

Department of clinical support and specialist surgery

Venous thromboembolism

You have been given this leaflet because you have been diagnosed with a thrombus or blood clot. It will explain about cancer associated thrombosis and what you can expect. If you have any questions, please do not hesitate to ask the clinician reviewing you, or contact your specialist nurse.

What is a deep vein thrombosis (DVT)?

A DVT is a clot which has formed in one of the deep blood vessels, usually in the leg or pelvis but can also occur in the arm or abdomen. It may be associated with swelling, pain or redness or may have no symptoms at all.

What is a pulmonary embolism (PE)?

If part of a clot elsewhere in the body has become dislodged and travels through the vessels to the lung it is known as a pulmonary embolism (PE). Asymptomatic PEs can sometimes be spotted as an incidental finding on routine CT scans. Symptomatic PEs can be a potentially serious or life-threatening condition. Symptoms may include coughing, chest pain and a gradual or a sudden onset of breathlessness.

Risk factors

Health professionals use the umbrella term venous thromboembolism (VTE) to cover both PEs and DVTs. Patients with cancer have an increased risk of developing a VTE compared to the general population. Research has shown that systemic anti cancer therapy (SACT) itself can increase the risk for VTE, including having chemotherapy, hormone treatments, or anti-angiogenic drugs such as Avastin (Bevacizumab). This risk can increase with age or in patients with obesity. Other risk factors include central venous catheters (CVCs), Hickman lines, PICC lines (peripherally inserted central catheter) and Portacaths (TIVADs - totally inserted venous access device), recent surgery or a prolonged period of hospitalisation. If you have already been diagnosed with a VTE, this can also increase your chances of this re-occurring in the future.

How are they treated?

VTEs are treated with medications known as Heparin anti-coagulants. These are drugs which aim to stop the blood from clotting as quickly as usual and this will prevent the blood clot from getting larger. At The Christie we usually use an anti-coagulant known as Fragmin (also known as Dalteparin). Fragmin has been shown to reduce the risk of VTE recurrence in patients with cancer whilst not interfering with SACT treatments.

If your clot is associated with a central venous access line (such as a PICC), this may also need to be removed. If this is the case, the doctor or nurse clinician assessing you will discuss this further with you and arrange for this to happen.



How is Fragmin given?

Fragmin is usually given as a once daily injection and treatment usually lasts for a course of 6 months. Occasionally it may be required twice a day but the doctor or nurse clinician assessing you will advise about this.

The first month is usually a higher dose and is stepped down to a lower dose for the following 5 months. The Christie Pharmacy will provide this first month and a following 2 weeks supply. After this, your GP will supply the rest of the prescription. These injections come as pre-filled syringes and are given into the fatty layer of tissue beneath the skin known as the subcutaneous layer, often into the lower abdomen.

These injections can be self-administered or given by a friend or relative at home. The nurses will show you how to do this and provide you with a sharps bin. For the few patients where this is not possible, a referral to district nurses can be arranged.

What side effects do I need to be aware of?

Because Heparin anti-coagulants slow the time it takes for your blood to clot, there is an increased risk of bleeding. **You should seek urgent medical attention if you sustain a head injury or develop any prolonged bleeding.** Some bruising around the injection sites is normal but occasionally patients can have an allergic reaction to the injection. If you notice itching, a rash or later swelling around the injection site, you may have had a reaction and should contact The Christie Hotline or inform your medical team for assessment. You should also exercise caution if undertaking any contact sports and inform your medical team if you become pregnant or are planning a pregnancy.

If you need painkillers at home, paracetamol is safe to take. However, aspirin and non-steroidal anti-inflammatory drugs (ibuprofen, diclofenac) can increase the risk of bleeding and should only be taken on medical advice. Take all your prescribed medications as directed by your medical team.

You should also seek urgent medical attention if you develop any of the symptoms listed below, which may indicate a new clot. This rarely happens on anti-coagulation treatment but as mentioned above, VTEs can be a serious condition.

Please seek an urgent medical review if you get any of the symptoms below:

- chest pain or shortness of breath
- coughing or vomiting blood
- increased swelling or pain in the legs or around CVC lines
- significant nosebleeds or any other large bruises or bleeding
- blood in stools - fresh red blood or black, tarry stools

Air travel with VTEs

It is not recommended that you fly for a period of 4 weeks from starting treatment for a blood clot. If you do need to travel abroad, you will need to take your injections with you and you may need a letter for customs officers to allow you to travel with these. If you require a letter to travel, please speak to your GP or one of the doctors or specialist nurses from your consultant's team. Please be aware that this may affect your travel insurance. Please inform your insurance provider and discuss with your consultant if you require a 'fitness to fly' letter.

Surgery

Having a blood clot will not necessarily exclude you from having an operation if needed but the timing of this and your injections may need to be adjusted to ensure the surgery is as safe as possible. You will also need to inform your dentist before any tooth extractions or invasive dental procedure. If you have any specific queries about surgery and anticoagulants, please speak to your surgical team or clinician for further advice.

What follow up or monitoring do I need?

Fragmin and other Heparin injections do not require frequent regular blood tests. However, your platelet counts and kidney function tests will be monitored as they may be affected by other cancer treatments and it is important to make sure they remain above certain thresholds to continue your Fragmin doses safely.

Rarely, Heparin can cause your platelet counts to drop; this can also occur as a side effect from SACT drugs and will be monitored anyway whilst you are receiving anti-cancer treatment. If it is suspected that the cause of this drop is actually from your Fragmin injections (known as heparin-induced thrombocytopenia), you will be prescribed a different anticoagulation medicine.

Sometimes clots can re-occur, including when patients are already on anticoagulation. If this is the case we may need to do additional investigations such as blood tests known as Anti-Factor 10a levels. If you require these investigations, the doctor or nurse clinician assessing you will discuss this further with you.

Important information

My next appointment is on:

Date:

Time:

To attend: (please circle)

- phlebotomy room
- clinic
- ANP review (department 25)

Please make an appointment with your GP within 25-30 days from today for a review, weight check, repeat blood test and further prescription of your injections.

My anticoagulant therapy:

Name:

Dose:

Date commenced:

Duration:

Other applicable details:

Useful contacts

Consultant's secretary

District nursing team

This space is for you to make any notes:

If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

The Christie is committed to producing high quality, evidence based information for patients. Our patient information adheres to the principles and quality statements of the Information Standard. If you would like to have details about the sources used please contact **patient.information@christie.nhs.uk**

For information and advice visit the cancer information centres at Withington, Oldham or Salford. Opening times can vary, please check before making a special journey.



Contact The Christie Hotline for
urgent support and specialist advice
The Christie Hotline: 0161 446 3658
Open 24 hours a day, 7 days a week