Having a Therapeutic Venesection

Clinical Haematology
Medicine

This leaflet has been designed to give you important information about your condition / procedure, and to answer some common queries that you may have.
Introduction
This leaflet is about having a therapeutic venesection as part of your treatment for a blood condition.

What is a therapeutic venesection?
A therapeutic venesection is the removal of a volume of blood (usually 450mls) as a treatment for certain conditions of the blood. Please speak to your doctor or clinical nurse specialist if you have any questions or concerns, or would like more information about the condition you have and how it has been diagnosed.

Benefits
Venesection is an effective way to reduce the iron levels, red blood cells or the thickness of your blood to a safe level.

Risks
Your body contains approximately five to six litres of blood and so removing one unit (450mls) of blood should not cause any long term harm.

Light headedness or fainting
Occasionally your body can struggle to deal with the reduced amount of blood. This can make you feel light headed or faint. This is why you need to lie down on a bed when you have the first procedure or if you have previously experienced dizziness light headed or blurred vision. It is important that you tell your nurse straight away if you start to feel different from normal (for example light headed, dizzy or your vision blurs). This could indicate you may be about to faint and the nurse can often prevent this. Usually the nurse will tilt the bed so that your feet are slightly higher than your head. This ensures a good blood supply to your brain. If you do faint, we will also give you some oxygen. The doctor may decide to give you some fluid via a drip which will be inserted into a vein in one of your arms. This is to replace the blood removed by the venesection.

You may feel dizzy or light headed the next day. If this happens, make sure you eat regularly and drink lots of fluids.

Blood clotting in the line
If your blood is very thick the flow may be very slow and start to clot in the line (the thin tube leading from the needle). Usually the nurse can encourage the blood to continue to flow by ‘milking’ the line. This forces the blood through. A blood clot in the needle cannot be removed by milking. If your blood clots in the needle, we will need to start again with a new venesection pack.

Bruising
You may have a bruise where the needle was inserted. This is caused by blood leaking out of the vein under the skin. The bruise will go away in a couple of days. You should avoid lifting heavy objects with the arm used for your venesection for 24 hours. This will reduce the chance of any further bruising.

Bleeding from the needle insertion site
Sometimes you may start to bleed from the point in your vein where the needle was inserted. Applying pressure to the site will stop the bleeding after at least 5 minutes.

If bleeding continues after you leave the hospital, please call the day unit or go to your nearest Accident and Emergency (A&E) department.

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Anaemia
If you are having frequent venesections you may become anaemic. Anaemia is when you have less haemoglobin than normal in your red blood cells. When this happens, your blood cannot carry the full amount of oxygen around your body.

This can make you feel tired or faint causing headaches and breathlessness. You will need to have regular blood tests so we can check this. If you do develop anaemia, it can be easily treated. We will reduce the frequency of your venesections or prescribe a course of iron tablets. This will depend on your condition.

Scarring from long-term needle insertion
If you have venesections over a long period of time, you may notice some scarring at the needle insertion sites. We will use alternative veins to reduce the chance of this happening. Unfortunately scarring at needle sites is irreversible.

Alternatives
Your consultant has recommended this treatment as being the best option.

Any alternative(s) to this treatment will have been discussed with you as they depend on your individual circumstances and medical condition. If you would like more information, please speak to your consultant or specialist nurse. There is also the option of not receiving any treatment at all. The consequences of not receiving any treatment depend on your individual circumstances and medical condition.

If you would like more information please speak to your consultant or specialist nurse.

What conditions are treated with therapeutic venesection?
Therapeutic venesection is commonly used to treat:

Haemochromatosis
This is a genetic condition where your body absorbs too much iron. Excess iron is stored in various organs around your body such as your heart and liver. This can lead to problems or damage to the organs. The simplest way to remove iron is to take blood from you at regular intervals.

Polycythaemia vera, erythrocytosis and high haemoglobins
With these conditions, your body has an increased number of red blood cells which thickens your blood. If this is not treated, your blood can clot and this can lead to complications.

How does a venesection work?

Haemochromatosis
Removing blood will reduce the amount of iron circulating in your blood. Iron is essential for the production of red blood cells. To replace the removed red blood cells your body uses the excess iron which has been stored in organs in your body.

Polycythaemia vera, erythrocytosis and high haemoglobin
Removing blood will reduce the number of red blood cells in your body. This reduces the thickness of your blood - reducing the risks associated with thick blood, such as blood clots.
How many venesections will I need?
This depends on your condition and your blood counts. You may need therapeutic venesections on a short term basis (weeks) or over a period of many years. Your doctor or nurse will discuss this with you.

Where does the procedure take place?
If you are an outpatient (not staying in the hospital) you will usually need to come to the Haematology Day Unit. Please check your appointment letter for details. The venesection will usually be performed by a nurse trained in the procedure, and you will need to lie on a bed or a sit in a chair.
If you are staying in the hospital as an inpatient, you can have the procedure in your bed on the ward. A doctor or nurse will carry this out.

Is there anything I need to do to prepare?
We recommend that you drink plenty of fluids and eat before you come for your venesection to help us find your veins and make it easier to take blood. This also helps you to recover quickly from the procedure and prevents fainting.
Once you have had a few venesections you will become familiar with your veins. Try not to have blood tests out of the vein used for venesections, especially on the same day.
If you have small veins, or they are hard to feel, the nurse may ask you to warm your arms when you arrive at the day unit, or before the procedure. This is usually done by warming your arms with a heat pad or by using an ultrasound scan to search for your veins.
We recommend that you do not drive when you come to the hospital for your first venesection treatment. You may feel unwell afterwards, for example light headed or dizzy, and therefore will be unable to drive home.

How long will it take?
If you have the procedure as an outpatient in the day unit, you can usually expect to be in the hospital for up to an hour. The actual venesection takes about 10 minutes but you will need stay in the day unit for 15 to 20 minutes afterwards. This is so we can make sure that your blood pressure is stable and prevent fainting. You should allow extra time for your first venesection. This is because the nurse will want to make sure that you have no problems before you are allowed to go home.
We will try not to keep you waiting. We will make every effort to have a chair or bed ready for you when you arrive. Occasionally you may have to wait while another patient is being treated, or for a nurse to become available.

Is it painful?
You will feel some discomfort when the needle is inserted, but it should not be painful. Any discomfort should go away over the next 24 hours. Your arm may feel bruised for a day or two.
**How long does it take for my body to replace the blood removed?**

Your body will replace the fluid removed in approximately 24 hours. To help this process, you are encouraged to drink plenty of fluid before and after your venesection.

The normal life span of a red blood cell is approximately 120 days. Your body is constantly making new red blood cells to replace old ones. It can take up to two months to replace the red blood cells removed.

**How is the procedure performed?**

The procedure is similar to making a blood donation:

- The nurse will ask you if you have eaten recently. If you have not, you may be asked to eat something before we start.
- You will need to sit in a chair or lie on a trolley and your blood pressure and pulse will be checked.
- The blood pressure cuff remains on your arm and is pumped up high enough for the nurse to identify a suitable vein.
- The skin around the vein is cleaned with an alcohol / chlorhexadine based solution. This kills any germs and helps to prevent infection.
- The nurse will obtain a venesection pack which consists of a needle attached to a tube leading to a bag. The needle is inserted into the vein in your arm (usually at the top of your forearm) and secured with tape.
- Alternatively, for those with difficult to find veins, a cannula is used. This is a needle that inserts a plastic tube in the vein, attached to a needless bag, which is then secured with tape. The blood flows down the tubing into the bag.
- Once the needle has been inserted, the blood pressure cuff is deflated to a level that maintains a small amount of pressure on your arm. This ensures a good blood flow. The blood collection bag is placed on weighing scales. The nurse will constantly check these scales to make sure the correct volume of blood is collected.
- Once the correct amount of blood has been collected, the blood pressure cuff is fully deflated and the needle removed. A piece of gauze will be put over your arm, where the needle was inserted, and pressure applied for approximately 5 minutes. A bandage will be firmly attached once bleeding has ceased and should remain for at least 2-4 hours. This helps to avoid bleeding and bruising.
- You will be asked to stay for approximately 15 minutes. We will give you a drink to help replace the lost fluid in your body. Your blood pressure and pulse may be checked prior to you leaving.
- We may need to give you 500ml of fluid through a drip. This is usually requested by your doctor if you have a history of high or low blood pressure, a heart condition, or have felt light headed or fainted after a previous venesection. If this is the case, we will insert a cannula (small, plastic tube) for the drip in your opposite arm, before the venesection needle is inserted.
Information for patients and visitors

Contact details for Further Information

Consultant Haematologist, Scunthorpe General Hospital
01724 282282 ext. 2512
Consultant Haematologist, Diana, Princess of Wales Hospital
01472 874111 ext. 7399

Clinical Nurse Specialist:
Diana Princess of Wales Hospital
01472 874111 ext. 2783
Scunthorpe General Hospital
01724 282282 ext. 5313

Day Unit Services
Haematology Day Unit, Scunthorpe General Hospital
01724 282282 ext. 5185
Haematology Day Unit, Diana, Princess of Wales Hospital
01472 874111 ext. 1157

Useful sources of information
The following websites may also be useful:
If you have a myeloproliferative disorder:
www.mpd-support.co.uk
If you have haemochromatosis:
www.haemochromatosis.org.uk

Acknowledgments
Guys and St. Thomas Hospital, London.

Concerns and Queries
If you have any concerns / queries about any of the services offered by the Trust, in the first instance, please speak to the person providing your care.

For Diana, Princess of Wales Hospital
Alternatively you can contact the Patient Advice and Liaison Service (PALS) on (01472) 875403 or at the PALS office which is situated near the main entrance.

For Scunthorpe General Hospital
Alternatively you can contact the Patient Advice and Liaison Service (PALS) on (01724) 290132 or at the PALS office which situated on C Floor.
Alternatively you can email: nlg-tr.PALS@nhs.net

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