

Fistula First



TIME REQUIRED

45 minutes

(1 hour with optional activity; additional 10 minutes if optional pre-test and post-tests are conducted)



PREPARATION/MATERIALS NEEDED

- Set up training space. The training room can be set up in many different ways. The recommended arrangement is a circle or a U shape so that participants can see and interact with one another.
- Pens, pencils, paper for participants.
- Name tags.
- Handouts: *Infection Rates by Type of Access, What You Can Do To Encourage AVF as the Primary Access* and *Picture of a Fistula*
- Blank flip chart for taking group notes. If no flip chart is available, then use blank 8 ½ x 11 inch paper or a dry erase board.
- Prepare and post the following information well before the participants enter the room (see diagram below):
 - ◆ Module title
 - ◆ Purpose of training
 - ◆ Learning activities, including definitions, benefits to staff and patients, and group discussions

Fistula First

Purpose: To provide you with an opportunity to understand the benefits of AVFs, how to care for and cannulate them, as well as steps you can take to educate and encourage patients to request this type of access.

Learning Activities

Benefits:

Staff:

Patients:

Learning Activities

Caring for an AVF

Maximizing AVF as a primary access

Infection control

Correct Way to Cannulate

- ❑ Optional: A practice arm for cannulation.
- ❑ Optional: Photocopy pre/post-tests; 2 copies per participant.

Welcome and Statement of Purpose

(5 minutes)

Trainer states out loud:

Welcome to the training on AV Fistula. You'll see here that I've written the purpose of today's training on the flip chart.

Trainer notes printed in italics

The purpose of the training is to provide you with an opportunity to understand the benefits of AVFs, how to care for and cannulate them, as well as steps you can take to educate and encourage patients to request this type of access.

Optional: Pre-test

(5 minutes)

Hand out 1 pre-test sheet per participant. Explain that this pre-test will allow you to assess whether the training is successful. Allow participants to work for a few minutes. Collect all sheets.

What Is an AV Fistula?

(5 minutes)

Trainer states out loud:

*Let's start by asking you to **describe** an AVF. I'll post your comments on the flip chart.*



Listen for, and post, the following answers:

- ◆ An access that is made by joining an artery and a vein.
- ◆ A type of access that diverts the arterial blood flow from one point in the patient's arm through a vein in the arm.

If participants need help coming up with the correct answers, the trainer should define/describe AVF as above, and then continue.

Benefits of an AV Fistula

(5 minutes)

Trainer states out loud:

*Next, let's look at the **benefits of an AVF**. There are benefits that you, as staff, can gain from increasing your knowledge of AVFs and promoting this access to patients. I've posted some of them on the flip chart. So let's review them together:*

- ↪ *There is a lower complication (infection, clotting) rate associated with an AVF. This means fewer hospitalizations and procedures for vascular access complications, which in turn saves money.*
- ↪ *Renal care literature reports that AV fistulas are effective 75% of the time. But remember, none of the access types are 100% problem free; 25% of fistulae and 50% of grafts can be expected to clot annually—and catheters have the highest complication and failure rate of all access types. But an AVF will last longer than grafts or catheters.*
- ↪ *Successful cannulation can mean less time spent having the dialysis treatment.*

Can you all think of any other benefits we should post on this list?



Post any additional benefits that participants suggest, and then continue.

Trainer states out loud:

*That's a pretty good list! We also know that there are **benefits of AVFs for patients**. I've already posted a couple of possibilities on the flip chart. Let's review them together:*

- ↪ *Successful cannulation may mean a better blood flow.*
- ↪ *Patients will have nothing artificial or synthetic in their body. The AV fistula uses the patient's own artery and vein.*
- ↪ *There may be a decreased amount of infections and hospitalizations for the patient.*

What additional benefits of AV fistula for patients can you think of?



Post any additional benefits that participants suggest, and then continue.

Caring for an AVF

(10 minutes)

Trainer states out loud:

Now that we've discussed benefits of an AVF for both patients and staff, I'd like to ask you, "How many of you care for patients with an AVF?"



Post number on the flip chart, then continue.

Trainer states out loud:

How many of you care for patients on dialysis who don't have an AVF?



Post number on the flip chart and continue.

Trainer states out loud:

*It looks like we have a variety of experiences with AVF and other kinds of access. Since this in-service focuses on AVF, let's take a few minutes to talk about **the care of an AVF**. I've posted the main points of care here on the flip chart. Let's review them together:*

- ↪ Monitor site for signs or symptoms of infection such as redness, warmth, drainage, bumps or pimple-like area on any part of your access. Patients are knowledgeable about proper infection control techniques, so this makes it even more important to use them when providing care.*
- ↪ Rotate needle sites, except when trying to buttonhole, when cannulating for dialysis treatment.*
- ↪ Keep site clean and dry between treatments.*
- ↪ Instruct patient to check the blood flow once each day by feeling for a vibration or thrill. They should contact their doctor or the dialysis center if they do not feel this.*

↳ *Instruct patient not to wear tight clothes or jewelry on their access arm, not carry anything heavy, or do anything that would put pressure on the access. Do not let anyone use a blood pressure cuff or draw blood from his or her access arm because this could increase the pressure in the graft or cause unnecessary bleeding.*

↳ *Be sure to apply gentle pressure to the site after the needle is removed. Too much pressure will stop the flow of blood through the access.*



Pass out handout on ***Infection Rates by Type of Access.***

Learning Activities

(10 min)



There are **3 learning activities** and **1 optional activity**:

Learning activity 1: Talking to Our Patients About Caring for an AVF

Learning activity 2: What Professionals Can Do to Maximize AVF as Primary Access

Learning activity 3: What Staff Needs to Know Regarding Infection Control

Optional activity 1: The Correct Way to Cannulate an AVF

Cover all 3 of them. If you have the time and resources (a practice arm), cover the optional activity.

Trainer states out loud:

*Let's take a few minutes to practice talking to our patients about **caring for their AVFs**. Go ahead and pair up into teams of two. One of you will be the patient, and the other the staff member. **Staff members**, you're going to approach the patient just like you work with patients on your unit. Using the **Caring for an AVF** list that's posted on the flip chart, take a few minutes to teach your patient how to care for their AVFs. You'll need to go over with them what they do daily and what they do before and after dialysis.*

***Patients**, you're going to pay close attention to how the staff member interacts with you. You'll report back to the group on:*

↳ *How they spoke to you*

↳ *What they said to you*

↳ *How they said it*



Pay close attention to how the staff members interact with their patients. Call time in 3 or 4 minutes.

Trainer states out loud:

*Let's return to our large group and discuss how the discussion went. I'm very interested in hearing from our **patients**. What did the staff person do to make you feel well cared for? What did you like about the interaction with your technician? What could they have done differently? How could the interaction be improved?*



Let the "staff" and "patients" talk about their interaction and post appropriate comments on the flip chart. Continue to the next Learning Activity.

Trainer states out loud:

*We all have a role in providing quality vascular access services. Now let's take a look at the handout that I'm passing around. It's called **What You Can Do to Encourage AVF as the Primary Access**. Using the handout, let's take a moment to discuss what technicians and nurses can do to maximize the use of an AVF.*



Listen and post the 4 points listed on the handout.

Trainer states out loud:

Right, there is a lot that technicians and nurses can do to maximize the use of AVF. How does our role differ from other health care professionals? How does our role complement other health care professionals?



Post comments on the flip chart and then lead into the next activity.

Trainer states out loud:

*You all did a great job with this discussion. Now, let's talk for a few minutes about **infection control** as it relates to our patients' access sites. Can anyone tell me what infection control is? What does it mean if I say, "Clean technique?"*



Listen and post points on the flip chart such as:

- ◆ Keeping the site clean, but not necessarily sterile
- ◆ Using soap and water
- ◆ Reducing microorganisms through basic measures such as keeping the work area clean and washing hands
- ◆ Using gloves

Trainer states out loud:

Those are all good answers. Now, let's talk now about using standard precautions to reduce the risk of infection at your patient's access sites. Please remember that your patients are very knowledgeable about proper infection control techniques, so it's important that you always use them. Let's discuss steps that you can take to prevent infection.



Listen and post points on the flip chart such as:

- ◆ Wash your hands frequently, and always after touching equipment and between patients
- ◆ Assess skin above the access for signs of infection
- ◆ Teach patients to clean the access site with antibacterial soap (or your facility's preferred product) before dialysis needles are inserted
- ◆ Do not touch the puncture site with your fingers after disinfecting the skin. If it is touched, re-prepare the site.
- ◆ Follow the unit's protocol for needle insertion
- ◆ Rotate needle sites, unless using the buttonhole technique
- ◆ Use only sterilized dialysis equipment

Trainer states out loud:

Other than what we have listed here, are there any other thoughts? Great job, everyone.



If there are no other comments, lead into the Optional Activity, if time and resources permit. If not, proceed to the Wrap-up.

Optional Activity

(15 min)

Be prepared with a “practice arm” (if your unit has one). If not, ask a person in the training to volunteer to be a patient and use his or her arm for demonstration.

Trainer states out loud:

*Another important component of this training is to demonstrate **the correct way to cannulate an AVF**. Today, we’re going to practice with a [practice arm or volunteer.]*

NOTE TO THE TRAINER



Talk through possible problems participants may encounter, such as signs/symptoms of infection and occlusion. Then discuss cannulation and the importance of rotating needle sites, unless using the buttonhole technique. After staff watches the demonstration, have them pair up and practice the same exercises on the practice arm. Discuss any comments, questions or problems after everyone has had a chance to practice.

Resources/Wrap-up/Questions

(5 minutes)

Trainer states out loud:

You all did a great job on these learning activities! Before we finish, do you have any questions or comments about this in-service?



Answer any questions and acknowledge comments.

Trainer states out loud:

I want to thank you all for coming to the training today. You did a great job. I’m also passing out some more information on AVF that you can take home.



Additional resources to use as handouts are found at the back of this Module.

Optional: Post-test

(5 minutes)

Hand out 1 post-test sheet per participant. Allow participants to work for a few minutes. Collect all sheets.

Want More Information?

Here are some resources to help you adapt this training module to your facility's circumstances or to share with your staff.

Articles

- ◆ "CMS-Directed Initiative to Focus on Increasing Fistula Rate," *Nephrology News & Issues*, August 2003, pages 36-37.
- ◆ "NKF/DOQI Clinical Practice Guidelines 2000 Update," *American Journal of Kidney Diseases*, 37(1), January 2000, pages S141-S149.
- ◆ AMGEN, *Core Curriculum for the Dialysis Technician*, Second Edition, 2001.
- ◆ National Kidney Foundation, "NKF-DOQI Clinical Practice Guidelines for Vascular Access-Quick Reference Handbook," Order from 1-800-622-9012.

Web sites

- ◆ National Kidney Foundation www.kidney.org/general/atoz/

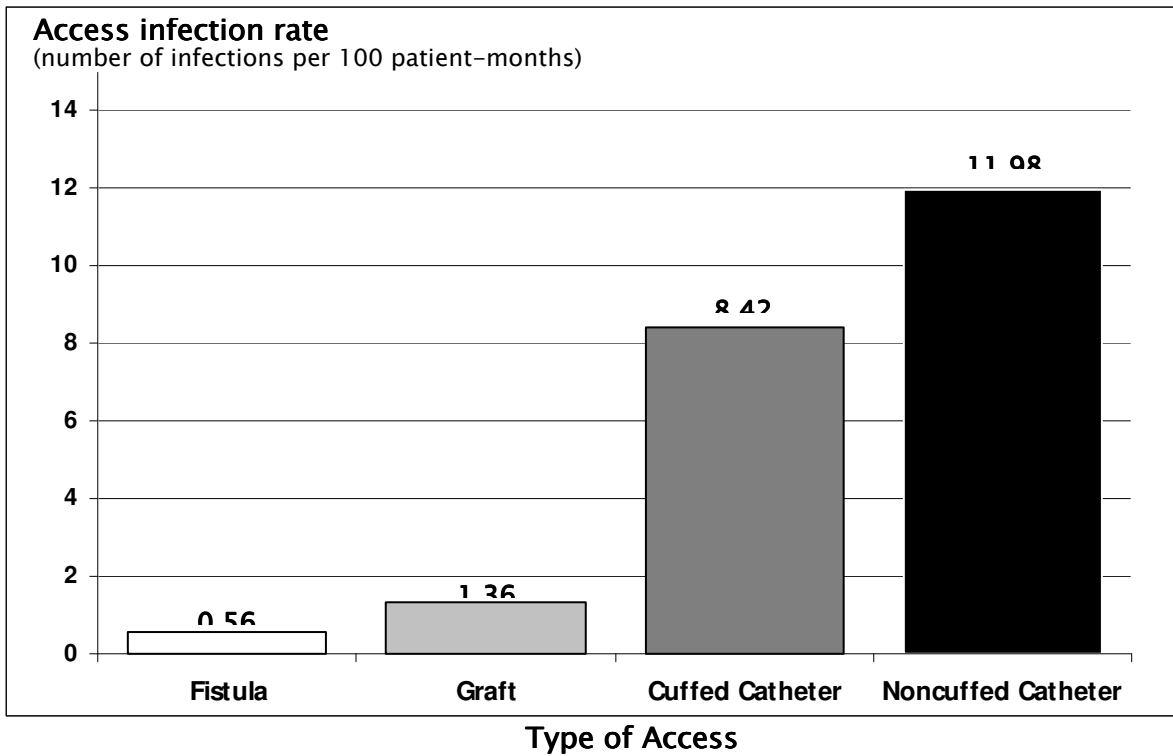
Videos

- ◆ PRO-West, "Reducing Rates of Vascular Access Infections in Patients Undergoing Hemodialysis." Order from 1-800-369-MEDI; no cost to Medisystems customers.

Additional resources

- ◆ Speak with a surgeon from your unit to provide an in-service for staff on the unit.
- ◆ Speak with a hospital access coordinator to discuss issues or to provide an in-service for staff on the unit.

Infection Rates by Type of Access



What You Can Do to Encourage AVF as the Primary Access

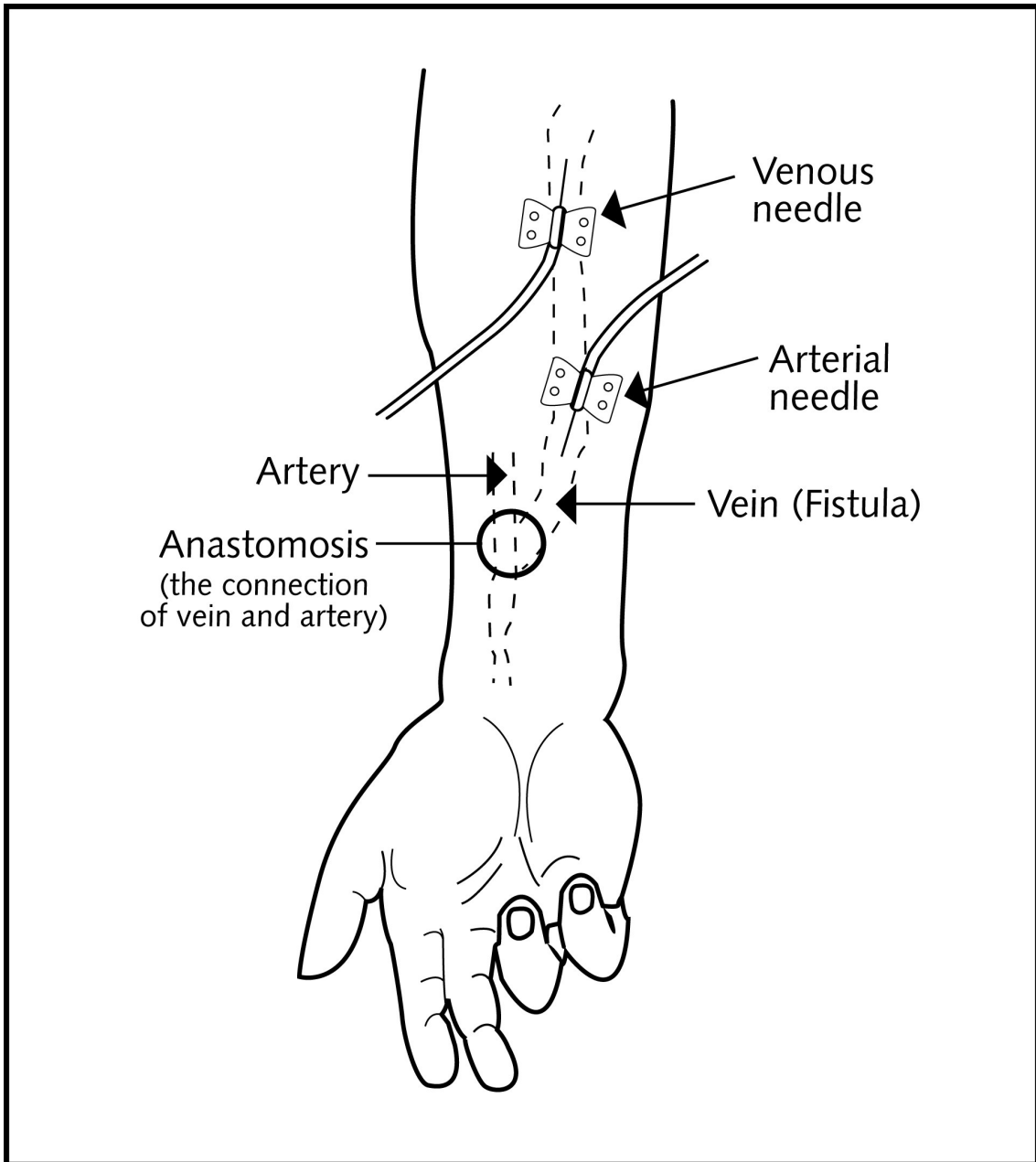
Each staff member in a dialysis facility has a specific role and set of responsibilities in ensuring that ESRD patients are provided with quality vascular access services.

Below you will see four things YOU can do, as the technician, to maximize AVF as the primary access:



- ◆ Educate patients on ways to increase access longevity, such as proper care (monitoring the site for signs or symptoms of infection, rotating needle sites, keeping site clean and dry between treatments, instructing patient to check the blood flow once each day, instructing patient not to wear tight clothes or jewelry, not to carry anything heavy and not to allow a blood pressure to be taken on their access arm and to apply gentle pressure to the site after the needle is removed) and infection control measures (washing hands frequently, assessing skin above the access for signs of infection, teaching patient to clean the access site with antibacterial soap, not touching the puncture site with your fingers after disinfecting the skin, following the unit's protocol for needle insertion, rotating needle sites and using sterilized dialysis equipment).
- ◆ Rotate needle cannulation sites, unless using buttonhole technique
- ◆ Use cannulation experts for new AVFs
- ◆ Routinely monitor access sites for stenosis and complications, and report any abnormalities to the nurse

Picture of a Fistula



Pre/Post-test

Name:

Title:

Today's date:

Today's session: **Fistula First**

Goal:

This module provides patient care staff with an understanding of the benefits of AVFs and tips for helping patients care for their AVFs.

Objectives:

- List three reasons why an AVF is preferable over a graft or catheter.
- Demonstrate, through role-playing, three ways to care for an AVF.
- Describe, in a group setting, how to educate patients on care of their AVF.
- Demonstrate, through return demonstration, proper cannulation technique (optional activity).

Directions: Please circle your responses. There is one correct answer for each question.

Questions:

1. Examples of benefits of AVFs include:
 - a. Higher complication rate, as compared to grafts and catheters
 - b. Fewer hospitalizations and procedures for vascular access complications
 - c. Ability to last longer than grafts or catheters
 - d. b and c
 - e. a and b
 - f. None of the above

2. AVFs have a higher rate of infection than catheters and grafts.
 - a. True
 - b. False

3. As a staff member at a dialysis facility, you can teach patients about ways to reduce the risk of infection at access sites by telling them to:
 - a. Clean the access site with antibacterial soap (or your facility's preferred product) before dialysis needles are inserted
 - b. Be sure that staff wash their hands frequently and always after touching equipment and between patients
 - c. Not touch the puncture site with their fingers after disinfecting the skin
 - d. All of the above
 - e. None of the above

4. All of the following are correct ways to care for an AVF *except*:
 - a. Keeping the site clean and dry
 - b. Checking the access for blood flow once a week
 - c. Taking a blood pressure or a blood draw from the arm that does not have the access
 - d. Applying very firm pressure to the site after the needle is removed
 - e. b and d
 - f. None of the above

Optional Question, if optional activity on cannulation was performed.

1. When cannulating an AVF, it is important to:
 - a. Check the site for signs and symptoms of infection
 - b. Force the entry of the needle if resistance is met
 - c. Rotate needle sites, unless using the buttonhole technique
 - d. a and b
 - e. a and c
 - f. None of the above

Developed by Mid-Atlantic Renal Coalition (contract number 500-03-NW05) and Academy for Educational Development
with funding from the Centers for Medicare & Medicaid Services
Revised September 2004

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Available on-line at <http://www.esrdnet5.org/in-service.asp>