SOCIETY OF INTERVENTIONAL RADIOLOGY
Enhanced care through advanced technology®

3975 Fair Ridge Drive
Suite 400 North
Fairfax, Virginia
22033
703.691.1805
703.691.1855 fax
www.SIRweb.org

CONTACT
Maryann Verrillo (703) 460-5572
Diane Shnitzler (703) 460-5582
March 5–6, Amy Leahing (212) 453-2357
March 5–6, Don Murphy (212) 453-2462
March 5–6, Neil Hochman (212) 453-2067
March 7–March 12, San Diego News Room (619) 525-6248
(619) 525-6249

EMBARGOED FOR RELEASE UNTIL MONDAY, MARCH 9, 2009, 9 A.M. (Eastern)

For Old or Young Dialysis Patients, AV Fistulas Remain Pure Gold

Preferred Access at Any Age: Comparison by Interventional Radiologists Shows No Difference in "Patency" or Openness of Arteriovenous (AV) Fistulas

SAN DIEGO, Calif. (March 9, 2009)—A new study shows that for those individuals with chronic kidney disease, it doesn't matter if you're young or old: arteriovenous (AV) fistulas remain the gold standard for maintaining access to one's circulatory system to provide life-sustaining dialysis. Interventional radiologists found no difference between the two age groups when it comes to "patency" or the openness of AV fistulas or accesses needed for dialysis. Their results were presented at the Society of Interventional Radiology's 34th Annual Scientific Meeting.

"Elderly patients' arteriovenous (AV) fistulas—vascular accesses needed for dialysis treatment—responded just as well as those in younger patients—in length of time the access stayed open and in moving blood flow efficiently. An AV fistula is the preferred access at any age," said Andrew R. Forauer, M.D., an interventional radiologist at Dartmouth-Hitchcock Medical Center in Lebanon, N.H. When kidneys fail—called chronic kidney or end-stage renal disease—treatment in the form of regular dialysis (or hemodialysis) is needed to replace the kidney's job of ridding the body of toxic waste products to maintain fluid, electrolyte and acid–base balance. A machine is used to filter blood outside one's body, allowing blood to flow, a few ounces at a time, through a special filter that removes wastes and extra fluids. The clean blood is then returned to a dialysis patient's body. Dialysis helps women and men feel better and live longer. "One of the greatest challenges facing patients and their doctors is keeping an individual's vascular access graft open for dialysis. AV fistulas remain the gold standard of access for kidney dialysis patients. They last longer, need less rework and are associated with lower rates of infections, hospitalization and death than other types of access," explained Forauer.

A significant number of patients with chronic kidney failure receive dialysis using synthetic bridge grafts that tend to clot or malfunction, decreasing reliable access for life-sustaining dialysis and causing considerable morbidity, discomfort and inconvenience for dialysis patients, noted Forauer. "AV fistulas are underutilized in the United States yet they are best for keeping blood vessels open for access so individuals can continue to get their life-saving dialysis," said Forauer.

Researchers studied how 72 patients (36 were 75 years or older) and 36 younger patients (between the ages of 40 and 60) would fare when comparing the patency of AV fistulas. Researchers collected information about the patients' other medical conditions—such as whether they had peripheral arterial disease (PAD) or diabetes, whether they were smokers and whether they used anticoagulant medications—to see how this information would play in the big picture. Elderly patients were more likely to be affected by these conditions; however, their comparison showed no difference in primary, primary assisted, secondary or postinterventional primary patency. "AV fistula patency after intervention does not differ between younger and older patient populations," said Forauer.

Before dialysis can begin, a vascular access, which is the site on a patient's body where blood is removed and returned during dialysis, must be prepared. To maximize the amount of blood cleansed during dialysis treatments, the vascular access—such as an AV fistula—allows continuous high volumes of blood flow. An AV fistula is a connection created surgically by joining a vein and an artery in the forearm that allows blood from the artery to flow into the vein, thus providing access for dialysis. The increased blood flow makes the vein grow larger and stronger so it can be used for repeated needle insertions. This vascular access provides an efficient way for blood to be carried from one's body to the dialyzer and back without causing discomfort. Once matured, two needles are placed into the vein for dialysis. One needle is used to draw blood and run through the dialysis machine; the second needle returns the cleansed blood.

Interventional radiologists monitor AV fistulas to avoid complications such as infection, blockage

from clotting and poor blood flow. Interventional radiologists also keep AV fistulas or other accesses open or unclogged through minimally invasive techniques such as angioplasty or stenting. These interventions are safer, less costly and equally effective, and they improve the quality of life for dialysis patients.

Nationally, there are an estimated 27 million people with chronic kidney disease, and nearly half a million are being treated for kidney failure, requiring dialysis or kidney transplant to live. More than 340,000 individuals receive dialysis treatments three times each week, according to national statistics. Over the past five years, the number of new patients with kidney failure has averaged more than 90,000 annually. Kidneys filter waste from the blood and regulate other functions of the body.

More information about arteriovenous (AV) fistulas, end-stage kidney disease and interventional radiology be found online at www.SIRweb.org.

Abstract 121: "Evaluation of Post-Interventional Patency of AV Fistulas in Elderly Hemodialysis Patients," M.P. Bazylewicz, Dartmouth Medical School, Hanover, N.H.; A. Forauer, Dartmouth-Hitchcock Medical Center—vascular and interventional radiology, Lebanon, NH; and K.A. Pattin, Dartmouth-Hitchcock Medical Center, Lebanon, N.H., SIR 34th Annual Scientific Meeting March 7–12, 2009. This abstract can be found at www.SIRmeeting.org.

# # #

About the Society of Interventional Radiology

Interventional radiologists are physicians who specialize in minimally invasive, targeted treatments. They offer the most in-depth knowledge of the least invasive treatments available coupled with diagnostic and clinical experience across all specialties. They use X-ray, MRI and other imaging to advance a catheter in the body, usually in an artery, to treat at the source of the disease internally. As the inventors of angioplasty and the catheter-delivered stent, which were first used in the legs to treat peripheral arterial disease, interventional radiologists pioneered minimally invasive modern medicine.

Today many conditions that once required surgery can be treated less invasively by interventional radiologists. Interventional radiology treatments offer less risk, less pain and less recovery time compared to open surgery. Visit www.SIRweb.org.

An estimated 5,300 people are attending the Society of Interventional Radiology's 34th Annual Scientific Meeting in San Diego.

Local interviews are available by contacting SIR's communications department at mverrillo@SIRweb.org.