PANEL DISCUSSION

Team Concepts in Lower Extremity Venous Care

Examining multidisciplinary venous care models, establishing referral pathways and care coordination, the importance of patient ownership, and strategies for building high-performing collaborative teams.

With Eri Fukaya, MD, PhD, FSVM, and Manj S. Gohel, MD, FRCS, FEBVS

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In a practice environment in which venous disease is increasingly complex and patients often present with multiple comorbidities, how important is a true team-based approach to venous care, and why?

Dr. Fukaya: Lower extremity venous care spans a broad spectrum of disease severity and is managed by multiple specialties, each bringing unique expertise, perspectives, and approaches. Although straightforward care can become siloed within individual disciplines, effective venous care also requires horizontal collaboration across specialties for more complex patients. Most important when treating these patients is recognizing that venous disease is not purely an anatomic problem; medical, functional, and lifestyle factors must also be addressed alongside the optimization of venous anatomy. Obesity is often a major driver of disease and cannot be ignored by venous specialists.

Because of this complex pathophysiology, the potential multidisciplinary team can become quite large if every aspect of the disease is managed by a different specialist. Without clear ownership and guidance, care can become fragmented, leaving patients to navigate multiple providers with no one responsible for integrating recommendations into a cohesive treatment plan. The goal of a multidisciplinary model should not be to involve the greatest number of specialists, but rather to ensure that the right expertise is brought in at the right time while maintaining a coordinated treatment strategy.

Dr. Gohel: One of the most interesting aspects of managing venous disease is the enormous range of pathologies, clinical presentations, and treatment strategies. Importantly, the success of surgical interventions is often reliant on effective adjuvant nonsurgical care (eg, wound care, nursing care, anticoagulation, imaging). Therefore, a high-quality venous service must include a broad range of multidisciplinary dedicated specialists, and the most successful venous centers prioritize development of great teams.

Who comprises the multidisciplinary team, and how would you summarize the unique role each plays?

Dr. Gohel: The venous multidisciplinary team in my unit includes a core team and dedicated specialists who can support specific clinical conditions. Any service

requires a "coordinating" specialist, a role fulfilled by vascular surgeons in my unit. Vascular nurses provide a key service, particularly for patients with chronic wounds. Interventional radiologists guide imaging and support endovascular interventions in collaboration with vascular surgeons. In addition, we work closely with thrombosis specialists (particularly for acute deep vein thrombosis and postthrombotic syndrome cases) and gynecologists. Increasingly, clinical psychologists may have an important role, particularly as many chronic venous pathologies result in chronic pain and other symptoms for many years, as well as significant delays in diagnosis.

Dr. Fukaya: The composition of a venous care team varies depending on the patient's disease severity and clinical needs. Depending on the situation, team members may include venous specialists, vascular surgeons, interventional radiologists, wound care providers, infectious disease specialists, dermatologists, cardiologists, plastic surgeons, podiatrists, lymphedema therapists, physical therapists, obesity medicine specialists, cardiologists, primary care physicians, nutritionists, nurses, and advanced practice providers.

Importantly, not every patient requires every specialty; thus, some team members may be heavily involved during specific phases of care, while others may contribute only occasionally. The most effective teams are flexible and patient-centered rather than rigidly structured. The challenge is identifying which expertise is needed for a particular patient and coordinating that input efficiently.

Many patients with venous disease experience lengthy periods of symptoms and delayed referrals before definitive evaluation. What systems-level barriers are contributing to these delays, and how can multidisciplinary venous programs help address them?

Dr. Gohel: It is astounding that despite high-quality clinical evidence supporting venous interventions in a range of venous conditions, referral practices are poor and barriers to good care are common. A fundamental issue is that venous disease is common, and more liberal treatment pathways are therefore discouraged by payers (state or private insurance). There is also a widespread cultural belief that venous disorders are unimportant and "cosmetic," which also results in delays in presentation and referral. High-quality venous programs can showcase excellent care and demonstrate the enormous quality-of-life benefits that can be achieved with often minimally invasive and low-risk interventions.

What have you seen make the most impact in improving care for patients with complex lower extremity venous disease?

Dr. Fukaya: The single most important factor is establishing clear ownership of the patient's care. Patients benefit when a clinician understands the overall clinical picture and can guide decision-making across multiple specialties.

Beyond this, it is important to have straightforward referral pathways, establish clear communication channels, and focus on longitudinal disease management rather than isolated procedures. This is particularly important in chronic disease management, where meaningful improvement often requires years of ongoing management rather than a single intervention.

Several wound care organizations and management companies provide helpful frameworks and treatment pathways. Although there are useful basic concepts and algorithms to follow, medicine rarely lends itself to a cookie-cutter approach. Patients face different challenges, whether physical, socioeconomic, behavioral, or geographic. The optimal solution for one patient may be impractical for another. Successfully caring for these individuals requires clinical judgment, flexibility, and creativity. Ultimately, our responsibility is to continually ask what interventions are realistic and achievable for a given patient and how we can best support them in improving their quality of life and clinical outcomes.

Dr. Gohel: In my experience, the greatest improvements in venous clinical care are achieved by empowering patients, caregivers, and primary care health care specialists. Community education programs can help dispel some of the myths around venous disease and offer hope to patients. Self-referral programs for patients with leg wounds or skin changes are an excellent example of patient empowerment. Strong links with community colleagues are essential for continuity of care. In most health care settings, patients (who are often elderly and frail) are reluctant to attend large, intimidating hospital clinics.

How is the role of each specialty determined with respect to ensuring comprehensive, long-term follow-up care?

Dr. Fukaya: One of the most important but often overlooked aspects of multidisciplinary care is determining who "owns" the patient. Any multidisciplinary approach requires a captain of sorts—someone responsible for coordinating care, synthesizing recommendations, and maintaining ownership of the patient's overall problem. In many cases, this role naturally falls to the clinician most invested in helping the patient achieve the best outcome.

Venous leg ulcers illustrate this challenge particularly well. Although some ulcers are healable, others ultimately require a palliative wound care approach. In these situations, someone must continue to provide longitudinal care and support, whether through wound care recommendations, compression management, assistive devices, symptom management, or coordination of additional services. Determining when additional diagnostic workup is warranted, when to pursue further intervention, and when advanced medical management is appropriate often lacks a straightforward answer. These decisions require ongoing reassessment and individualized care.

Case managers, nurse navigators, and social workers can play an important role in care coordination. However, navigation is often most effective when led by a clinician who can provide the medical context, weigh competing priorities, and make informed decisions regarding the sequence and necessity of interventions. Without clear ownership, patients can easily become lost within a fragmented system of referrals and consultations.

What does a successful multidisciplinary team look like? How do you develop collaboration, referral trust, and shared treatment pathways between specialties that may not traditionally work closely together?

Dr. Gohel: A successful multidisciplinary venous team needs enthusiastic and inclusive leadership, a patient-centered ethos, and openness to exploring new models of care to drive change. Moving from well-established care pathways is challenging. However, by emphasizing the enormous clinical benefits, health-economic advantages, and innovation/research opportunities, hospital administrators and other clinical colleagues can be enthused to support venous services. When approaching specialties not usually involved with venous care (such as gynecology), the emphasis should be on the mutual benefits of collaboration to help treat a challenging group of patients. There are undoubtedly research opportunities and the ability to grow services and income due to the prevalence of venous disorders. Most colleagues I have worked with have readily accepted the cogent argument for better venous models of care.

Dr. Fukaya: Although a multidisciplinary model is often considered ideal, it does not always align well with the realities of health care systems, clinic workflows, or resource availability. It is often not feasible to have all relevant specialists practicing in the same location or available on the same day to accommodate patients. As a result, an effective multidisciplinary program requires not only expertise but also a practical framework for communication, coordination, and collaboration across providers and care settings.

In my experience, successful multidisciplinary programs begin with relationships regardless of organizational structures. Physicians naturally work most effectively with colleagues they know and trust. Building these professional relationships creates the foundation for collaboration, referral confidence, and shared treatment pathways. Rather than creating large multidisciplinary clinics, teams should prioritize establishing reliable communication, shared goals, and mutual respect across specialties. Once these relationships are in place, collaboration becomes much easier regardless of where providers are physically located.

What will define the high-performing lower extremity venous care team over the next decade? How will success be best measured?

Dr. Fukaya: A high-performing venous care team will not be defined solely by procedural volume or technical innovation. Rather, it will be measured by its ability to manage the full spectrum of venous disease, coordinate care across specialties, and provide longitudinal support to patients with chronic and often complex conditions.

The most successful programs are those that integrate procedural expertise with wound care, obesity management, lymphedema treatment, rehabilitation, and long-term disease management. They understand when intervention is appropriate, when conservative management is sufficient, and when palliative approaches are most realistic.

Success will ultimately be measured by whether patients receive coordinated, individualized care and whether they can navigate the health care system without becoming lost between specialties. The best multidisciplinary team is not necessarily the largest one—it is the team that consistently delivers the right care, at the right time, by the right providers.

Dr. Gohel: Ultimately, clinical outcomes and improvement in patient quality of life will help define the success of a venous care team. This highlights the importance of measuring clinical and patient-reported outcomes as part of routine care, which is challenging in a busy clinical environment. ■

Disclosures

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