



The Renal Network, Inc.

The Cannulation Workshop



Training Guide

The Cannulation Workshop Training Guide

A Resource for Staff Training and Education

Cannulation Simulation Laboratory Design

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Acknowledgements

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Thank you to all the Network staff who contributed to the writing of this booklet.

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Introduction

This guide is part of the Cannulation Workshop Training Kit which brings together three new resources to assist dialysis educators in developing an in-house training program for facility staff on vascular access cannulation.

1. The Cannulation Workshop DVD contains four video segments. The first three segments are lecture presentations including:
 - An anatomy/physiology presentation by a physician.
 - An access assessment presentation by a nurse.
 - A patient/staff communication model presented by a nurse.

These presentations are part of a laboratory-style cannulation simulation workshop developed by The Renal Network, Inc.

The fourth video segment is the set-up demonstration for the cannulation laboratory stations. The cannulation simulation offers a unique hands-on method for training in the placement of access needles and fistula assessment by providing the opportunity to practice puncturing collapsible structures similar to the native fistula.

2. A Cannulation Workshop Resource CD-ROM contains PowerPoint slides of the workshop presentations, sample protocols and articles on cannulation techniques and vascular access assessment and management.
3. The Cannulation Workshop Training Guide offers program modules based on the original workshop. These modules can be used as templates in the development of your own training program. In addition, this guide offers some general information on how adults learn and provides practical tips for making the environment conducive to learning. A sample program evaluation and a resource list are also included.

Please keep in mind that this is just a guide; it can be altered and changed to suit the needs of your dialysis facility or corporate education program. In addition, you may want to include your own facility cannulation tools and resources, and reference these throughout the training program.

Section 1: Program Development

As you begin to plan your program, consider the following:

- A. Identify the goals of your workshop before you begin developing the agenda to ensure that your workshop is as focused as possible.

The goal of The Renal Network's Cannulation Workshop is to create and promote a baseline of knowledge regarding expert cannulation techniques and access preservation, monitoring, and maintenance. The specific objective of the workshop is to prepare hemodialysis staff trainees in hemodialysis access assessment and cannulation, and to reinforce cannulation skills in veteran hemodialysis staff members.

- B. Identify which modules you will need to meet your identified goals.

Each module is designed to take the learner through the cannulation process in a step-by-step fashion. The modules include a topic discussion, video presentation, resources and tools, suggested readings, and an option to invite guest speakers.

- C. Set the length of time available for a workshop. Will you need a single-day or multiple-day format?

The whole cannulation program, as outlined, can be delivered in a four- to five-hour time frame. The single-day program agenda provided lists all of the program modules of the cannulation training and gives an approximate time frame for the delivery of each topic. If you are unable to devote four to five hours to a workshop or prefer to present the program in shorter segments over several days, the individual program modules may be used as stand alone workshops.

This program-module approach provides you with flexibility in setting the length of the program and the amount of information provided in each session. Select only the modules that you will need. Feel free to expand or substitute the content of a module with materials that address specific challenges or conditions in your dialysis or corporate structure.

Section 1: Program Development continued

D. Select your program modules* and set your agenda.

Session One: Fistula 101

Fistula 101 discusses “What is a fistula?” and “Why is it the access of choice?” Topics include a detailed anatomical and physiological overview of the fistula including evaluation, assessment and management of the new and mature fistula, fistula problems and how to handle fistula failure.

Session Two: Fistula Assessment and Cannulation

Fistula assessment, before and after cannulation, will be discussed from a direct care practitioner’s perspective. Appropriate cannulation techniques and troubleshooting are also discussed.

Session Three: Positive Fistula Communication

Addressing patient concerns and misconceptions about fistula placement, evaluation and maintenance is critical to vascular access management. This session presents suggested responses and encouraging comments designed to assist staff in being positive in their approach to patient concerns.

Each of the above sessions will be structured with a) objectives for the session, b) session topics, c) the presentation and handouts related to the session, d) discussion points, e) suggested readings, and f) tips for the educator.

Session Four: Cannulation Lab

Practice needle placement using the cannulation simulation stations.

Facilitators will need to review *The Cannulation Lab Preparation Procedure* included in this training guide. This section provides a list of the equipment needed to create the cannulation laboratory-style simulation station and the procedure for set-up of the station. A video of the set-up procedure is also presented on the Cannulation Workshop DVD.

* See Multiple Day Program (Section 2) sessions for specific program module details.

Section 1: Program Development continued

- E. Identify your facilitators/patient panel/discussion leaders/local experts as needed. (Some parts of the workshop program are discretionary.)

Patient Panel

The development of a patient panel works best when the patients invited reflect the diversity of the local population. Also the patients selected should have a range of access types representing the problems and successes that staff face on a day-to-day basis. Most patients are comfortable telling their stories, but it is important to let each patient know exactly what aspect of the story you would like them to tell. Give them questions to use as prompts. For example:

1. What concerns did you have about getting a fistula?
2. How did you overcome your fears?
3. How did staff help you?

Let patients know how much time they have to speak individually and as a group. You may wish to let each patient take a few moments to tell their story and then ask questions to which they all respond. Questions may come from the moderator or from the participants.

Local Speakers

You may wish to use local speakers either to make a presentation or to lead a discussion on a selected topic. When selecting a local speaker it is important to share your goals for the training program and discuss the specific themes or issues you would like to address. Using an outside speaker may be especially important when you want to introduce new techniques or methods. There are times when “one of your own” may be capable of doing the job but may find it difficult to be “a prophet in their own house.”

Talking Points

Talking points make it easier to summarize the main points in your training program. Outlining talking points makes it easier to facilitate a discussion and respond to questions when the opportunity presents itself.

Additional Reading Materials

Add additional resources to any section of the training program you may wish to emphasize or develop further.

Section 2: Program Modules

*Single-Day Program**

| | | |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <u>Fistula 101</u> | I. “Cannulation Techniques for Arteriovenous Fistulae” presented by Dr. Gordon McLennan (Cannulation Workshop DVD - Chapter 1) | approximately 45 minutes |
| | II. Continued AVF Overview discussion | approximately 30 minutes |
| | III. Optional Q&A with Interventional Radiologist | approximately 30 minutes |
| <u>Assessment /Evaluation</u> | IV. “Internal A-V Access Assessment” presented by Catherine Colombo, RN, CNN (Cannulation Workshop DVD - Chapter 2) | approximately 30 minutes |
| | V. Continued Access Assessment discussion | approximately 30 minutes |
| | VI. Patient Experience with Guest AVF Patient for “hands-on” assessment and Q&A | approximately 30 minutes |
| <u>Communication</u> | VII. “Is Your Access Language a Barrier?” presented by Catherine Colombo, RN, CNN (Cannulation Workshop DVD - Chapter 3) | approximately 15 minutes |
| | VIII. Group discussion: “How would you respond to these statements?” | approximately 15 minutes |
| <u>Lab Practice</u> | IX. Cannulation Practice – Using laboratory-style cannulation simulation station(s) (Facilitators see Cannulation Workshop DVD - Chapter 4 for simulation station set-up) | approximately 30 to 60 minutes |
| | X. Optional Q&A with Master Cannulator – | approximately 30 minutes |

*See Multiple Day Program sessions for specific program module details.

Section 2: Program Modules continued

Multiple-Day Program

| | |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Session One: Fistula 101 | <p>Session Objectives: At the completion of this session, the learner will be able to:</p> <ul style="list-style-type: none"> • Define a fistula • Explain the importance of a fistula • Discuss the evaluation of a new and/or a matured fistula • Outline specific approaches to deal with/treat fistula failure |
| | <p>Session Topics:</p> <ul style="list-style-type: none"> • What is a fistula? • Fistula evaluation • Approaches to fistula failure |
| | <p>DVD Presentation:</p> <ul style="list-style-type: none"> • “Cannulation Techniques for Arteriovenous Fistulae” presented by Dr. Gordon McLennan • Provide slide handouts for this presentation • Give lecture utilizing Power Point slides versus DVD - optional |
| | <p>Discussion:</p> <ul style="list-style-type: none"> • Present any facility-specific AVF protocols or policies (discussion with nephrologist or nurse educator) • Provide suggested resource tools for this session <ul style="list-style-type: none"> ○ Access Planning Algorithm ○ Peripheral Vascular Anatomical illustrations ○ Vascular diagrams • Optional Q&A with an interventional radiologist |
| | <p>Suggested Readings: (Available on <i>Cannulation Workshop Resource CD-ROM</i>)</p> <ul style="list-style-type: none"> • “A Practitioner’s Resource Guide to Hemodialysis Arteriovenous Fistulas” • “Physical Examination of Dialysis Vascular Access” |
| | <p>Educator Tips:</p> <ul style="list-style-type: none"> • Briefly discuss your objectives for this session • Introduce session topics • If you do not have a sizeable monitor for viewing the DVD in a large group, consider allowing participants to view the presentation individually • The DVD can be stopped and restarted to discuss specific issues within the presentation |

Multiple-Day Program

| | |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Session Two: Fistula Assessment and Cannulation | <p>Session Objectives: At the completion of this session, the learner will be able to:</p> <ul style="list-style-type: none"> • Describe the proper assessment skills needed to ensure the fistula is functioning • Discuss proper cannulation technique |
| | <p>Session Topics:</p> <ul style="list-style-type: none"> • Pre cannulation access assessment • Cannulation technique • Post cannulation access assessment |
| | <p>DVD Presentation:</p> <ul style="list-style-type: none"> • “Internal A-V Access Assessment” presented by Catherine Colombo, RN, CNN • Provide slide handouts for this presentation. • Give lecture utilizing Power Point slides versus DVD - optional |
| | <p>Discussion:</p> <ul style="list-style-type: none"> • Present any facility-specific AVF protocols or policies (discussion with nephrologist or head nurse) • Provide suggested resource tools for this session • Optional Q&A with a Master Cannulator |
| | <p>Suggested Readings: (Available on <i>Cannulation Workshop Resource CD-ROM</i>)</p> <ul style="list-style-type: none"> • “Cannulation Camp: Basic Needle Cannulation Training for Dialysis Staff” • “Solutions for hemodialysis vascular access dysfunction: Thinking out of the box!!” |
| | <p>Educator Tips:</p> <ul style="list-style-type: none"> • Briefly discuss your objectives for this session • Introduce session topics • If you do not have a sizeable monitor for viewing the DVD in a large group, consider allowing participants to view the presentation individually • The DVD can be stopped and restarted to discuss specific issues within the presentation • Invite a patient with an A-V fistula to speak with trainees and provide “hands-on” assessment practice • Have trainee view live cannulation within facility |

Multiple-Day Program

| | |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Session Three: Positive Fistula Communication | <p>Session Objectives: At the completion of this session, the learner will be able to:</p> <ul style="list-style-type: none"> • Discuss specific patient misconceptions concerning AV fistula • Describe positive responses to the most common patient statements regarding AV fistula |
| | <p>Session Topics:</p> <ul style="list-style-type: none"> • Positive patient communication |
| | <p>DVD Presentation:</p> <ul style="list-style-type: none"> • “Is Your Access Language a Barrier?” presented by Catherine Colombo, RN, CNN • Provide slide handouts for this presentation. • Give lecture utilizing Power Point slides versus DVD - optional. |
| | <p>Discussion:</p> <ul style="list-style-type: none"> • Present any facility-specific AVF protocols or policies • Conduct role playing exercise to encourage thoughtful rebuttals to patient negative statements/fears • Reinforce patient vascular access education |
| | <p>Suggested Readings: (Available on <i>Cannulation Workshop Resource CD-ROM</i>)</p> <ul style="list-style-type: none"> • “Ease the Ouch” pamphlet • “Choosing Your Vascular Access” pamphlet • “Access Care: Your Lifeline” brochure |
| | <p>Educator Tips:</p> <ul style="list-style-type: none"> • Briefly discuss your objectives for this session • Introduce session topics • If you do not have a sizeable monitor for viewing the DVD in a large group, consider allowing participants to view the presentation individually • The DVD can be stopped and restarted to discuss specific issues within the presentation |

Multiple-Day Program

| | |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Session 4: Cannulation Practice | <p>Session Objectives: At the completion of this session, the learner will be able to:</p> <ul style="list-style-type: none"> • Demonstrate assessment of the fistula • Perform cannulation using the simulation model |
| | <p>Session Topics:</p> <ul style="list-style-type: none"> • Proper cannulation techniques • Proper care of the fistula |
| | <p>DVD Presentation:</p> <ul style="list-style-type: none"> • Optional presentation of lab set-up to stress utility of model |
| | <p>Slide Presentation: (Optional lecture slides can be used by local speaker and/or handouts may be used by facilitator as talking points for a group discussion.)</p> <ul style="list-style-type: none"> • “AV Fistula Maturation, Cannulation, and Protection” Lesley C. Dinwiddie MSN, RN, FNP, CNN Overview of nephrology caregiver’s role in assessing, cannulating and monitoring AV fistula. |
| | <p>Discussion:</p> <ul style="list-style-type: none"> • Application of facility-specific AVF protocols or policies • Reinforce role of cannulation in dialysis treatment outcomes • Access preservation |
| | <p>Suggested Readings: (Available on <i>Cannulation Workshop Resource CD-ROM</i>)</p> <ul style="list-style-type: none"> • “Cannulation of a New Fistula” • “Use of Clamps on Cannulation Sites Post-Dialysis” procedure • “Improving Arteriovenous Fistula Cannulation Skills” |
| | <p>Educator Tips:</p> <ul style="list-style-type: none"> • Briefly discuss your objectives for this session • Introduce session topics • Consider discussing universal precautions and cleaning techniques with fistula cannulation |

Section 3: Cannulation Lab Preparation Procedure

Equipment:

1. peristaltic pump
2. IV tubing with roller clamp
3. long pointed hemostat for tunneling
4. ½" Penrose drain
5. fluid container
6. food coloring
7. fluid resistant pad
8. gloves
9. fistula needle
10. hand sanitizer
11. apron
12. chicken breast

A video entitled "Cannulation Lab Set-up and Demonstration" presented by Dr. Gordon McLennan is available on the Cannulation Workshop DVD (Chapter 4) for viewing cannulation simulation equipment set-up.

Procedure:

1. Put on gloves.
2. Split the IV tubing, remove the drip chamber, and attach each section to either side of the peristaltic pump.
3. Place the flow control switch on the IV tubing that will be the outflow to the reservoir.
4. Fill reservoir container with colored water.
5. Place a chicken breast on the fluid resistant pad.
6. Using hemostat, tunnel through the chicken breast. The tunnel can be shallow or deep depending on techniques to be taught.
7. When the hemostat is through chicken breast, open the hemostat and clamp the end of a Penrose drain.
8. Pull the Penrose drain back through the chicken breast.
9. Attach each end of the Penrose drain to an open end of the IV tubing attached to the pump. (The Penrose folds over the cut ends of the drip chamber).

Section 3: Cannulation Lab Preparation Procedure continued

10. Run the pump at maximum speed to flush out the air in the system. You will need to elevate the outflow end of the Penrose until the entire Penrose is filled with fluid. Once the entire system into the outflow tubing is filled, you can put the chicken breast down.
11. Adjust the flow control clamp to allow the Penrose to become more or less inflated with fluid providing various degrees of difficulty during cannulation. (When the pump is activated the fluid should pulse through the chicken breast).

You may now instruct your learner on palpation, auscultation, and cannulation. The pump will provide for fluid entry into the fistula needle in the usual way.

Section 4: Training Tips

Adult Learner Principles

This section gives a brief review of how adults learn and discusses how to deal with learners' personality types. Using these principles will increase the amount of information learned and retained.

How Adults Learn

- Adults learn more when they are actively involved in the training process. Provide many opportunities for questions and examples.
- Adults learn better when they can relate the topics to their duties and to their personal experiences. Use examples whenever possible.
- Adults have a tendency not to ask questions. Do not assume the topic is understood because there are no questions; ask questions of the participants when they do not offer their own.
- Adults will learn better if the learning process has both an affective (emotional) as well as cognitive (thinking) component.
- Adults will learn better in an informal environment.

Section 4: Training Tips continues

Dealing with Participants Reactions

Participants may experience difficulties with the introduction of new knowledge and responsibilities especially if it may require changes in their behavior or duties. The following are common reactions. Suggested responses are provided to assist trainers in coping with participant reactions. Create your own list based on your experience.

| REACTION | WHY | WHAT TO DO |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Participants complain about what they have to do differently. | Change usually involves letting go of something they are used to or comfortable with. | Acknowledge difficulty of change without dwelling on it. Be sure to mention benefits of learning new techniques. |
| Some participants are right into it while others are not participating. | People are at different levels of readiness. | Be non-judgmental and accepting. Let the informal leaders in the group help the others along. |
| Participants are negative and don't want to or can't handle the training. | People are concerned that they don't have the resources to do what is expected of them. | Indicate sources of support, resources to call, and reference material. |
| After the course, participants return to the 'status quo' or to the way things were before. | It is normal to revert back to the way things were at the beginning of the change process. | Be aware that relapse is natural. Be there to support staff and check on how they are doing. Solicit their questions and concerns, even long after the course is over. |

Section 4: Training Tips continues

Learning Environment

This section assists in ensuring that the area used for training will be conducive for learning. Making sure the learner is comfortable and the area is free from distraction will enhance the learning experience.

- Be prepared for what will be presented to the learner.
- Arrive before the staff to be trained.
- Secure a comfortable physical setting to encourage learning.
- Make sure equipment, i.e. tables, chairs, lighting, and electrical equipment are in good working order.
- Make sure the temperature of the room is comfortable.
- Make sure the area set aside for learning is free of noise and activity.
- An open, non-judgmental, non-authoritarian setting encourages learning.

Learning Environment Checklist

1. Is the room large enough to accommodate the participants?
2. Is there adequate equipment to view the presentations?
3. Can all participants see the TV?
4. Do all participants have a space for writing?
5. Are the chairs comfortable?
6. Is the environment quiet and free from activity?
7. Is the room temperature comfortable?

Section 5: Program Evaluation

The training guide provides a sample program evaluation so that the trainee can give feedback on the vascular access cannulation training. This information can become very helpful in making sure the training program is teaching what it is supposed to teach and the information is presented in a way that is easily learned. It will also help you make improvements in the program as needed.

If you are using a multiple-day training approach, you may consider modifying the evaluation form so that it reflects the objectives that you set for each segment of the training.

Vascular Access Training Program Evaluation

Please take a few minutes to complete the evaluation of the vascular access training program. The results will be used to improve the program for future trainees.

Name: _____ Training Dates: _____

1. Evaluate the vascular access training program and cannulation simulation in terms of meeting your needs:

____ Excellent. The vascular access training program and cannulation simulation provided all the necessary opportunities for learning and practicing cannulation techniques.

____ Average. The vascular access training program and cannulation simulation provided some of the necessary opportunities for learning and practicing cannulation techniques.

____ Poor. The vascular access training program and cannulation simulation provided none of the necessary opportunities for learning and practicing cannulation techniques.

Comments: _____

2. Evaluate the vascular access training program in terms of meeting session objectives:

____ Excellent. The vascular access training program always met session objectives.

____ Average. The vascular access training program sometimes met session objectives.

____ Poor. The vascular access training program never met session objectives.

Comments: _____

Vascular Access Training Program Evaluation continued

3. Evaluate the educator and vascular access training program in terms of easily incorporating facility specific information into education:

____ Excellent. Facility specific information was always part of the vascular access education.

____ Average. Facility specific information was sometimes part of the vascular access education.

____ Poor. Facility specific information was never part of the vascular access education.

Comments: _____

4. Evaluate the overall quality of the instruction provided by the educator:

____ Excellent

____ Average

____ Poor

Comments: _____

5. How could this vascular access training program and cannulation simulation be improved?

Section 6: Cannulation Workshop Training Kit Feedback Survey

Please take a few minutes to complete the survey below. The results will be used to improve the Cannulation Workshop Training Kit and evaluate the effectiveness of this training material and unique cannulation simulation.

Facility Name: _____

Facility Educator: _____

1. Will you utilize the Cannulation Workshop Training Kit in your facility education program? Yes No

2. Which components of the kit will you most likely use during vascular access training?

Check all that apply

Cannulation Workshop DVD

Cannulation Workshop Simulation

Cannulation Workshop Guide

Articles and resources

All components of the Cannulation Workshop Training Kit

3. Do you consider the cannulation simulation (chicken breast) a functional training technique for your facility vascular access training?

Yes No

4. What improvements would you suggest for the Cannulation Workshop Training Kit?

Please return the above survey to:

The Renal Network, Inc.

911 E. 86th Street, Suite 202

Indianapolis, IN 46240

Or Fax to: 317-257-8291

Section 7: Resources

The following resources are referenced throughout the training modules. For your convenience a copy of each resource has been included as part of the Cannulation Workshop Training Kit in the Resource CD-ROM.

Articles:

“A Practitioner’s Resource Guide to Hemodialysis Arteriovenous Fistulas” by Gerald Beathard, MD, PhD, FACP, FCAP, ESRD Network of Texas, Inc. (2003). Accessed on <http://www.esrdnetwork.org> (December, 2005). This article includes information on types and characteristics of AVF, requirements for an AVF, arterial and venous evaluation of patient prior to AVF placement, maximizing AVF creation, secondary AVF, AVF development, and recommendations for intervening on AVF complications.

“The Buttonhole Technique for Arteriovenous Fistula Cannulation” by Lynda K. Ball, Nephrology Nursing Journal, Vol. 33, No. 3 (May-June 2006). Continuing Education article provides an overview for nephrology nurses performing this technique.

“Cannulation Camp: Basic Needle Cannulation Training for Dialysis Staff” by Deborah J. Brouwer, RN, CNN, Dialysis and Transplantation, Vol. 24, No. 11 (1995). Article provides a basic review of cannulation skills including site identification, blood flow determination and cannulation problem solving.

“Constant Site (Buttonhole) Method of Needle Insertion for Hemodialysis” by Zbylut Twardowski, MD, PhD, FACP, Dialysis and Transplantation, Vol. 24, No.10 (1995).

“Improving Arteriovenous Fistula Cannulation Skills” by Lynda K. Ball, RN, Nephrology Nursing Journal, Vol. 32, No. 6 (November-December 2005). Describes the assessment process for AV Fistula, describes indicators of stenosis, and explains the difference between rope-ladder and buttonhole techniques.

Section 7: Resources continued

“Physical Examination of Dialysis Vascular Access” by Gerald Beathard, MD, PhD, FACP, FCAP, ESRD Network of Texas, Inc. (2003). Accessed on <http://www.esrdnetwork.org> (December, 2005). Details physical examination related to AVF, arterial and venous evaluation of patient prior to AVF placement, evaluation of late AVF problems and physical examination related to AV grafts.

“Solutions for hemodialysis vascular access dysfunction: Thinking out of the box!!” by P. Roy-Chaudhury, M. Melhem, T. Husted, and B.S. Kelly, [The Journal of Vascular Access](#) Vol. 6 (2005). This editorial review will (a) briefly summarize the main problems currently associated with the two permanent forms of dialysis access and (b) identify potential novel solutions and approaches to tackle these problems.

Newsletters:

[Fistula Focus Newsletter](#): This is a newsletter designed by the Quality Improvement Department of The Renal Network, Inc. to share success stories in the area of AV fistula creation and preservation.

Vol.1, No.1 (January, 2006)

Vol. 1, No. 2 (July, 2006)

Patient Education Pamphlets:

[Access Care: Your Lifeline](#): This is a patient education brochure designed by the Patient Advisory Council of The Renal Network, Inc. which includes detailed instruction for care of various vascular accesses.

[Ease the Ouch](#): This is a patient education brochure designed by the Patient Leadership Committee of The Renal Network, Inc. to assist patients and staff with successful cannulation.

[Using the Buttonhole Technique for Your AV Fistula Brochure](#): This patient education brochure was designed by the Northwest Renal Network (ESRD Network 16) to provide patients with a basic overview of the buttonhole techniques.

Section 7: Resources continued

Choosing Your Vascular Access: This brochure was developed by the Southeastern Kidney Council (ESRD Network 6) and adapted and reprinted with their permission. It provides an overview of why it is important to choose AV fistulas.

Presentations:

“AV Fistula Maturation, Cannulation, and Protection”

Lesley C. Dinwiddie MSN, RN, FNP, CNN

(This presentation is available on the *Resources CD-ROM* only.)

- Slides
- Slides (handout format)

“Cannulation Techniques for Arteriovenous Fistulae”

Gordon McLennan, MD

- Slides
- Slides (handout format)

“Internal AV Access Assessment Pre-cannulation”

Catherine Colombo, RN, CNN

- Slides
- Slides (handout format)

“Is Your Access Language a Barrier”

Catherine Colombo, RN, CNN

- Slides
- Slides (handout format)

Section 7: Resources continued

Procedures/Protocols:

“AVF Cannulation Protocol,” developed by Centers for Dialysis Care (2002).

“Cannulation of a New AVF,” developed by the ESRD Network of Texas, Inc. (2003). Accessed on <http://www.esrdnetwork.org> (December, 2005). Procedure describes the recommended steps for cannulation of a new AVF using small gauge needles and low blood flow. The procedure includes step-by-step progression of needle gauge and blood flow as the new AVF matures.

Master Cannulation Policy and Procedures:

- “Staff Rating System for Venipuncture Policy and Procedure,” Developed by ESRD Network 15 and distributed nationally through the Fistula First Breakthrough Initiative (FFBI).
- Policy #1: “Cannulation Skill Levels Policy,” Provided by Renaissance Management Co., LLC.
- Policy #2: “Cannulation and Care of the AV Fistula,” Provided by FMC Peoria (Formerly Midwest Kidney Centers).

“Self-Cannulation of Vascular Access Procedure” Accessed online <http://www.esrdnetwork.org> (December, 2005). Article promotes self-care for those who have mature accesses from the Fistula First Breakthrough Initiative (FFBI) Tools and Resources Sub-committee.

“Secondary AV Fistulas in Patients with AV Grafts,” developed by the ESRD Network of Texas, Inc. (2004). Accessed on <http://www.esrdnetwork.org> (December, 2005). This is an example of a “Sleeves Up” protocol for identifying patients with AV grafts with outflow veins that could be converted into secondary AV fistulas.

“Use of Clamps on Cannulation Sites Post-Dialysis,” developed by the ESRD Network of Texas, Inc. (2003). Accessed on <http://www.esrdnetwork.org> (December, 2005). Guidelines for proper use of clamps on cannulation sites post-dialysis for AV grafts and well-developed AV fistulas. Cautions that clamps should NEVER be used on a new or maturing AV fistula.

Section 7: Resources continued

Vascular Access Tracking Forms/Algorithms:

“Arm Exercises” Pilot program developed by Centers for Dialysis Care includes charts for tracking patient progress.

“Autologous AVF Algorithm,” developed by L. Spergel, MD, VAMP, Fistula First (2005).

“Patient Specific Vascular Access History Form” – Use to document patient’s vascular access history. Distributed nationally through Fistula First.

Order Forms/Information:

- Medisystem Educational Videos
- Simulation Laboratory materials

The Renal Network, Inc.

ESRD Network 9/10

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Web sites:

www.therenalnetwork.org

www.kidneypatientnews.org

CMS contracts HHSM-500-2006-NW 009C
& HHSM-500-2006-NW 010C