

What to Know

ASCO's Guideline on Preventing and Treating Blood Clots

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KEY MESSAGES

- Blood clots occur frequently in people with cancer for various reasons.
- Blood clots can be prevented in people with cancer and treated with medication.
- Talk with your doctor about your risk for developing a blood clot and measures you can take to prevent them.

To help doctors give their patients the best possible care, the American Society of Clinical Oncology (ASCO) asks its medical experts to develop recommendations for specific areas of cancer care. ASCO developed a clinical practice guideline about preventing and treating blood clots for people with cancer. This guide for patients is based on ASCO's recommendations.

BACKGROUND

A blood clot (also called a thrombus) is a serious side effect of cancer and cancer treatment. It may develop in any vein (a blood vessel that carries blood to the heart), but it happens most often in the legs, thighs, or pelvis (lower abdomen). This is called deep vein thrombosis (DVT). A blood clot that breaks away from the place it formed and travels through the veins to a different site is called a thromboembolism. A pulmonary embolism (PE) is a blood clot in the lung, which is a potentially life-threatening condition.

Blood clots occur frequently in people with cancer and are becoming more common each year possibly because of new, more intense treatments and certain medications. The risk of developing a blood clot is increased by:

- The cancer itself, especially cancers of the lung, kidney, brain, gastrointestinal (digestive) system, female reproductive system (such as uterine cancer), and blood (such as leukemia and lymphoma)
- Metastatic cancer (cancer that has spread to other areas of the body from the original organ)
- Cancer treatment, including surgery, chemotherapy, and hormone therapy. Antiangiogenic drugs (drugs that block the formation of new blood vessels),

such as thalidomide (Synovir, Thalomid) and lenalidomide (Revlimid) may also raise the risk of blood clots.

- Treatment with erythropoiesis stimulating agents (drugs that help increase production of red blood cells), such as epoetin (Procrit, Epogen) and darbepoetin (Aranesp)
- Being in the hospital, since most patients are confined to bed and can't be physically active
- A history of blood clots
- Having other diseases or conditions in addition to cancer, such as obesity (having too much body fat), infection, kidney disease, lung disease, or a blood clot in an artery (a blood vessel that carries blood away from the heart)
- Older age
- Race/ethnicity (risk is higher for black people and lower for people of Asian-Pacific Islander descent)
- A condition that is inherited (comes from a relative, such as your mother or father), such as sickle cell disease or a clotting disorder such as factor V Leiden mutation (a condition that causes too much blood clotting)

The symptoms of DVT include pain, swelling, and redness of the calf, leg, or thigh. The symptoms of PE include shortness of breath, chest pain, quick breathing, a rapid heartbeat, coughing up blood, and fainting.

Blood clots can be prevented and treated with drugs. Anticoagulants are drugs that help break up blood clots or keep them from starting. (Coagulation is the clotting of the blood). Anticoagulants may raise a person's risk of bleeding, but otherwise are safe for most people. Typical anticoagulants include heparin, dalteparin (Fragmin), enoxaparin (Lovenox), fondaparinux (Arixtra), tinzaparin (Innohep), and warfarin

(Coumadin). A doctor may use a non-drug method, called a mechanical method, in addition to the drug treatment for the prevention of blood clots. Mechanical methods include graduated compression stockings (a type of support hose); intermittent pneumatic compression (squeezing the legs through a sleeve connected to a machine), and mechanical foot pumps.

RECOMMENDATIONS

ASCO recommends the following for preventing and treating blood clots for patients with cancer:

- Patients hospitalized with cancer for surgery, chemotherapy, or any other reason should receive preventive treatment with an anticoagulant, as long as it is safe (the patient is not bleeding, for example).
- Patients who will undergo major surgery should get drugs to prevent blood clots and a mechanical

QUESTIONS TO ASK THE DOCTOR

To learn more about blood clots, consider asking your doctor the following questions:

- Am I at increased risk for a blood clot?
- What can be done to prevent a blood clot before it starts?
- If I am at increased risk for a blood clot, what treatment do you recommend?
- If I have a blood clot or have had them before, what treatment do you recommend?
- How long will I need this treatment?
- What is my risk of bleeding with such treatment?
- What health conditions or medications may interfere with the treatment for blood clots?
- What clinical trials are open to me?
- Where can I find more information?

method of prevention. They should receive this treatment within 24 hours after surgery.

- Patients who develop a blood clot should be treated with an anticoagulant for at least six months and even longer if they are receiving cancer treatment.
- Regular use of an anticoagulant for people with cancer who are not hospitalized and are receiving chemotherapy is not recommended, except for those with multiple myeloma being treated with thalidomide or lenalidomide along with chemotherapy.

WHAT THIS MEANS FOR PATIENTS

People with cancer, especially those who are in the hospital and undergoing treatment, are at risk for blood clots. This serious health condition can usually be prevented and treated with an anticoagulant medication. These medications are generally safe, although there is a small risk of bleeding. Talk with your doctor to learn more about your risk of developing a blood clot and ways to prevent blood clots.

HELPFUL LINKS

Read the entire clinical practice guideline at www.asco.org/guidelines/vte.

Bleeding and Clotting Problems
www.cancer.net/bleedingclotting

ABOUT ASCO'S GUIDELINES

To help doctors give their patients the best possible care, ASCO asks its medical experts to develop evidence-based recommendations for specific areas of cancer care, called clinical practice guidelines. Due to the rapid flow of scientific information in oncology, new evidence may have emerged since the time a guideline or assessment was submitted for publication. As a result, guidelines and guideline summaries, like this one, may not reflect the most recent evidence.

Because the treatment options for every patient are different, guidelines are voluntary and are not meant to replace your physician's independent judgment. The decisions you and your doctor make will be based on your individual circumstances. These recommendations may not apply in the context of clinical trials.

The information in this guide is not intended as medical or legal advice, or as a substitute for consultation with a physician or other licensed health care provider. Patients with health care-related questions should call or see their physician or other health care provider promptly, and should not disregard professional medical advice, or delay seeking it, because of information encountered in this guide. The mention of any product, service, or treatment in this guide should not be construed as an ASCO endorsement. ASCO is not responsible for any injury or damage to persons or property arising out of or related to any use of this patient guide, or to any errors or omissions.

RESOURCES

Good cancer care starts with good cancer information. Well-informed patients are their own best advocates, and invaluable partners for physicians. ASCO's patient website, Cancer.Net, brings the expertise and resources of the world's cancer physicians to people living with cancer and those who care for and care about them. ASCO is composed of more than 28,000 oncologists globally who are the leaders in advancing cancer care. All the information and content on Cancer.Net was developed and approved by the cancer doctors who are members of ASCO, making Cancer.Net the most up-to-date and trusted resource for cancer information on the Internet. Cancer.Net is supported by The ASCO Cancer Foundation, which provides funding for cutting-edge cancer research, professional education, and patient and family support. People in search of cancer information can feel secure knowing that the programs supported by The ASCO Cancer Foundation provide the most thorough, accurate, and

up-to-date cancer information found anywhere. Visit Cancer.Net to find guides on more than 120 types of cancer and cancer-related syndromes, clinical trials information, coping resources, information on managing side effects, medical illustrations, cancer information in Spanish, podcasts, videos, the latest cancer news, and much more. For more information about ASCO's patient information resources, call toll free 888-651-3038.



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