July 29, 2010

Subject: Vascular Access Initiative (VAI)

To: Hospital Chief Executive Officer

The Quality Improvement Organizations (QIOs) and nephrologists in your area are committed to providing the best care to our Chronic Kidney Disease (CKD) and End Stage Renal Disease (ESRD) Hemodialysis patients, and an integral part of this optimal care is to provide each patient with a permanent Vascular Access. We are writing to solicit your help in this endeavor.

For all Hemodialysis patients, a “permanent” Vascular Access is the lifeline that enables them to receive life-saving dialysis therapy every week safely and effectively. Creating a functional Vascular Access is a service to patients that requires the cooperation and dedication of all care providers including the Nephrologists, the Vascular Surgeons and the Hospitals.

**Decrease Re-admissions**
The most important benefit of a chronic Vascular Access, namely an arteriovenous fistula, is to the patient. The presence of a functional arteriovenous fistula instead of a temporary central venous catheter is known to decrease infectious complications, decrease hospitalizations, decrease re-admissions and reduce the risk of death for these complex ESRD patients. United States Renal Data System (USRDS) data shows that hospitalizations for vascular access-related infections in patients with a catheter are 12 times more common than for patients with an arteriovenous fistula.

**Reduce Risk for “Health Care-Associated” Infections**
In addition, hemodialysis patients with catheters are at increased risk for “Health Care-Associated” infections and such patients often present with Multidrug-Resistant infections. Hemodialysis patients with a catheter who present to the hospital with suspected bacteremia require empiric broad-spectrum antibiotic coverage and are at increased risk for serious infectious complications, including endocarditis, septic shock, MRSA infections and osteomyelitis.

**Focus on Patient Safety and Cost**
The infectious complications of central venous catheters contribute to the high inpatient costs of care for these patients. In one study, the treatment of catheter-related blood infections can result in an increase of more than $50,000 per incident. Furthermore, ESRD patients with a catheter have a hazard ratio of death of 2.5 compared to ESRD patients with an arteriovenous fistula. “Health Care-Associated” infections are targeted by the National Quality Forum (NQF) because of their adverse impact on patient safety and cost. (Currently NQF “Safe Practice 21” regarding infection concerns with central venous catheters and “Safe Practice 24” which particularly highlights concerns of Multidrug-Resistant Organisms address issues related to the complications of catheter
Reducing “Health Care-Associated” infections will be an ongoing part of the “Safe Practices for Better Healthcare” initiatives of NQF and, therefore, a continued focus of The Joint Commission. Reducing Hemodialysis temporary central venous catheter use in favor of a permanent vascular access such as an arteriovenous fistula is absolutely critical to reduce Central Venous Catheter blood stream infections and to reduce Multidrug-Resistant infections in the inpatient setting.

Despite these known complications related to temporary catheter use, approximately 80% of kidney patients still start dialysis with a temporary catheter and at the end of one year approximately 30% of these patients still have a catheter and have not converted to a permanent Vascular Access such as an arteriovenous fistula. We are, therefore, writing to you because we believe we must work together to achieve a goal of having less than 50% of patients starting Hemodialysis with a temporary catheter. In addition, processes must be implemented to reduce our ongoing temporary central venous catheter rate to 10% or less or as recommended by the National Kidney Foundation’s KDOQI guidelines. These goals will require the coordinated efforts of all of our area Nephrologists, Vascular Access Surgeons and this Hospital.

It is incumbent upon all of us to develop processes that will reduce the high number of temporary central venous catheters currently in use. Please see the attached appendix for eight specific recommendations. We look forward to the opportunity to meet with you to discuss this urgent issue and to review the recommendations.
Appendix

Recommendations for Improved Care for ESRD Hemodialysis Patients

The Hospital can contribute to achieving these goals of improved care for ESRD Hemodialysis patients in the following important ways:

1. Designate a staff person to serve as a Vascular Access Coordinator to assist in Vascular Access education, scheduling of radiology studies for vascular access (e.g. vein mapping), prompt and timely scheduling of Vascular Access surgery, coordination of post-access placement follow-up, and monitoring of Vascular Access outcomes.

2. Do not discharge ESRD patients who do not have an arteriovenous fistula in place, or a plan for AV fistula placement, at the time of discharge.

3. Expedite scheduling for non-hospitalized patients for same day radiology evaluation for an arteriovenous fistula (including vein mapping), anesthesia evaluation and arteriovenous surgery.

4. Reduce waiting time for Outpatient arteriovenous surgery to less than 7 days.

5. For all hospitalized patients make sure that an estimated Glomerular Filtration Rate (eGFR) is reported every time a serum creatinine is ordered. This will allow the identification of hospitalized patients with renal impairment who may need Vascular Access education and creation and it may protect patients with renal impairment from further renal injury. The American Clinical Laboratory Association supports routine eGFR reporting.

6. Create a hospital policy to minimize Peripherally Inserted Central Catheters (PICC lines) from being placed in patients with an eGFR of <45 ml/min/1.73 m². Previous PICC line placement reduces the success of a subsequent arteriovenous fistula in that extremity.

7. Provide a “Protect the Arm” bracelet to patients with an eGFR of <60 ml/min/1.73 m² in anticipation of Vascular Access placement. (The QIOs will work with hospitals to provide the bracelets)

8. Support dialysis education and Nephrology referral for any patient with an eGFR of <30 ml/min/1.73 m². (Hospitals will work with their nephrologists to accomplish this recommendation).