QUESTIONS AND ANSWERS
NOVEMBER, 2004

WHAT IS FISTULA FIRST?
Fistula First is the name given to the National Vascular Access Improvement Initiative. This quality improvement project is being conducted by all 18 ESRD Networks to promote the use of Arteriovenous Fistulas (AVFs) in all suitable dialysis patients.

WHAT IS AN ARTERIOVENOUS FISTULA (AVF)?
Hemodialysis is a process of cleaning the blood of waste products when the kidneys can no longer perform this function. All hemodialysis patients need a "connection" that allows blood from an artery to flow into the vein and provide access for dialysis. An Arteriovenous Fistula (AVF) is considered by professionals to be the "gold standard." National practice guidelines, which were developed by renal experts, recommend that 40% of all current patients and 50% of new patients should have an AV fistula as their primary access. Currently, only about 30% of Medicare beneficiaries dialyze with a fistula.

ARE AVFS BETTER FOR PATIENTS?
AVFs are considered the best vascular access because they demonstrate the best overall performance, have fewer infections which can lead to hospitalizations, tend to last for a longer time than other access types and allow for increased blood flow resulting in a more adequate dialysis treatment.

HOW ARE AVFS PLACED?
A surgeon creates an AVF by connecting an artery directly to a vein, usually in the forearm. Connecting the artery to the vein causes more blood to flow into the vein. As a result, the vein grows larger and stronger, making repeated needle insertions easier. The procedure can be performed on an outpatient with a local anesthetic but requires some advanced planning.

ARE THERE OTHER TYPES OF ACCESSES?
Yes, patients can also have a graft or a catheter, which is usually a temporary access. If you have small veins that won't develop properly into a fistula, you can have a vascular access that uses a synthetic tube implanted under the skin in your arm. The tube becomes an artificial vein that can be used repeatedly for needle insertion. If your kidney disease has progressed quickly, you may not have time to get a permanent vascular access before you start hemodialysis treatments. A catheter is a tube inserted into a vein in your neck, chest or leg. It has two chambers to allow two-way flow of blood. Catheters are not ideal for permanent access as they can clog, become infected or cause narrowed veins. It is recognized that fistulas are the best access.

WHAT IS CMS DOING TO INCREASE FISTULAS?
CMS has identified this project as a CMS Breakthrough Initiative. To qualify as a breakthrough initiative, a project must meet certain criteria: there is a substantial gap between known good practice and actual practice; and a very substantial improvement in performance seems possible. CMS intends to coordinate work in these areas across the organization, using payment, coverage, public information, partnership development and other strategies to leverage greater change.

HAVE GOALS BEEN ESTABLISHED?
CMS would like to see the percentage of patients with fistulas as their access increase to 66% over the next 5 years. Each of the ESRD Networks, as CMS contractors, has been assigned a goal to achieve in their area before June 2006.

ARE THE GOALS ACHIEVABLE?

All across the United States, there are examples of providers who have achieved fistula rates in their patients well above the goals of this initiative. By harnessing the knowledge of the many disciplines whose care influence vascular access choices for patients, this project aims to create a new level of cooperation and communication across professional disciplines and care settings.

WHO IS INVOLVED?

In addition to CMS, project partners include the 18 ESRD Networks, dialysis providers across the country, nephrologists, vascular access surgeons, interventional radiologists, interventional nephrologists, nursing and other care giver groups, beneficiary representative groups, Quality Improvement Organizations, Federal Agencies, and other CKD and ESRD stakeholders. The Institute for Healthcare Improvement (IHI) and Clinical Chair Lawrence Spergel, MD, have assisted in developing a package of 11 "change concepts" and are supporting the ESRD Networks as they develop and implement strategies for spreading the recommended changes.

WHEN DID THIS PROJECT START?

Work began on the early phase of the initiative in July 2003. A multi-disciplinary team from CMS, the ESRD Networks and major stakeholder groups was convened to develop a firm and broad understanding of the challenges and successes for fistula placement within the dialysis and surgical communities. Based on this early work, a set of improvement recommendations and tools was developed. In April 2004, the CMS Public Affairs Office released a press release announcing the project. In November 2004 the CMS Administrator recognized the project as a Breakthrough Initiative.

CAN YOU DEFINE A CHANGE CONCEPT?

A change concept is a general approach to change that has shown usefulness in developing specific ideas for changes that lead to improvement. Change concepts are intended to encourage development of specific changes that make sense within a particular setting. There are 11 change concepts that have been identified to help the Networks and dialysis providers implement this project and achieve the desired outcomes.

WHAT CAN NEPHROLOGISTS DO TO PROMOTE A-V FISTULAS?

There are a number of strategies that a nephrologist can pursue to help with this project. A few are listed here.

- Familiarize themselves with and implement applicable National practice guidelines
- Refer pre-ESRD patients for timely permanent access placement
- Advocate for appropriate access selection and placement with surgeons
- Participate in and support staff vascular access education initiatives
- Implement access monitoring and intervention protocols at the facility level
- Educate and encourage patients to seek AVFs as a permanent access

CAN NURSES AND TECHNICIANS HELP?

Of course. Here are some things that nurse and technicians can do.

- Familiarize themselves with and help implement applicable National practice guidelines
- Establish CQI programs in vascular access/monthly review of vascular access outcomes
- Educate pre-ESRD patients about the importance of AVF, and encourage them to seek AVF as permanent access
- Educate patients on proper care and preventive measures that increase access longevity
- Participate in routine monitoring access programs for stenosis and complications, and prompt referral for abnormal findings (e.g., stenosis, recirculation, unexplained decreased Kt/V)
- Cannulation education and training
- Offer patients self-cannulation where feasible
- Rotate needle cannulation sites

- Use cannulation experts for new AVFs

WHERE CAN I FIND MORE INFORMATION?

There are lots of websites with additional information. A few are listed below:

IHI	http://www.ihi.org/IHI/Topics/ESRD/VascularAccess/
Forum/Networks	http://www.esrdnetworks.org/
NIH	http://kidney.niddk.nih.gov/kudiseases/pubs/vascularaccess/
NKF	http://www.kidney.org/atoz/atozItem.cfm?id=71