



NETWORK NEWS

2007 Special Edition
FISTULA FIRST

Fistula First: Are we Succeeding?

Throughout the US, great strides have been made in increasing the use of the native arteriovenous fistula (AVF). In the Network 8 region alone, the percentage of patients dialyzing with an AVF has increased from the baseline rate of 26.3% (2002 CDC Survey) to 44.2% reported in September 2007 (Fistula First data). The overall US rate has increased from 32.4% to 48% in the same time period. Despite the improvement, much work remains to reach the 2009 goal of 66%. As we work towards this numeric goal, we must consider additional measures before we deem the project a success.

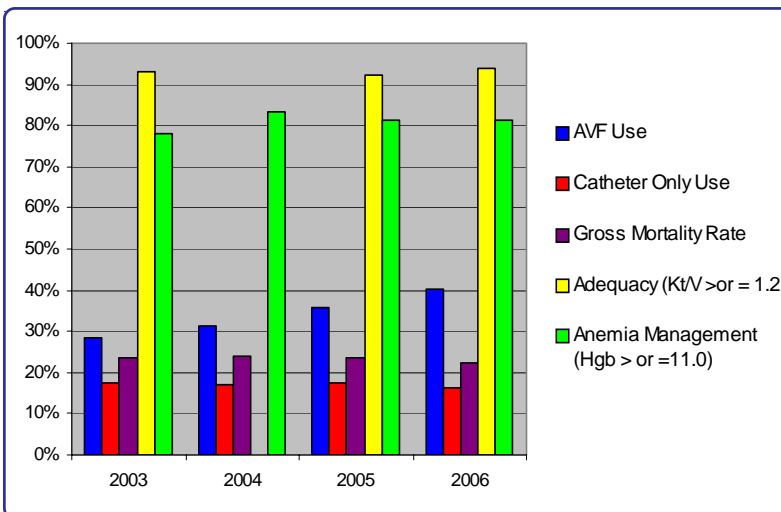
Are we improving lives, decreasing complications, hospitalizations, mortality and costs by increasing the use of AV fistulas? The jury is still out, and the verdict will depend on continued practice changes, further data analysis, time, and whom you ask. The issue has been raised that the push for more fistulas has resulted in increased catheter use, and therefore increased morbidity and mortality risks. We've even heard rumors of the project being dubbed the "Fistula Worst" project. While this is painful to project coordinators, we want to ensure that this does not become the reality.

Balancing measures must be implemented to make certain that changes to improve one part of the system (increasing fistulas) aren't creating new problems. What should be measured? Facilities should monitor catheter usage, morbidity and mortality rates, dialysis adequacy, and anemia, all affected by the success or failure of the vascular access. Dialysis corporations, hospital administrators, and payers (including CMS) will be interested in analyzing costs associated with vascular access types and procedures.

The chart above illustrates the Network 8 balancing measures, which reveal little or no

negative effect from increased AVF rates. Though average hemoglobin levels have decreased slightly, it is likely that this is related to other factors such as reimbursement changes. According to the Fistula First data, the Network 8 catheter only rate has actually decreased since the project was initiated, as displayed in the chart, and the catheter > 90 days rate has decreased, as well (12% - 2003 to 10.4% - 2006). The total catheter rate has remained 25%, from 2002-2006, according to the CPM data, but has increased according to the Fistula First data from 23.2% to 25.5%. Patient-specific data at the facility level will give a more accurate picture of outcomes associated with the increased AVF use.

Has the quality of life improved? We recently met a patient who described one failed attempt of a



transposed AVF, days of hospitalization, pain, infection, an uncaring surgeon, and the courage it took to "try again". She told of her research to find the best surgeon for the next attempt, as she knew of the serious problems associated with catheters. The next access was a success, a transposed AVF completed through outpatient procedures, with no complications. She was glad that she had not given up and very satisfied with the surgeon she selected, due to his skill and caring bedside manner, which were equally important to her. Another patient described multiple failed attempts resulting in her choice of keeping a catheter, despite opposition from her nephrologist.

The health care team has the responsibility of providing the best care possible to the patients. The care should not be based solely on government mandates, financial gain or loss, or tunnel vision of what we think is best for the patient. The care should be evidenced-based, taking these additional factors and outcomes into consideration.

Even so, we cannot grant passes to facilities with low AVF rates! Providers should continue to try to increase the use of AVF, as evidence has shown it to be the best access available, but the responsibility does not end there. In addition to creating AVFs in all eligible patients,

- Vascular access outcomes must be monitored, not only by number, but also by success rates, complication rates, and surgeon. These data should be used as the basis for surgeon referral.
- Central venous catheter use must be limited. Therefore, primary care practitioners and patients must be educated regarding need for early referral. Access planning and placement should occur in time to allow maturation of permanent access. Practitioners may want to consider using a PD catheter or AVG as the AVF matures. Policies/procedures must be in place to track catheter use and provide for timely removal.
- Access problems must be identified through physical assessment and surveillance techniques and referred for diagnostic tests and appropriate intervention, in a timely manner.
- Staff must be properly trained in cannulation techniques and performance routinely monitored.

Vascular access care is an integral part of ensuring improved patient outcomes. That is the goal of the Fistula First project, and the patients are depending on you to make it happen! Though the outlined steps may appear daunting, they are doable and necessary for project success. Let's make the verdict go in our favor. For more information or assistance with this quality improvement initiative, contact Ann Pridgen, Network 8 Quality Improvement Director.

Vascular Access Patient/ Staff Education Toolkit

In an effort to meet educational needs of your patients and staff, Network 8, Inc. has developed a vascular access toolkit entitled. "Vascular Access: Before, During & After." The purpose of this tool is to provide basic information for patients and/or staff on fistulas, grafts, and central venous catheters. The toolkit includes:

- a. A description of each access,
- b. What happens before it is inserted or placed,
- c. What occurs during the insertion process, and
- d. How to care for & maintain the life of the vascular access.

The toolkit is portable and contains booklets with information specific to each type of vascular access. The toolkit utilizes color, large readable fonts, and laminated pictures to enhance the learning experience. Reference lists and actual reference materials are included to save time.

The toolkit can be used for the novice dialysis staff member or it can be used for the patient who has a catheter and wants to know more about fistulas. It is versatile to meet the specific needs of the learner.

The actual toolkit can be mailed (with instructions) to educators. All others who are interested in receiving the toolkit can obtain it on our website (www.esrdnetwork8.org)

Feel free to contact Dr. Rowena W. Elliott for more information at 601-936-9260 or relliott@nw8.esrd.net.

Super Star Surgeons



Clinics with AVF rates > 65% have credited the following surgeons for their phenomenal AVF outcomes.

Fresenius Medical Care Whetstone of Monroeville	Howard Walker, MD Gregory McGee, MD Frank McPhillips, MD Glenn Esses, MD Ralph Pfeiffer, MD
Fresenius Medical Care Magnolia Grove	Howard Walker, MD Gregory McGee, MD Frank McPhillips, MD
Veterans Administration - Jackson	David Snyder, MD
Greenwood FMC Hemodialysis Unit	John Lucas, III, MD
Wiggins Dialysis	Orlando Andy, MD
Fresenius Medical Care - Athens	Luke Erdoes, MD L. Richard Sprouse, MD Christopher Lesar, MD

Our most sincere thanks go to each and everyone on the Super Star list for the difference you make for our patients!!!

"Sleeves-Up" to Reach AVF Goal!

Part of the Fistula First change package since the inception of the initiative in 2003, the "sleeves-up" program is gaining ground and raising AV fistula rates throughout the country. Though certainly not a new concept—many of you have cannulated the outflow vein of an AV graft when circumstances required it—the conversion of AV grafts to AV fistulas by this method is not widely used in our region. It is our hope that this will change as more information about this technique is made available.

According to Dr. Larry Spergel, clinical chair of Fistula First, secondary AVF is defined as an "AVF constructed following an AV graft by conversion of an existing AVG outflow vein to a direct AVF where feasible (made possible by arterialization of the outflow vein)". His expanded definition includes the option for "exam and vessel mapping for alternate options when outflow vein is not suitable".

As recommended in the Fistula First Change Package and K/DOQI guidelines, secondary AV fistula placement is recommended for all AV graft patients that are candidates.

- Nephrologists should evaluate every AV graft patient for possible secondary AV fistula, including mapping as indicated, and document plan in patient's record.
- Dialysis facility staff and / or rounding nephrologists should examine outflow vein of all forearm graft patients ("sleeves up") during dialysis treatments (minimum frequency = monthly) to identify patients who may have suitable upper outflow vein for elective secondary AVF conversion in upper arm. Inform nephrologist and surgeon of need to evaluate identified outflow vein for AVF conversion.
- Nephrologist should refer to surgeon for evaluation / placement of secondary AV fistula before failure of AV graft.

Mark your calendars!

January 22 - Cannulation Training, Birmingham, AL

March 7 - Cannulation Training, Biloxi, MS

March 25 & 26 - Vascular Access Coordinator Training - Featuring Lesley Dinwiddie, Memphis, TN

April (date TBA) - Chronic Kidney Disease/Vascular Access Forum, Jackson, MS

Further details will be announced in future mailings and on the Network 8 website: www.esrdnetwork8.org



Vessel Mapping Mentoring Program Available

Similar to the surgeon mentoring service, we are pleased to announce the availability of vessel mapping mentoring partnership with the University of Alabama at Birmingham. A champion of vascular access, Dr. Michelle Robbin is Chief, Division of Ultrasound and Professor of Radiology at UAB and is widely published on vascular access issues. Dr. Robbin and her staff are willing to open their radiology suite and share their expertise with physicians and/or ultrasound technicians who desire additional training in vessel mapping procedures. Please contact Ronnie Graveman at 205-801-7891 to discuss program details and fees.

Certificates of Recognition

We would like to recognize and congratulate the following facilities for meeting or exceeding the CMS goal for vascular access: > 65% prevalence rate of native AV fistulas, 2nd quarter 2007. Certificates have been awarded to each of these facilities for this achievement. Due to facility acquisitions, each facility was allowed to submit their preference for facility name on certificate. This accounts for the variation in the format of names below.



Alabama

Atmore Dialysis Center
Fresenius Medical Care – Bay Minnette
Fresenius Medical Care - Dadeville
Fresenius Medical Care – Dauphin Island Pkwy
Fresenius Medical Care – Langdale
Fresenius Medical Care – Monroeville

Fresenius Medical Care – Opelika
Fresenius Medical Care - Tuskegee
Fresenius Medical Care Magnolia
Roanoke Dialysis Clinic

Mississippi

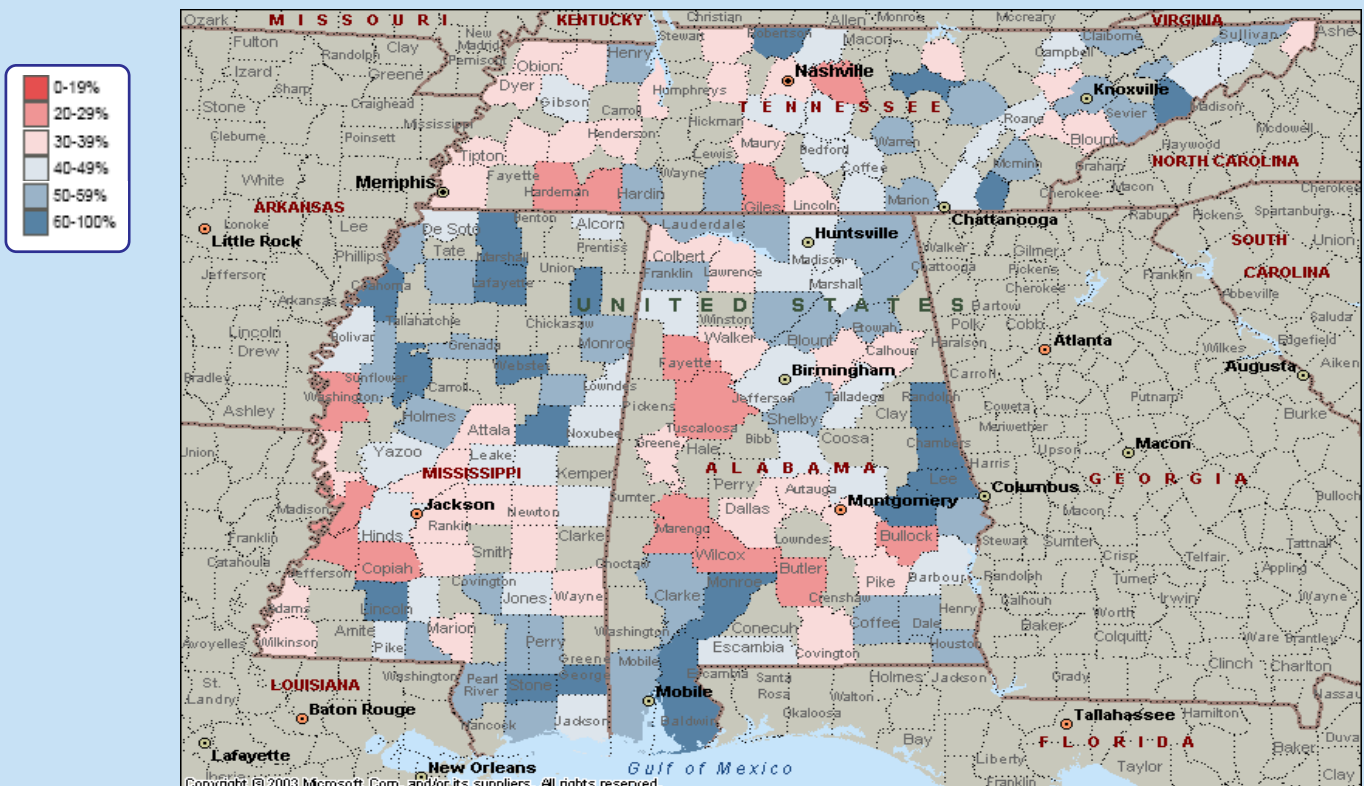
Fresenius Medical Care – Gulfport
Greenwood FMC Hemodialysis Unit

Lucedale Dialysis
Tylertown Dialysis
Veterans Administration - Jackson
Wiggins Dialysis

Tennessee

Fresenius Medical Care - Athens

% AVF Use by County - September 2007



Who's Buttoned Up?

As use of the AV fistula has increased, so has the buttonhole, or constant-site, cannulation technique. First used in Europe, this technique has been utilized with success for over 25 years, and is now widely used in the Pacific Northwest and Canada. Interest in the technique has grown in our region, as well, as evidenced by the number of facilities and surgeons requesting information.

Who is using it now? The ESRD Networks, in conjunction with the Fistula First Breakthrough Initiative (FFBI), conducted a survey this summer to determine the extent of buttonhole use, throughout the US. A total of 1984 surveys were received, an approximated 39% response rate. Of the 1984 facilities responding, 675 (34%) reported using the buttonhole technique. Network 8 had a survey response rate of 51%, with 21% of responding facilities reporting use of the technique, in a total of 102 patients. Alabama had the highest number of facilities reporting use of the technique (15), Tennessee second (9), and lowest Mississippi (7).

Identified benefits of the technique include:

- Decrease in number of aneurysms, as the exact same spot, not area, is cannulated; therefore, the life of the AVF may be prolonged

- Can be used in AVF with limited area for cannulation
- Decrease in the number of "missed sticks", therefore fewer infiltrations and hematomas
- Decrease in cannulation time
- Easier technique for patients and family members that self-cannulate
- Decrease in pain experienced by some patients

Though these benefits have been experienced throughout our region, a few complications have been reported, as well, as described in the chart below. The data regarding nation-wide complications are pending.

Complications Reported in Network 8 Region FFBI Buttonhole Survey	
	Network 8
Of the surveys received, number of facilities reporting use of technique	31
Of the surveys received, #/% of facilities using buttonhole technique indicating complications	12 (38.7%)
Number of facilities reporting specific complications as listed:	
Infiltration	1
Excessive bleeding	8
Aneurysm formation	5
Infection	5
Inability to transition to blunt needles	5
Other (pain, etc.)	3

As with any invasive procedure, complications such as bleeding and infection can occur. While our facilities have experienced both of these complications, a recent small study from the Netherlands reported no increase in bleeding, but did report an increase in the number of skin infections.

In light of these reported complications, we urge facilities to follow the recommended procedures for scab removal, prepping of the arm, and track development to avoid infections and excessive bleeding. Additionally, if using an alcohol gel for site preparation, Medisystems has reported that many brands have additives that should not be introduced into the bloodstream. They are the only manufacturer of

MasterGel, an alcohol gel with no additives.

This cannulation method must be discussed with your medical director and approved by your organization, and your staff must be properly trained before it is implemented. If you would like additional information regarding the technique, please contact the Network office.

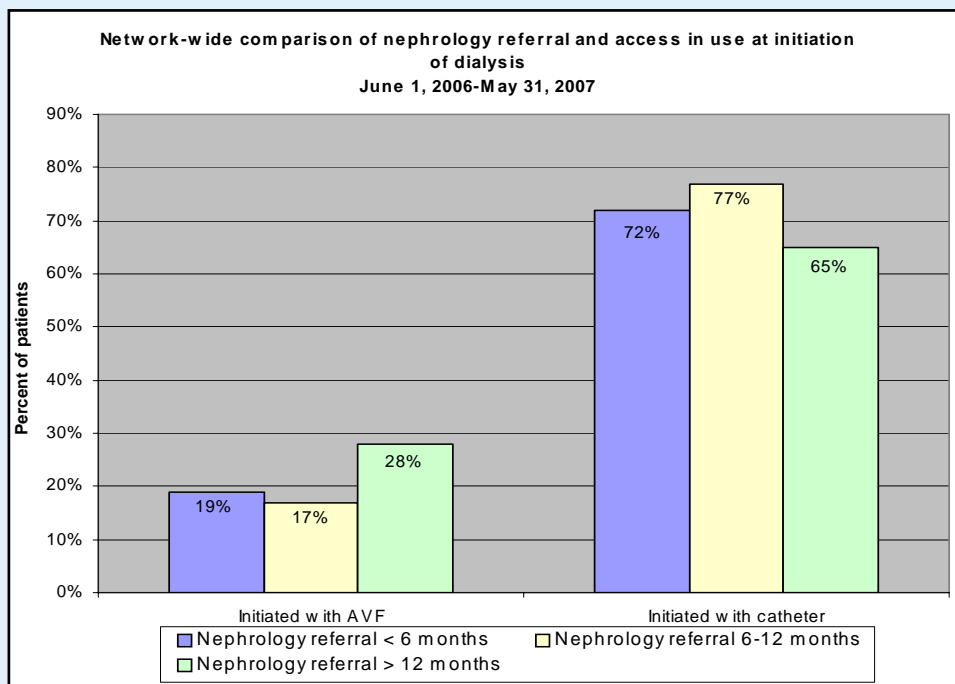
Data Analysis

As was done last year, in an effort to optimize vascular access for hemodialysis patients, the Network 8 Medical Review Board requested a review of CMS Medical

Evidence forms to determine the prevalence of lack of CKD care in relation to high catheter/low AVF rates. Forms submitted to the Network from June 2, 2006-May 31, 2007 were selected for review; however, physicians submitting less than ten forms were excluded from analysis. As the 2728 form does not contain the category of CKD care for 1-6 months, the analysis was limited to (1) those patients not seen by Nephrologist prior to initiation, (2) those seen by Nephrologist for 6-12 months prior to initiation, and (3) those seen by Nephrologist for more than 12 months prior to initiation.

After analysis, each physician submitting 10 or more 2728 forms received a letter from the Medical Review Board noting the vascular access in use on first outpatient dialysis for his/her patients. The purpose of the letter was to inform and highlight the need for earlier vascular access placement—not to reprimand or insult physicians. Several physicians called to

discuss the data and suggested that possibly the forms had not been completed correctly. Others noted that the forms were correct—and were somewhat surprised at the number of CKD patients followed pre-dialysis that



initiated dialysis with a temporary catheter. Of 215 physicians receiving a letter, only one physician responded to the letter negatively.

If you or one of your staff members are responsible for completing portions of the 2728 form, please make certain that you follow form directions closely and consistently. If you are unfamiliar with this form, call Judy Carter at the Network office to discuss. Accurate data "up front" saves everyone time in the end.

New Vascular Access Centers Open

The University of Tennessee Medical Center in Knoxville, Tenn., is excited to announce the opening of the medical center's new Vascular Access Center on Oct. 1, 2007. The Vascular Access Center provides comprehensive vascular access care to Chronic Kidney Disease (CKD) and End Stage Renal Disease (ESRD) patients throughout the region.

The focus of the Vascular Access Center is to provide a five star experience to its patients by creating a virtually seamless flow through the medical center. The center's goal is to provide quality and functional vascular accesses as well as preventing missed dialysis treatments and unnecessary hospital admissions. This will be achieved through a team approach between the vascular access coordinator, dialysis clinics, nephrologists and vascular surgeons and

by the center's commitment to the Fistula First Initiative.

We will coordinate referral with UT Vascular Surgeons: David Cassada, MD; Michael Freeman, MD; Mitchell Goldman, MD; Oscar Grandas, MD; and Scott Stevens, MD.

Vascular Access Coordinator-
Rebecca Jarvis, RN, CCTC
Medical Director-
Oscar Grandas, MD
(865) 305-6655

RMS Lifeline, a network of managed vascular access centers, has announced the opening of a center in Memphis, Tennessee, December 10, 2007. RMS has two centers currently operating within our region in Alabama. Services provided include: angioplasty, declotting/thrombectomies, diagnostic venograms, catheter placement,

removals, revisions and exchanges, and vascular mapping for access placement. As part of the RMS network, the centers are accredited by the Joint Commission.

For more information visit www.rmsslifeline.com or contact centers directly.

Interventional Nephrology Specialists
Access Center
2200 Union Avenue
Memphis, TN 38104
Phone: 901-726-1130

NEPHCON Vascular Access
Center 1311 Memorial Parkway NW
Suite 300
Huntsville, AL 35801

Nephrology Vascular Lab
Lakeshore Crossings Business Park
201 London Parkway Suite 500
Birmingham, AL 35211
Phone: (205) 781-7744

New Resource!!! Continuing Education Offerings

The following resources can be accessed via the Network 8 home page (www.esrdnetwork8.org) by first clicking on the "New Resource" banner at the top of the page, then clicking the desired hyperlink.

American Nephrology Nurses Association—ANCC approved provider for nephrology nurses. Offerings range from 1.0 to 60.0 contact hours. Cost varies. Topics cover the entire spectrum of nephrology nursing. Formats available include live, on-line, CD-ROM and publications.
http://www.annanurse.org/cgi-bin/WebObjects/ANNANurse.woa/wa/viewSection?s_id=1073744051&ss_id=536873253



Medi-Smart—On-line provider based in Cleveland, Ohio. ANCC approved provider for nephrology nurses and dialysis technicians. Offerings range from 1.0 to 5.0 hours. Cost varies. Phenomenal resource for dialysis-specific issues: practice liability, vascular access, mood disorders, ethical issues, dementia, Hepatitis C, fluid balance, stress at work, impact of social services, and water treatment, just to name a few!
<http://medi-smart.com/ceu4u.htm>

Sinclair College—On-line provider based in Dayton, Ohio. ANCC approved provider for nephrology nurses and dialysis technicians. Offerings range from 1.0 to 1.5 credit hours and cost \$15.00 to \$22.50. Topics are specific to nephrology and are sponsored by National Association of Nephrology Technicians/Technologist (NANT). Some topics include: communication and patient care, cardiovascular disease, diabetes, dialysis adequacy, hepatitis, patient confidentiality, invasive catheters, medical documentation, and nutrition. http://nant.sinclair.edu/list_modules.asp

National Kidney Foundation—Various on-line offerings that are ANCC/ASWB/ADA/ACCME approved for nephrology nurses, social workers, dietitians and physicians. Cost varies. Topics are wide-ranging and many are available for download to PDA.
<http://www.kidney.org/professionals/KLS/cmepgrams.cfm>

Network 8, Inc., a CMS contractor, is the quality improvement organization serving the dialysis and transplant centers in Alabama, Mississippi, and Tennessee. For more information regarding the Fistula First initiative or other Network 8 services, contact Ann Pridgen, RN, CDN, Quality Improvement Director.



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arteriovenous
FISTULA FIRST
AVF — The first choice for hemodialysis