

Successfully managing DVT and PE as an outpatient

By Gary Dworkin, MD

Clinical and pharmacologic research has combined to make it feasible to treat significant medical conditions, such as venous thrombosis, outside of the hospital setting.

In 1996, the New England Journal of Medicine published a seminal article concluding that there was equal safety and efficacy in treating patients with deep vein thrombosis of the leg at home after a brief hospitalization versus full hospital confinement of five to seven days.¹

Since then, the widespread use of subcutaneous administered anticoagulants, along with ubiquitous INR testing and ultrasound diagnostic capabilities, have resulted in many, if not most, deep vein thrombosis (DVT) patients being safely managed without inpatient hospitalization. Exceptions to this community standard include patients with DVT complicated by pulmonary emboli, malignancy concerns, perfusion or infectious issues of the limb, cardiopulmonary comorbidities or contraindications to anticoagulation.

The availability of home health services and diminishing DRG reimbursement to hospitals as a function of their operating costs (ie, lower profit margins) have expanded enthusiasm for outpatient treatment of illnesses that have historically been managed with inpatient utilization. The approval of new oral anticoagulants that require no blood monitoring has further contributed to this practice.

A recent exception to this health management paradigm is the evolution of catheter directed mechanical plus thrombolytic lysis of acute ileo-femoral vein thrombosis.

This aggressive, expensive, but effective inpatient treatment for ileo-femoral venous thrombosis was designed to reliably improve major venous patency over routine anticoagulation practices so as to help eliminate the morbidity of post-phlebotic syndrome often seen in patients with ileo-femoral vein thrombosis.

Concomitant venous stenting is frequently required as an intervention to insure longer term venous patency.² Treatment programs as outlined above are not yet available in all U.S. hospitals, and will not become the standard of care until the substantial costs and slight increase in treatment risks can be assuaged by unequivocal long term benefits.

Still, for patients with ileo-femoral venous thrombosis who are under the age of 70, without contraindications to thrombolysis (which are numerous), early data is encouraging

that this approach improves quality of life and reduces post-phlebotic morbidity.³

Most patients with infrainguinal venous thrombosis do well with outpatient anticoagulation for 3-6 months and compression stockings. There is no evidence that a more aggressive treatment approach for these patients results in improved outcomes or lessens the risk of post-phlebotic syndrome.

PULMONARY EMBOLISM IS A DIFFERENT STORY

The standard treatment for pulmonary embolism in the United States is immediate inpatient hospitalization. However, we now have access to the “Pulmonary Embolism Severity Index,” which is a validated clinical prognostic model that categorizes patients into four risk classes.⁴ The two lowest patient risk classes have been studied for possible outpatient treatment of pulmonary embolus.

A recent high quality, multicenter international study using the above noted Index reported results of 344 “low risk” patients with pulmonary embolism. These patients were randomized to management with less than 24 hours of hospitalization using subcutaneous low molecular weight heparin plus warfarin or to a similar pharmacologic plan but with 5-7 days of hospitalization.

The outcomes were that in these low-risk patients with pulmonary embolism, outpatient care (usually after emergency room evaluation) resulted in no increase in major early bleeding or recurrent venous thromboembolism and equal mortality rates over three months.⁵

A patient with acute pulmonary embolism in the Tampa Bay, Fla., medical community is not commonly treated as an outpatient. However, it is likely there will soon be confirmatory studies that support treating the “low risk” pulmonary embolism patient at home.

Additionally, the oral anticoagulant rivaroxaban, a factor Xa inhibitor, has recently been shown to be as effective and safe compared to standard drug therapies for both deep venous thrombosis and pulmonary embolism.^{6,7} FDA approval for these two indications is eminent.

A recommendation for outpatient treatment of patients with venous thrombosis needs to consider medical, social and economic factors. However, rapid medical progress is making clinical dispositions a bit easier. As always, I am available to assist you with the management of your patients. **VTN**



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Alumni Association. He has practiced cardiovascular and thoracic surgery for more than 18 years, but today, Dr. Dworkin dedicates his medical career to the treatment of venous disease at his Vein Specialists of Tampa (tampaveinspecialists.com).

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In fact, many seemed to have no clue. Some spoke of the simplicity of the specialty and as an easy means to financial gain. I categorized these docs as the “gun and run” group – those seeking to slam dunk and fire a device in the saphenous vein and then run to the bank with the reimbursement check.

About the same time I noted that my own practice had become more difficult and complex. I was consulting and treating an increasing number of patients who have already been treated by other physicians. These patients were unhappy with their previous treatment because their symptoms did not resolve, and in many cases, the unsightly and painful veins were still present.

Today, nearly 10 percent of my practice is the correction of vein work performed by other physicians who are seemingly

the “gun and run” variety or who simply are not adequately trained. I am dismayed and disappointed that many patients are receiving improper and inadequate diagnosis and treatment. I am also disappointed that doctors are entering the vein specialty without proper education and training.

At the present time, a doctor can simply self proclaim his expertise, and “shazam” he is a vein doctor.

There are no formal training programs and no rules and regulations for phlebology. The American Board of Phlebology offers the only real credential because by passing the Board exam allows a physician to declare himself a diplomate of the Board.

There are just more than 500 physicians in the United States who are now successful diplomates of the American Board of Phlebology. These physicians have clearly committed to the specialty and have successfully completed the examination. As of this date, the Board of Phlebology is not yet a member

of the American Board of Medical Specialities (ABMS), and therefore the credential may not yet be acknowledged by many state medical boards.

One of the beauties of phlebology is the broad spectrum of physicians who are board certified in other core specialties and who now practice full time the phlebology specialty. One of the tragedies of phlebology is the same all encompassing acceptance of any physician who wishes to self-designate him or her self a phlebology specialist.

Some core specialty training allows physicians to be a little better prepared than others. The vascular surgeon and the interventional radiologist both have ultrasound and catheter skills, and are more easily trained to become very good phlebologists. A surgeon from Canada, a radiologist

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