

Optimizing Surveillance and Balancing Evidence With Patient Expectations

Presented by Crystal Denlinger, MD; inset presented by Terry S. Langbaum, MAS

Abstract

For most cancers, intensive posttreatment surveillance does not improve survival, but can induce anxiety in patients and may lead to unnecessary testing due to false-positive results. For colorectal cancer, more intensive surveillance, especially during the first few survivorship years, is warranted. For breast cancer, surveillance for second primary cancers with annual mammography is warranted. This may also be the case for non-small cell lung cancer. For other tumors, less routine surveillance testing can be recommended. (*J Natl Compr Canc Netw* 2014;12:781–784)

For most cancers, intensive surveillance after treatment has not been shown to improve survival, and there is growing concern about radiation exposure from routine imaging, according to Crystal Denlinger, MD, Assistant Professor, Fox Chase Cancer Center, Philadelphia, who chairs the NCCN Guidelines Panel for Survivorship. At the NCCN 19th Annual Conference, Dr. Denlinger outlined the recommendations for surveillance for several tumor types.

Based on results from a US cohort of 31,462 patients undergoing diagnostic imaging with CT scans, recurrent imaging appears to convey more than a 1% risk of radiation-induced cancers in a small percentage of patients.¹ In the 7% of patients within this cohort whose risk of cancer was increased by 1% or more due to radiation exposure, the majority had a history of ma-

lignancy, yet 30% of this group did not have evidence of active disease. “Our zeal for imaging may actually increase cancer risk in some patients exposed to frequent surveillance imaging tests,” Dr. Denlinger said.

The data on the topic are relatively weak, however, because few randomized studies and few recent studies on the most effective modalities have been performed to inform surveillance strategies, according to Dr. Denlinger.

Although many patients and their families view regular surveillance as a mark of good practice and patients yearn to hear the words “cancer free,” testing can also induce anxiety. In addition, false-positive results can trigger additional testing, and this can increase radiation exposure and costs.

As a general rule, less is more, Dr. Denlinger maintained, because most recurrences are detected on clinical examination or by the presence of symptoms, not by imaging tests or blood-based markers. Regardless of how they are picked up, recurrences are rarely cured.

Discussions with patients regarding the risks and benefits of routine imaging tests and laboratory studies are important for defining and adhering to optimal surveillance strategies (see inset), she said.

Which Tests for Which Cancers?

Clinicians should know which cancers warrant closer monitoring, both for second primary cancers and for cancer recurrence. These include colorectal, breast, and perhaps non-small cell lung cancers. Cancers in which close surveillance may not change outcome include pancreas, gastric, and perhaps ovarian cancers.

Colorectal Cancer

Colorectal cancer surveillance with carcinoembryonic antigen (CEA) testing and CT scanning improves the

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Providers Should Understand Survivors' Expectations

Presented by Terry S. Langbaum, MAS

“Intuitively, you would think that cancer patients are euphoric as they end their active treatment period, but, in fact, this can be the most difficult time for patients,” according to Terry S. Langbaum, MAS, Chief Administrative Officer, The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, and a survivor of Hodgkin lymphoma herself.

At the NCCN 19th Annual Conference, Ms. Langbaum described patient expectations regarding surveillance and the role of the oncology care team in the survivorship period.

Although others may perceive that the patient is “done with treatment” and therefore ready to resume a “normal” life, the patient feels different, and thus misunderstood and alone.

“We need realistic expectations,” Ms. Langbaum said, drawing from her own experience with Hodgkin lymphoma. “Over the past 32 years [since the diagnosis], my life has been amazing, but I don’t look at life the same. I don’t feel entitled to good health anymore.”

Patients may find the posttreatment period difficult for many reasons:

- Disconnecting from the treatment team is hard: patients develop a dependence on their care team.
- Every ache and pain produces anxiety: is the cancer back?
- Patients are still unwell and recovering from treatment.
- Friends and family expect them to be back to normal right away.
- They may be left with a financial burden.
- They may have changes in body image, energy levels, and emotional health.
- They may not be well educated about what to expect after treatment.

Ms. Langbaum urged providers to help prepare patients for these feelings and situations; help them acknowledge that cancer has had a permanent impact on their lives; provide a clear, coordinated plan for surveillance that takes into account the tumor characteristics, disease stage, comorbidities, age, and the potential impact of surveillance testing on their survival.

The cost of surveillance is also an emerging concern because patients pay more for their health care. Providers also should ask patients about their occupation and help them negotiate their return to work, she said.

Compliance With Surveillance

Well-educated patients realize the value of surveillance and often will comply with recommendations, but when the surveillance recommendation does not make sense, patients may have problems.

“For instance, does quarterly CT scanning for 3 years make sense for a patient with a gastrointestinal stromal tumor with a ‘0’ mitotic rate, surgically removed with clean margins? Should a colorectal cancer patient be followed in medical oncology, radiation oncology, and surgery for 5 years posttreatment?” she asked.

“There is a significant lack of coordination, collaboration and communication among oncology specialists in the surveillance period, and the patients pay the price,” she indicated.

Ms. Langbaum told providers to determine the potential barriers to compliance and create a rational evidence-based surveillance plan that does not create a burden for the patient.

She urged providers to be alert to the potential for late effects and health issues related to treatment; to promote healthy lifestyle behaviors (diet, exercise) and provide effective tools for achieving these; to recognize the physical, emotional, financial, and spiritual burden of a cancer diagnosis; and to help patients prepare for the feelings of anxiety and loss at separation from the oncology team.

Finally, Ms. Langbaum emphasized the need to “thank the caregivers,” who also experience tremendous anxiety over the cancer diagnosis, and to facilitate ways in which cancer patients can “tell their story.”

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possibility of surgery with curative intent and probably impacts survival. In addition, surveillance colonoscopy can detect second primary tumors. Of note, in a recent study, most colorectal cancer recurrences were detected with scheduled CEA testing or CT scan, and not by symptom complaints.² In another study, CEA detected the most number of recurrences followed by CT scan, especially in the second year after diagnosis.³ In addition, an older meta-analysis showed an approximately 20% improvement in 5-year survival in patients who underwent intensive surveillance compared with control subjects.⁴

Because the risk for distant recurrence peaks within the first 3 years of diagnosis,⁵ Dr. Denlinger recommended “Practitioners intensify the surveillance testing in the first few years.” Currently, the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) for Colon and Rectal Cancers recommend routine CEA testing and colonoscopy. CT scans are recommended annually for patients at high risk for recurrence. Routine CEA monitoring and CT scanning are not recommended beyond 5 years.

Breast Cancer

For breast cancer survivors, the NCCN Guidelines for Breast Cancer recommend physical examination every 4 to 6 months for 5 years, then annually, with annual mammography. The panel does not recommend the routine use of more intensive surveillance (eg, bone scan, liver ultrasound, chest radiograph, laboratory tests) in the absence of symptoms, based on results of 2 large randomized clinical trials demonstrating no improvement in survival with an intensive surveillance strategy.^{6,7}

Nevertheless, “an ongoing trend” remains in the United States for extraneous surveillance testing, including bone scans and blood tests, in patients with breast cancer, she noted. A 2007 survey of approximately 1000 oncologists found that 80% used blood tests or liver function tests annually, and up to 15% recommended radiographic screening in the absence of supporting data.⁸

Ovarian Cancer

In ovarian cancer, recurrences are common after the initial clinical remission. In 80% of these cases, CA125 will be elevated, often 2 to 5 months before the disease is clinically apparent. Currently, the NCCN Guidelines for Ovarian Cancer recommend visits every 2 to 4 months for 2 years, then every 3

to 6 months for 3 years, then annually after 5 years, with CA125 (or other tumor markers) evaluated at every visit if initially elevated. However, the clinical utility of this is unclear: a randomized study of patients who received chemotherapy either at CA125 elevation or on clinical recurrence found no survival benefit with the earlier treatment.⁹

Non–Small Cell Lung Cancer

Surveillance remains controversial for non–small cell lung cancer, because of the inconsistency of the data. Most recurrences happen outside the lung, and more than 50% of these patients present with symptoms at unscheduled assessments. “It is not clear whether catching lung cancer recurrences early in an asymptomatic state is associated with a survival benefit,” Dr. Denlinger indicated. The value in surveillance imaging may be detecting second primary lung cancers at early, resectable stages instead.¹⁰

The NCCN Guidelines for Non–Small Cell Lung Cancer recommend physical examination and chest CT (with or without contrast) every 6 to 12 months for 2 years, then examination and a chest CT without contrast annually. PET or brain MRI is not indicated.

Prostate Cancer

In prostate cancer, the intensity of checking prostate-specific antigen (PSA) levels is not associated with improved survival, according to a recent study from the Mayo Clinic.¹¹ The study looked at the association between the number of PSA tests per time period during follow-up and outcomes at 2 years. Of the 832 men diagnosed with early-stage disease, only 10% of deaths in the patient cohort could be attributed to prostate cancer. In addition, PSA testing was not associated with all-cause mortality in any treatment group (surgery, radiation, androgen deprivation, and watchful waiting).

Gastric and Pancreatic Cancers

Surveillance is also not useful in gastric cancer, according to a recent meta-analysis that could not identify any mode of surveillance that improved survival.¹² “Doing more does not equal better or longer, in gastric cancer,” Dr. Denlinger said. “I tell patients that we will make decisions about testing based on symptoms, although this is disquieting to some.”

Pancreatic cancer is similar, according to a SEER database of 2217 patients who underwent 11,850 abdominal imaging tests. Median survival was 14

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months, and no better for patients who underwent routine imaging.¹³ In the NCCN Guidelines for Pancreatic Adenocarcinoma, however, the use of CT scans and CA19-9 during surveillance is listed with a category 2B recommendation. This is suggested every 3 to 6 months for 2 years, then annually.

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