

Patient Information

Renal Services

Administration of Urokinase for a Permanent Vascular Catheter

Introduction

This leaflet provides information on the use of Urokinase for patients with a permanent haemodialysis catheter.

What is Urokinase and what is it used for?

Urokinase is a drug that helps to dissolve blood clots that can form in or around the tip of your haemodialysis catheter.

If a blood clot forms inside or around your catheter, blood flowing in and out of the catheter, will be slowed down. In some cases, a blood clot can cause the catheter to become blocked and there will be no blood flow from the catheter. If the blood flow through the haemodialysis catheter becomes slow, or stops altogether, you will **not** be able to start your dialysis treatment.

To get your dialysis treatment started, it is important to get the blood flowing freely in and out of your catheter. About 300 mls (half a pint) of blood needs to be pumped through the catheter each minute for your dialysis treatment.

Urokinase will be used to try to unblock your catheter and improve the speed of the blood flow through the catheter.

What are the active ingredients in Urokinase?

Urokinase is a white powder which comes in a small bottle (vial). The powder is dissolved in saline (a water and salt solution) before use. The active ingredient is urokinase which helps to dissolve the clot. Urokinase is a natural enzyme found in the human body which helps keeps our blood vessels clean.

How is a Urokinase used?

Urokinase Lock

Urokinase solution is given as an injection directly into each tube (lumen) of the haemodialysis catheter. The volume of solution placed in the catheter is just enough to



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fill each tube. The solution is then left inside the catheter for 30 minutes. As the solution is left in the catheter it is commonly called a lock.

After 30 minutes a nurse will remove the urokinase solution from your catheter and will use syringes to flush each tube (lumen) of the catheter with saline. The nurse will decide whether the blood flow through the catheter has improved enough to be able to start the dialysis treatment.

If the blood flow through the catheter has improved the nurse will start your dialysis treatment.

If this lock does not improve the flow from your haemodialysis catheter, you will then be given a further dose of urokinase. This will be administered through your haemodialysis catheter using a syringe pump. This takes place over 1.5 hours and you will either have this on the day unit on ward 50 or on the haemodialysis unit. After the urokinase has infused you will then go straight onto haemodialysis.

What happens if the haemodialysis catheter is still not working properly?

If the blood flow in and out of the haemodialysis catheter is still slow the nurse will get advice from one of the kidney doctors. The kidney doctor and nurse will talk with you and explain what needs to happen next. It may include:

- Taking a sample of your blood to see whether you need your dialysis treatment as planned.
- Having an X-ray to check the haemodialysis catheter is in the correct position and is not kinked
- Starting you on a low dose of aspirin and/or warfarin (to thin your blood)

What happens if the blood flows from my haemodialysis catheter are poor whilst I am on dialysis?

The nurse who is looking after you may make the decision to use urokinase during your dialysis. Your dialysis is not interrupted as the dose of urokinase is given through the blood lines on the haemodialysis machine. This will help improve the blood flow rate and increase the rate of removal of poisons from your blood.

Are there any side effects of Urokinase?

Like all drugs urokinase may cause side effects. Possible side effects or signs of an allergic reaction to urokinase are:

- Skin rash
- Feeling dizzy or faint
- Dull back ache
- Feeling warm
- Wheezing and tightness of your chest
- Slight bleeding

If you have any of these signs please let the nurse or kidney doctor know.

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We recommend that if there are repeated problems with the flows from your vascular catheter the doctors may mean we need to replace the vascular catheter.

Additional Sources of Information

If you have any questions or require further information please talk with members of your renal healthcare team. Telephone 024 7696 7777.

The Trust has access to interpreting and translation services. If you need this information in another language or format, please contact 024 7696 7777 and we will do our best to meet your needs.

The Trust operates a smoke free policy

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