The Renal Network, Inc.

Vascular Access Quality Improvement: The Medical Director as Leader
AVF Rates for September 2009

<table>
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<tr>
<th>Location</th>
<th>Sept.2009</th>
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Prevalent Fistula Rate
September 2009

<table>
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<tr>
<th>State/Network</th>
<th>Fistula %</th>
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<tbody>
<tr>
<td>IN</td>
<td>46.2</td>
</tr>
<tr>
<td>KY</td>
<td>56.3</td>
</tr>
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<td>OH</td>
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<tr>
<td>Net 9</td>
<td>49.3</td>
</tr>
<tr>
<td>IL/Net 10</td>
<td>51.5</td>
</tr>
<tr>
<td>US</td>
<td>53.9</td>
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The Conditions For Coverage:

Medical Director Responsibilities
The Medical Director
§494.150

... [is] responsible for the delivery of patient care and outcomes in the facility .... Is accountable to the governing body for the quality of medical care provided to patients.

(a) Quality assessment and performance improvement program
(b) Staff education, training, and performance
(c) Polices and procedures
Medical Director Accountabilities

- CMS
- Networks
- Governing Body
- CEO
- Medical Director

Subordinates:
- Patients
- Care Staff
- Medical Staff
Governance: relationship with ESRD Network §494.180(i)

- Receives and acts upon recommendations from the ESRD Network
  - Must cooperate with ESRD Network designated for its geographic area
  - In fulfilling the terms of the Network’s current scope of work
  - Must participate in ESRD Network activities and pursue Network goals
- All ESRD Network data reports presented to the governing body and included in QAPI meetings & minutes
Reports from the Network

- AV Fistula Tracking Report - Monthly
- Fistula First Dashboard Report - Quarterly
- Fourth Quarter Lab Data - Annually
- KECC (U of M) Dialysis Facility Report - Annually
- Announcement of National 4th Quarter Lab Data Report Availability - How to Access it (On-Line)
- Interventional Profiling Report - Annually
- Anemia Guidelines Report
- Practice Specific Reports (2728 data)
Governance: ESRD Network Responsibilities §494.180(a)

• (3) Relationship with the ESRD Networks
  ▫ Collect and analyze data on ESRD patients and their outcomes of care
  ▫ Provide education and oversight to improve the quality of care
  ▫ Support facilities in developing and maintaining an effective QAPI program
  ▫ Respond to complaints and grievances
Quality Assessment & Performance Improvement (QAPI)
V626 QAPI Condition Statement

The dialysis facility must develop, implement, maintain and evaluate an effective, data driven, quality assessment and performance improvement program with participation by the professional members of the interdisciplinary team.
QAPI: *Facility-Based* Assessment and Improvement of Care

**Effective QAPI –**

(V627) ...an ongoing program that achieves:

- Measurable improvement in health outcomes and
- Reduction of medical errors
Data-Driven Quality Improvement

(V627) Using indicators or performance measures associated with improved health outcomes and with identification and reduction of medical errors
Monitoring Performance Improvement

(V638) The facility must:

- Continuously monitor its performance
- Take actions that result in performance improvement
- Track to assure improvements are sustained over time
Medical Director as Leader

• The medical director is responsible for a wide-ranging, robust QAPI program

• Program requirements:
  ▫ A multi-disciplinary team
  ▫ Education of medical staff about the QAPI program
  ▫ A written plan, monthly meetings, data analysis, prioritization
  ▫ Clear action taken in identified areas to improve quality and safety
Medical Director: Operational Responsibility for QAPI

- Review quality indicators
- Educate facility medical staff in QAPI objectives
- Review method of prioritizing QI projects
- Include all staff in QAPI
- Communicate with governing body
- Participate in evaluation of effectiveness of QAPI
Steps to a Successful QAPI Program

- Analyze the facility data
- Involve all members of the Interdisciplinary Team
- Identify Root Causes/Barriers to successful outcomes
- Review facility processes affecting outcomes
- Brainstorm to improve and/or develop processes
- Set interim goals along an identified timeline
- Continue to monitor performance

Act  Plan  Do  Study
The PDSA Cycle for Learning and Improvement:

- **Plan**
  - Objective
  - Questions and predictions (why)
  - Plan to carry out the cycle (who, what, where, when)

- **Do**
  - Carry out the plan
  - Document problems and unexpected observations
  - Begin analysis of the data

- **Study**
  - Complete the analysis of the data
  - Compare data to predictions
  - Summarize what was learned

- **Act**
  - What changes are to be made?
  - Next cycle?
  - Adopt, adapt, or abandon??
QAPI: State Survey Agency Responsibilities

- Compliance determined by
  - Review of clinical outcomes
  - Review of interim goals related to actions taken
  - Data & records of QAPI activities
  - Interviews of responsible staff including MD

- Failure
  - Absence of an effective QAPI program
  - Failure to recognize & prioritize major problems
  - Failure to take action to address identified problems
Root cause analysis (RCA) is a class of problem solving methods aimed at identifying the root causes of problems or events. The practice of RCA is predicated on the belief that problems are best solved by attempting to correct or eliminate root causes, as opposed to merely addressing the immediately obvious symptoms. By directing corrective measures at root causes, it is hoped that the likelihood of problem recurrence will be minimized. However, it is recognized that complete prevention of recurrence by a single intervention is not always possible. Thus, RCA is often considered to be an iterative process, and is frequently viewed as a tool of continuous improvement.
General Principles of Root Cause Analysis

- Aiming performance improvement measures at root causes is more effective than merely treating the symptoms of a problem.
- To be effective, RCA must be performed systematically, with conclusions and causes backed up by documented evidence.
- There is usually more than one potential root cause for any given problem.
- To be effective the analysis must establish all known causal relationships between the set of causes and the defined problem.
- Root cause analysis transforms an old culture that reacts to problems to a new culture that solves problems before they escalate, creating a variability reduction and risk avoidance mindset.
The 5 Whys is a question-asking method used to explore the cause/effect relationships underlying a particular problem. Ultimately, the goal of applying the 5 Whys method is to determine a **root cause** of a problem.

The following example demonstrates the basic process:

- Low AVF Rate (the problem)

4. *Why?* – Nephrologists unaware that Surgeon doesn’t understand importance of AVF as the optimal dialysis access. (fourth why)
5. *Why?* – No one has taken the time to communicate with and educate the Surgeon. (fifth why, a root cause)

The questioning for this example could be taken further to a sixth, seventh, or even greater level. This would be legitimate, as the "five" in 5 Whys is not gospel; rather, it is postulated that five iterations of asking why is generally sufficient to get to a root cause. The real key is to encourage the troubleshooter to avoid assumptions and logic traps and instead to trace the chain of causality in direct increments from the effect through any layers of abstraction to a root cause that still has some connection to the original problem.
Root Cause Analysis Tool

Worksheets in the tool
- Incident Patients
- Catheter only < 90 days
- Catheter only > 90 days
- Fistula Maturing
- Other Facility Analysis
Incident Patients

Provider No:  
Facility Name: Dialysis Center Example 1  
Date: 12/02/2009  
Contact Name: Vascular Access Coordinator

Incident Patients for Month of: December 2009

<table>
<thead>
<tr>
<th>Month</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>December</td>
<td>2009</td>
</tr>
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</table>

Total # of incident patients 28

<table>
<thead>
<tr>
<th># of incident patients with catheter and fistula maturing</th>
<th>14</th>
<th>50%</th>
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</thead>
<tbody>
<tr>
<td># of incident patients with catheter only</td>
<td>10</td>
<td>36%</td>
</tr>
<tr>
<td># of incident patients with catheter only scheduled for permanent access</td>
<td>5</td>
<td>50%</td>
</tr>
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</table>

Is this the facility catheter problem? Yes

HAVE YOU CONDUCTED 5 WHYS? Yes

Problem Statement
Percentage of incident patient with catheter only is too high – 36%

5 Whys
1. Why? (First Why) Surgical presence in area minimal and there is competition for surgical suite availability.
2. Why? (Second Why) Hospital administration not aware of the need in the ESRD community.
3. Why? (Third Why) Adequate information and education has not been provided to the hospital by the ESRD community.
4. Why? (Fourth Why)
5. Why? (Fifth Why)

List your incident patients below. Mark an "X" in the appropriate column for catheter patients. Patients using a fistula or graft will only have a patient number.

<table>
<thead>
<tr>
<th>Patient Number</th>
<th>Catheter with Fistula Maturing</th>
<th>Catheter Only</th>
<th>Scheduled for permanent access?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>X</td>
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<td></td>
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<tr>
<td>3</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>
Catheter Only > 90 Days

Provider No:  
Facility Name: Dialysis Center Example 2  
Date: 12/02/2009  
Contact Name: Vascular Access Coordinator

Enter the total number of patients in your facility: 114  
# of patients with catheter only > 90 days: 21 18%

Is this the facility catheter problem? YES

HAVE YOU CONDUCTED 5 WHYS?

Problem Statement
26 Patients have Catheters >90 days.

5 Whys
1. Why? (First Why) 16 have permanent access placed but not usable at this time.
5. Why? (Fifth Why) Lack of Staff education.

List patients with a catheter only > 90 days.

<table>
<thead>
<tr>
<th>Patient Number</th>
<th>Catheter Only Date</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>05/21/2009</td>
</tr>
<tr>
<td>2</td>
<td>08/04/2009</td>
</tr>
<tr>
<td>3</td>
<td>06/12/2009</td>
</tr>
<tr>
<td>4</td>
<td>06/17/2009</td>
</tr>
<tr>
<td>5</td>
<td>08/07/2009</td>
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Challenge:

Increase Prevalent Fistula Rate by 4 Percentage Points by March 2010
Successful QAPI Project: Best Practice

- Team Members
- Problem Statement
- Root Cause Analysis (5 Whys)
- Barriers
- Process Changes
- Data Collection
- Interim Goals
- Final Outcome
Best Practice: A Facility Experience
RAI Care Center, Muncie, IN

• Prevalent Fistula Outcomes
  ▫ March 2008 = 46.4%
  ▫ March 2009 = 55.1%
  ▫ October 2009 = 60.7%
Identifying the Problems

- Poor communication
- Delayed access procedures
- Poor follow up
- Minimal Radiology intervention
- Poor cooperation between Surgeons and Radiologist.
- Too many catheters
- Need for more fistulas
- Staff frustration
- Need for change
Getting Started: The Initial Team

**Medical director:**
- Instrumental in starting the program
- Appointed as the leader
- Shared concerns with Surgeons and Radiologist

**Access Coordinator:**
- Scheduled monthly access meetings
- Established communication between disciplines
- Identified access concerns and collect data

**Acute Manager:**
- Coordinating in hospital and post procedure care
- Maintained open communication with the out patient center

**Staff Educator:**
- Provided on going education to all care givers
- Initiated Pre-renal program.
Established Protocols as Part of the Improvement Plan

Don’t re-invent the wheel. Many of the protocols and pathways adopted were from Network resources and modified to suit their needs!

1. Catheter dysfunction:
   ▫ To Specials for replacement

2. Clotted fistulas:
   ▫ To Specials for declot within 24 hours

3. Clotted Graft:
   ▫ Surgeon to decide if patient has declot in Specials or Surgery.
   ▫ (Can’t remember the last time patient was declotted in surgery)

4. Fistula or Graft dysfunction:
   ▫ Access Coordinator schedules intervention after approval received from the surgeon.
   ▫ Surgeon notified/time and date of procedure.

5. Cannulating new fistulas
   ▫ Only master cannulators are assigned to start new fistulas utilizing the cannulation pathway

6. Incident Patients:
   ▫ Have Access Management pathway initiated within one week
What Happened

- Surgeons and Radiologist became Allies
- Meeting attendance grew
- All disciplines communicate
- Fistulas placement increased
- Accesses are being salvaged
- Frustration has decreased
- Greater respect for nurses opinions
- They now work as a TEAM
- Patients have better outcomes
Their Team Today

- Patients
  - Family
  - Direct Care Team
    - Unit Managers
    - Dietitians
    - Social Workers
  - Access Coordinator
    - Staff Educator
    - Acute Manager
    - Doctors Office Staff
  - Nephrologists
    - Radiologist
    - Surgeons
How They Increased Prevalent Fistula Rates

• Medical Director was very involved
• Rapid referral to the surgeon for access evaluation
• Vein Mapping mandatory
• Only fistulas to be placed
• Follow up at 2-4 and 6 weeks to evaluate maturity
• Access monitoring and quick intervention to salvage fistulas
• Surgeons became more creative placing fistulas
• Developed specific protocols to be followed
• Education.......
Network Technical Assistance Available

- Assist in problem solving
- Data analysis
- QAPI design and implementation
  - Templates
  - Statistical consultation
- Resources for resolving patient-provider conflict
  - Assist in grievance resolution
  - Involuntary discharge
- Patient Education Literature
- Staff Education and Training
www.therenalnetwork.org

Templates, Tools, & Web Pages

- QAPI Meeting Minutes Templates are available at www.therenalnetwork.org in the QAPI Templates section found under the “QI” tab. *Templates Courtesy of Danville Dialysis*

- Vascular Access Needs Assessment & Barriers Questionnaire tools can be found at www.therenalnetwork.org Click on Quality Improvement tab then choose the “QAPI Templates” then click on Vascular Access

- Catheter Reduction Toolkit http://esrdnetworks.org/mactoolkits/download

- Medical Director Pages
  Resources for Conditions for Coverage and other areas of interest
Termination of Medicare Coverage

§488.604

• (a) ... failure of a supplier of ESRD service to meet one or more conditions for coverage set forth in part 494 will result in the termination of Medicare coverage

• (b) ... [can be] based solely on supplier’s failure to participate in Network activities and pursue Network goals as required at §494.180(i) of this chapter
Questions?