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Peritoneal dialysis catheter – surgical insertion in theatre

Renal and Transplant Services

Information for Patients

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Contents:

1. Why do I need a peritoneal dialysis (PD) catheter?

Healthy kidneys do many jobs. They balance the body's water content and filter out waste products. They make different hormones. These hormones help to make red blood cells, make vitamin D and control blood pressure.

When your kidneys stop working properly the body is affected in many ways. There are many treatments available to replace some of the kidney functions. One of these is peritoneal dialysis.

There are 2 types of peritoneal dialysis:

1. **Continuous Ambulatory Peritoneal Dialysis (CAPD)**

2. **Automated Peritoneal Dialysis (APD)**

To do both of these treatments we will need to insert a small tube (catheter) into the peritoneal cavity. The peritoneal cavity is the space inside your abdomen that holds many of your organs, such as your stomach, liver, and intestines. It is lined with a thin, smooth layer called the peritoneum, which helps the organs move easily against each other. This tube is used to drain fluid in and out of the peritoneum. This cleans the blood and remove excess water from the body.

2. What will it look like?

This tube will stay in place all the time. We place it 6cm to the left or right of the tummy button on the non-dominant side. Your non-dominant side is the side your hand does not write with. You should talk about the position where the tube will be (the exit site) with the person putting it in before your operation. The tube measures around 10 to 12cm in length from the skin. When not in use the tube can be hidden inside clothing or taped to the abdomen.

You should be able to carry out all your normal daily activities. You should avoid contact sports like rugby.

There is no reason why sexual relationships should change. We can talk about this in more detail. With any chronic illness there may be times when patients find it difficult to cope. Life with any chronic illness can be stressful so please remember that there are plenty of people to help and offer advice. Please do ask us for help.

3. Who will be involved in my care?

A team of nursing and medical staff will mainly be responsible for your care.

Nurses who specialise in looking after patients with kidney problems will be available to talk to you about your operation. They will carry out any dialysis needs and offer support as needed.

Renal care assistants are on the ward to assist with dialysis and any other care you may need.

Nephrologists (kidney specialists) will plan the insertion of your tube. They will or a surgeon will insert the catheter. An interpreter will be made available if needed.

4. The Pre-Assessment Clinic

We will see you 10 to 14 days before your operation. A day case nurse or a doctor from the surgical team will see you at the clinic. They will need to know about all your medicines. Please bring them with you. They will measure your blood pressure, pulse and temperature. They will take a nose swab and do routine blood tests. It is very important that you are not constipated before your operation. We will give you some laxatives to help with this. To reduce the risk of infection you will need to shower using a specially formulated soap. You will also need to apply cream to the inside of your nose from the week before your operation.

You may also meet a:

- Phlebotomist who will take blood samples from you.
- Radiographer who may take an x-ray of your chest.
- ECG technician who may take a recording of your heart. All of these procedures are carried out routinely before an operation. It may take place a week earlier in the pre-surgical assessment clinic.
- Anaesthetist who is responsible for the anaesthetic if your tube needs to be put in by a surgeon.

After your operation you may meet a:

- Pharmacist who will be able to answer any questions you may have about your medicines.
- Physiotherapist who will, if needed, assess your mobility.
- Occupational therapist who may be asked to check that you can manage to live independently.
- Dietitian who will be available to answer any questions you may have about your diet.
- Social worker who can be called if needed.
- Psychologist who is available for advice and support if needed.

All of the people mentioned above work as a team and can be contacted during your stay.

5. Placing the PD catheter

For most patients the PD catheter can be inserted as a day case operation. This means you will not have to stay overnight in hospital.

We may need to admit patients with diabetes who are on insulin the night before to make sure their blood sugars are well controlled.

Patients on warfarin will need their blood clotting stabilised before the operation. It may sometimes be changed to intravenous heparin before it is possible to insert the PD catheter.

For you to go home on the same day as the operation, you must travel home with another adult (or go home by ambulance) and have an adult stay with you overnight. This is because you will either have the PD catheter inserted using general anaesthetic, sedation or local anaesthetic. This can take 24 hours (1 day) to wear off.

6. The day of the operation

You must not eat or drink from midnight before your admission to hospital. On arrival to the day case unit or ward you will be met by the nursing staff. They will check your details and show you around so that you will know where things are.

We will monitor and record your blood pressure, pulse and temperature. We will give you a gown and paper pants to wear. A doctor will place a small cannula in the back of your hand. Through this tube we will give you an injection of antibiotics. This is to reduce the risk of the PD catheter becoming infected. You will meet the doctor inserting the PD catheter and they will explain the operation to you fully. They will confirm the exit site of the tube and then they will get your written consent for the operation.

Before having the PD catheter inserted, we will ask you to empty your bladder.

7. The operation

If the PD catheter is being inserted by the surgeons you will be taken to main theatre.

Before any cuts (incisions) are made you will get general anaesthetic or intravenous sedation. This is so that you are not aware of the doctors placing the catheter.

The whole procedure often only takes 20 to 40 minutes. During the procedure you will get oxygen, be monitored very closely and get pain killing injections if needed.

8. After the operation

We will take you to the ward after the operation. The nurses will monitor you and check your abdominal dressings to check for any leakage of blood or fluid from the operation site.

After the operation you may have some discomfort. This often settles within 2 to 4 hours of the operation. The nurse will give you pain relief if you need it to make sure that you are comfortable.

You will be allowed to eat and drink once you feel ready. You will need to stay on your bed for at least 4 hours.

The doctor will see you mid-afternoon. If everything is well, they will discharge you home.

We will give you instructions on how to look after your exit site. We will give you 3 dressings and a roll of tape with a ‘post insertion aftercare’ leaflet. The exit site should stay covered with a dressing and the tube secured with tape.

It is very important that you do not become constipated as this will lead to complications and your tube may not work. We will give you laxatives to take. If you are not given a supply of laxatives or are not sure of when to take them, please ask.

9. Peritoneal dialysis training

When do I start my PD training?

After your operation the renal community nurses will give you a date for training. Each week before your training date a member of the renal community team will review you either at home or in your local renal unit. This is to make sure the wound is healing and your stitches are dissolving.

The training itself often takes 4 to 5 days. If we feel you need longer we will arrange this for you. You will not be discharged home on PD until you are confident and both you and your training nurse are happy with your progress.

Where do I do my PD training?

The training takes place in a room at the hospital or home. It has an informal, friendly atmosphere. The PD nurse will support you through your training period and the nurse understands that you might have some difficulties at first. Do not worry about the training. The training takes place from Monday to Friday, 9:30am to 3:30pm. It is often possible to complete your training at home.

We will give drinks and sandwiches at lunch time. Please bring your own medicines.

What happens in PD training?

We will teach you how to manage your dialysis at home.

We will:

- **For CAPD** we teach you how to do a bag exchange procedure. You will learn to drain out old fluid first, then draining in new fluid. When you are at home you will need to do this 4 times a day.
- **For APD** we teach you all about the machine and how to use it safely. When you are at home you will use the APD machine at night.
- teach you how to avoid risks of infection and what to do if infection does happen.
- let you know of other problems that can happen. We will teach you how you can resolve these problems. For example, drainage problems may be caused by constipation or a substance called fibrin which look like tiny strands of cotton wool. We will teach you how to fix this.
- advise you on showering / bathing, fun (leisure) activities and holidays.
- advise you not to do heavy lifting. We will teach you about the importance of good posture.
- give support and advice on how to accept any changes in body image.
- teach you how to understand your blood results.
- teach you how to manage your fluid intake and fluid balance will also be covered.
- give you nutritional advice and support. This will be done by one of the renal dieticians. They are very willing to talk about changes in diet with family members/ carers.
- teach you how to order your PD fluids.

10. Where do I store my dialysis fluid?

The dialysis fluid is delivered to your home. You will get 40 to 50 boxes a month. A spare bedroom is ideal. The fluid can be stored in a garage or damp proof shed. If you have a problem with storage, the renal community nurse will talk about this with you.

11. What happens when I go home after my training?

You will be well prepared for your dialysis before you go home. If you have any problems, you can call the hospital for advice at any time (see page 8 for phone numbers).

- You may have a simple problem which can be solved over the phone.
- If needed, we will arrange for you to attend the day case unit or the ward to sort out your dialysis problem.
- Some patients may experience difficulties coming to terms with having a permanent PD tube and having to do dialysis every day. The renal community team will try to help you through this difficult period.
- During your training your follow up care at home will be arranged by one of the renal community nurses who will visit you the following week.
- After this, these visits will happen again and again support you and answer your questions. Their aim is to help you and your family to understand and adapt to your dialysis.

When you go home on PD you will be well prepared on how PD will fit into your life. There will be a time of adjustment and you will be aware of the effect of PD on you and your family. You may be concerned about doing your peritoneal dialysis safely or how PD will affect your work, but do not worry. **Remember that help is only a phone call away.**

12. Peritoneal dialysis follow-up

When will I attend the PD clinic?

In the beginning you will need to visit the PD clinic within 4 to 5 weeks after training. We make this appointment for you. When you have more experience on PD and have no serious problems, then your clinic visits are often 3 to 4 monthly.

What happens if I need more dialysis?

We will discharge you on a standard amount of dialysis. The renal community nurses will review this within the first 3 months and talk about any changes if needed. There are many different ways to do peritoneal dialysis. Should a change be needed then we will talk about these options with you.

Can I go to work?

After spending sometime adjusting at home, you may feel ready to return to work. Many employers are willing to help you find an area where you can do your bag exchange. We can make visits to your place of work to explain your needs can be made at your request.

If you have problems with your job, you can talk to your kidney nurses about it. Going back to work might be hard at first, but it will get easier.

Can I go on holiday?

Yes. Arrangements can be made to deliver your fluids to most holiday destinations all over the world. You must give plenty of notice to your community team.

13. What can go wrong?

- **Fluid leaking:** In most patients, the seal around the tube exit site works properly. The dialysis fluid drains in and out of the abdomen through the tube without any leakage. In some patients, fluid leaks out around the catheter, wetting the dressing over the exit site. Often not using the catheter for dialysis for 4 to 6 weeks will let the site become water-tight and 'seal-up' again. We can then use a different form of dialysis.

  In a small number of patients fluid can leak into the genital area. This is called a scrotal or vaginal leak. It can cause swelling of the genital area. If this happens peritoneal dialysis must be stopped and another method of dialysis will need to be used until the swelling has become better and the leak has healed.

- **Exit site infection**: Patients may get an infection around the exit site. This is called an exit site infection. Having a red tender area around the exit site can mean you have an infection. Also, when someone has this type of infection, squeezing around the exit site may produce pus. Exit site infections get better with antibiotics.

- **PD fluid not draining in/out**: One of the most common problems, especially with new patients, is poor drainage of the dialysis fluid. This can be caused by constipation. To get advise on this problem please ask us. The tube can become blocked with a substance called fibrin, a form of protein. It looks like tiny strands of cotton wool and is completely harmless. You will be taught how to resolve this problem during your training.

- **Peritonitis**: Peritonitis is an infection of the peritoneum. On average patients can expect to get less than 1 attack of peritonitis every year. Some patients never get this. Signs of peritonitis include cloudy dialysis fluid when draining out, this is normally clear. Some patients may also have abdominal pain and a fever. You must attend the day case unit or one of the renal wards for treatment. For treatment we will add antibiotics to the fresh dialysis fluid before draining it in. You will have a follow up appointment in the day case unit after a few days.

- **Hernia:** Hernias can happen when a wall of muscle weakens. This lets the organ or tissue come out from inside. When a patient has a tube inserted the problem of a hernia can become worse. The daily draining of fluid in and out of the abdomen can cause the hernia to become bigger. Often the surgeon will repair the hernia during the operation to insert the dialysis tube to prevent problems in the future. Hernias can also happen because of the increased abdominal pressure caused by PD. This is why we advise you to avoid lifting heavy objects. We will give you more advice when you train on PD.

14. Useful support contacts

Kidney Care UK **0142 054 1424**

Email: info@kidneycareuk.org

Website: kidneycareuk.org

The National Kidney Federation **0190 9544 999** Helpline: **0800 1690 936**

The Point Website: www.kidney.org.uk

Coach Road

Shireoaks

Worksop

Notts S81 8BW

15. Contact details:

Renal community nurses: (Monday to Friday, 08:30am to 4:30pm)

- Leicester: **0116 258 4120**
- Loughborough: **0150 956 4270**
- Peterborough: **01733961700 (option 6)**
- Northampton: **01604628976 (option 4)**
- Lincoln: **0152 257 2321**

or

- Renal planned care hub, Leicester General Hospital: **0116 258 8044**

Evenings/overnight/weekends/bank holidays:

- Glenfield Hospital, ward 27: **0116 258 8082**

Health information and support is available at www.nhs.uk or call 111 for non-emergency medical advice
Visit www.uhleicester.nhs.uk for maps and information about visiting Leicester's Hospitals.
To give feedback about this information sheet, contact uhl-tr.informationforpatientsmailbox@nhs.net

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ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਭਾਸ਼ਾ ਵਿਚ ਚਾਹੁੰਦੇ ਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਹੇਠਾਂ ਦਿੱਤੇ ਗਏ ਨੰਬਰ 'ਤੇ ਟੈਲੀਫੋਨ ਕਰੋ।
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જો તમને અન્ય ભાષામાં આ માહિતી જોઈતી હોય, તો નીચે આપેલ નંબર પર કૃપા કરી ટેલિફોન કરો.

If you would like this information in another language or format such as EasyRead or Braille, please telephone 0116 250 2959 or email uhl-tr.equalitymailbox@nhs.net

We are a research hospital and you may be asked to take part in research