



This article is presented on behalf of the Outpatient Endovascular and Interventional Society (OEIS).

Why—and How—Vascular Surgeons Make the Shift From Hospitals to Outpatient Settings

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Vascular surgeons are often at the forefront of medical innovation. Today, they are making the move from traditional practices at hospitals to outpatient treatment clinics, and the reasons are many: ready access to new tools and techniques, fewer scheduling conflicts, and closer collaboration among like-minded practitioners. In my case, treating peripheral arterial disease (PAD) with interventional radiologists and cardiologists, working for a common goal, has been a key reason for choosing an outpatient work model.

When I trained as a vascular surgeon, the focus of training was to perform open surgeries in a hospital setting. Peripheral interventions were few, and interventional radiologists did most of them. As technology changed, vascular surgeons began embracing interventions as well. This trend started with abdominal aortic aneurysms and endovascular repair. Shortly after I finished training, there were even more opportunities to treat patients from the endovascular perspective, and vascular surgeons were more prepared and willing to take on those procedures. Since then, vascular surgeons have come to claim a large portion of the endovascular space.

At its outset, endovascular care was hospital-based. A hospital was the only place one could do these procedures, and the only place where these procedures would get reimbursed by government and commercial insurance. Once Medicare opened reimbursement to office-based labs (OBLs) in 2008, the outpatient setting presented a viable alternative to hospital-based care.

Personally, I switched to an OBL because endovascular procedures in the hospital setting were inefficient and caused significant delays for our patients. As diabetes and obesity reached epidemic proportions in the United States, the number of patients in need of revascularization exploded, but it was simply impractical to do all of these procedures at a hospital. Indeed, the turnover time at a hospital was generally longer than it took to do an entire procedure. Unless a doctor wanted to start at the crack of dawn and stay until midnight, it was difficult to process and perform procedures for all patients who needed them.



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As I moved to the OBL space, I had more control and was able to help more patients without losing time to hospital bureaucracy. At the same time, I was not overextending myself and my clinical staff with unnecessarily long hours.

Patients loved the outpatient setting even more than I did. Generally, patients prefer not to go to the hospital if they have other options. Among key reasons are the proximity of an OBL to a patient's home; absence of parking fees; faster and easier access from a parking space (which is important for patients who have wounds and arterial issues in extremities); the ability to see the same employees and clinicians (which helps develop the doctor-patient relationship); and less exposure to large groups of sick people (which is especially valuable during the pandemic). Most importantly, in an OBL, we can deliver the same quality of care that we can in the hospital—a win-win.

The organization I am with now, Modern Vascular, is an OBL model for PAD treatment, with myself and several physicians embracing the outpatient model. We are a multispecialty organization of interventional radiologists, vascular surgeons, and interventional cardiologists. Each specialty brings something different to the table. Vascular surgeons bring their experience with open surgery and are best situated to determine if a patient will benefit most from an open surgery or an endovascular procedure. Interventional radiologists have honed their skills treating a variety of ailments with interventional procedures. The same goes for interventional cardiologists, who bring

translatable skills from treating the heart with a variety of wires, catheters, and other devices. Having these specialists with different backgrounds working together allows for the exchange of ideas and techniques through collaboration that is not often seen in a more confined and often competitive hospital setting.

Choosing the Right Procedure

For some, the implementation of endovascular procedures meant patients who previously had no options for treatment of PAD now could get treatment. Many patients cannot undergo open surgery because they may not be able to tolerate an invasive procedure, or they may not have proper conduits or good target blood vessels for surgery. For endovascular procedures, we do not necessarily need all that. It is a less invasive procedure that carries a lower risk, and thus, patients may tolerate it better. We do not need conduits because it is not a bypass, and while there may not be a target blood vessel there when we start, we can create our own target vessel.

When evaluating patients with PAD, we always assess them to determine which is the best procedure for them, whether it is an open or endovascular procedure. For example, lesions of the common femoral artery can often be treated very well with an open surgical procedure. The procedure outcomes are durable, whereas an endovascular procedure on the common femoral artery may not have the same lasting effect. However, an endovascular procedure may still be indicated as the first line of treatment because it is minimally invasive and does not involve “burning bridges” in the process. As a result, it may be worthwhile taking an endovascular route for femoral artery issues, particularly for patients with higher risk factors for open surgery.

Another deciding factor is conduit length. Performing a bypass that extends below the knee can be problematic because you need a conduit to extend that far. We know that venous conduits tend to do very well, but if the patient does not have a good conduit—for example, has had their vein removed for cardiac bypass or venous problems—a bypass is less likely to be effective.

Not only do you need a sufficient conduit, but you need a good target vessel to bypass into. Many of our patients who are older and/or diabetic with severe arterial disease do not have usable target vessels. There has to be an outflow vessel, and it also has to be of a reasonable size for an open procedure to tie your bypass into. If a patient does not have a good conduit or target vessel, an endovascular procedure may be the best option even if we have to intervene more than once for the purpose of retaining patency and to keep the limb intact.

Conclusions

Treating PAD should be similar to the general approach to cancer treatment. There are many cancers we cannot cure, but we still help those with terminal cases. We try to alleviate their

symptoms and minimize the damage caused by the disease to give them the longest and best quality of life we can. This is exactly how we should approach the treatment of advanced vascular disease. For someone who is in danger of losing their leg, we want to maintain the best quality of life they can have with the leg intact. Preservation of the patient's leg contributes to both the quality and length of their life.

I have found that the traditional way is not automatically the best way, as shown in both my experience with endovascular procedures and in OBLs (both innovative additions supplementing more traditional approaches). However, as a vascular surgeon who has provided both the open surgery approach and the endovascular approach, and has experienced both the hospital setting and the OBL model of treating vascular disease, I believe that the goal of improving the quality and span of PAD patients' lives is best achieved in an environment where outpatient and hospital models coexist, cooperate, and compete, with the primary focus on improving patients' experience. ■

Disclosure:

The author reports no financial relationships or conflicts of interest regarding the content herein.

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