

Queen Elizabeth Hospital Birmingham



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Plasma Exchange on Ward 301

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Introduction

This leaflet provides information about a procedure called plasma exchange. It explains what the procedure involves and describes the benefits and possible risks.

You will have the opportunity to discuss with your doctor the reasons why you need plasma exchange and how it might help.

What is Plasma?

Plasma is a straw coloured fluid that is the liquid part of blood. It helps the flow of blood (red blood cells, white blood cells and platelets) and carries proteins and other substances around the body. Plasma is mainly made up of water and contains other substances including:

- Dissolved minerals
- Proteins which help fight infection and clotting substances which help control bleeding
- Hormones

What is plasma exchange?

Plasma exchange is a procedure that filters and removes plasma from the blood and replaces (exchanges) it with new plasma fluid. The plasma that is filtered and removed will contain toxins and antibodies which may be contributing to your illness. These will be removed with the plasma that is filtered off.

Why is plasma exchange needed?

Some diseases can cause harmful substances to be carried in the plasma part of the blood. In certain diseases these harmful substances are called antibodies which attack healthy cells and tissue.

If plasma exchange and drug therapy are used together they may help the removal of harmful antibodies and stop the body from producing any more.

What happens during a plasma exchange?

Before plasma exchange can be carried out a special intravenous catheter called a dialysis line needs to be inserted. This line allows the nurses to gain access to your blood so they can perform the plasma exchange procedure. The line is normally required for two to three weeks or for however long you need to have plasma exchange. For more information about the dialysis line, please see the leaflet 'Having a haemodialysis line'.

Plasma exchange will be carried out on ward 301 by specially trained nurses who will monitor and look after you throughout the treatment. Before the procedure starts blood tests will be taken to check your calcium and antibody levels.

A sterile tubing set is used to pump the blood around a machine and through a special plasma filter. The filter acts as a sieve and sieves out the plasma which is then collected and discarded. New replacement plasma fluid is then infused into the blood as the red blood cells are returned to you.

As the blood in the tubing set can sometimes clot, a drug called heparin is added to the tubing set to prevent this from happening.

During the procedure you may lose some calcium with the plasma. To keep your calcium levels within normal limits you may be given a drug into the tubing set called calcium gluconate.

How long does the procedure take?

A plasma exchange takes about two hours and you will be required to be next to the machine until the procedure is finished. You may want to bring something to read with you or your personal stereo to listen to. You will be able to eat and drink normally during the procedure.

Plasma exchange can be undertaken daily or every other day for approximately two weeks. Your doctor will let you know how many treatments you will need. A nurse from the dialysis unit will let you know when you need to return for your next exchange.

Are there any risks associated with plasma exchange?

The most frequently encountered complication of plasma exchange is an allergic reaction to the replacement plasma. Medication may be given before the procedure to minimise this risk.

Other possible side effects during the treatment include dizziness, nausea, feeling cold or you may experience a tingling sensation in your fingers and lips. This could be due to the calcium levels in your blood being too low. However, the nurse looking after you will be checking your levels during and after the procedure. The nurse will also be checking your blood pressure, pulse and temperature throughout the procedure.

There is also an increased risk of infection as plasma exchange will lower the body's ability to fight infection. It is therefore important that your dialysis line is kept free from germs at all times. To reduce the risk of infections we use special protective dressings to cover the exit site and sterile gauze to wrap the line ends as well as putting an antibacterial solution into the line itself. Keep the protective dressing on at all times

and do not remove it. The nurses will look after the dressing for you when you have your plasma exchange. Other ways to help reduce the risk of infection are to avoid close contact with people who have coughs, colds, diarrhoea or vomiting.

If you experience any of the following please let your doctor or nurse know as soon as possible as it may indicate you have an infection:

- Feeling hot and having a temperature above normal
- Feeling shivery, shaky and generally unwell
- Redness, swelling or oozing around the line

Donated blood products will be used in the procedure. There is a very small chance that some diseases can be passed on in these products. However to reduce the risk all these products are heat-treated and screened according to recommendations from the National Blood Transfusion Service www.blood.co.uk by the central blood bank.

When will the dialysis line be removed?

The dialysis line is normally removed once all the plasma exchange sessions have been completed. However if your dialysis line is being used for haemodialysis treatment then the line may need to remain in place for longer. Please remind one of the nurses or doctors about your dialysis line so they can explain the plan.

Where can I find further sources of information?

Further information can be obtained from:

The National Kidney Federation www.kidney.org.uk

West Midlands Renal Network website www.wmrn.co.uk

NHS Choices www.nhs.uk

Useful numbers

Kidney Assessment Team

07887985486

301 Acute

0121 371 3096

301 Chronic

0121 371 3011

The on-call renal registrar can be contacted by ringing the Queen Elizabeth Hospital Birmingham switchboard on 0121 627 2000.



The Trust provides free monthly health talks on a variety of medical conditions and treatments. For more information visit www.uhb.nhs.uk or call 0121 627 7803

Renal Unit
Queen Elizabeth Hospital Birmingham
Mindelsohn Way, Edgbaston,
Birmingham, B15 2TH
Telephone: 0121 627 2000
