

**ESRD Network 11
National Vascular Access Improvement Initiative
Surgeon Questionnaire Summary**

In May 2004, Network 11 conducted a questionnaire that surveyed surgeon practices with placement of hemodialysis vascular access within the states of Michigan, Minnesota, Wisconsin, and North and South Dakota. The data collected from this survey is summarized below.

Surgeon Characteristics

Of the 390 surgeons surveyed within the five state area, Network 11 received 92 completed surveys. General characteristics of the surgeons who completed the survey showed that for this population, respondents have practiced in the field of surgery for the range of 1-30 years, with a mean of 13.07 years. These same surgeons have been performing hemodialysis vascular access procedures for a range of 1-35 years (including residency), with a mean of 13.06 years. The following table illustrates the breakdown for surgeon specialties of the respondents for the states surveyed.

**Figure 1
Summary of Surgeon Specialty**

	General	Vascular	Gen & Vasc	Txp	Gen, Vasc, & Txp	Gen & Txp	Total
MI	10	13	5	3	0	1	32
MN	7	2	0	1	0	0	10
ND	0	1	1	0	1	0	3
SD	5	2	3	0	1	0	11
WI	11	9	13	3	0	0	36
Total	33	27	22	7	2	1	92

Vascular Access Placement

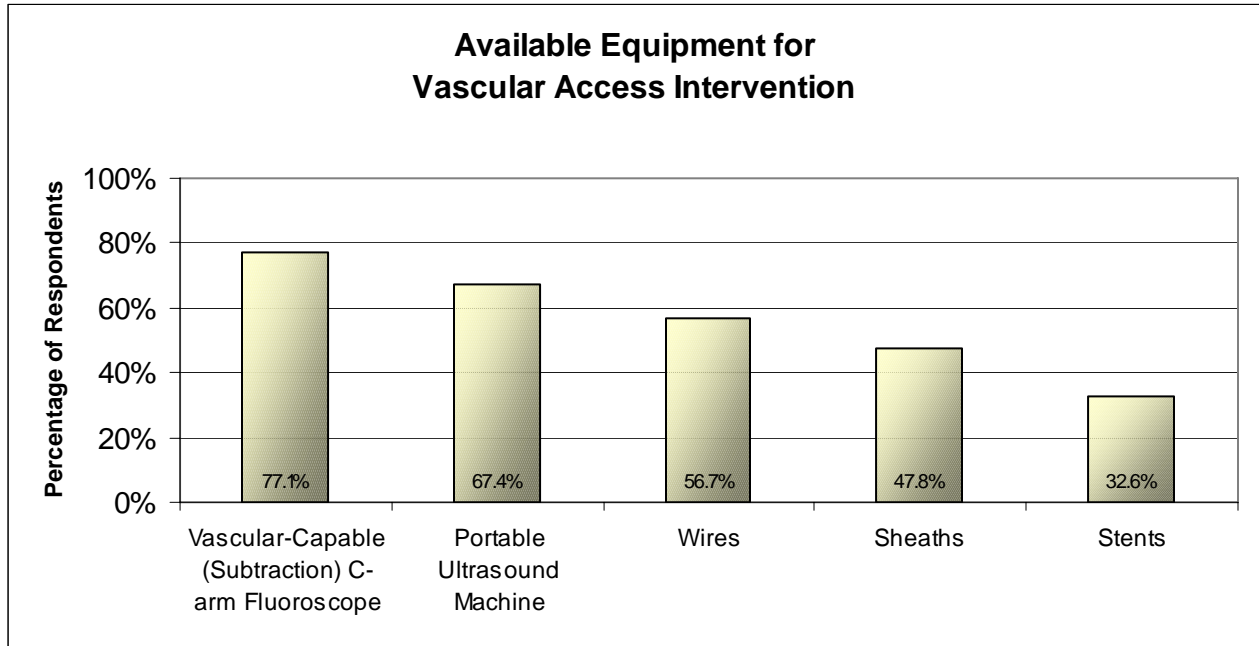
Surgeons were asked the quantity of procedures performed each year for placement of AV fistula, AV graft, and catheter. For all respondents, 97.8% state they prefer to place an AV fistula, while 2.2% state they prefer to place an AV graft. No trends were observed in the percentage of vascular access placed by type. AV fistulas, AV grafts and catheters were all placed with comparable frequency.

Although there was great variation whether surgeons evaluated a patient for vascular access placement before or after initiation of hemodialysis, all respondents stated that a new patient can be seen for initial evaluation within one month. After evaluation, patients wait less than one month for the actual access placement. In addition, 32.6% of respondents confirm use of an operative registry for tracking vascular access placement.

Vascular Access Intervention

Once vascular access placement has occurred, practices among respondents varied for follow up. For urgent problems with vascular access, 96.7% of respondents stated a patient is seen in their office within 24 hours. Respondents confirm a variety of equipment available to them for effective vascular access examination and evaluation, as shown in Figure 3.

Figure 3



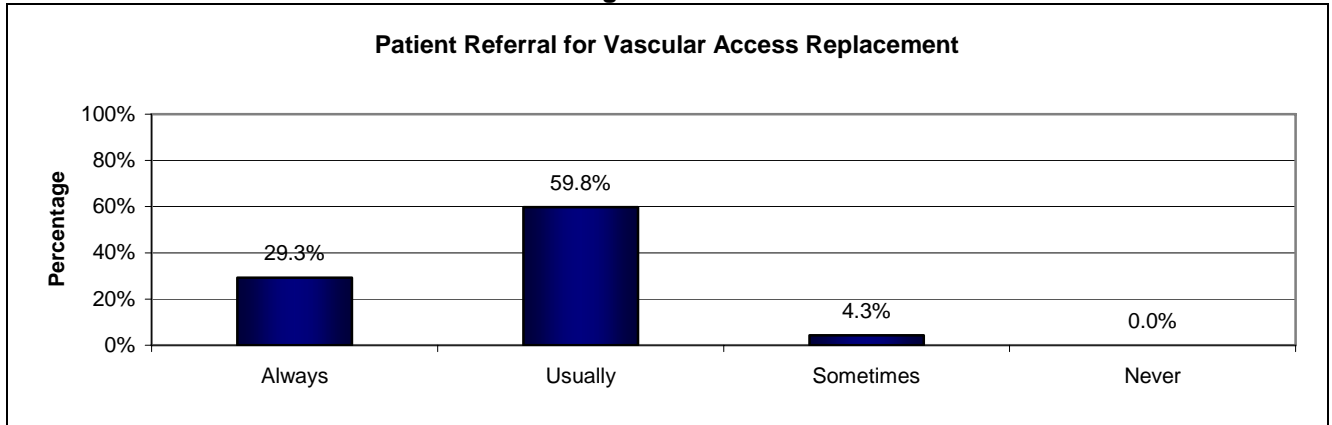
When performing interventions, 60.9% handle only operative intervention and refer out endovascular procedures; 38.0% of respondents manage all interventions; and 2.2% of respondents state they take care of straightforward problems and refer out complex problems. In addition, 36.9% of respondents state they perform endovascular procedures to manage vascular access. The location and types of endovascular procedures performed are summarized in Figure 4. Lastly, most respondents agreed that a patient is referred back to them if another vascular access is necessary, as shown in Figure 5.

Figure 4

Summary of Endovascular Procedures and Locations

<i>Location</i>	<i>Percentage of Procedures</i>	<i>On Table Fistulogram</i>	<i>Balloon Outflow Venoplasty</i>	<i>Endovascular Exam and Intervention</i>
Operating Room	88.20%	89.10%	44.60%	29.30%
Radiology	20.60%			
Procedure Room	5.90%			
Cardia Cath Lab	5.90%			

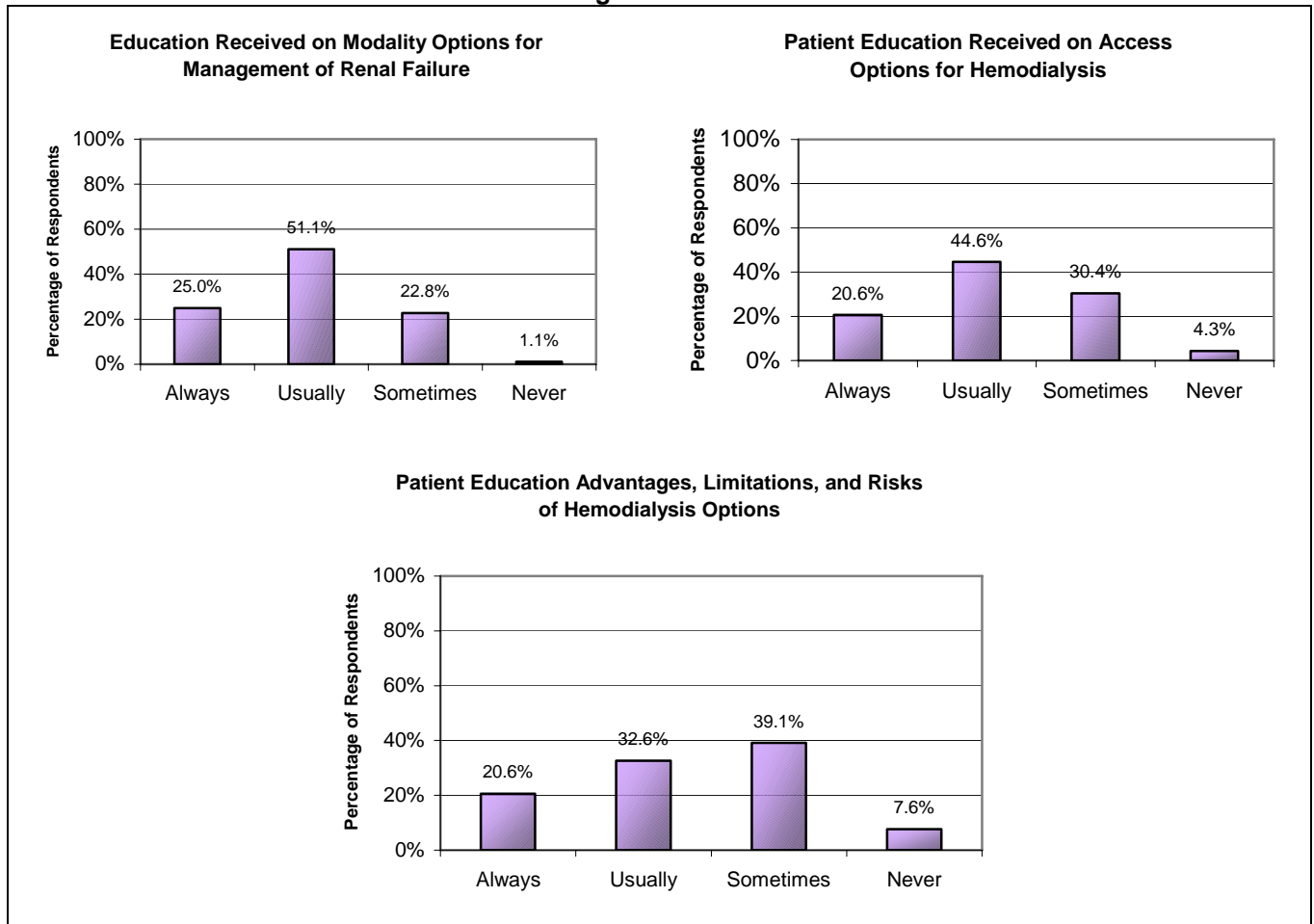
Figure 5



Vascular Access Education

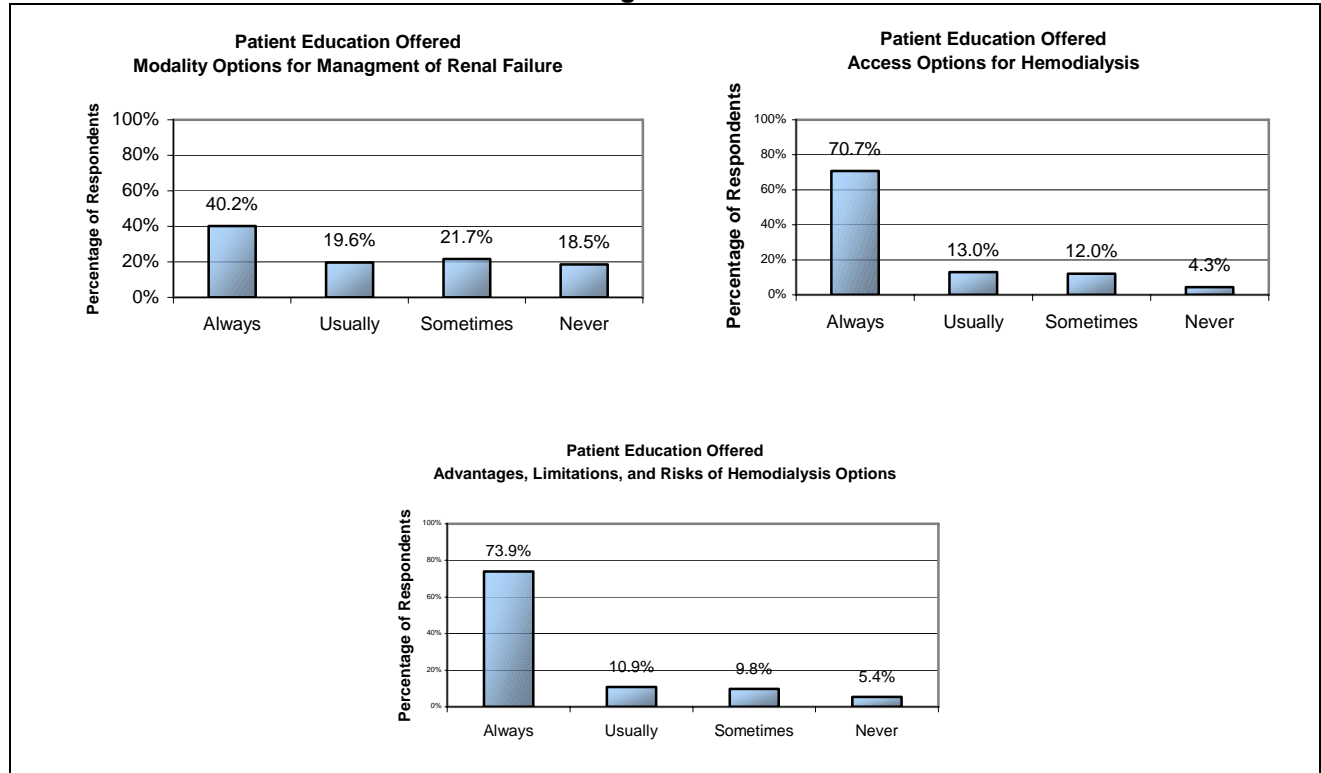
During the process of vascular access evaluation, placement, and intervention, respondents used a variety of techniques for patient education. Many patients have already been educated prior to surgeon referral on a variety of topics related to vascular access, as shown in Figure 6.

Figure 6



In comparison, most respondents agreed that patient education is also done within the course of access placement by the surgeon. When conducting this education, a variety of methods are utilized including, discussion (94.6%), written education materials (32.6%), and videos (5.4%). Figure 7 illustrates the occurrence of education offered to patients by the respondents.

Figure 7



Conclusion

Although surgeons utilize a variety of methods for vascular access placement, access intervention, patient referral and education, all respondents agreed that tools and ongoing attention are necessary for the state of dialysis access surgery. Figure 8 illustrates the tools that respondents found most important.

In addition, 82.6% of respondents expressed interest in a short mini-course regarding dialysis access surgery. Of the options available, 53.3% preferred online information, 51.1% preferred off-site workshop with others in their city, and 27.1% preferred grand rounds at own facility.

Figure 8

