Oxford Kidney Unit

Venous Needle Dislodgement

Information for patients
We have written this leaflet to provide you with information about venous needle dislodgement. If there is anything else you need to know after reading this leaflet, please speak to your dialysis nurse.

To enable you to dialyse (if you have a fistula or graft) a dialysis nurse will insert two needles into your fistula or graft. The bottom needle (nearest your hand) is called the arterial needle and the top one (nearest your shoulder) is the venous needle. Your blood leaves your body to be cleaned by the dialysis machine through the arterial needle and is returned to your body via the venous needle.

If you have a loop graft, your dialysis nurse will show you where the arterial and venous needles are placed. (If you are not sure whether your graft is looped or straight, please ask your dialysis nurse.)
What is venous needle dislodgment?

Venous needle dislodgment is when your venous needle accidentally comes out of your arm whilst you are on dialysis. This can happen if the needle is pulled out or not taped correctly.

Why do I need to know about venous needle dislodgement?

During your dialysis session, the dialysis machine controls how much blood leaves your body every minute, using a pump. If the venous needle comes out of your arm during dialysis, blood will spurt from the fistula and machine very fast. This could create a life-threatening situation for you. The dialysis machine will continue to remove your blood (through the arterial needle) but will be unable to return the blood to your body.

For example, if your pump speed is 300 millilitres per minute, you would lose nearly a pint in a minute.

The machine will alarm if the arterial needle comes out during dialysis, because this causes a change in the pressure readings in the dialysis machine. However, there are no changes in pressure if the venous needle comes out, and so the dialysis machines are not able to detect this. Venous needle dislodgment can therefore be potentially life-threatening. This is why it is important to reduce the risk of venous needle dislodgement by correctly taping the needles and the lines.
How can my dialysis nurse reduce the risk of venous needle dislodgment?

The risk of venous needle dislodgement is very small, if your needles and lines are taped correctly. The following method (the Chevron method; see picture) is the safest:

1. After your needle has been inserted, a thick piece of tape is placed across the top of the needle.

2. A thin piece of tape is then wrapped around the needle into a chevron or butterfly (a ‘V’ shape).

3. A thick piece of tape is placed across the needle to totally secure it.

4. Finally, your lines are taped onto your wrist or shoulder and then secured loosely onto your machine, so that some movement is allowed with minimal risk of them being pulled out.
Only certain types of tape are used to anchor the needles (Micropore is the preferred tape to use for this). Please let us know if you are allergic to any medical tape.

Your dialysis nurse will regularly check your fistula or graft when completing our ‘intentional rounding’. Intentional rounding is when your dialysis nurse checks your blood pressure, the arterial and venous pressure levels, and records these in your dialysis folder.

**What can I do to help prevent venous needle dislodgment?**

- You should be very careful when you move around during dialysis and should be conscious of where your lines are.

- If possible, leave your fistula arm visible and free from blankets, as your dialysis nurse won’t need to disturb you to check your needles if you are sleeping.

**What should I do to prevent venous needle dislodgement if I am on home haemodialysis?**

Before you start dialysing at home the dialysis nurses will show you the correct method for taping your needles and lines, to reduce the risk of venous needle dislodgment. They will also advise you how often to check your needle sites while you are dialysing.

If you are doing solo dialysis your dialysis nurse will give you a machine called ‘Redsense’. This machine has a small sensor, which is placed directly over your needle site. If blood leaks from the needle site onto the sensor the machine will alarm, to let you know there is a problem. Your dialysis nurse will show you how to use the machine and will give you all the equipment you need.
Where can I get further information?

Please speak to your dialysis nurse if you need further information.

**Oxford Kidney Unit**

Useful information about the Oxford Kidney unit for patients and relatives.

Website: ouh.nhs.uk/oku/
If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call 01865 221 473 or email PALS@ouh.nhs.uk

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