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The Economics of Vein Disease

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and Jonathan Levison, MD

The management of cosmetic vein problems requires a very different approach than that for the majority of most other vascular disorders that occur in a vascular surgery practice. This article focuses on the business aspects of a cosmetic vein practice, with particular attention to the uniqueness of these issues. Managing patient expectations is critical to the success of a cosmetic vein practice. Maneuvering within the insurance can be difficult and frustrating for both the patient and the practice. Practices should use cost accounting principles to evaluate the success of their vein work. Vein surgery—especially if performed within the office—can undergo an accurate break-even analysis to determine its profitability.

Keywords: venous disease; insurance; finance; sclerotherapy; varicose veins

Why would a board-certified vascular surgeon, fully trained in endovascular intervention, want to deal with vein problems? Certainly the management of venous disease is not a focus of most vascular training programs in the United States. Perhaps the care of the patient with chronic venous insufficiency characterized by ulcerations attracts the attention of some trainees—although, admittedly, more by force than by choice! The excitement associated with the chronic nature and slow progression to healing of venous problems generally pales in comparison to the highly visible and more dramatic arterial surgery that most vascular surgeons are trained to perform.

There is another side of venous disease that has its own rewards—both from a personal satisfaction perspective and, potentially, from an economic standpoint. The management of "cosmetic" vein problems—telangiectasias ("spider veins"), reticular veins, and some of the smaller, unsightly varicosities that arise on the leg—has attracted the attention of vascular surgeons (and other specialists.) Gratification in treating patients with cosmetic vein problems differs from the typical challenges in most vascular surgeons' practices. The financial remuneration can be substantial in a practice dedicated to the care of patients with these maladies. Witness the growth of companies devoted to creating vein practices for people with MD degrees.

There are peculiarities specific to the care of patients with these cosmetic vein disorders that differ from the majority of other patients seen in a typical vascular surgery practice. The least problematic of all issues seems to be the technique. Although the technical aspect of these procedures is important, the management of these patients outside of the treatment room tends to be more challenging. A variety of techniques and solutions have been offered to achieve success in this arena—each with their own proponents and each with impressive individual results. Experience dictates that when there are a number of ways to treat a specific problem, each way is equally successful with the common factor being individual comfort with the technique and tools.

It is critical to create appropriate expectations at the outset in the management of these venous disorders. Many patients present with self-image concerns that may not be directly related to their venous abnormality. Clearly, correcting the venous disorder in these patients will do very little to alter self-esteem in these patients. Conversely, there is an equal (maybe greater) number of patients whose self-image is markedly improved by simply eliminating several unsightly telangiectasias. Invariably,

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patients who present to have "simply their large reticular veins removed" come to focus on the small telangiectasias further down the road—stressing the importance of creating appropriate expectations.

Insurance issues surrounding vein disease are most definitely one of the more challenging concerns in treating these patients. Many patients present expecting to be "treated for free." They assume that the veins are a "medical" problem and that because they have paid their health insurance premiums, they are entitled to receive the care "for free." The shock (often outrage) when they find that their insurance company will not cover the service represents a challenge to the office staff. Many patients will ask the physician to "stretch the indications"—a practice that must be refused by any reputable physician. If one is to participate in the insurance plans, then it is important to understand the rules that exist in the contract between the physician and the insurance company. Most plans specifically prohibit "cosmetic procedures" and any procedures—such as vein work—that can remotely be considered cosmetic are very heavily "managed" and subject to intense utilization review. In fact, if one is going to attempt to undertake injection sclerotherapy within the health insurance plans, the cost of this process must be factored into the financial analysis. The demands placed by the insurers for information represent a balance on the payers' part to avoid paying for noncovered (cosmetic) services against the approval for treatment when appropriate. Admittedly, it may be difficult to separate the two when one is simply reading a medical record—especially if it is poorly documented—however, the frequency of "misplaced information" or "lost/delayed requests for precertification" appears to be significantly higher than for other vascular procedures.

Many plans will pay for "a session" of sclerotherapy without specification of what constitutes "a session." The amount of solution injected can vary from 1 to 25 mL—depending on the areas being treated, the tolerance of the patient, and the type of solution administered. One must achieve balance between not inconveniencing the patient by making them return too frequently (eg, multiple "1-mL sessions") against understanding the costs of the procedure and therefore making an appropriate profit for the procedure.

Unlike many other areas of vascular surgery, injection sclerotherapy (and other cosmetic vein procedures) is well suited to undergo the rigors of cost-accounting principles. This requires, however, that one has a good understanding of all expenses and income associated with a particular procedure. Additionally, appreciating the difference between fixed and VCs is critical in the analysis of the profitability of this venture. Much as in any industry, the difference between "soft" and "hard" business decisions applies to cosmetic vein work. Specifically, the hard business issues relate to the profit (or loss) generated by a specific activity—herein, the decision to perform sclerotherapy. The "soft" business decisions—which are more difficult to quantify—relate to the impact on the practice as a whole by performing this type of work.

It is advantageous, in our opinion, to separate this aspect of our vascular surgery practice (cosmetic vein therapy) from the remainder of our practice (revascularizations, aneurysms, carotid disease, and chronic venous insufficiency.) This affords the opportunity (on the "soft" side) to create a different environment for this group of patients. Clearly, young healthy women—often coming to an appointment with their child—do not wish to be in the same waiting room as a patient with gangrene or a recent amputee or a patient with chronic venous insufficiency and leg bandages confined to the use of a walker for ambulation! Segregation of this aspect of the practice also allows for better business decisions ("hard"), as it relates to profit and loss.

As mentioned previously here, if one is to perform these procedures within the confines of the insurance schema, the expense analysis must include the cost of precertification and collection of the bill. Unfortunately, if a physician is contracted by a health insurer, it is likely that it will be mandatory for the physician to go through all of the rigors of precertification before learning that the insurer will not pay for the sclerotherapy procedure based on its cosmetic nature. It is important to inform the patient early on that it is the insurer (with whom the patient has a contract) who determines "medical necessity"—not the physician!

For the purposes of this example, we assume that the physician is not contracted by an insurer and that the patient is going to pay for the procedure at the time the service is rendered. The fixed costs (FCs)—rent, insurance, furniture, staff (if one can use existing staff), equipment (ultrasound machines, if needed, and tables)—are relatively minimal. If one were to use their office space solely for cosmetic

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vein work 1 session per week (3 hours), then attributing 10% of rent to this equation as the total FC would be reasonable and make the cost accounting simple. Of course, to be more accurate, one would need to budget the aforementioned examples of FC to the total costs (TCs); however, 10% of one's rent is an overly generous estimate of total FCs.

Variable costs (VCs) include items such as solution, syringes, needles, bandages, ACE wraps (if used), stockings (if provided), gowns, literature, and staff (if additional staff is required for the cosmetic vein procedures.) Advertising and marketing expenses must also be included in the total expense calculation and are more appropriately included in the FC calculation.

The income (I) side of the equation is slightly less complex and more straightforward. I equals the price per procedure multiplied by the number of procedures performed. If there are different prices for different procedures, then each income contribution (income for each specific procedure) must be calculated separately and added together to determine I. The only potential complication arises when working through third-party payers—the amount paid on a per-patient procedure varies both between and within insurance plans. When establishing a fee schedule, it is prudent to know the market and price accordingly. Pricing strategies are a complex task but offer several approaches to the entrepreneurial physician. One can choose to underprice the market in an effort to obtain market share. This will result in lower profit margins but greater volume early in the business plan. This also creates certain expectations associated with lower priced products. Choosing a high price point at market entry will result in a slower start but higher profit margins. Again, expectations are generally set according to price point and may give a perception of quality if all of the other factors (service, results) are in line. One pitfall to avoid is "differential pricing"—varying the price according to the customer; this creates an unhealthy environment that is almost certain to cause problems in the future.

After the TC (TC = FC + VC) and income (I) are known, one can create a break-even analysis. This is a mathematical equation that identifies the break-even point at which the income is equal to the TCs; every procedure after this point is profit for the organization. After the break-even point is calculated, one can determine whether it is feasible to, initially, break even on the venture and, for future plans, calculate anticipated profit. Understandably, ability to predict the number of procedures performed remains an unknown variable in the equation. Marketing surveys, a clear understanding of current practice patterns, and consultations with those skilled in the business end of the field may address some of these unknown issues.

Table 1. Comparison of Common Vascular Surgery Procedures With Sclerotherapy

CPT	Medicare ($)	Time	Dollars per Hour
35091 (abdominal aortic aneurysm)	2055	3 hours	685
35566 (femoral-tibial bypass)	1815	4 hours	454
35301 (carotid)	1175	2 hours	588
27880 (below-knee amputation)	940	1.5 hours	626
Sclerotherapy	275[a]	20 minutes	810

[a]Non-Medicare rate.

When comparing cosmetic vein work with other standard procedures in a vascular surgery practice, it is important to appreciate both the time value of money and the income per unit time concepts. The former relates specifically to the loss of opportunity to invest money that is not paid on time. When one chooses to perform these procedures outside of the insurance networks, payment is received on day 0. Thus, the practice has the opportunity to invest this money into other ventures immediately. More germane is that all of the costs associated with collecting this money are complete at day 0; that is, there are no collection costs for bad debt, no billing costs, no time delay with denial follow-up that become very costly when addressing these relatively lower cost procedures.

Income per unit time can best be examined using Table 1, which compares common vascular surgery procedures (using 2007 Medicare reimbursement rates) with sclerotherapy (using $275 as a standard price).

As provocative as these numbers are, they are really made more impressive when one considers that the 90 days of postoperative care is not included in the time amount for the "standard" vascular surgery procedures. Additionally, the amount charged for sclerotherapy is generally significantly more than that identified in this example.

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In an era when pricing and business strategies of third party payers (including Medicare) are driving reimbursements down at the same time that expenses (staffing, insurance costs) are rising without controls, cosmetic interventions may be an important adjunct (or exit strategy) for some of today's vascular surgeons. Perhaps one of the better answers to the opening question in this article—"Why would a board certified vascular surgeon, fully trained in endovascular intervention, want to deal with vein problems?"—comes from Alan Dietzek, MD. His straightforward answer is this, "To save my arterial practice!"

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