



Information for
patients and
carers

Buttonhole Cannulation
Technique

What is the buttonhole cannulation technique?

Buttonhole is a way of cannulating (putting needles in) your fistula. The needles are inserted in exactly the same spot at every dialysis session, like a button into a buttonhole. This technique can only be used for fistulae and not for grafts.

Is it harmful for my fistula to have the needle in the same place all the time?

It is harmful to go in the same area using different holes, as this weakens the vein wall, causing aneurysm (bulging). With the buttonhole, the exact same hole is used for every dialysis session and over time a tract or tunnel forms. This prevents aneurysms forming and offers other benefits such as reduced pain when needles go in and reduced bleeding times when the needles are removed.

What are the advantages of using the buttonhole technique?

Research has shown that these are:

- Fewer 'blows' – when blood leaks from the vein into the surrounding skin, causing swelling and pain.
- Fewer problems locating the vein
- Less pain when inserting the needles
- Less chance of aneurysms (bulging) forming. Aneurysms can weaken the vein wall.

Is the buttonhole technique a new procedure?

No, it has been used in Europe for more than 25 years, with great success. It is becoming more popular in the UK since the recent introduction of blunt needles.

What are blunt / dull needles?

Blunt or dull needles are rounded at the top and do not have sharp edges like traditional dialysis needles. The buttonhole technique develops a tract so you do not need to use sharp needles to enter the vein. Blunt needles also prevent damaging the formed tract.

What is a tract?

The tract is a tunnel created by the formation of scar tissue – exactly like the hole created for earrings in a pierced ear. This tract goes from the surface of the skin to the vein. Once the tract is well healed there are no nerves or tissues in the path of the needle to cause you any pain when the needles go in.

How long does it take before I can use blunt needles?

For most people, it takes about two to four weeks or six to fourteen dialysis sessions before a tract develops. A normal sharp needle is used for those sessions and when the nurses are happy that the tract has formed, they will introduce blunt needles.

How long will the buttonhole last?

The pair of buttonholes can be used indefinitely if there are no problems.

What happens if I dialyse at a unit that does not use this technique?

If the unit you are dialysing at does not use this technique, they can needle another part of your fistula using the normal sharp needles. We will inform the staff on the other unit at the earliest opportunity that we use the buttonhole technique with you and we will advise them about needling your fistula. We will resume the buttonhole technique when you come back to us.

When will I start using the buttonhole technique?

Your unit will assess the suitability of using the buttonhole technique and advise you.

Is there anything special I need to do with my fistula when using the buttonhole technique?

To reduce the risk of infection, the fistula arm needs to be washed before the scab is cleaned. If it is possible, the patient should wash their fistula arm with soap and water on arrival to the dialysis unit. The scab will then be removed from the buttonhole and the area cleaned again before the needling takes place. Care of your fistula remains the same.

Contact details

Should you require further advice or information please contact the Renal Dialysis Unit at Royal Preston Hospital between the hours of 8:00am – 4:00pm Monday to Friday on **01772 522755 / 3528**.

Sources of further information

www.lancsteachinghospitals.nhs.uk

www.nhs.uk

www.patient.co.uk

www.accessable.co.uk

www.thinkkidneys.nhs.uk The UK Renal Registry NHS Programme
www.britishrenal.org/news/brs-vasbi-needling-recommendations The British Renal Society

www.england.nhs.uk/patient-choice

Lancashire Teaching Hospitals NHS Foundation Trust is not responsible for the content of external internet sites.

Lancashire Teaching Hospitals is a smoke-free site.

On 31 May 2017 Lancashire Teaching Hospitals became a smoke-free organisation. From that date smoking is not permitted anywhere on any of our premises, either inside or outside the buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking including Nicotine Replacement Therapy to help manage your symptoms of withdrawal.

If you want to stop smoking you can also contact the Quit Squad Freephone 0800 328 6297.

Please ask if you would like help in understanding this information. This information can be made available in large print and in other languages.

Cantonese:

如果你希望以另外一種格式接收該資訊，請和我們聯絡，不必猶豫。

Gujarati:

જો તમને આ માહિતી બીજી રચના કે ફોર્મેટમાં મેળવવાની ઇચ્છા હોય, તો કૃપા કરી અમારો સંપર્ક કરતા અચકાશો નહિ.

Hungarian:

Kérjük, vegye fel velünk a kapcsolatot, ha más formában kéri ezt az információt.

Polish:

Jeżeli chciał(a)by Pan/Pani otrzymać niniejsze informacje w innym formacie, prosimy o kontakt.

Punjabi:

ਜੇ ਤੁਸੀਂ ਕਿਸੇ ਹੋਰ ਫਾਰਮੈਟ ਵਿਚ ਇਹ ਜਾਣਕਾਰੀ ਲੈਣਾ ਚਾਹੁੰਦੇ ਹੋ ਤਾਂ ਸਾਡੇ ਨਾਲ ਸੰਪਰਕ ਕਰਨ ਤੋਂ ਨਾ ਝਿਜਕੋ।

Urdu:

اگر آپ اس معلومات کو کسی اور صورت میں حاصل کرنا چاہتے ہیں تو برائے مہربانی ہم سے رابطہ کرنے میں ہچکچاہٹ محسوس نہ کریں۔

Department: Renal Dialysis

Division: Medicine

Production date: June 2020

Review date: June 2023

JR511 v1