

# A Comprehensive Approach to Patients with PAD

*Vascular testing benefits both the patient and you.*

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**T**he addition of ancillary services to a practice may help boost the bottom line. When you are considering which ancillary services you might add, there are many factors to take into account. The least important consideration should be what the sales rep tells you that you have to do in order to pay for or make a profit with the item you just either purchased or leased.

The last statement may seem contradictory in business, but being a podiatric physician is not just being a business person, but also being a physician rooted in science and providing care for patients.

When one considers adding or enhancing an ancillary service to one's practice, one should also consider creating a marriage of two "hats" (one as a business manager and one as the treating physician) that we wear in today's healthcare delivery environment. This marriage should be one that serves the patient (the center and focus of appropriate care), the physician (enhanced care for improved outcomes), the members of a multi-disciplinary care team (a collaborative approach to care from various spe-

cialties as needed), and the service/product provider/vendor (who assists in providing the necessary and advanced modalities in caring for the patient).

The way to approach the addition of an ancillary service is to look at your patient population. If you see many patients with diabetes and wounds, it makes sense to add non-invasive vascular testing services to enhance patient care and compliance.

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## **Peripheral Arterial Disease (PAD)**

Peripheral Arterial Disease (PAD) affects over 10 million people in the United States, and only one quarter of PAD sufferers are receiving treatment. Of the 2.5 million diagnosed cases, 2.1 million are medically managed. Peripheral vascular disease (PVD), commonly

referred to as hardening of the arteries, impacts millions of men and women over the age of 50.

Diagnosed early, PVD is treatable with lifestyle changes and inexpensive drugs. Also, some of the newer endovascular techniques may be appropriate when disease is diagnosed at the early stage. If left undetected, PVD leads to severe complications, such as limb loss, heart attack, and stroke.

A recent landmark study published in JAMA in 2001 "Peripheral Arterial Disease Detection, Awareness—Treatment in Primary Care" noted the following risk groups were tested for PAD:

All patients 70 years or older

Patients aged 50-69 with history of diabetes or cigarette smoking

Nearly one out of every three patients tested positive for PAD. This study concluded that not only the patient population stated above, but also patients reporting the following complaints or symptoms should also be tested:

- Pain
  - Aching
  - Tightness
  - Tiredness
  - Weakness
  - Numbness in legs brought on by walking, and relieved by rest
  - Pain in legs/feet at rest
  - Reduced or absent pedal pulses
- Physical exam findings noted

were:

- Reduced or absent pedal pulses
- Presence of noises over arteries that can signify blockages

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## Patients with PAD...

- Feeling of aneurysm
- Appearance of feet (skin condition, non-healing wounds)
- Hair loss

Patients with PAD have a five-year mortality risk of approximately 30%. Because of this reason alone, it is recommended that finding patients with PAD earlier, when treatment options are the broadest, allows for improved outcomes for patients. Thus early identification for the PAD population may dramatically improve survival.

### Vascular Testing

Vascular testing originated in the vascular surgery arena. Until recently, my at-risk patients were referred to vascular specialists to determine if they actually have peripheral arterial disease or to get an ankle-brachial (ABI) exam. This was not ideal, as it was inefficient for the office flow. It was also not patient-friendly because patients had to travel to see a specialist or visit a hospital-based vascular lab.

With appropriate training, in-office vascular testing can provide better patient care, with enhanced care outcomes, and can be a source of reliable revenue.

### Doppler Ultrasound

The most commonly used modality is the Doppler ultrasound. This can be used both for arterial and venous testing. Arterial Doppler is used as a sensing device for segmental blood pressure studies, and Doppler waveforms help assess whether blood flow is compromised as a result of obstructions in superficial arteries.

The shape of these Doppler waveforms can be compared against a standard for healthy waveforms. Hand-held Doppler units can be accurate, but are technician-dependent. ABI's can be performed with this type of device, but it does not meet separate reimbursable study guidelines.

Doppler units must be bi-directional, which most are today, and must provide a hardcopy printout. In addition to meeting medical necessity rules, you must also perform wave forms in order to meet the re-

imbursement guidelines.

While ankle-brachial exams are highly predictive of peripheral arterial disease, extremely calcified arteries may show falsely elevated ABI's. This is common in diabetes and also in patients on long-term corticosteroid therapy, with kidney disease, and in kidney transplant recipients.

### Pulse Volume Recording (PVR)

Pulse volume recording (PVR) is used also both in arterial and venous studies. These volume changes are directly related to the amount of blood flowing through the limb each time the heart contracts. This test helps to identify problems affecting blood circulation and correlates findings of ABI exams, and helps regionalize the disease.

*You can bill for the technical component of a limited study CPT 93922, or CPT 93923 for a complete study of the lower extremities.*

### Photoplethysmography

Photoplethysmography (PPG) is another form of PVR using infrared transmitters to detect changes in infrared reflectivity which occur as blood moves into and out of the capillary beds. PPG can be used for taking segmental blood pressures, to assess blood flow to the digits, and to assess venous refill time.

PPG testing is available via a system developed by a company named Biomedix. The PADnet program's uniqueness lies in the fact that the company arranges for a vascular specialist to read the tests performed at your office.

This vascular specialist and you then develop a working relationship which allows for discussion and collaboration on the needs of

the patient. The long delays in getting to a vascular specialist or to the vascular lab are eliminated, as the vascular specialist has an interest in patients whose tests he/she has read. You now have an ally who will see those patients with moderate to severe disease much more quickly, so that an intervention may be instituted.

Everyone seems to win in this scenario, including the patient who will get a non-invasive test performed much earlier in the disease process, and perhaps a less invasive procedure will need to be performed.

By performing the test, you can bill for the technical component of a limited study CPT 93922, or CPT 93923 for a complete study of the lower extremities. The vascular surgeon, who reads the study, is paid for the professional component.

### Ancillary Benefits

My personal experience with PAD testing has been twofold, the first being that I was surprised at the level of PAD/PVD that is present and prevalent, particularly in those patients presenting with a need for advanced wound care and/or diabetes.

Secondly, this created a collaborative relationship with my colleagues in vascular/endovascular medicine. This relationship is invaluable in the perception that medical providers have of our profession. It also serves as a marketing tool in promoting advanced care.

Providing the most appropriate, convenient, and timely care is likely to lead to increased patient satisfaction, as well as revenue enhancement. ■

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