

Preventing deep vein thrombosis (DVT) and pulmonary embolism (PE) following some types of major surgery and fractures (extended prevention)

The aim of this leaflet is to answer some of the questions you may have about the prevention of deep vein thrombosis (DVT) and pulmonary embolism (PE) following your operation. If you have any questions or concerns, please speak to a doctor or nurse caring for you.

This leaflet should be read in addition to any information included in the packs of blood thinning medicines we give you.

What is DVT?

DVT happens when a blood clot forms in a deep vein – usually in your leg.

Clots can block the blood flow in veins and cause symptoms in your leg such as:

- swelling
- pain
- change of colour to red or blue.

If you have these symptoms, you should visit your GP or your local Accident and Emergency (A&E) department.

The most serious complication of DVT is PE. A PE happens when a piece of the blood clot from a DVT breaks off. It then travels through your bloodstream and blocks the blood supply to your lungs.

A PE can cause:

- chest pain
- shortness of breath
- coughing up of blood.

In severe cases PE can be fatal. You should seek emergency treatment if you have symptoms of a PE.

Why am I at risk of developing DVT?

During operations, you are under anaesthetic so you cannot move your legs.

Because of this, the blood flow in your veins slows down. If your operation lasts for more than thirty minutes, slow blood flow increases your chances of developing a blood clot.

There is an increased risk of a clot developing if you:

- are having certain types of major surgery (see question below for more information)
- have had a clot in the past following surgery
- have recently had a heart attack or stroke.

If you are one of these patients, you will be given a daily injection of dalteparin while you are in hospital. Dalteparin reduces the risk of you getting a DVT. It does this by making your blood less sticky, helping to prevent a clot from forming.

You may also be provided with antiembolic stockings (AES). These are tight stockings specially designed to reduce the risk of blood clots. They do this by improving the blood flow from your feet and calves back towards your heart.

What is extended DVT prevention and who should receive it?

In the days and weeks after your operation, you are still at risk of developing a blood clot.

Extended DVT prevention is for people who continue to be at a higher risk of developing a clot after they leave hospital. You are at a higher risk if you have had:

- knee replacement surgery
- bariatric surgery (surgery for obesity)
- a total hip replacement
- hip fracture surgery
- major general cancer surgery
- major gynaecological cancer surgery.

If you have had any of these operations, you will continue to use dalteparin in combination with AES stockings for either 10, 14 or 28 days after your surgery, according to the type of operation you have had.

Some patients may also need extended DVT prevention following a leg fracture, whilst they are wearing certain types of immobilisation support. In these cases, dalteparin will continue until the cast or brace is removed.

This continued prevention greatly reduces the risk of developing a clot. This may mean you will have to use injections at home. If so, we will give you a pack which contains:

- enough dalteparin injections to last you the number of days required to complete the course
- a special bin to dispose of the needles and syringes.

Who will teach me how to use the injections?

The hospital nursing staff will teach you how to self-inject the dalteparin. You will get the chance to practise the injection and ask any questions that you have. This means you will be able to complete the prevention course at home.

What if I am unable to inject the medication myself?

The injections are very easy to use. However, if you find them difficult you can ask a relative or friend to help out. The nursing staff can train them before you leave hospital.

If this is not possible, you may be able to visit your GP surgery each day, where a practice nurse can give you the injection. If this is not possible either, a district nurse may visit you daily at home.

What is the best place for me to inject the medication?

The best place for you to inject is your abdomen (stomach) or, if this is not possible, your thigh. You should change the site you inject into each day to reduce bruising.

Is any monitoring required?

Your doctor/nurse will need to monitor your platelet count, as dalteparin can cause a drop in their levels in the blood. Platelets are a type of blood cell that help the blood to clot, and a low platelet count can therefore result in you bruising or bleeding more easily. Your platelet count will need to be measured during the first two weeks of prevention.

Monitoring is not necessary during the second two weeks of prevention. If you leave hospital before the first two weeks is completed, or you receive prevention as an outpatient, your GP will need to repeat some of the blood tests.

Instructions to your GP will be included in your discharge or outpatient letter. A copy of this will be sent to your GP. He/she may perform a blood test to check that your platelet count is normal.

If I experience unexplained bruising or bleeding, what should I do?

You will need to go and see your GP if you experience any unexplained bruising or bleeding. Your GP will perform a full blood count (FBC) to ensure that your platelet count is normal.

Where will I dispose of my syringes?

The hospital will provide you with a special bin into which you can throw away your syringes. This is known as a 'sharps bin'.

Will the sharps bin be large enough?

This depends on how many days of the prevention you have completed in hospital and how many you need to complete at home. Each bin can hold about 26 syringes. You should be provided with a second sharps bin if one is not large enough – but this is rare.

Where do I throw away my sharps bin when it is full?

You **must not** dispose of your sharps bin in your household waste.

Please contact your GP or local council to arrange collection of the sharps bin when full.

Otherwise, you can take the sharps bin back to the hospital when you attend your follow-up appointment.

Can I wash my AES stockings?

Yes, clean AES stockings last longer. This is because dirt can age the elastic. You can wash AES stockings with the rest of your clothes – they can be washed at temperatures up to 71° C. You can also dry them at temperatures up to 121°C, so you can tumble dry them if you want to. You should avoid using bleach.

Who can I contact for more information?

If you need any information or advice, please contact your GP or local pharmacy. Alternatively, you can call NHS Direct. If you experience any unexplained side effects, please contact your GP or your local Accident and Emergency (A&E) department.

Pharmacy medicines helpline

For information about any medicines that you have been prescribed at Guy's and St Thomas' hospitals, you can speak to the staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Patient Advice and Liaison Service (PALS)

To make comments or raise concerns about the Trust's services, please contact PALS. Ask a member of staff to direct you to the PALS office or:

t: 020 7188 8801 at St Thomas' **t:** 020 7188 8803 at Guy's **e:** pals@gstt.nhs.uk

Knowledge & Information Centre (KIC)

For more information about health conditions, support groups and local services, or to search the internet and send emails, please visit the KIC on the Ground Floor, North Wing, St Thomas' Hospital.

t: 020 7188 3416

Language support services

If you need an interpreter or information about your care in a different language or format, please get in touch using the following contact details.

t: 020 7188 8815 **fax:** 020 7188 5953

NHS Direct

Offers health information and advice from specially trained nurses over the phone 24 hours a day.

t: 0845 4647 **w:** www.nhsdirect.nhs.uk

NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

w: www.nhs.uk