

## Interventional Inferior Vena Cava Filter (IVC) placement

Your doctor would like you to have an Inferior Vena Cava Filter (IVC) placement and has arranged for you to visit our department. We would like your visit to be as pleasant as possible and hope this leaflet will answer some of the questions you may have. Should you have any questions regarding your appointment please contact us on the appropriate telephone number below:

- Conquest Hospital Appointments – Tel: 0300 131 4500 Ext: 147422
- Eastbourne DGH Appointments – Tel: (01323) 414917

### What is an Inferior Vena Cava (IVC) filter?

The Inferior Vena Cava is a large vein that drains blood from the lower half of the body back to the heart. Blood clots (thromboses) sometimes form in the veins of the legs and pelvis, and are known as deep vein thrombosis (DVT). The clot can sometimes break free and travel through the IVC and heart into the blood supply to the lungs and make you very sick. This is called pulmonary embolism (PE), which can be fatal.

An IVC filter is a small metal device placed into the IVC which prevents a large pulmonary embolism by trapping a clot before it reaches the lungs.

The usual treatment for deep vein thrombosis and pulmonary embolism is drug treatment to thin the blood with medication such as Warfarin. In a few patients, Warfarin does not prevent further pulmonary embolisms and in others, thinning the blood is too risky, for example prior to major surgery. When this happens, patients are considered for treatment by inserting an IVC filter.

Very occasionally, a patient is advised to have an IVC filter inserted even though they do not have a deep vein thrombosis or pulmonary embolism at that time.

### Who will be doing the IVC Filter insertion?

A specially trained doctor called an interventional radiologist. They have particular expertise in performing procedures under image guidance. There will also be at least one specially trained nurse and a radiographer in the room during the procedure.

### Where will the procedure take place?

This procedure will take place in the angiography suite within the X-ray department. This is similar to an operating theatre into which specialised X-ray equipment has been installed.

### How do I prepare for an IVC Filter?

Insertion of an IVC filter is usually carried out as a day case procedure under local anaesthetic.

- For **morning admission, please do not eat or drink anything from midnight** - you can drink water for up to two hours before the procedure.
- For **afternoon admissions**, you may eat a light breakfast but **please do not eat anything after 6.00am** – you can drink water for up to two hours before the procedure.

Take your medicines as normal, with a sip of water, unless your doctor or nurse tells you not to.

**If there is possibility you could be pregnant, please inform the radiology department before the procedure.**

**If you are taking warfarin or any other blood thinning medication, please call the interventional radiology department.**

## **What actually happens during an IVC filter Insertion?**

Before the procedure, the interventional radiologist will explain the procedure and related risks and ask you to sign a consent form. Please feel free to ask any questions that you may have, and remember that even at this stage, you can decide against going ahead with the procedure if you so wish.

You will be asked to get undressed and put on a hospital gown. A small cannula (thin plastic tube) will be placed into a vein in your arm so that the radiologist can give you a sedative or painkillers should this be necessary. Once in place, this will not cause any pain.

You will be asked to lie on the X-ray table, generally flat on your back. You will also have leads attached to your chest to monitor your heart, a blood pressure cuff on your arm and a clip on your finger to record the oxygen levels in your blood. Oxygen may be given through a small tube in your nose.

The radiologist will wear a theatre gown and operating gloves. The skin near the point of insertion, either the groin or the neck, will be cleaned with antiseptic and then most of the rest of your body covered with a theatre towel.

The skin and deeper tissues over the vein will be numbed with local anaesthetic. A needle followed by a wire and catheter (fine plastic tube) will be inserted into the vein and guided using x-ray imaging to the correct position.

Small amounts of dye (contrast medium) are used to check the position of the catheter. The filter is passed through the tube to the exact site and released. Small hooks grip the wall of the vein and stop it moving away.

## **Are there any risks?**

IVC filter insertion is a safe medical procedure, but there is always a small risk of complication.

- It is normal to have some pain at the site where the needle is inserted into the vein once the local anaesthetic has worn off. This should not require any treatment but you may take over the counter painkillers to help with the pain.
- There is a less than 1% chance that the procedure can result in damage to the IVC causing bleeding or blockage.
- The x-ray dye used can result in temporary damage to the kidneys. The amount used is limited as much as possible. Should you have a pre-existing kidney disease, an alternative type of dye may be used. Allergic reactions to the dye are also possible.
- Extremely rarely, the filter can migrate which may require a further procedure to reposition the IVC filter.

## Will it hurt?

When the local anaesthetic is injected, it will sting to start with, but this soon wears off and the skin and deeper tissues should then feel numb. After this, the procedure should not be painful.

There will be a nurse or another member of clinical staff in the interventional suite and looking after you. If the procedure does become uncomfortable for you, then they will be able to arrange for you to have some painkillers through the needle in your arm.

## How long will it take?

Every patient's situation is different and it is not always easy to predict how complex or how straightforward the procedure will be. As a guide, expect to be in the x-ray department for about an hour.

## What happens afterwards?

You will be taken back to your ward on a trolley. Nurses on the ward will carry out routine observations such as taking your pulse and blood pressure, to make sure there are no problems. They will also look at the skin entry point to make sure there is no bleeding from it. You will generally stay in bed for a couple of hours and then you will be able to go home.

## What should I do when I go home?

When you get home you should:

- Rest for a minimum of 24 hours and if possible do not go to work on the day after the procedure.
- It is recommended that someone stays with you overnight, particularly if you had sedation.
- You should eat and drink as normal.
- Continue with your normal medication as prescribed, and pain relief if necessary.

## How long will the filter stay in?

Modern IVC filters can be left in permanently; however, it is becoming more common for these devices to be a temporary solution and removed when they are no longer required. This is often at three months but may occasionally be longer.

## What do I do if I have a problem at home?

If you have swelling, pain or are concerned, please go to your nearest emergency department.

## Sources of information

British Society of Interventional Radiology

## Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

## Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the Patient Experience Team – Tel: 0300 131 4500 Ext: 135860 or by email: [esh-tr.patientexperience@nhs.net](mailto:esh-tr.patientexperience@nhs.net)

## Hand hygiene

The Trust is committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

## Other formats

**If you require any of the Trust leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department.**

**Tel: 0300 131 4500 Email: [esh-tr.AccessibleInformation@nhs.net](mailto:esh-tr.AccessibleInformation@nhs.net)**

After reading this information are there any questions you would like to ask? Please list below and ask your nurse or doctor.

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## Reference

The following clinicians have been consulted and agreed this patient information:

Dr Mo Faris, Consultant Interventional Radiologist, ESHT

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The directorate group that have agreed this patient information leaflet:

Diagnostics, Anaesthetics and Surgery Division

Next review date: March 2023

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