

 <h1>Choosing Wisely<sup>®</sup></h1> <p><i>An initiative of the ABIM Foundation</i></p>	
	 <p>American Society of Clinical Oncology</p>
	

# Hard decisions about cancer

## 5 tests and treatments to question

**W**hen the diagnosis is cancer, many people understandably want to pull out all the stops to treat it. But some tests, treatments, and procedures are not only unnecessary, they can even prove harmful.

“Sometimes less really is more,” says Lowell Schnipper, M.D., clinical director of the Cancer Center and chief of oncology and hematology at Beth Israel Deaconess Medical Center in Boston. “It’s important to assess if what you are doing will help you stay well longer.”

Schnipper heads a task force convened by the American Society of Clinical Oncology (ASCO), a professional group dedicated to cancer care and research, that identified five tests and treatments that are not supported by evidence for most patients. That means you should generally avoid them unless you and your doctor jointly decide they are appropriate in your case.

“This is not a never list,” says Doug Blayney, M.D., medical director at Stanford University Cancer Institute in Stanford, Calif., past president of ASCO, and also a member of the task force. “It’s a tool to help you discuss options with your provider and choose wisely among them.”



## 1 Cancer treatments at the end of life

Sometimes, even with the best possible care, cancer continues to spread. The question then becomes, “What next?” The decision to stop therapy aimed to cure cancer is hard, but shift-

ing to treatments that focus on the physical, mental, and spiritual needs of the patient and family can improve the quality of time patients have left, and sometimes lengthen their lives.

ASCO's guidance refers specifically to cancers that form solid tumors, such as cancers of the breast, colon, or lung. Those cancers follow a reasonably predictable course, says Thomas J. Smith, M.D., director of palliative medicine at Johns Hopkins Medical Institutions in Baltimore and a member of the ASCO task force.

"When you treat tumors the first time, you are hoping for a good and long benefit. But when they grow despite treatment, the chance of benefit gets progressively less," Smith says. In most cases, if cancer has grown or spread after three different treatments, further therapy doesn't improve survival and, in fact, might have such severe side effects that it hastens death.

**The recommendation.** ASCO recommends that patients with advanced, solid tumors shift from cancer-directed therapy to supportive or palliative care that is designed to help manage symptoms when all of the following are the case:

- Previous treatments have not worked and there are no additional evidence-based treatments available.
- Patients have a poor performance status—that is, they can't care for themselves and are spending most of their time in a bed or chair, rather than in everyday activities.
- Patients are not eligible for a clinical trial. (If you are interested in participating in research, ask your doctor about applicable studies and check [www.clinicaltrials.gov](http://www.clinicaltrials.gov), a website sponsored by the U.S. National Institutes of Health.)

**What's behind this recommendation?** In some medical centers up to half of advanced-cancer patients suffer needlessly because they continue to receive chemotherapy that has almost no chance of helping them, rather than care focused on helping them and their family cope with end-stage disease, recent research suggests.

And while most oncologists discuss end-of-life

issues with patients with advanced cancer, about one in four do not. Finally, patients may feel obligated to keep fighting the disease, especially if their prognosis and the risks and benefits of treatments have not been clearly explained.

Some people worry that receiving supportive care won't help them. But several studies have found the opposite: Patients who receive palliative or hospice care live at least as long as those who don't, and their quality of life is better, too. Some data suggest that hospice care also helps caregivers.

**Questions to ask.** Sometimes a patient or caregiver may need to start a discussion with the doctor. "The oncologist may be unsure of just how much a patient wants to know," says Schnipper, "but if you ask questions, he or she should answer candidly."

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- What's my prognosis? Although no one can say exactly how long a patient will live, a physician should be able to give a range of possible outcomes that helps guide treatment decisions.
- What is the goal of further treatment? Is it treating the cancer or easing symptoms? If it's cancer-directed therapy, what are the side effects and what is the prognosis without it?
- How can I best manage the symptoms and side effects of my disease? Are there steps I can take that would improve quality of life?
- Do you recommend that I meet with someone who specializes in palliative or hospice care?

## 2 Imaging tests for early prostate cancer

Doctors use tissue and biochemical analysis to "stage" prostate cancer, that is, to find out how

## Consumer Reports' Advice

# What's involved with hospice care?

Hospice is generally recommended for patients with a life expectancy of six months or less. It does not involve less care, it just shifts the focus from treating the disease to meeting the day-to-day and even hour-to-hour needs of the patient and family.



Hospice care covers a wide range of services including doctor and nursing care, pain management, physical

and speech therapy, dietary counseling, grief counseling, social worker services, and even respite care so that caregivers can have a break. Although your doctor can describe the basics of hospice care, you can request a referral to a hospice coordinator who can explain the details of all the services offered.

aggressive it is and whether it has the potential to spread to other parts of the body. If based on those tests it appears that cancer has spread, doctors can proceed with imaging tests to find out where in the body the cancer has spread.

However, ASCO recommends against imaging tests for men with low-risk prostate tumors because, in those cases, it's highly unlikely that the cancer has spread, so the risks of additional imaging far outweigh any potential benefit.

**The recommendation.** ASCO recommends that imaging tests, including CT, PET and bone scans, not be used for staging in patients with early-stage, low-grade prostate cancer, defined



as those with a Gleason score of 6 or less and a PSA level of less than 10 nanograms/milliliter.

**What's behind the recommendation?** Most men with prostate cancer are diagnosed at a very early stage, when there is little chance that the tumor has spread. But many doctors and medical centers still perform the same battery of tests, including imaging tests, on all their prostate-cancer patients.

One obvious downside to unnecessary testing is the expense; imaging can add thousands of dollars to the cost of treatment. But there are patient-safety costs as well. Scans sometimes turn up abnormal-looking areas that often prove noncancerous, but the additional tests and procedures used to find them consume people's time and cause them needless worry. In addition, "Most of these tests expose patients to radiation, the effects of which are cumulative over a lifetime," Blayney says. "Excessive imaging actually increases your risk of cancer."

**Questions to ask.** If you are newly diagnosed with prostate cancer, make sure you understand what tests will be used in staging your disease and how they may help determine your treatment. Ask your doctor:

- What is my PSA level and Gleason score and what do those numbers mean in terms of determining the stage of my cancer?

- Are a CT, PET, or bone scan recommended? If initial tests indicate early, low-grade cancer, you should question the need for these scans. On the other hand, if there's a possibility that the cancer is advanced and you are not referred for imaging, ask why not.

### 3 Imaging tests for early breast cancer

Breast cancer is divided into five stages, depending on how advanced it is and the chance that it has spread to other parts of the body. Early breast cancer includes stage zero, or ductal carcinoma in situ (DCIS), in which the cancer is confined to the ducts of the breast, along with stages I and II. Stages III and IV are advanced.

Doctors stage cancer based on three factors: the size and location of the primary tumor, if it has spread to adjacent lymph nodes, and if it has spread to other parts of the body.

To help determine those factors, doctors rely on the patient's history, diagnostic tests, physical exams, and tests of the tumor and lymph nodes. In addition, blood tests of liver function and an enzyme called alkaline phosphatase can help determine if the cancer is later stage and has spread to other parts of the body.

If those tests suggest advanced cancer—the primary tumor is large, many lymph nodes are affected, or blood tests indicate that the cancer may have spread—doctors may use imaging tests such as PET, CT, or bone scans to look for cancer elsewhere in the body. But for women with early breast cancer, research shows that further imaging adds cost and risk without any benefit.

**The recommendation.** ASCO recommends that imaging with PET, CT, or radionuclide bone scans not be used in staging people without symptoms, with newly diagnosed DCIS, or clinical stage I or II breast cancer.

**What's behind this recommendation?** Although not all insurance companies will pay for imaging tests used for staging in early breast cancer patients, some doctors continue to order them.

Some patients want the assurance of having evidence that the cancer has not spread. And doctors pressed for time may find it easier to order the tests than to discuss the pros and cons.

But in this case, the cons outweigh any benefit of reassurance. Studies that look at the records of breast-cancer patients find that cancer spreads to the liver and bones in less than 6 percent of cases, mostly in women with stage III disease and not with early-stage breast cancer, and that many of the findings are false positives.

“So what happens with these false positives?” Blayney asks. “Eventually we find out it's noth-



ing. But getting there involves further invasive testing and anxiety on the part of both the patient and her doctor and in the meantime we may have delayed appropriate treatment. Not to mention the expense and potential radiation exposure. It's just not worth it.”

**Questions to ask.** If you are newly diagnosed with breast cancer, make sure you understand what staging tests will be used and how they may help guide treatment. Ask your doctor:

- What stage is my breast cancer? What tests were used to determine the stage?
- Do I need imaging of other parts of the body beside my breast? If so, how will the results affect my treatment? Question the doctor if your cancer is stage zero, I, or II and he or she orders

a PET, CT, or bone scan; or, conversely, if your cancer is more advanced and additional imaging is not recommended, ask why.

## **4 Follow-up tumor-marker tests and advanced-imaging tests for people treated for breast cancer**

After being treated for breast cancer, people often ask how they will know if the disease has returned.

For people who had early-stage cancer and who are now disease-free, research shows the best way to keep tabs on their condition is to undergo regular mammograms and clinical exams and to be aware of the physical symptoms that could signal a recurrence. If a patient does experience symptoms such as new breast lumps, pain, or shortness of breath, then advanced imaging tests such as CT, PET, or bone scans may be helpful to find other areas of the body to which the cancer may have spread.

For patients with advanced breast cancer, doctors may monitor the disease through blood tests for tumor markers, also called serum markers or biomarkers, which are higher than normal in some people with cancer. (People without cancer can also have elevated tumor markers, so those tests are always used along with other types of testing.) The three tumor markers used in breast cancer care are cancer antigen 15-3, cancer antigen 27.29, and carcinoembryonic antigen (CEA).

But, in patients who had early-stage breast cancer and remain free of symptoms, neither tumor marker nor advanced imaging tests have been shown to lengthen lives and, in fact, often lead to anxiety, wrong diagnoses, and overtreatment due to falsely positive results.

**The recommendation.** ASCO recommends that tumor marker tests, as well as CT, PET, and bone scans, not be used to watch for a recurrence of breast cancer in people who had early-stage breast cancer and have no signs or symptoms that the disease has returned.

**What's behind this recommendation?** Thanks



to mammograms, which can detect cancer in its earliest stages, and effective treatments, women diagnosed with breast cancer today often have a normal life expectancy and a low risk for recurrence. That means that if these women are subjected to advanced imaging and tumor marker tests, there's a very good chance that an abnormal finding would be falsely positive. In addition, no evidence suggests that finding a recurrence of the breast cancer using these tests before it causes symptoms improves survival.

Research also shows that most recurrences are detected through symptoms and not by screening. What women who've had breast cancer can do is talk to their doctors about appropriate follow up, typically yearly mammograms and a breast exam by an experienced clinician every six months. Some women may also benefit from magnetic resonance imaging (MRI) of the breast, including women with dense, less fatty breasts and those with a very high risk for recurrence due to carrying a genetic mutation such as the BRCA mutation or having a strong family history of the disease.

**Questions to ask.** If you have been treated for breast cancer, make sure you understand your follow-up care. Ask your doctor:

- What tests will I need and how often? What are the goals of the tests? If you had early-stage

cancer and are now disease-free and don't have symptoms, you should question the need for imaging tests of other parts of the body.

- What signs and symptoms should I report right away? What should I report at my next follow-up visit?

## 5 White blood cell growth factors for preventing infection

Some cancer treatments increase the risk of a condition called febrile neutropenia, which is marked by low levels of infection-fighting white blood cells and a fever. The condition often indicates an underlying infection, which can be serious for cancer patients who may not be able to fight the infection on their own and need to be treated in the hospital with antibiotics.

One way to reduce the risk is to give chemotherapy patients drugs that help the body make more white blood cells. Those drugs, also called hematopoietic (blood-forming) colony-stimulating factors (CSFs), include filgrastim (Neupogen), pegfilgrastim (Neulasta), and sargramostim (Leukine or Prokine). However, while CSFs can reduce the risk of infection, the drugs are expensive (up to \$4,000 per dose), may require daily injections, and can cause side effects such as fatigue and bone pain.

**The recommendation.** ASCO recommends that white blood growth factors be used only in patients undergoing chemotherapy who have high-risk factors. That includes those who:

- Receive chemotherapy that carries a greater than 20 percent risk of causing febrile neutropenia and no other anticancer treatment that works as well is available.
- Have factors that increase the risk of infection, such as being older than 65 or greatly weakened by the disease, or having a compromised immune system—for example, from kidney failure or past cancer treatments.

**What's behind this recommendation?** Guidelines regarding the use of white blood cell growth factors are often ignored in clinical practice. For

example, less than 20 percent of patients at high risk for febrile neutropenia received the preventive medication according to a study of about 1,850 patients with lung or colorectal cancer published in the June 2011 issue of the *Journal of the National Cancer Institute*.

Most chemotherapy regimens now used don't increase the risk of this kind of infection very much. But about half of patients undergoing a lower-risk regimen will still need to take CSFs because of other factors that increase their risk.

**Questions to ask.** If you are undergoing chemotherapy, you should understand whether the regimen puts you at high risk for infection and if you should be taking other medications to reduce that risk. Ask your doctor:

- Can my anticancer drugs cause low levels of white blood cells or infection?
- Do I have other factors that could put me at risk for infection?
- Do you recommend medication to increase white blood cell production? (Question your doctor if he or she describes your infection risk as low to moderate and prescribes a CSF; or, conversely, if your risk is high and you do not receive the drug.)
- What are the signs and symptoms of an infection? What should I report right away?

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