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How Value-Based Health Care Is Redefining ESRD Management and the Impact to Vascular Specialists

A discussion of how value in dialysis access might be achieved, the potential role of the ESRD Seamless Care Organization, and the impact of new care models on future decision making.

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One in 10 adults in the United States has some level of chronic kidney disease,[1] and approximately 449,000 patients with end-stage renal disease (ESRD) initiated some form of dialysis by the end of 2012.[2] The Centers for Medicare & Medicaid Services (CMS) has reported that although ESRD patients represent a small percentage of the Medicare population (1.3%), they represent 7.5% of overall Medicare spending.[3] Because of the expenditures on this complex patient population, it is no surprise that CMS is undertaking measures to streamline care to reduce costs, shifting the focus away from a fee-for-service model and instead initiating value-based payment programs. The Comprehensive ESRD Care Initiative, the first disease-specific accountable care organization (ACO) model, was introduced in 2013 by the CMS Innovation Center in an effort to test a new system of payment and care delivery, with the goal of improving care for ESRD and lowering costs associated with care. The premise is that this model will result in comprehensive and coordinated delivery of care, enhanced patient-centered care, improved physician-physician and physician-patient communication, and improved access to service. This article describes how value in dialysis access might be achieved through ACOs, the potential role of the ESRD Seamless Care Organization (ESCO) to vascular specialists, and how value-based health care could impact future decision making for the ESRD population.

ACHIEVING VALUE IN DIALYSIS ACCESS THROUGH ALTERNATIVE CARE MODELS

The current fee-for-service model is complex and can lead to fragmentation of care, potentially resulting in unnecessary, repeated tests and interventions due to the lack of communication between treating physicians and misdirected objectives by providers inherent in the payment model (Figure 1). Although the ESCO model is in its experimental stage, it is designed to be a population management model for ESRD, wherein all members of the model are responsible for the care of a defined cohort of ESRD patients (Figure 2). Currently, there are 13 ESCOs participating in the pilot program across the United States. The goal is to affect two parameters in the value equation: quality and cost. Dialysis access centers, dialysis providers, and nephrologists will jointly manage the population. The costs and expenses will be analyzed over time, and preliminary results will serve as benchmarks for improvement. This is a challenging initiative given that the ESRD population is a formidable patient population to manage. In addition to kidney disease, it is a population with other significant chronic health conditions, such as diabetes, hypertension, coronary disease, and vascular disease. Essential to any comprehensive care process is participation and accountability on the part of the patient, although this critical component is characteristically lacking in most health reform initiatives.

The ultimate goal is to have a healthier ESRD population that uses fewer resources. Specifically in dialysis access,

there is some controversy as to whether dialysis access surveillance is cost-effective. Some studies have shown that dialysis access surveillance can prevent patients from missing dialysis days, subsequently providing more cost-effective care.[4] However, other studies have shown that surveillance results in more procedures performed, but not necessarily improvements in quality of life or longer time to graft or fistula failure.[5] In the current fee-for-service model, a provider is reimbursed per procedure. In proposed ACO models, the provider receives a fixed payment for a fixed amount of time for providing all the necessary care for that patient, which includes the resources required every time that patient is treated (eg, facility, staff, catheters, wires, balloons, stents, and other devices). In the ESRD population, surveillance is challenging because there is a lack of well-defined algorithms to optimize patient care and minimize the utilization of resources.

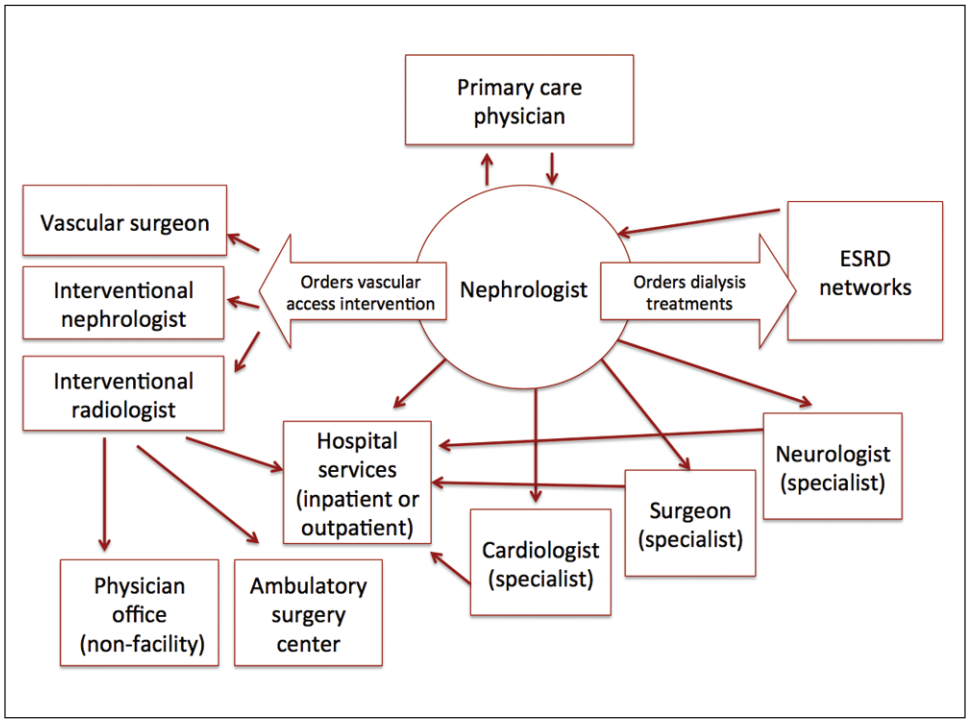

Figure 1. The fee-for-service model for ESRD care.

THE NEW FRONTIER OF ESCOS

By 2018, it is projected that approximately 90% of Medicare payments will be value based.[6] With only 13 ESCOs in the pilot program, vascular surgeons are watching from the sidelines to see how the model might affect future patient care. In my practice, we try to be thoughtful with our approach to dialysis access. For instance, we perform intraoperative flow measurements during access intervention in an attempt to optimize outcomes. In a future ESCO setting, a nephrologist running the program will look to send patients where there is the highest likelihood of success with the fewest number of procedures. Provision of these data by surgeons will be essential for ESCOs to make these distinctions.

In order to be prepared for recruitment into value-based programs, vascular specialists should collect data on value-based outcomes, such as the number of fistulas versus grafts for new dialysis patients, primary patency for arteriovenous access at 12 months, incidence of complications (eg, infection), as well as any associated costs. We are already seeing this change take effect, with information systems being redesigned to produce costs related to procedures.[7]

THE IMPACT OF VALUE-BASED HEALTH CARE ON DECISION MAKING

The ideal role of the vascular specialist in an ESCO model may be participation in early referral of patients for dialysis access creation, promoting fistulas whenever possible, and making decisions with other members of the ESCO on an algorithm for managing a failing or failed access, including for the patients' future access. If the patient is dialyzing well, the algorithm would include periodic evaluation of that patient for their next access option should the current one fail. In general, all members of the ESCO will need to be committed to the patient population and the unique challenges they present, as well as be intimately involved in decision-making as soon as a patient is identified as stage 4 chronic kidney disease with a glomerular filtration rate ≤ 20 mL/min/1.73 m^2.

A critically important part of decision-making in a new value-based health care model is integration of electronic health record systems, so that providers do not duplicate efforts. Patient education is also valuable, providing knowledge of the disease process and what to expect in the future, with the thought that a knowledgeable consumer will seek treatment earlier and potentially reduce costs of care.

In terms of device selection, the ESCO will absorb all of the costs associated with the care of the dialysis patient, including creation and maintenance of dialysis access. As a result, it may be beneficial to pay a higher upfront cost for a dialysis device if it translates into fewer downstream

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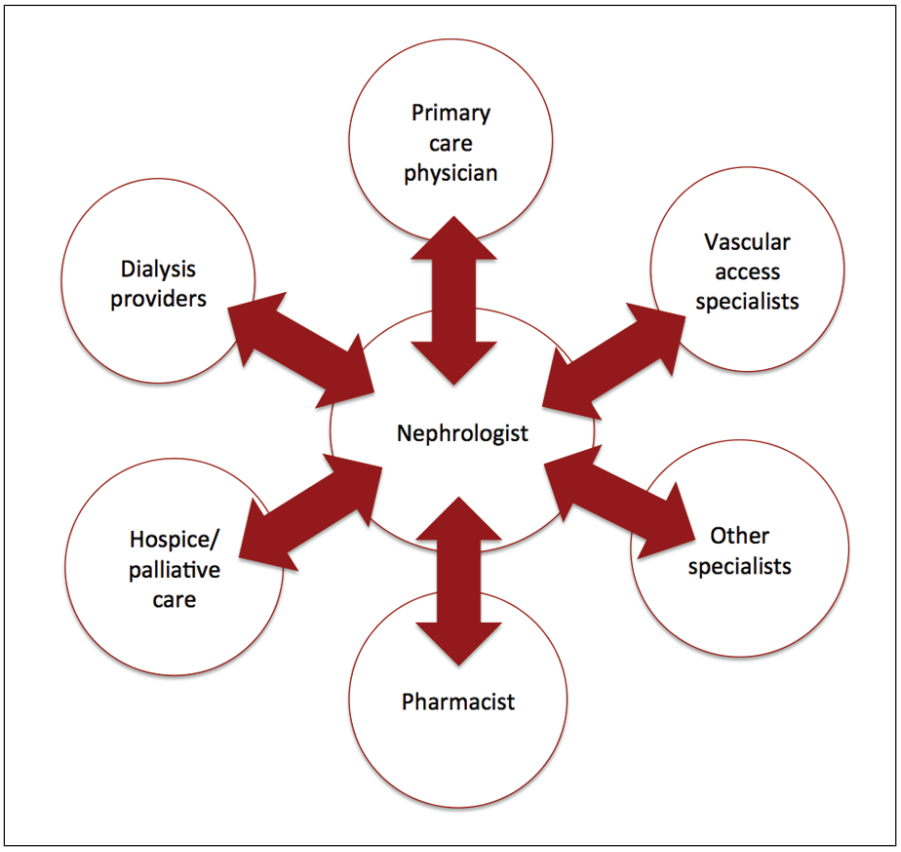

Figure 2. The new ESCO model for ESRD care.

interventions and revisions. In order to be competitive in the dialysis market, it will likely be essential for manufacturers to show value over time with a cost-benefit analysis for any new device they propose for dialysis access interventions.

WHAT TO AVOID IN THE NEW WORLD OF VALUE-BASED HEALTH CARE

Although the concept of value-based health care attempts to put a "one size fits all" formula to care delivery, the complexity of ESRD and the individual patient should still be taken into consideration, and the treatment algorithm for these patients should allow for some differences in care. For instance, segregating the outcomes for the population of patients who are offered catheters because they have no other options away from the outcomes of patients who do have options other than catheters. Moreover, population health management principles inherently imply redistribution of resources that may force a reassessment of the appropriateness of even offering hemodialysis to patients whose comorbid conditions preclude the creation of an arteriovenous fistula or graft.

Failing to benchmark and standardize clinical practices can affect patient outcomes and costs.[8] In the future world of value-based health care, the risk is shifting to the providers, and measures must be in place to assess costs related to treatment protocols and initiate process improvements in order to improve outcomes and reduce costs.

The shift from a supply-driven health care system to a patient-centered system is on the horizon, and vascular specialists should not disengage from new models and partnerships for health care delivery. Any outcomes collected should also consider the total value, so that they are easily incorporated into and analyzed as part of any value-based payment program.

SUMMARY

The shift from fee-for-service to value-based health care is underway. It will be interesting to see how the ESCO model affects the care of the ESRD population and how the transition to value-based care will impact vascular specialists. Collection of outcomes data with consideration of value will be increasingly important as the new health care system models strive for high-quality care at the lowest costs. ■

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