arteriovenous FISTULA FIRST

AVF — The first choice for hemodialysis

LIFELINE FOR A LIFETIME

Weekly Tools for Maturing AVF or Healing AVG

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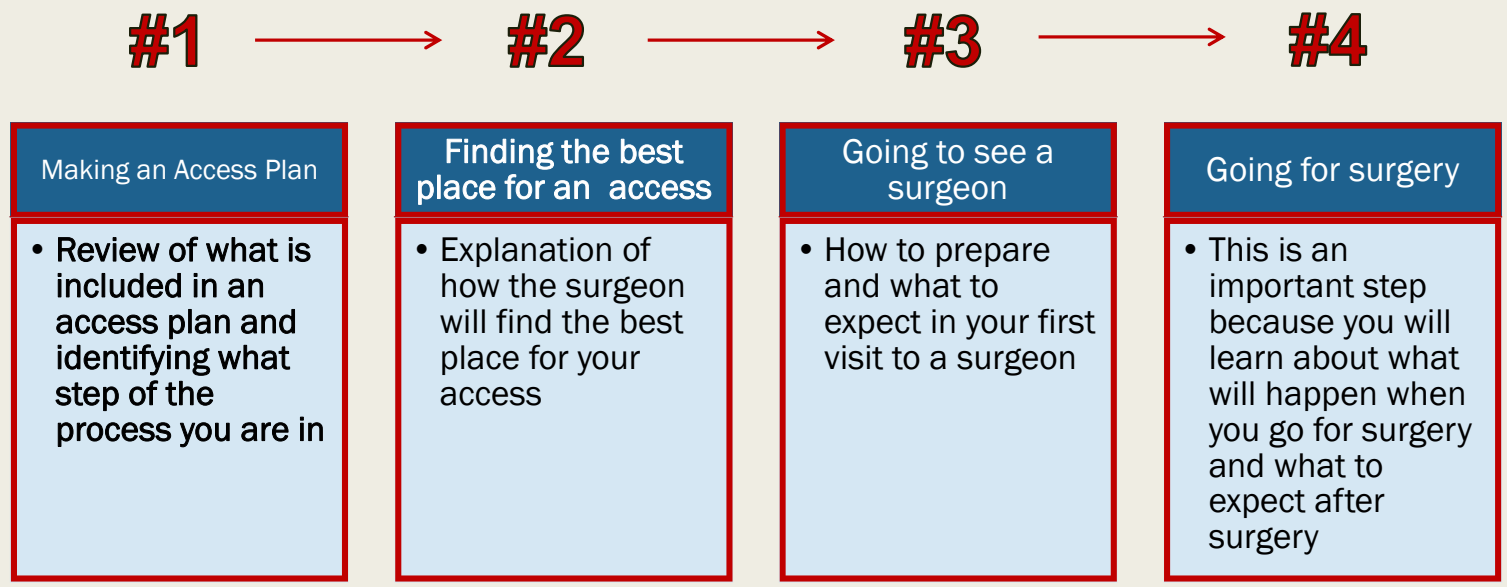
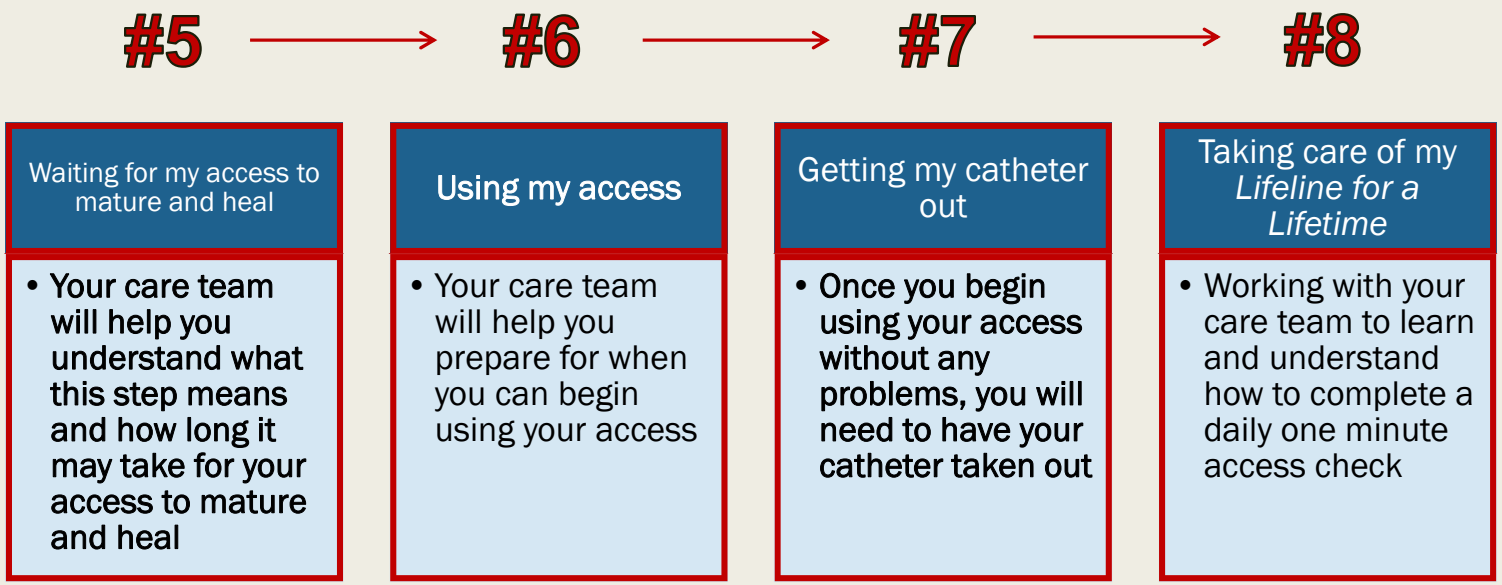
Conflict of Interest

- Employee of Transonic

Patient-Focused Access Plan



Patient-Focused Access Plan



Dialysis Professional

"Ready, Set, Go" The Steps to Catheter Freedom
Week 1: Graft Healing & Readiness Check

- Perform graft healing check at each treatment or when patient reports a change.
- Reinforce to patient the importance of daily graft checks.
- Listen to the patient.

Look

Listen

Feel

Dialysis Professional

"Ready, Set, Go" The Steps to Catheter Freedom
Weeks 2-3: Graft Healing & Readiness Check

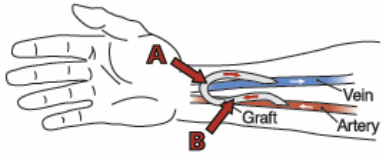
- Perform graft healing check at each treatment or when patient reports a change.
- Reinforce to patient the importance of daily graft checks.
- Listen to the patient.

Look

Listen

Feel

Augmentation Test



Perform once.
If normal, no need to repeat.

Dialysis Professional

"Ready, Set, Go" The Steps to Catheter Freedom
Week 4: Graft Healing & Readiness Check

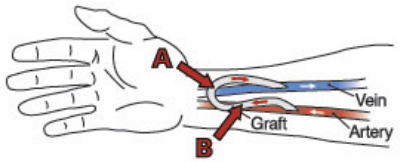
- Perform graft healing check at each treatment or when patient reports a change.
- Reinforce to patient the importance of daily graft checks.
- Listen to the patient.

Look

Listen

Feel

Augmentation Test



(Optional)

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"Ready, Set, Go" The Steps to Catheter Freedom
Weeks 1-2: Fistula Maturity Check

- Perform fistula maturity check at each treatment or when patient reports a change.
- Reinforce to patient the importance of daily fistula checks.
- Listen to the patient.

Look

Listen

Feel

Dialysis Professional

"Ready, Set, Go" The Steps to Catheter Freedom
Week 3: Fistula Maturity Check

- Perform fistula maturity check at each treatment or when patient reports a change.
- Reinforce to patient the importance of daily fistula checks.
- Listen to the patient.

Look

Listen

Feel

Arm Elevation test (AVF Only)

Dialysis Professional

"Ready, Set, Go" The Steps to Catheter Freedom
Week 4: Fistula Maturity Check

- Perform fistula maturity check at each treatment or when patient reports a change.
- Reinforce to patient the importance of daily fistula checks.
- Listen to the patient.

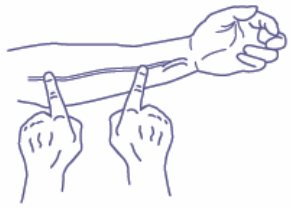
Look

Listen

Feel

Arm Elevation test (AVF Only)

Augmentation Test



Perform once.
If normal, no need to repeat.

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"Ready, Set, Go" The Steps to Catheter Freedom
Weeks 5-6: Fistula Maturity Check

- Perform fistula maturity check at each treatment or when patient reports a change.
- Reinforce to patient the importance of daily fistula checks.
- Listen to the patient.

Look

Listen

Feel

Arm Elevation test (AVF Only)

Dialysis Professional

"Ready, Set, Go" The Steps to Catheter Freedom
Weeks 7-10: Fistula Maturity Check

- Perform fistula maturity check at each treatment or when patient reports a change.
- Reinforce to patient the importance of daily fistula checks.
- Listen to the patient.

Look

Listen

Feel

Arm Elevation test (AVF Only)

Lifeline for a Lifetime:

Planning for Your Vascular Access

ESRD NCC NATIONAL COORDINATING CENTER

www.esrdncc.org

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Vascular Access Planning Guide for Professionals

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BRS VASCULAR ACCESS Special Interest Group

Clinical Practice Recommendations for the Use of Buttonhole Cannulation for Arteriovenous (AV)Fistulae

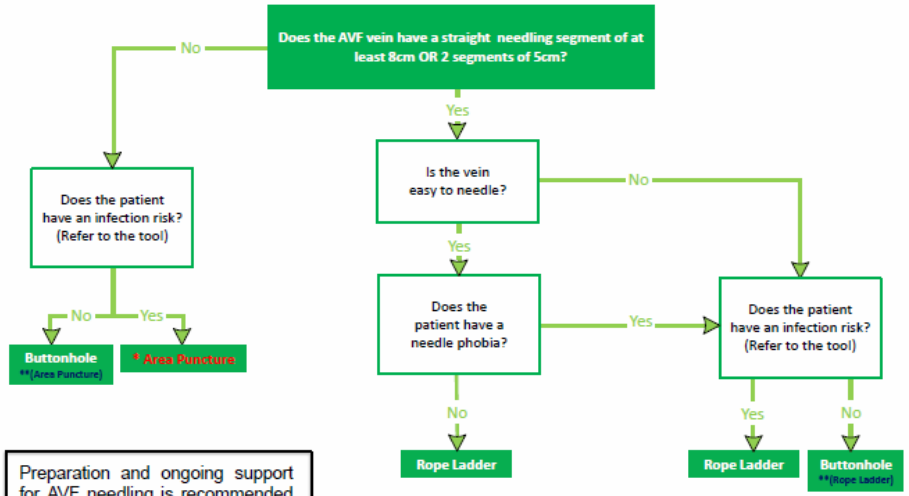
Recommendations for Managing Life Threatening Haemorrhage from AV Fistulae and Grafts.

https://britishrenal.org/aboutus/special-interest-groups/

NEEDLING DECISION MAKING MODEL

This tool has been developed to help haemodialysis nurses and patients decide which needling technique is best for each individual arteriovenous fistula (AVF). However, this assessment will be unique and individual to each patient, so you will still need to apply clinical judgement. You may diverge from the decision making aid, so consider how your clinical expertise can justify this divergence. In particular, patient's who self needle their AVF may prefer to use buttonhole needling technique, although this will still be related to personal consideration.

Arteriovenous grafts (AVG) are not included in this model. AVG always have a long, straight needling segment, so should automatically undergo rope ladder needling.



Preparation and ongoing support for AVF needling is recommended in all age groups. Coping techniques such as relaxation, distraction and play therapy should be considered.

* BRS and VASBI do not recommend area puncture. If this assessment results in area puncture, please refer to the 'Area Puncture Action Chart.'

** If your unit does not use buttonhole, then you will need defer to the technique in brackets in the relevant box.

Infection Risk Screening Tool		
Criteria present: (Please tick)	Yes	No
Metallic Heart Valve		
Pacemaker		
Previous MSSA/MRSA bacteraemia		
Previous endocarditis		
Significant structural valvular heart disease		
MSSA / MRSA positive		
Mupirocin resistant MSSA		
Skin disorders causing itching or skin breakdown around cannulation sites		
Poor adherence to hygiene protocols		
Clinical Judgement/Other Considerations:		
On the basis of the above, this patient is / is not (delete as applicable) suitable for using buttonhole needling technique.		

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Please complete before each needle insertion. Document any abnormal findings with action taken, in detail in the normal nursing documentation.

Date	**AVF Score (0-3)**	**Aneurysm** Present – Y/N	**Bruit** Normal (N) / Abnormal (A) / Absent (NIL)	**Thrill** Normal (N) / Abnormal (A) / Absent (NIL)	**Feel** Soft (S) / Hard (H)	**Safe to Use** Y / N	**Initials**

BLEEDING FROM A DIALYSIS FISTULA

A FISTULA OR GRAFT CAN BE IN THE

ARM OR LEG

SPONTANEOUS BLEEDING WILL RECUR

IMMEDIATE RESPONSE IS NEEDED

ADMIT AND REFER TO RENAL CONSULTANT OR VASCULAR ACCESS SURGEON

AREA PUNCTURE ACTION CHART

This tool has been developed to summarise the potential actions to take when area puncture needling has been implement on an AVF or AVG. This summarises the actions recommended in the BRS / VASBI Clinical Practice Recommendations for Needling of Arteriovenous Fistulae and Grafts.

Identify area puncture is in use on one or both cannulation sites
Needling sites on same segment of vein and cover less than 8cm on same needling segment
OR
Needling sites are on separate segments and one site covers less than 5cm

Can rope ladder or buttonhole technique be used?
(Use AVF Needling Decision Making Model for AVF)

No

Yes

Explain to patient alternative needling techniques.
Include the risks of area puncture and advantages of buttonhole or rope ladder.

Does the patient agree to rope ladder or buttonhole technique?

No

Yes

Explore reasons for refusal

Is this this due to pain or anxiety?

No

Yes

- Consider use of distraction / play therapy to improve needling experience
- Educate patient about signs of complications related to area puncture
- Review needling options with patient, following an agreed time

Does the patient agree to rope ladder or buttonhole technique?

No

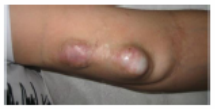
Yes

Area Puncture

- **Refer to vascular team to explore alternatives**
- **Increase surveillance for complications related to area puncture**
- **Educate patient about signs of complications related to area puncture**
- **Review options with patient, following an agreed time**
- **Document risk assessment and rationale for use of area puncture**

Rope Ladder or Buttonhole

- **Educate staff about use of rope ladder / buttonhole**
- **Document cannulation plan for future cannulations**
- **Consider use of distraction or play therapy to improve cannulation experience**



Complications associated with area puncture include:

- Increased aneurysm development, with / without associated tortuosity
- Increased development of stenosis and related AVF thrombosis
- Reduced skin integrity, leading to increased risk of life-threatening bleed

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Arteriovenous Fistula/Graft (AVF/AVG) Pre-Needling Assessment Tool

Signs and symptoms	Score	Actions
○ No scabs larger than the needle sites ○ No pain or new swelling ○ No necrosed areas ○ No aneurysms ○ No erythema ○ Normal bruit / thrill ○ No hardness over AVF/AVG	0	No action required Safe to needle
❖ No pain or new swelling ❖ No necrosed areas ❖ No scabs larger than the needle sites ❖ No erythema ❖ Normal bruit / thrill ❖ No hardness over AVF/AVG ❖ Aneurysms present and stable ○ Not increasing in size ○ Skin not shiny or thin over aneurysms	1	Monitor Consider photograph AVF/AVG for reference Document aneurysm size, by measuring arm diameter at aneurysm and position Safe to insert needles
• No necrosed areas • No scabs larger than needle sites anywhere on fistula Any of the following ○ Pain or discomfort to any area on the AVF/AVG ○ Aneurysms increasing in size or pulsating ○ New aneurysms ○ Thin and shiny skin around AVF/AVG ○ Whistling bruit on auscultation ○ Non-needling segments hard on palpation ○ Bleeding around needle site during dialysis ○ Extended post dialysis bleeding >20minutes ○ Erythema >3mm anywhere on the AVF/AVG	2	Refer to Vascular Access Team Previous actions and Patient information given on actions and escalation if fistula bleeds at home Review individual's antiplatelet and anticoagulation prescription Consider swabbing erythema Lift arm above head, to assess whether aneurysm(s) drain
Any of previous signs with any of the following: ❖ Pain / swelling to AVF/AVG ❖ Necrosed area on AVF/AVG ❖ Patient reports sites bleed at home ❖ Scabs at needle sites or elsewhere >3mm ❖ Absent or changed thrill on palpation ❖ Absent bruit on auscultation ❖ Needling segments hard on palpation ❖ Oozing (pus) from red/inflamed areas ❖ Erythema increased in size	3	Do not needle Urgently refer to Renal / Vascular Team Keep patient in department Previous actions and Swab pus / erythema Take blood cultures if erythema or pus present Take U&Es

Endorsed by RA/BRS Patient Safety

I HAVE A DIALYSIS FISTULA OR GRAFT

IN CASE OF BLEED

1. Shout for help. Dial 999 (don't delay) and state "Bleed from dialysis fistula"
2. Apply firm pressure directly over bleed site. You can use thumb or bottle top (hollow side) to localise pressure. Do not use large absorbent item which disperses pressure such as a towel
3. If bleeding not controlled lie down and ask someone to help lift up limb affected
4. If bleed stops still attend hospital to be seen by fistula surgeon or kidney doctor

CARE OF DIALYSIS FISTULA (AVF) OR GRAFT (AVG)

- Check the buzz or blood flow in your fistula daily. If you cannot feel the buzz or flow immediately call the telephone number written below
- Avoid tight cuffs, sleeves or bracelets that might obstruct blood flow in the fistula.
- Don't carry heavy objects on your fistula arm
- Avoid injury to fistula arm
- Don't allow anyone to take blood or BP from your AVF/AVG arm
- Report scabs, infection or any unexpected bleed from AVF/AVG to your dialysis unit

IN EMERGENCY SEE OVERLEAF

PHONE: .....

Vascular Access Society of Britain and Ireland VASBI

BRS British Renal Society Multi-professional working


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&
A