

## Medical Percutaneous Peritoneal Dialysis Catheter Insertion

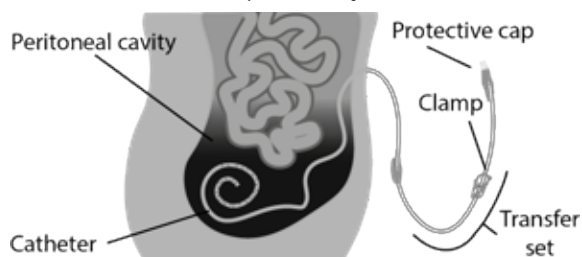
### Introduction

This leaflet is about the procedure required to put in a peritoneal dialysis catheter. It is intended to provide you with the information needed before you agree to have the procedure performed. It does not replace discussion between you and your doctor or your peritoneal dialysis specialist nurse. Please ask all the questions you need to ensure you fully understand what is involved.

### What is a Peritoneal Dialysis Catheter and why do I need it?

Peritoneal dialysis (PD) is one of the two methods of dialysis that may be used to treat people with kidney failure. In PD, the process of dialysis takes place inside the patient's body using the peritoneum which is the natural lining of the abdomen as the dialysis membrane (or artificial kidney).

To receive PD, you must have a way for the dialysis fluid to get access into the abdomen and the peritoneum. A peritoneal dialysis catheter is a way of doing this. It is about 30 centimetres (12 inches) long and as wide as a pencil, however the size may vary according to the patient. The PD catheter will be placed through your lower abdominal wall, into your peritoneal cavity. Half of the catheter lies inside your abdomen, and half lies outside. It will come out on the right or the left, under your navel (tummy button). The PD catheter acts as a permanent pathway into your peritoneal cavity from the outside. Without it, you won't be able to perform PD, so it is important you look after it.



### Who will insert the catheter and where will it be done?

A kidney specialist (Consultant), a trainee kidney specialist (Specialist Registrar) or a specially trained nurse will do the procedure. The operator performing the procedure may be different to the one who recommended the procedure to you but they will be happy to answer your questions. It will be done in a special procedures room in the Renal Unit in the Royal Devon and Exeter NHS Foundation Trust. It is done under local anaesthetic so you will remain awake. You will be asked to have a light breakfast on the morning of the procedure. You can take your usual medication unless otherwise advised by your doctor. You can eat and drink once the catheter is put into your abdomen. You will be asked to give written consent prior to the procedure.

### Preparation at home before the Procedure.

It is important you are not constipated as this can affect the function of the PD catheter. You will be advised prior to the procedure to take a course of suitable laxatives to help you avoid this problem.

You will also be advised to have an antibiotic body wash daily (Hibiscrub) and an ointment (Mupirocin) to apply to your nose three times a day for five days before having the procedure. Using this can help to prevent skin infections such as MRSA (Methicillin Resistant Staphylococcus aureus). MRSA is commonly found in the nasal passages and on the skin, therefore application of this antibacterial ointment and wash will eradicate the organism and prevent MRSA skin infection after the procedure.

It is important that if you are taking a blood thinner like warfarin or clopidogrel for example you discuss this with a doctor on the kidney unit so this can be stopped before the procedure.

## Will I need any Blood test?

Blood tests will be carried out prior to the procedure to ensure the safety of the procedure.

## How long will it take?

It is not easy to predict how easy or complicated the procedure will be. This is influenced by how easy it is to get into your tummy and pass the catheter. Usually, the whole procedure will last about 40-60 minutes.

## What will actually happen during Insertion of the peritoneal dialysis catheter?

A trained doctor or nurse will insert the catheter in a special procedure room on the kidney unit. You will be asked to empty your bladder before the procedure. Your abdomen will be scanned to ensure your bladder is empty and to measure the distance between your skin and the tummy lining. If your bladder is not empty on the scan, we may have to pass a urinary catheter to make sure the bladder is empty and reduce the risk of damage to the bladder.

You will lie on a surgical operating table or on a hospital bed as flat as you comfortably can. To keep everything sterile, the operator inserting the catheter will wear a cap, mask, sterile surgeon's gown and gloves. The skin of your abdomen will be cleaned with an antiseptic liquid and then covered with a large sterile drape. Local anaesthetic will be put into the skin under the belly button to make sure the skin is numb. The operator will also use the local anaesthetic to numb the skin to the chosen side of your abdomen where the tube will come out. This site is called the exit site. A cut is made about 1 to 1.5 centimetres long near the belly button. The peritoneal dialysis catheter is inserted into the abdominal cavity and pushed under the skin to come out on the exit site. A few stitches are required in the abdomen where the incision was made. The stitches will be

taken out 7-10 days post insertion. The insertion site and exit site will be covered with dressings.

## Will it hurt?

When the local anaesthetic is injected it will sting to begin with but this soon wears off and the area will feel numb. You will feel some pressure as the catheter is pushed into your abdomen and under the skin. It is not unusual to feel some initial discomfort in the rectal region when the catheter is in place. When the local anaesthetic has worn off, the insertion site may feel a bit tender and bruised.

## What will happen afterwards?

You will return to the ward area after the catheter has been inserted. You will be monitored for 2 hours after the procedure and your blood pressure and pulse will be measured frequently. You may be able to go home after this period of monitoring if you have come as an outpatient. In the event of any complication, you may need to stay in hospital for a longer period for observation and sometimes overnight if necessary.

You should have a responsible adult to go home with for at least 24 hours after the procedure.

You must not drive for at least 24 hours after the procedure, or longer if your abdomen still feels sore. This is so that you can do an emergency stop which is a legal requirement. Your insurance may also be invalid if you do not keep to this recommendation.

You will be seen by a member of the PD team who will review the dressings over the catheter insertion and exit sites. This dressing will be changed once weekly (or more often) by your PD nurses until they have trained you how to do this by yourself. It is important to avoid getting this area wet whilst washing, this will help reduce the risk of infection occurring. This means avoiding a bath or shower for the **immediate future**. Your PD nurse will advise you when you can shower.

The PD nurses will also perform regular flushes of your catheter to make sure it is working while you undergo your training to start dialysis. They will also discuss the regular use of laxatives to avoid constipation. This is especially important to keep the tubes working.

Pain relief advice will be provided as necessary.

If you develop severe abdominal pain or bleeding around the peritoneal dialysis catheter line you should contact us straight away for advice. Our contact telephone numbers are listed in this leaflet.

## Are there any risks or complications?

Having a peritoneal dialysis catheter inserted is considered a safe procedure, but, as with any medical treatment complications can occur.

**The most common complication** is excessive bleeding from the small skin wound where the catheter enters your tummy or from where it comes out. This can be stopped by applying pressure to the area and where necessary changing the dressing, which is not dangerous. Sometimes it can take an hour or even longer to stop bleeding. Some oozing is expected through the dressing is normal and will need a dressing change.

Occasionally there may be some pain in the groin when the guidewire goes in. This is usually temporary and recovers without any medical intervention.

Occasionally there may be a leak of fluid from the catheter insertion point. This may happen if the catheter is used quickly after insertion without allowing adequate time to heal or an excessive amount of peritoneal dialysis fluid is put into your abdomen for peritoneal dialysis. To prevent this we aim to avoid doing peritoneal dialysis within two weeks of catheter insertion and use small volumes of fluid initially. This allows the abdomen more time to heal and stop leakage of peritoneal dialysis fluid. You may have to go on an alternate method of dialysis in the form of blood dialysis (haemodialysis) depending on your clinical state while we allow your abdomen to heal. Your doctor or clinical nurse specialist will discuss this with you.

Rarely, we may fail in our attempt to put the tube in your abdomen. In this case we may have to consider alternate methods of putting the tube in which may require general anaesthetic, or keep you on haemodialysis. Your doctor or clinical specialist will discuss this with you.

**Very serious complications are rare** but you should be aware they happen:

- There could be damage to the bowel when the catheter is being inserted. The risk of this is increased when you are constipated before the procedure. This could result in widespread infection of your abdomen. Additional treatment would be required which could mean having a major surgery to repair the bowel and a prolonged stay in hospital.
- There could also be damage to the urinary bladder when the catheter is inserted. If the bladder is damaged, you may stop passing urine. Additional treatment would be required which could mean surgery to repair the bladder.
- It is rare but possible to damage the aorta which is a large blood vessel that supplies blood to the body from the heart. This is potentially life threatening and is associated with severe bleeding and abdominal pain.

The chance of experiencing one of these serious complications is very small. Everything is done to minimise the risk. Death due to a complication is extremely rare.

Once the catheter is successfully in place, the main complication is infection. This includes an infection of the exit site, the insertion site or more seriously peritonitis which is infection of the membrane lining of your abdomen. This may present with abdominal pain, fever, shivering and 'flu-like symptoms. You should report this as soon as possible to a doctor or nurse in the kidney unit. Sometimes the treatment of the infection may involve removal of your catheter. To reduce the risk of infection proper hygiene and proper care of your catheter is essential. Your PD nurse will give you a leaflet titled 'How to care for your peritoneal dialysis catheter on discharge' and discuss this in more detail with you.

Your catheter may also become mal-positioned and not function properly. The most common cause for this is constipation which is why you need to take your laxatives regularly.

## When do I contact the Renal Unit?

- If the catheter appears to have moved further in or out of your body.
- If the area around the catheter exit site or insertion site becomes red, 'mucky' or you see pus.
- If the area feels sore or becomes red or inflamed
- If you develop a temperature, become shivery or generally unwell
- If you develop abdominal pain after the procedure
- If the dressing become loose or removed
- If you notice a split from your catheter
- If the caps at the end of your catheter fall off

## To contact us:

If you have any queries or concerns about the procedure whatsoever, or have not understood anything you have been told, please do not hesitate to ring us.

Monday- Friday (except bank holidays) 9am-5pm, please contact one of the renal day case nurses on **01392 404791/4792**.

Another point of contact is the Peritoneal Dialysis team who also work Monday-Friday 9am-5pm and are often available during the day (**01392 402518**) or the Renal Community Team (**01392 402537**).

At other times or if the above number is unavailable please ring the hospital switchboard on **01392 411611** and ask for the **renal bleep holder** or Creedy Ward (**01392 402590**).

## Finally...

We hope you have found this information leaflet helpful. Please remember that you are free to ask the operator inserting the catheter as many questions as you would like. You should be satisfied that you have received enough information about the procedure before you sign a consent form.

## Preparation for insertion of a Peritoneal Dialysis catheter.

### You will be given today;

- A bottle of Hibiscrub 500ml surgical scrub (pink body wash)

### And a prescription for;

- 2 Sachets of Picolax® Powder (Laxative)
- 1 Tube mupirocin/bactroban 2% (Nasal Ointment)
- Senna Tablets 15mg and Sodium Docusate tablets 200mg

Keep the items along with this guide, safe at home until needed.

## How to prepare...

### Five days before the procedure:

- Use the pink Hibiscrub scrub as a body wash and shampoo every day.
- Apply the mupirocin/bactroban 2% Ointment to inside both nostrils three times a day for 5 days before procedure.
- Take two Senna and two Sodium Docusate tablets twice daily until the procedure. **You will need to keep taking the Laxatives after the procedure and remain on them while you are on peritoneal dialysis.**

*Using Hydrex scrub and Bactroban ointment can help to prevent skin infections such as MRSA. MRSA is commonly found in the nasal passages and on the skin, therefore application of this antibacterial ointment and wash will eradicate the organism and prevent MRSA skin infection after the procedure.*

### One day before the procedure:

**At midday** - dilute one sachet of Picolax® Powder into a 200ml glass of water and take immediately. Drink another 200mls of water straight afterwards.

**At 4pm-** Take a second sachet of Picolax® Powder as above and again drink 200mls of water straight afterwards.

## **Important information.**

This is a strong laxative; ensure you have access to toilet facilities after taking. It is essential to the success of the procedure to take this laxative.

### **On the Morning of the Procedure:**

- ✓ **DO**-Have a light breakfast.
- ✓ **DO**-Take any medications you normally take -unless advised otherwise by your doctor.
- ✓ **DO**- Arrive as promptly as possible for your appointment.

**If you have any queries/concerns please contact us on the numbers listed in the above section "To Contact us".**

The Trust cannot accept any responsibility for the accuracy of the information given if the leaflet is not used by RD&E staff undertaking procedures at the RD&E hospitals.

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