count; CEA, carcinoembryonic antigen; CT, computed tomography; LFT, liver function test; PET, positron emission tomography; SD, standard deviation.

Table 2. ASCO Recommendations for Breast Surveillance, and Verbal and Written Comments*

Test	Frequency	Comments to Discuss With the Patient (a script)
Recommended		My professional society has made recommendations on what should be generally recommended for women in your situation; this group wrestled with the issues for 18 months and will update these yearly or whenever new information becomes available
History/eliciting of symptoms and physical examination	Every 3 to 6 months for 3 years, then every 6 to 12 months for 2 years, then annually	Careful history and examination, like we just did, should be done every 3 to 6 months; if you have concerns, write them down, and call me in between visits; women find more than three quarters of all recurrences in between physician visits, so call me if you suspect something
BSE	Monthly	BSE is recommended; do it monthly (congratulate her if she is, and urge her to do it if not); would you like instructions?
Mammography	Annually	Mammography is recommended; get it done each year at the same place (I have a table on my chart to remind me about this, pelvic and rectal examinations, colonoscopy, and other preventive health care procedures)
Pelvic examination	Annually	Pelvic examinations and PAP smears should be done yearly because you are receiving tamoxifen (or not); endometrial biopsies are not needed because the risk of uterine cancer is so low—only one in 100—but report any abnormal bleeding
Patient education regarding symptoms of recurrence	NA	There are specific things I want you to watch for, the most common spots of recurrence; call me if you notice these things (point to the area in the guidelines that has these bullet points): <ul style="list-style-type: none"> • Lumps or bumps anywhere but especially on the breast or chest wall • Bones that hurt without trauma, especially the spine or hips • Headaches out of the ordinary • Shortness of breath, especially if receiving tamoxifen • Leg swelling, especially if receiving tamoxifen
Coordination of care	NA	You only need to see one physician, not three or four, but it needs to be someone experienced in breast cancer examinations; I can alternate with your surgeon, Dr X, and your radiotherapist, Dr Y, or you can choose one person, but you need to see someone every 3 to 6 months for the first 3 years; it can be your primary care physician, Dr Z
Not recommended		Our professional society has recommended that some tests not be done, because it could not find evidence that the tests were helpful; I do these tests, but only to diagnose something, not for screening; we should concentrate on making sure that you undergo the tests that we know make a difference (point to the list of tests not recommended)
CBC and chemistry studies		These never detect an early or curable recurrence
Chest films		Chest x-ray rarely if ever finds an early or curable recurrence
Bone scan		Same for the bone scan; it detects arthritis and stress fractures but not curable disease; it is more important that you report any new bone pain
Ultrasound of the liver; CT of the chest, abdomen, or pelvis; PET scans		Same for liver ultrasound and CT scans; a large trial of > 1,000 women in Italy showed no benefit to doing yearly liver ultrasounds and bone scans for routine surveillance, so they are not recommended; they find too many nuisances, and do not detect early curable cancer
Tumor markers CA 15-3, CA 27.29, CEA		I wish I had a perfect blood test that would tell me whether you have breast cancer cells left; every biotech company would, too; but none of the current tests are good enough to do routinely; the ASCO expert panel found that there was too much of a problem of missed cancer and falsely showing cancer was there, and it could not find any evidence that finding the cancer a few weeks or months earlier would lead to better treatment This is an area where the tests are getting better; at the present time, I do not order any of these tests, but if new evidence shows that these tests are helpful, ASCO will review the evidence when it comes out and change the guideline; for now, we should concentrate on doing the tests we know make a difference and not doing others

Abbreviations: ASCO, American Society of Clinical Oncology; BSE, breast self-examination; CA, cancer antigen; CBC, complete blood count; CEA, carcinoembryonic antigen; CT, computed tomography; NA, not applicable; PAP, Papanicolaou; PET, positron emission tomography.

* I write directly on a printed copy of the surveillance guidelines and fax a copy to the primary care physician.

marker tests. The Quality Oncology Practice Initiative must become a “diminish overuse” program as much as an “ensure appropriate use” program to stay relevant, and these changes are under way.

Ultimately, however, we need a new script for explaining this to people in a way that makes sense to them.⁷ I use the script in Table 2, writing on the printed guidelines,⁸ and it is very doable in a single visit. Once I tell people about what we should not do, I can write a list of what we should do—exercise, maintaining baseline weight, health maintenance for other problems, a good vegetable-based diet, and consideration of an aspirin a day.⁹

Author's Disclosures of Potential Conflicts of Interest

The author(s) indicated no potential conflicts of interest.

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DOI: 10.1200/JOP.2012.000787

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