

# Peripheral Vascular Care: What is the Emerging Opportunity?

by Barbara Sallo, RN, MBA

Peripheral vascular disease (PVD) care has become a hot topic in hospital and medical circles over the past few years. The attention the topic has been receiving is analogous to the famous line in the movie, *The Graduate* when the star was given advice to go to work in "plastics" to ensure career success. As with "plastics," PVD care has not taken off as expected. A number of factors have influenced the development—or lack of development—with the greatest being PVD's "big sister," coronary artery disease, claiming most of the health-care attention, to say nothing about its appetite for resources.

Should your hospital or health system focus on and commit resources to enhance PVD services? What is the market opportunity? What is the revenue potential? What does a "best" program look like? Spending time doing research and working through these questions will take the guesswork out of identifying the emerging opportunity for peripheral vascular care for your organization.

## What is PVD?

PVD is a condition in which the arteries that carry blood throughout the body become narrowed or clogged. This interferes with the normal flow of blood and can cause pain and physical limitations. Conditions affecting the arteries of the heart are considered Coronary Artery Disease (CAD).

One of the most significant risk factors for PVD is age. The older population is projected to double over the next 30 years, reaching 70 million by 2030. A national study: PAD Awareness, Risk and Treatment—New

Resources for Survival (PARTNERS published in the *Journal of the American Medical Association* (JAMA) September 19, 2001) found that PVD is seriously under-diagnosed and under-treated. The American Heart Association and Harvard Health estimate:

- 300,000 PVD cases are diagnosed each year.
- Eight to 10 million Americans are affected.
- PVD is two to five times more common in men.
- PVD patients have a six-fold higher death rate from cardiovascular disease.
- PVD patients have a 15 percent chance of dying within five years when symptomatic.
- PVD patients have a 50 percent chance of dying within 10 years from PVD.

## Who Treats PVD?

Treatment for PVD can follow three main pathways:

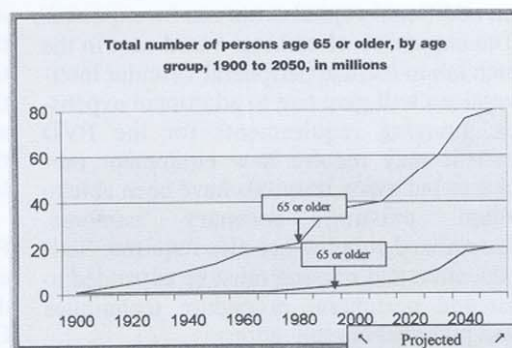
Noninvasive disease management that includes risk-factor reduction, medications to relieve symptoms and increase exercise tolerance and gene-based therapy.

Surgical intervention that is safe and effective for many patients in whom less invasive procedures are not adequate.

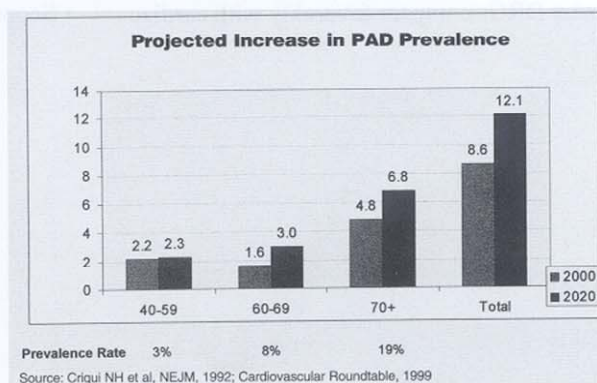
Catheter-based treatments that have an important and increasing role in the treatment of PVD.

Primary Care Physicians are often the first provider to identify the problem. Cardiologists may identify PVD during

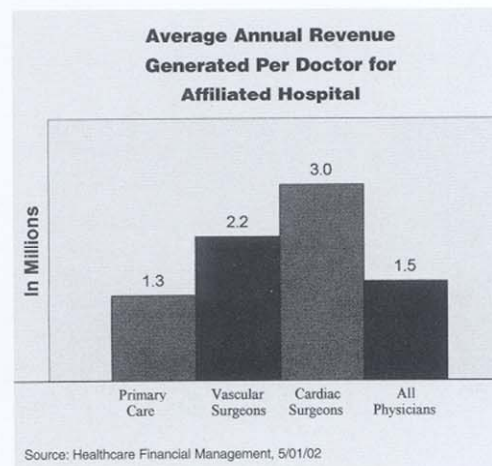
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Note: Data for the years 2000 to 2050 are middle-series projections of the population. Source: U.S. Census Bureau Decennial Census Data and Population Projections. Source: Older Americans 2000: Key Indicators of Well-Being.



Source: Criqui NH et al, NEJM, 1992; Cardiovascular Roundtable, 1999



Source: Healthcare Financial Management, 5/01/02

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cardiac catheterization procedures.

The more complicated issue related to PVD is which specialist should provide treatment. Traditionally, interventional radiologists and vascular surgeons have treated patients with advanced stage PVD. With the introduction of catheter-based interventions, cardiologists are treating PVD in the catheterization lab. This shift has set the stage for cultural and political "turf wars" that need to be addressed and resolved if a hospital is to have a full service, integrated program.

### **What Are the Costs and Revenue Associated with PVD Care?**

If PVD services are provided in existing surgery and interventional radiology suites, no additional capital costs can be expected. The expansion of catheter-based care in the cath lab to include peripheral vascular interventions will give rise to additional expenses. Imaging requirements for the PVD patient may require new equipment purchases but many hospitals have been able to adapt existing coronary cameras. Specialized supplies are also required. Staff education and training must be expanded to include peripheral procedure techniques and potential complications.

Revenue from PVD care provides the opportunity for healthy margins for hospitals. Medicare contribution margins for vascular DRGs compare favorably with cardiac

DRG margins. Across all vascular DRGs the average contribution margin (revenue less direct costs) is more than 30 percent (Source: Market Insights, Inc., San Francisco; Cardiovascular Roundtable analysis 1999).

While there are no statistics on the revenue generating figures for interventional radiologists and cardiologists treating PVD, a recent survey provides that information on vascular surgeons. Results from a survey of 1,200 hospital CFOs reveals that vascular surgeons generate an average of \$2.2 million in revenue—derived from referrals and associated treatments—for their affiliated hospitals each year.

### **Where to Go to from Here?**

Cardiovascular care is big business. This year alone, the American Heart Association anticipates that \$329 billion will be spent on this patient population. While the PVD portion of the total is significantly smaller than the cardiac portion, the patients are the same. Peripheral vascular care is an essential component of full service cardiovascular care.

There is no question that the number of PVD patients is growing and these patients are underserved today. Hospitals must decide how to best care for this population. One of the first steps is compiling a PVD dedicated business plan that covers:

- Market size/opportunity
- Competitive environment/issues
- Scope of service

- Physician specialties/medical coverage
- Clinical operations model
- Marketing and outreach initiatives
- Financial requirements/assumptions
- Structure/governance/ownership
- Conditions for success
- Implementation recommendations and timeline

With the growing trend toward healthcare self-education supported through the press and the Internet, the public is becoming increasingly aware of the potential dangers of untreated vascular disease. Quality of life has taken on new meaning and the older population will continue to seek healthcare resources that will enable them to maintain active lifestyles. Be prepared for the baby boomers to seek out and demand assessment and treatment of peripheral vascular problems.

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