



Network 11 Fistula First Facility Best Practices



Change Concept Strategy	Description	Outcome
<p>1. Routine CQI review of vascular access</p> <ul style="list-style-type: none"> Designate staff member in dialysis facility (RN if feasible) responsible for vascular access CQI. Assemble multi-disciplinary vascular access CQI team in facility or hospital. <i>Minimally:</i> Medical Director and RN (VA CQI Coordinator). <i>Ideally:</i> Representatives of all key disciplines including access surgeons and interventionalists. Investigate and track all non-AVF access placements, and AVF failures. 	<p>Having someone keeping track of new accesses, although with our volume of pts. this isn't always easy. Physician involvement to get fistula placed before dialysis is started. – <i>Sandy from Fargo, ND</i></p>	<p>43% → 55% AVF Prevalence</p>
	<p>Relentless follow through in particular with MD involvement and speaking with the pts on need for pursuing access. – <i>Tammy from Shawano, WI</i></p>	<p>28% → 44% AVF Prevalence</p>
	<p>Fistula First committee, new forms and procedures, and higher physician awareness. – <i>Barb from St. Francis, WI</i></p>	<p>33% → 46% AVF Prevalence</p>
	<p>With every new and existing pt, I discuss their access with their Nephrologist monthly. All new pts are first assessed if they are a surgical candidate. If they are, an appt for a permanent access is made immediately. – <i>Barb from Montevideo, MN</i></p>	<p>25% → 67% AVF Prevalence</p>
	<p>Tracking of accesses and increasing participation from vascular surgeon in placing fistulas. – <i>Cathy from Dearborn, MI</i></p>	<p>14% → 37% AVF Prevalence</p>
	<p>Formed vascular access team, have meeting monthly to review KT/V trends, patients with catheters and why, implement referral process to vascular surgeon for new patients. Nephrologist, dialysis supervisor and surgeons meet on a quarterly basis to discuss issues. – <i>Carrie from Green Bay, WI</i></p>	<p>20% → 31% AVF Prevalence</p>
	<p>Staff teaching and patient teaching both have helped, but the greatest improvement has been the vascular access coordinators expertise available to us. – <i>Nancy from Spearfish, SD</i></p>	<p>65% → 71% AVF Prevalence</p>
	<p>Facility supervisors are now meeting quarterly with the vascular surgeons and nephrologists to keep the awareness of the Fistula First initiative and to improve communication across the board. – <i>Lucy from Sturgeon Bay, WI</i></p>	<p>25% → 43% AVF Prevalence</p>
	<p>Appointed an access coordinator for the unit, this has allowed for a point of contact for the surgeons office. Met with the local surgeons at one point and talked about the fistula first initiative. – <i>Renee from Lansing, MI</i></p>	<p>18% → 52% AVF Prevalence</p>
	<p>Vascular access is discussed each month as care conferences are done with each patient. – <i>Pat from Mauston, WI</i></p>	<p>11% → 62% AVF Prevalence</p>
<p>2. Timely referral to nephrologist</p> <ul style="list-style-type: none"> Primary care physicians utilize ESRD/CKD referral criteria to ensure timely referral of patients to nephrologists. Establish meaningful criteria for PCPs who may not perform GFR or creatinine clearance testing. Nephrologist documents AVF plan for all patients expected to require renal replacement therapy. Designated nephrology staff person educates patient and family to protect vessels, when possible using bracelet as reminder. 	<p>Our Nephrologist has done Medical Staff presentations at 2 of the 3 hospitals he covers on the importance of early referral, access creation. – <i>Lynnette from Fond Du Lac, WI</i></p>	<p>46% → 65% AVF Prevalence</p>
	<p>Our nephrologist has been recommending early accesses whenever he does a consult on a chronic renal patient. – <i>Sue from Pierre, SD</i></p>	<p>19% → 29% AVF Prevalence</p>
	<p>Discussions with nephrologist regarding access placement prior to initiation of dialysis. – <i>Laura from Janesville, WI</i></p>	<p>44% → 63% AVF Prevalence</p>
	<p>Our nephrologists have worked hard to get earlier referrals to them in order to get fistulas placed early. – <i>Kate from Platteville, WI</i></p>	<p>39% → 80% AVF Prevalence</p>
	<p>Identifying patients in the pre-dialysis clinic who are interested in hemodialysis and having them evaluated for an AVF and having one installed before the patient needs dialysis. For acute patients facing chronic CKD, an AVF is installed, if possible, ASAP, even if a perm cath is needed for immediate HD. – <i>Faith from Red Lake, MN</i></p>	<p>33% → 63% AVF Prevalence</p>
	<p>Pre ESRD education early to provide pts with treatment options so they will decide early on as to what type of treatment will best suit their needs. – <i>Callie from Marinette, WI</i></p>	<p>41% → 54% AVF Prevalence</p>
<p>3. Early referral to surgeon for “AVF only” evaluation & timely placement</p> <ul style="list-style-type: none"> Nephrologist/skilled nurse performs appropriate evaluation and physical exam prior to surgery referral. 	<p>Our on site Nephrologist has established a very positive working relationship with our Interventional radiologist. Our nephrologist does not accept a new patient into our Chronic Outpatient Unit unless the patient has an AVF already placed or has been referred for placement. – <i>Renee from Aberdeen, SD</i></p>	<p>32% → 46% AVF Prevalence</p>
	<p>Working with the Providers to encourage access placement before start of dialysis treatments. – <i>Mary from Mankato, MN</i></p>	<p>29% → 39% AVF Prevalence</p>
	<p>"AVF Only" Referral to Vascular Access surgeon; must contact nephrologist if AVF is not indicated; all new patients are scheduled for vessel mapping within first 30 days of admission. – <i>Darline from Detroit, MI</i></p>	<p>14% → 29% AVF Prevalence</p>
	<p>Early referral to surgeon and early intervention. – <i>Tamera from St. Paul, MN</i></p>	<p>31% → 49% AVF Prevalence</p>

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<p>3. Early referral (Cont)</p> <ul style="list-style-type: none"> Nephrologist refers for vessel mapping where feasible, prior to surgery referral. Nephrologist refers patients to surgeons for "AVF only" evaluation, no later than Stage 4 CKD (GFR<30). Surgery scheduled with sufficient lead-time for AVF maturation. Nephrologist defines AVF expectations to surgeon, including vessel mapping (if not already performed). If timely placement of AVF does not occur, nephrologist ensures that patient receives AVF evaluation and placement at the time of initial hospitalization for temporary access (e.g. catheter). 	<p>"90 day rule": All patients will be evaluated for an access within 90 days of admission with the intention of having an AV fistula mature by the 90-day mark. <i>– Francesco from Southgate, MI</i></p>	<p>14% → 33% AVF Prevalence</p>
	<p>Earlier referral to surgeon, but we still have to wait on our one surgeon who does the surgery. <i>– Sue from Pierre, SD</i></p>	<p>19% → 29% AVF Prevalence</p>
	<p>Our nephrologists have worked very hard with the local surgeons to help them realize that it is not a matter of choosing what kind of access to put in but that instead that they expect fistulas. <i>– Kate from Platteville, WI</i></p>	<p>39% → 80% AVF Prevalence</p>
	<p>Nephrologist is sending people much earlier now for mapping/placement from the Clinic setting before initiating dialysis. <i>– Karen from Hancock, MI</i></p>	<p>17% → 51% AVF Prevalence</p>
	<p>The new nephrologists are referring new patients for AV fistulas prior to being discharged from the hospital. They are trying to put fistulas in on patients they are following with pre-ESRD. <i>– Lynne from St. Paul, MN</i></p>	<p>18% → 32% AVF Prevalence</p>
	<p>Medical Director requests AVF placement in all new patients from the surgeons if at all possible before dialysis initiation. <i>– Bob from Rosebud, ND</i></p>	<p>55% → 69% AVF Prevalence</p>
	<p>All new pt's sent to vascular within first week of arrival; venous pressure monitoring of pt's; monthly direct contact with outside vascular center. <i>– Keith from Flint, MI</i></p>	<p>26% → 49% AVF Prevalence</p>
	<p>Relentless follow-up by entire team. Request AVF as access of choice. <i>– Geraldo from Warren, MI</i></p>	<p>24% → 43% AVF Prevalence</p>
	<p>More aggressive follow-up in assisting new patients to be seen for a permanent access. <i>– Sara from Mora, MN</i></p>	<p>41% → 60% AVF Prevalence</p>
	<p>The initiatives that helped the most I feel is early referral to the vascular surgeon and vein mapping. <i>– Callie from Marinette, WI</i></p>	<p>41% → 54% AVF Prevalence</p>
<p>Facility practice implemented that we do not accept patient unless permanent access has been scheduled with surgeon. <i>– Tammy from Kalamazoo, MI</i></p>	<p>39% → 52% AVF Prevalence</p>	
<p>4. Surgeon selected based on best outcomes & ability to provide access services</p> <ul style="list-style-type: none"> Nephrologists communicate standards and expectations to surgeons performing access, as well as training in current techniques for AVFs. Nephrologists refer to surgeons willing and able to meet the standards and expectations. Surgeons are continuously evaluated on frequency, quality and patency of access placements. Data collection is initiated and reported at the dialysis center as part of ongoing CQI process, and can be aggregated at the Network level. 	<p>We use one surgeon who has good success rates with fistulas.</p>	<p>43% → 55% AVF Prevalence</p>
	<p>We consult our client's nephrologist for the vascular surgeon of their choice, then we schedule an appointment for vessel mapping and consultation for fistula creation. We follow up with a call to the surgeon's office for the date of surgery. We make the appointments for our new clients to make sure the fistula creation is done in a timely manner. We also follow up with appointment for catheter removal. <i>– Celeste and Jeanette from Southfield, MI</i></p>	<p>16% → 38% AVF Prevalence</p>
	<p>We refer our pt's to one specific vascular surgeon who has demonstrated huge success in AVF placement. We also encourage our pt's continually to consider a fistula as a primary access. <i>– Donna from Jackson, MI</i></p>	<p>20% → 40% AVF Prevalence</p>
	<p>Greatest impact to increased fistula numbers is having an excellent surgeon who is very skilled in creating good fistulas and who communicates with the nurse practitioner or other dialysis nursing staff several times a week. <i>– Mary from Eau Claire, WI</i></p>	<p>50% → 66% AVF Prevalence</p>

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<p>5. Full range of appropriate surgical approaches to AVF evaluation and placement</p> <ul style="list-style-type: none"> Surgeons utilize current techniques for AVF placement including vein transposition. Surgeons ensure mapping is performed for any patient not clearly suitable for AVF based only on physical exam. Surgeons work with nephrologists to plan for and place secondary AVFs in suitable AV graft patients. 	<p>We use Transonic device for monitoring fistula and graft status every 4-6 weeks. We proactively use interventional radiology for angioplasty when flow rates decrease. Radiologists and our vascular surgeon work collaboratively on difficult accesses. <i>– Mary from Eau Claire, WI</i></p>	<p>50% → 66% AVF Prevalence</p>
<p>6. Secondary AVF placement in patients with AV grafts</p> <ul style="list-style-type: none"> Nephrologists evaluate every AV graft patient for possible secondary AV fistula conversion, including mapping as indicated, and document the plan in the patient's record. Dialysis facility staff and/or rounding nephrologists examine outflow vein of all graft patients ("sleeves up") during dialysis treatments (minimum frequency, monthly). Identify patients who may be suitable for elective secondary AVF conversion in upper arm and inform nephrologist of suitable outflow vein. Nephrologists refer to surgeon for placement of secondary AVF before failure of AVG. 	<p>Review and monitoring of grafts in clinic to initiate fistula before graft fails. <i>– Callie from Marineette, WI</i></p>	<p>41% → 54% AVF Prevalence</p>
<p>7. AVF placement in patients with catheters where indicated</p> <ul style="list-style-type: none"> Regardless of prior access (e.g. AV graft), nephrologists and surgeons evaluate all catheter patients as 	<p>Monthly meetings with access surgeons in our area to discuss patients needing to be converted to a fistula. <i>– Mary from Mankato, MN</i></p> <hr/> <p>When admission orders are taken for new patient admitted with catheter only, nephrologist questioned regarding plans for access placement. <i>– Denise from Maplewood, MN</i></p>	<p>29% → 39% AVF Prevalence</p> <p>30% → 39% AVF Prevalence</p>

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<p>soon as possible for AVF, including mapping as indicated.</p> <ul style="list-style-type: none"> Facility implements protocol to track all catheter patients for early removal of catheter. 	<p>If a patient is admitted to this facility with a catheter, we initiate a vascular access consult within the first week - surgery is then usually the following week. – <i>Lucy from Sturgeon Bay, WI</i></p>	<p>25% → 43% AVF Prevalence</p>
	<p>Continuously educated the patients with perm cath and have worked with the physicians and nurse practitioners to facilitate the education and change in practice. – <i>Ronda from Portage, WI</i></p>	<p>29% → 50% AVF Prevalence</p>
<p>8. Cannulation training for AV fistulas</p> <ul style="list-style-type: none"> Facility uses best cannulators and best teaching tools (e.g., videos) to teach AVF cannulation to all appropriate dialysis staff. Dialysis staff use specific protocols for initial dialysis treatments with new AVFs and assign the most skilled staff to such patients. Facility offers option of self-cannulation to patients who are interested and able. 	<p>Identified two of our best cannulators and sent them to a cannulation camp presented in Fargo, ND. The best cannulators are the sole persons to access new AVF until the patient is dialyzing using two 15g needles successfully. – <i>Renee from Aberdeen, SD</i></p>	<p>32% → 46% AVF Prevalence</p>
	<p>The most competent staff are placing needles on new fistulas so that the patient experience has the best outcome. – <i>Mary from Mankato, MN</i></p>	<p>29% → 39% AVF Prevalence</p>
	<p>We strive to educate our access managers so they are prepared to educate our team, especially our technicians because they are the ones using the accesses the most, as well as having the most consistent and close contact with our clients. – <i>Tracey from Flint, MI</i></p>	<p>40% → 51% AVF Prevalence</p>
	<p>Host facility skills day for training on cannulation techniques. – <i>Laura from Janesville, WI</i></p>	<p>44% → 63% AVF Prevalence</p>
	<p>We use the best cannulators on our newest fistulas. We have just started using buttonhole cannulation in the last about 6 months and I feel that it is very helpful in many fistulas. We try six cannulations with sharp needles with the same cannulator if at all possible or at most with two cannulators who communicate with each use with each use of the access. – <i>Kate from Platteville, WI</i></p>	<p>39% → 80% AVF Prevalence</p>
	<p>"Expert Needler" nursing staff were defined as staff with more than 5 years of dialysis cannulation experience. These staff are the only ones allowed to access new fistulas until they develop, then the rest of the staff may use them. – <i>Mary from Eau Claire, WI</i></p>	<p>50% → 66% AVF Prevalence</p>
<p>9. Monitoring and maintenance to ensure adequate access function</p> <ul style="list-style-type: none"> Nephrologists and surgeons conduct post-operative physical evaluation of AVFs in 4 weeks to detect early signs of failure and refer for intervention as indicated. Facilities adopt standard procedures for monitoring, surveillance, and timely referral for the failing AVF. Nephrologists, interventional radiologists, and surgeons adopt standard criteria, and a plan for each patient, to determine the appropriate extent of intervention on an existing access before considering placing a new access. 	<p>Transonic flows are done quarterly followed by fistulograms as needed to preserve the access. – <i>Bonnie from Rochester, MN</i></p>	<p>39% → 49% AVF Prevalence</p>
	<p>Monthly, nephrologist and nurse manager discuss needle sticks; if the patient is using the buttonhole needle insertion, high arterial or venous pressures and any other possible complications are reviewed. – <i>Barb from Montevideo, MN</i></p>	<p>25% → 67% AVF Prevalence</p>
	<p>Implemented a venous pressure monitoring and tracking system to assist in the identification of impending problems with accesses prior to failure. – <i>Lori and Cheryl from Rapid City, SD</i></p>	<p>35% → 58% AVF Prevalence</p>
	<p>Use of AVF whenever possible, teaching care of fistula, good assessment of access with each dialysis and recirc studies every three months. – <i>Gladys from Newtown, ND</i></p>	<p>74% AVF Prevalence</p>
	<p>Monthly transonic readings which are reviewed at the QA meeting and by the Medical Director and we go for early intervention. We went for 2 years with NO clotted accesses. New fistulas that are difficult to feel go to the PV lab with an RN and Tech with needles placed using the ultrasound. Those sites become our buttonhole sites. – <i>Rosie from Marshfield, WI</i></p>	<p>47% → 58% AVF Prevalence</p>

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<p>10. Education for caregivers & patients</p> <ul style="list-style-type: none"> Routine facility staff in-servicing and education program in vascular access. Continuing education for all caregivers to include periodic in-services by nephrologists, surgeons, and interventionalists. Facilities educate patients to improve quality of care and outcomes (e.g., prepping puncture sites, applying pressure at needle sites, etc.). 	<p>Our patient education committee has designated one month annually to review access with all patients with emphasis on fistula. Each unit reviews the booklets with each individual patient and has a bulletin board near the scale to reinforce the recommendation for fistula. – Bonnie from Rochester, MN</p>	<p>33% → 43% AVF Prevalence</p>
	<p>Identifying the patients' fears and addressing them with sound education and facts, a lot of resistance to AVF placement in patients is directly related to poor education. Quality of life is stressed, decreased episodes of hospitalizations, and infections are some of the key focus factors. – Tracey from Flint, MI</p>	<p>40% → 51% AVF Prevalence</p>
	<p>Patients educated about access upon admission and told to set up or helped to set up appointments with vascular access surgeons. – Denise from Maplewood, MN</p>	<p>30% → 39% AVF Prevalence</p>
	<p>Patient education related to access pros and cons, reaching out to pre-ESRD patients who stop at the unit for tour and community health fairs we have participated in. – Laura from Janesville, WI</p>	<p>44% → 63% AVF Prevalence</p>
	<p>Implemented a Vascular Access Coordinator (VAC) position, approximately 5 years ago to coordinate and facilitate vascular access placement and provide consistent patient and staff education. – Lori and Cheryl from Rapid City, SD</p>	<p>35% → 55% AVF Prevalence</p>
	<p>Weekly we gave out handouts on why a fistula is the best option for hemodialysis. We had at least 2 patients who were not going to get accesses placed, change their mind, now we are actively cannulating one of those, and the other has a maturing fistula. – Sherry from Tecumseh, MI</p>	<p>26% → 55% AVF Prevalence</p>
<p>11. Outcomes feedback to guide practice</p> <ul style="list-style-type: none"> Networks work with dialysis providers to give specific feedback to all decision-makers on incident and prevalent rates of AVF, AVG, and catheter use. Review data monthly or quarterly in facility staff meetings. Present and evaluate data trended over time for incident and prevalent rates of AVF, AVG, and catheter use. 	<p>Vascular Access mini-in-service and update on Fistula First Initiative at Monthly Staff Meetings. Additional QI measures including: target goals for access type, recirculation studies, access flow studies, and dynamic venous pressures. – Lori from Williston, ND</p>	<p>35% → 42% AVF Prevalence</p>
	<p>Monthly meetings with Vascular Surgeon, Radiologist, Medical Director, Stick Team, facility administrator, and coordinator. With these meetings starts the process of information to be able to utilize and implement in providing Fistulas to new patients and follow-up to patients that are having any kind of problems with access. – Nick from St. Louis Park, MN</p>	<p>33% → 51% AVF Prevalence</p>
	<p>Facility region meets with the nephrologist, interventional radiologist, and vascular surgeons quarterly to discuss problems, review statistics and brain storm on better ways to improve access success. – Callie from Marinette, WI</p>	<p>41% → 54% AVF Prevalence</p>

Additional Ideas from Network 11 facilities:

For patients identified, MSW discusses personal & social fears concerning AVF placement, handouts/educational materials are given to the patients, dietitian reinforces need for AVF with monthly lab review, MD discusses need for AVF at careplan and daily rounds, appointments are made for vein mapping & surgical consults by RN Mgr. RN Mgr follows up with patient after each step of the AVF process is completed.
– **Brenda from Milwaukee, WI**

We are really involved with talking to the patients as well as there MD's about getting accesses placed ASAP. – **Courtney from Eagan, MN**

Patient education and requesting AVF evaluation instead of access placement. – **William from Detroit, MI**

We have created a vascular access team which meets monthly to review catheter patients and those with developing AVF. We than discuss these patients with the Medical Director and document the progress. The access team also participates in monthly conference calls with other facilities and our Clinical Service Specialist on how to improve access numbers. – **Renee from Green Bay, WI**

We completed an audit of each patient in our facility in regards to current form of access. Each was discussed with the Medical Director to determine a plan for future AVF. Each patient has a case manager and each case manager will discuss the benefits of AVF with each of their new patients.
– **Sue from Manitowoc, WI**

Company formed a Fistula CQI committee; Send all patients for vein mapping; Send patients to surgeon with vein mapping results and request for AVF only; Nephrologists spoke to surgeons Re: need for AVF only; All staff inserviced on AVF cannulation. – **Jill from Oak Creek, WI**

We have developed an " access placement form" which is started on a patient's first chronic visit. Our goal is that an access other than a catheter is placed within 4 weeks from their 1st visit. – **Collette from Grand Forks, ND**

Continued efforts by physician to get patients to have access place prior to HD initiation and periodic reassessment of patients without a fistula, hoping to get them to agree to placement of one. – **Robin from Marinette, WI**

Continued efforts by physician to get patients to have access place prior to HD initiation and periodic reassessment of patients without a fistula, hoping to get them to agree to placement of one. Awareness of nephrologists and vascular surgeons to put fistulas in place prior to patients starting dialysis.
– **Tim from Watertown, SD**

Working with nephrologists and acute nurses in the hospital to have new pts referred to vascular surgeon and have fistula/graft done before they discharged. Not accepting new pts in center after they're discharged from the hospital if they don't have a fistula/graft done.
– **Genah from Kalamazoo, MI**