Welcome to our Webinar:

Vascular Access Best Practice
Sharing Stories

Thursday, February 10, 2011
1:00 – 2:00 PM EST

Presenters:

Cindy Miller, RN
- The Renal Network

Raynel Wilson, RN
- The Renal Network

Shane Perry
- The Renal Network

Sue Kirschbaum, RN
- The Renal Network

Vickie Colley, RN
- DaVita Columbus West Dialysis

Christine Crafton, RN
- DCI Pennsylvania
House Keeping Notes

All phone lines will be muted through the entire presentation.

“Questions” may be submitted by clicking the Questions Pane, located on your “GoToWebinar Control Panel”.

Questions may also be submitted via email to cmiller@nw10.esrd.net

If you don’t see a “Questions” pane, click [View] and then select “Questions” from the drop down menu.

Click the “+” in the Questions Pane.

Type your question and click [Send to All]
Vascular access Best Practice Stories Webinar

1.2 CEU has been approved through NANT

To receive CEU you must complete the online survey
No Later than February 17, 2011

The link to the survey was emailed to all registrants
https://www.surveymonkey.com/s/MR6XLCN

For questions regarding the survey process or CEUs
contact Cindy Miller at (317)257-8265 or by email
cmiller@nw10.esrd.net
At the end of this webinar attendees will be able to:

- Verbalize the benefit of Best Practice sharing
- Educate other facility staff on available tools and resources to assist with Vascular Access Quality Improvement Processes
- Initiate a new process or add to a current processes to improve Vascular Access outcomes
## Prevalent Fistula Change Rates

<table>
<thead>
<tr>
<th></th>
<th>March 2010</th>
<th>December 2010</th>
<th>Percentage Point Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN</td>
<td>47.9%</td>
<td>50.4%</td>
<td>2.5</td>
</tr>
<tr>
<td>KY</td>
<td>57.9%</td>
<td>61.3%</td>
<td>3.4</td>
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<tr>
<td>OH</td>
<td>50.5%</td>
<td>52.8%</td>
<td>2.3</td>
</tr>
<tr>
<td><strong>Net 9</strong></td>
<td></td>
<td></td>
<td><strong>2.5 (3.0)</strong></td>
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<tr>
<td>IL/Net 10</td>
<td></td>
<td></td>
<td><strong>2.4 (2.4)</strong></td>
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<tr>
<td>DE</td>
<td>63.5%</td>
<td>64.9%</td>
<td>1.4</td>
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<tr>
<td>PA</td>
<td>53.3%</td>
<td>56.4%</td>
<td>3.1</td>
</tr>
<tr>
<td><strong>Net 4</strong></td>
<td></td>
<td></td>
<td><strong>3.0 (2.4)</strong></td>
</tr>
<tr>
<td>US</td>
<td>55.2%</td>
<td>57.4%</td>
<td><strong>2.2 (2.2)</strong></td>
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</table>
### Prevalent Fistula Rates
**March 2010 - December 2010**

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<thead>
<tr>
<th></th>
<th>Mar-10</th>
<th>Dec-10</th>
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<tbody>
<tr>
<td>IN</td>
<td>47.9%</td>
<td>50.4%</td>
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<tr>
<td>Net 9</td>
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<tr>
<td>Net 4</td>
<td>54.1%</td>
<td>57.1%</td>
</tr>
<tr>
<td>US</td>
<td>55.2%</td>
<td>57.4%</td>
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**CMS Goal**: 66%
The 3Ps of Vascular Access Success

Prevent Catheter
Place and Use Fistula
Preserve Fistula

Prevent Catheter
Place and Use Fistula
Preserve Fistula
The “3Ps of Vascular Access Success” handbook was developed in support of our Vascular Access Improvement Initiatives.
The initial purpose of the handbook was to pull together best practices, useful tools, and other resources that currently exist.

- Hard copy
- Downloadable forms
- Excel workbooks

“1-stop shopping”
### Using 3Ps – Getting Started

<table>
<thead>
<tr>
<th>Understand Your Current Population</th>
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<tbody>
<tr>
<td>- <strong>Tool T49</strong>, Page 101</td>
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<tr>
<td>“Vascular Access Data Collection Tool”</td>
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</table>

<table>
<thead>
<tr>
<th>Understand Your Barriers</th>
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<tr>
<td>- <strong>Tool W34</strong></td>
</tr>
<tr>
<td>“QAPI Vascular Access Barriers Questionnaire”</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Seek Best Practices (using handbook)</th>
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<tbody>
<tr>
<td>- Tools available in book and on-line</td>
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</table>

<table>
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<tr>
<th>Use rapid-cycle quality improvement techniques</th>
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<tbody>
<tr>
<td>- <strong>Tool T50</strong>, Page 102</td>
</tr>
<tr>
<td>“PDSA Worksheet”</td>
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</table>
Using 3Ps – Example

“My unit has a lot of catheters, what can I do now?”

Develop a Protocol for Catheter Indications and Removal

Nephrologists should make every effort not to admit "catheter only" patients without a permanent access plan to the clinic. Require "catheter only" patients’ nephrologists to document a plan for permanent access. Once patients arrive in the unit with a catheter only, they become part of the "catheter culture" and it becomes very difficult to counsel them to change.

Recommended tools:
- Vascular Access Poster and Cards (T7, Pages 30-31)
- Catheter Evaluation Tool (T8, Page 32-33)
- Catheter Reduction Tool for Facilities (T9, Page 34)
- Project: Cath-Out (T10, Page 35)
- 90-Day Count Down! Planning for Catheter Removal! (T11, Page 36)
- Catheter Assessment Algorithm (T12, Page 37)
- CVC Management Flowchart (T13, Page 38)
- CVC Tracking Tool (T14, Page 39)
- Reducing CVC Infections Diagram (T20, Page 46)
- Change Concept 7 (T43, Page 95)
- Fistula Fast Track What To Do When Fistula Was Not First (W33)
Using 3Ps – Example

### 90-day Count Down! Planning for Catheter Removal!

Use a form for each catheter patient and review during monthly CQI meetings.

<table>
<thead>
<tr>
<th>Patients Name:</th>
<th>Staff Member Assigned:</th>
<th>Catheter Placement Date:</th>
<th>Planned Catheter Removal Date:</th>
<th>OK (30 days)</th>
<th>CAUTION (31-60 days)</th>
<th>ALERT! (61-90 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Directions:** Select the reason(s) below that best justify the continued use of this catheter and place the corresponding letter in the date column(s) to the right.

A. A new permanent access is maturing (access has not yet been used routinely for dialysis) 
   (Circle) AVF  AVF  Comment:

B. A living donor transplant has been scheduled

C. The patient is PD Training; PD imminent

D. A temporary catheter while patient’s permanent access is revised/declotted to be used again

E. The patient has no other viable sites for a permanent access

F. The patient is not medically suitable at this time for a permanent access
   Comment:

G. Surgery for permanent access has been scheduled within 30 days.
   Access type:
   Hospital:
   Surgeon:
   Date:

H. The patient has a referral scheduled with the surgeon within the next 30 days
   Surgeons Name:
   Appointment Date & Time:

I. The patient had a referral with the surgeon for a permanent access, but failed to keep appointment
   Surgeons Name:
   Reason:
   Was appointment Rescheduled?

J. The patient is a candidate for a permanent access, needs referral and has not yet had one.
   Will Refer to surgeon. (Name):

K. The patient is a candidate for a permanent access and needs referral to surgeon, but refuses to go. The medical director will speak to the patient.

L. The patient is a candidate for a permanent access, but refuses to have a permanent access placed. The medical director will speak to the patient.

M. The patient was not assessed this month (i.e., hospitalized all month or receiving dialysis at other unit). Follow-up Plan:

N. Other:
Using 3Ps – Web-Based Tools Available
“The 3Ps of Vascular Access Success”

Learning Sessions

- September 24, 2010 - Ensuring Vascular Access Outcomes Success - Hyatt Regency Hotel, Rosemont, Illinois
- October 1-2, 2010 - 2010 Cincinnati/Dayton Vascular Access Symposium - Marriott Northwest Conference Center, Cincinnati, Ohio

Handbook Tools

- 3Ps: Grouped Co-Pays (PDF, size: 74 kb)
- 3Ps: QI SAP (PDF, size: 18 kb)
- 3Ps: Vascular Access Form (PDF, size: 7 kb)
- 3Ps: Hemodialysis Access Referral Form (PDF, size: 24 kb)
- 3Ps: Vascular Access Resource Guide (PDF, size: 33 kb)
- 3Ps: Vascular Access Report Card (PDF, size: 64 kb)
- 3Ps: Vascular Access Report Card (PDF, size: 39 kb)
- 3Ps: Vascular Access Report Card (PDF, size: 24 kb)
- 3Ps: Vascular Access Report Card (PDF, size: 60 kb)
- 3Ps: Vascular Access Report Card (PDF, size: 100 kb)
- 3Ps: Vascular Access Report Card (PDF, size: 87 kb)
CMS implemented a high priority goal of 66% AV Fistula Rate across the nation.

WHY?

- 90-day mortality, infections, & hosp rate lowest in patients dialyzing with AVF.
- Hct, ALB, URR highest with AVF access use.
- Total care costs: (USRDS 2007)
  - CVC- $79,364
  - AVG- $72,729
  - AVF- $58,588
Network 4: PA & DE
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Quality Improvement Coordinator
(317) 257-8265
cmiller@nw10.esrd.net
Vascular Access – Creation, Surveillance and Intervention Best Practices

Presented By:
Vickie Colley, Facility Administrator
February, 2011
Conditions for Coverage

• CMS recognizes the vital importance that vascular access plays on adequacy of dialysis and patient’s overall health status.

• “The interdisciplinary team must provide vascular access monitoring and appropriate, timely referrals to achieve and sustain vascular access. The hemodialysis patient must be evaluated for the appropriate vascular access type, taking into consideration co-morbid conditions, other risk factors, and whether the patient is a potential candidate for arteriovenous fistula placement”.

• “If the patient's vascular access is not an arteriovenous fistula, the record should indicate why the patient was determined to not be a candidate for a fistula”.
Team Approach

- Clinical Team takes ownership for Pt education
  - Handouts
  - Demonstration with a catheter
  - Options training supporting PD Modality
- Whole Team communicates a sense of urgency to have a permanent access placed
- New Fistula Assessment and Cannulation Team development
- Nephrologist supports permanent access placement and timely intervention during rounds
**Surveillance**

- Access assessment completed and documented each treatment

- “Free Fistulogram” assessment on AV Fistula
  - Hang extremity down below heart allowing vessel to engorge
  - Raise extremity up above the heart level and vessel should collapse showing good outflow to the heart
  - A vessel that remains engorged indicates a blockage (stenosis)

- Record Venous Dynamic Pressure (VDP) at 200 ml BFR each treatment

- Track and trend VDP monthly

- Monitors “Sleeves Up” monthly for Lower Forearm AV Grafts
Surveillance continued...

“Sleeves Up” Exam...

Outflow vein (cephalic v.) of failing forearm AV graft is suitable for conversion to AVF.
Intervention

- Vessel Mapping (VM) completed on all patients
- Hospitalized New ESRD patients VM completed during hospital admission
- Prompt scheduling of needed interventions at Access Center or with surgeon
- SW follow up to support Patient to keeping appointments
- Tracking of post-procedure reports and kept in an Access Binder for follow up
Relationships

- Open lines of communication between Dialysis Center, Access Center and Surgeon Office
- Work with Surgeons so they better understand the dialysis procedure in relation to vascular access
- Send Thank You notes to Surgeon office letting them know they are appreciated
Celebration

Patient T-Shirts

Cards & Balloons!

Celebrate Your New Access!
You've taken an important step toward better health.

Singing

Celebrating New Access Placement & Catheter Removal
DaVita Grove City AVF Rates March 2010 - December 2010

- Mar-10: 44%
- Apr-10: 50%
- May-10: 56%
- Jun-10: 52%
- Jul-10: 55%
- Aug-10: 56%
- Sep-10: 53%
- Oct-10: 48%
- Nov-10: 40%
- Dec-10: 55%

DaVita Grove City Catheter Rates March 2010 - December 2010

- Mar-10: 44%
- Apr-10: 32%
- May-10: 22%
- Jun-10: 29%
- Jul-10: 25%
- Aug-10: 28%
- Sep-10: 35%
- Oct-10: 35%
- Nov-10: 45%
- Dec-10: 25%
VASCULAR ACCESS SUCCESS

CHRISTINE GRAFTON, RN, CNN DIALYSIS CLINIC, INC.
Vascular Access: Outcomes and Process Goals

2010 TO 2011 > 66% PREVALENT FISTULA USE RATE
Fistula Prevalence Rates, Clinic #1

Year

- Dec. 2008: 63.1%
- Dec. 2009: 67.2%
- Dec. 2010: 80.6%
Fistula Prevalence Rates, Clinic #2

- Dec. 2008: 66.7%
- Dec. 2009: 75.8%
- Dec. 2010: 74.0%
Fistula Prevalence Rates, Clinic #3

<table>
<thead>
<tr>
<th>Year</th>
<th>Treatments with fistula used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 2008</td>
<td>45.7%</td>
</tr>
<tr>
<td>Dec. 2009</td>
<td>51.9%</td>
</tr>
<tr>
<td>Dec. 2010</td>
<td>67.5%</td>
</tr>
</tbody>
</table>
Fistula Prevalence Rates, Clinic #4

- Dec. 2008: 50.1%
- Dec. 2009: 58.6%
- Dec. 2010: 60.6%
Individual Barriers

BARRIERS CAN BE RELATED TO:

- THE LOCATION OF THE UNIT (RURAL VS. URBAN AREAS)
Individual Barriers

- EDUCATIONAL BACKGROUND
- SOCIO-ECONOMIC FACTORS
- LACK OF SUPPORT SYSTEMS/ TRUST DIFFICULTIES
Individual Barriers

- ACTIVE INFECTIONS AT THE START OF DIALYSIS
- FAILED PRIOR ACCESS
The Greatest Barrier or Greatest Success for your unit is...

“THE ACCESS CULTURE OF THE CLINIC”
Positive approach to vascular access by every member of your staff and IDT

CONTINUOUS THEME:

OBTAIN AND MAINTAIN A FUNCTIONAL AVF
Strive for an AVF fistula for every patient

- **FIND WAYS TO REFRESH YOUR STAFF WITH NEW EDUCATION**
Strive for an AVF fistula for every patient

- REFRESH PATIENT EDUCATION WITH
  - Handouts
  - Bulletin boards
  - Games
Strive for an AVF fistula for every patient

- **FOCUS ON CATHETER REMOVAL AT EVERY MONTHLY QAPI MEETING; PROBLEM SOLVING FOR BARRIERS WILL OCCUR**
Strive for an AVF fistula for every patient

- DISCUSS AT EVERY MONTHLY STAFF MEETING; SHARE RESULTS AND ASK FOR INPUT
Strive for an AVF fistula for every patient

- FOCUS ON VASCULAR ACCESS AT EVERY CARE CONFERENCE – THE IDT CAN PROBLEM SOLVE AND OVERCOME INDIVIDUAL PATIENT BARRIERS
Strive for an AVF fistula for every patient

- EVERY MONTHLY PROGRESS NOTE MUST CONTAIN ACCESS PLAN AND PERTINENT INFO ABOUT THE ACCESS
Lessons Learned
Appoint an Access Coordinator within your Clinic

- Assist in development of that position.
- Allow time.
Nurse Manager / Charge Nurse and Access Coordinator need to meet and discuss progress at least weekly.
Establish relationships with the surgeons, their office staff, and the Vascular Access Centers
Tools
# Initial Access Plan

<table>
<thead>
<tr>
<th>Admission Access Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nephrologist/Group:</strong></td>
</tr>
<tr>
<td><strong>Initial Plan Indicated:</strong></td>
</tr>
<tr>
<td><strong>Initial Access Type:</strong> (circle)</td>
</tr>
<tr>
<td><strong>Date of Placement/Creation:</strong></td>
</tr>
<tr>
<td><strong>Institution/Surgeon:</strong></td>
</tr>
<tr>
<td><strong>Schedule Vein Mapping:</strong> (circle)</td>
</tr>
<tr>
<td><strong>Indicate Facility for Mapping:</strong></td>
</tr>
<tr>
<td><strong>Schedule Apt. Vascular Surgeon:</strong> (circle)</td>
</tr>
<tr>
<td><strong>Indicate Surgeon Name:</strong></td>
</tr>
<tr>
<td><strong>Permanent Access Placed</strong></td>
</tr>
<tr>
<td><strong>Catheter Removal</strong></td>
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</tbody>
</table>
## Access Worksheet

### List All Active Patients and Vascular Accesses

<table>
<thead>
<tr>
<th>Patient</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUNE</th>
<th>JULY</th>
<th>AUG</th>
<th>SEPT</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
<th>Current Activity/Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>John D.</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Had vein mapping 1/15/11, surgery scheduled</td>
</tr>
<tr>
<td>Mary M.</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Had angioplasty 1/12/11</td>
</tr>
</tbody>
</table>

**Key:**
- C = Catheter
- F = Fistula
- G = Graft

A Plan must be identified for all patients with a catheter.
## Catheter Removal Progress

<table>
<thead>
<tr>
<th>Catheter Pts.</th>
<th>Date of Placement</th>
<th>&gt; 90 days</th>
<th>Date Referred</th>
<th>Date of Eval</th>
<th>Vein Mapping</th>
<th>Surgery Date</th>
<th>Any Revision</th>
<th>F/U Appointment</th>
<th>Cannulation</th>
<th>Catheter Removal</th>
<th>Comments</th>
</tr>
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<tbody>
<tr>
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HUGE benefits to catheter reduction:

- Excellent Adequacy
- Better Anemia
- Fewer Infections
- Less Hospitalization
- Less Heparin Usage
- Less Clotting
- Overall Better Outcomes with Reduced Cost
Things to remember:

INITIAL CHANGES CAN SEEM SLOW

DON’T LOSE MOMENTUM

THIS IS AN ONGOING PROCESS
Best of Luck!

YOU CAN MEET AND EXCEED THE 2011 GOAL
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