

# **Quality Improvement Project Results**

## ***Increasing the Use of Vascular Access Stenosis Surveillance in Texas Dialysis Facilities***

### **Executive Summary**

It is widely accepted that hemodialysis graft surveillance with correction of stenosis prior to thrombotic episodes may extend hemodialysis graft survival. In 2001, the ESRD Network of Texas (#14) Medical Review Board (MRB) implemented a two-year Network wide (Texas) quality improvement project (QIP) with the following goals:

- Increase stenosis monitoring and surveillance processes in dialysis facilities that adhere to K/DOQI recommended practice guidelines
- Increase patient referrals for diagnostic testing when indicators of possible stenosis are identified
- Increase reporting of graft thrombosis calculations in QM
- Decrease graft thrombosis rates
- Provide the community with information and guidance on methods to implement a vascular access surveillance program

### **Methodology**

Using a conventional QI methodology with no control group of patients or facilities, the Network collected facility specific graft stenosis monitoring practice information and vascular access outcome data from 282 outpatient dialysis facilities before (*Baseline*: November 2001-February 2002) and after (*Follow-up* October -December 2002) quality improvement initiatives. A group of 56 “Focus” facilities (facilities with graft thrombosis rates in the highest 20% of facilities) were sent additional correspondence signed by the MRB Chairman and Network Executive Director. The correspondence sent to the facility Medical Director and Administrator requested attendance at a Network vascular access conference and QI focus on vascular access stenosis monitoring processes (or lack thereof).

### **Quality Initiatives**

After evaluating baseline survey results, the Network disseminated a Project Report highlighting stenosis monitoring practices, facility specific outcomes, K/DOQI guidelines, patient and professional educational materials and quality management tools. In addition, three regional educational seminars for nephrologists, interventionalists, surgeons and nurses were conducted to

increase awareness and understanding of the benefits of stenosis surveillance monitoring programs. Eleven months after baseline data collection and three months after quality improvement initiatives, follow-up aggregate facility specific data was collected to evaluate for process and outcome change.

### **Project Results**

The project results identified positive changes in the Texas dialysis community's awareness and implementation of K/DOQI recommended vascular access surveillance practices. This is evidenced by the following changes for **282** Texas facilities:

- **41 (15%)** additional facilities reported having written stenosis surveillance procedures\*
- **29 (7%)** additional facilities utilized a K/DOQI recommended stenosis monitoring technique\*
- **31 (11%)** additional facilities utilized a K/DOQI monitoring technique at recommended interval\*
- **35 (12.5%)** additional facilities reported a graft thrombosis calculation in QM
- **88** additional patients were referred on average monthly for identification of indicators for possible graft stenosis\* (*Same 180 focus facilities at baseline and follow-up*)
- *No significant change was noted in the statewide graft thrombosis rate*

\*  $p < 0.05$  (means there is less than a 5% probability that the finding was due to chance alone).

*Attached to this Executive Summary are charts that highlight changes in practice and outcomes.*

### **The MRB comments on project findings**

“The QIP was successful in meeting project objectives as demonstrated by increased awareness and implementation of K/DOQI recommended vascular access surveillance guidelines. Specifically, results identified positive changes in the dialysis community's awareness and implementation of K/DOQI guidelines. However, the level of improvements did not meet all of the indicators expected improvement goals.”

“Although numerous individual facilities showed an improvement in graft thrombosis rates, an improvement in statewide graft thrombosis rate was not noted. Due to the short time period between QIP interventions (as a result of Institutional Review Board determination) and follow-up, it is believed that significant changes in graft thrombosis outcomes could not be expected. Based on past experiences with Network projects, longer periods of time are required for facilities to fully

incorporate process changes that impact outcomes. The MRB recommends the inclusion of graft thrombosis follow-up data in future vascular access QIP's.”

“Changes within the Medicare reimbursement system could improve vascular access outcomes for patients and lower costs to the healthcare system by driving practice changes sensitive to reimbursement. Recommendations include reimbursement for routine in-center stenosis monitoring using access flow technology. While some of the national dialysis companies and nephrology groups are beginning to utilize the newer technologies, reimbursement of these procedures would dramatically increase use of the proven technologies. Incentives could also be effective in increasing both the number and quality of fistulas placed. A focus on pre-ESRD care that meets CKD practice guidelines would offer the most effective incentives. Modification of current surgical reimbursement rates appropriate for the skill set and surgery time required in the more complicated AVF procedures and payment for vein mapping prior to AVF placement are critical. Lastly, efforts to increase accountability of hospitals and surgeons should be implemented to minimize barriers and improve vascular access outcomes.”

“This project demonstrates that while all project goals were not met in their entirety, data feedback, educational conferences and resources as well as collaboration with facilities and peer interactions do have a positive impact on facility process changes and patient outcomes.”

Please contact **Alex Rosenblum, BSRN, CNN, CPHQ, Quality Management Coordinator** or **Glenda Harbert, RN, CNN, CPHQ, Executive Director** for additional information on the project.

*The ESRD Network of Texas staff, Medical Review Board and Executive Committee recognize and commend the dialysis community for their outstanding quality efforts and dedicated commitment to assist persons with ESRD live longer, healthier more active lives.*

A copy of the complete project report and project tools are available from the ESRD Network of Texas office. Copies of project resources and tools can be downloaded at [www.esrdnetwork.org](http://www.esrdnetwork.org) (Quality Improvement Tab).

Attachments