

Preventing Venous Thromboembolism in Hospital

Just being unwell and in hospital leads to an increase in deep vein thrombosis, or a blood clot, usually in the deep veins of the leg. The risk is particularly high if you're having abdominal operations or orthopaedic operations on the hips or legs.

Although a deep vein thrombosis (DVT) may cause swelling and discomfort at the time, about half are clinically 'silent' – there may be no obvious symptoms. But whether obvious or silent, a DVT can, in the short term, lead to a *pulmonary embolism* – when the clot in the leg breaks off and travels around the circulation through the right side of the heart to block the pulmonary arteries.

In the longer term, the DVT can also lead to *post-phlebitic syndrome* – swelling, pain, dermatitis, cellulites, varicose veins, pigmentation of the skin and eventually chronic ulceration of the lower leg.

But prevention of a DVT, pulmonary embolism and post-phlebitic syndrome in hospital can be simple and very straightforward.

On admission to hospital, every adult should be risk-assessed and placed on an appropriate prevention (thromboprophylaxis) if necessary. The risk does vary enormously. For example, if you're admitted as a day case for a minor operation under local anaesthetic, then the risk is tiny. If you're admitted for a hip replacement you may have around a 60 percent chance of a DVT. And the risk increases with age.

The standard method of risk assessment is for a nurse or junior doctor to use a scoring system where risk factors can be checked. The scoring systems vary but usually include questions such as:

- Are you over the age of 40?
- Are you being given a general anaesthetic or having an abdominal operation or hip or leg surgery?
- Do you, or do any members of your family, have a previous history of DVT or thrombosis?

- Are you overweight or have you previously had cancer?
- Are you medically unwell with heart failure, respiratory failure or an inflammatory bowel or joint problem?
- Is there any contraindication to giving heparin, such as a low platelet count, if you're already on anticoagulants or have a bleeding disorder?

Depending on the answers, you will be given blood thinners and support (anti-embolic) stockings as appropriate. These should be used whilst in hospital and should be continued at home.

For very sick patients – those in intensive care – the risk of bleeding will be weighed against the benefits of preventing a thrombosis.

How you can help prevent a thrombosis as a patient

Lifeblood advises that anyone entering hospital should ask the following questions of the medical team before admission, especially if no risk assessment is performed:

- What is the risk of deep vein thrombosis during my stay, with and without appropriate prevention?
- Will I be given anti-embolic stockings?
- Should I receive blood thinners after surgery?
- Does the hospital have ultrasound facilities on site to diagnose deep vein thrombosis if I should develop one?
- If I develop a deep vein thrombosis, how will I be treated?

Being aware of these few questions, and talking with the medical team about the risks and methods of prevention, could substantially reduce any development of any blood clot, which can ultimately lead to extreme pain, disability and even death.

- Venous thromboembolism – or VTE – is the most common cause of hospital deaths in the UK that can be prevented.
- One in three surgical patients can develop a DVT if no preventative measures are given.
- Pulmonary embolism following DVT is the immediate cause of death in 10% of all patients who die in hospital.
- The risk of developing a DVT after being released remains greater, due to levels of inactivity.



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