

STANDARDIZING *Venous Ultrasound*



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Diagnostic testing, in any field, by definition, is used to detect, confirm or rule out the presence of a problem. Its purpose includes the ability to be reproducible and reliable. These characteristics put a heavy burden on diagnostic testing. In venous ultrasound, this picture becomes even more complicated; the testing requires a human to perform the test and testing is done on ever-changing human subjects. Not every patient presents the same. Not every patient has the same findings. Therefore, not every treatment is the same.

Given these circumstances, there has been a huge push to standardize venous ultrasound and care. Standardizing venous nomenclature, venous mapping and treatments have initially contributed to discrepancies in the care of venous disease. Unfortunately, this has also delayed care for patients. Primary care providers are lagging in knowledge; the standard of care in venous disease is impaired where early recognition suffers.

There have been many initiatives to close these gaps from professional societies, accreditation organizations and patient advocacy/education pieces via social media, podcasts, TV commentaries, and radio appearances. Despite these advances and ongoing research, the heart of the matter seems to come down to diagnostic testing in venous disease: the

ultrasound. The same critique cannot be said for MRI, CT scan, PET scan, DEXA scan or even the simple thermometer. Though we need humans to perform these standardized tests, there is, perhaps arguably, less possible human error. There is some automation to many diagnostic testings. Venous ultrasound, however, is heavily dependent on the performer. Therefore, there is perhaps a stronger argument to standardize venous ultrasound, including venous mapping.

Many colleagues have discussed the wide range of venous mappings seen between hospitals and private practices. Patients may be sent to the outpatient radiology department to rule out a deep vein thrombosis (DVT); the superficial venous thrombophlebitis is not mentioned in the report or even imaged/investigated. Standardizing reports is essential in diagnostic testing, making the test more reliable and reproducible. However, deciding on what the standard should be, especially in venous mapping, is more challenging than just the report wording.

Changes in nomenclature, which have been more so over the last two decades, have left some reports still calling the Small Saphenous Vein, the Lesser Saphenous Vein, and the Great Saphenous Vein, the Greater Saphenous Vein. Newer nomenclature that includes less historical perforator vein nomenclature and more location-based has allowed more specificity to ultrasound findings.

In addition to nomenclature, mapping details have included the presence or absence of junctional reflux. There also has been literature to support vessel size and correlation to probable reflux.

Nomenclature, location of incompetent veins and vessel size, to name a few, are easy targets to beat up the diagnostic testing of venous ultrasound. However, there also lies an opportunity to standardize venous ultrasound and mapping.

The Role of the Intersocietal Accreditation Commission

Accreditation, like the Intersocietal Accreditation Commission (IAC), allows standardization from multiple angles. Not only are there staff requirements and continuing education requirements, there are also documentation requirements when it comes to Vascular and Vein Center protocols. Minimal requirements for documentation give a base for standardizing reporting.

In addition to venous mapping protocols, the IAC can serve many practices as a guide to set up protocols for venous procedures including sclerotherapy, ambulatory phlebectomy, endovenous laser ablation and more. Guidelines for OSHA logs and assuring practices are following manufacturer guidelines for autoclaving are just two examples that are commendable in the requirements for standardizing venous medicine. IAC accredited labs also maintain nomenclature and reporting standards that are supported by the literature.

Hurdles

Despite the many “perks” of accreditation, a few hurdles also exist for many practices. Though now officially most physicians are employed, many are still maintaining costs of an electronic medical record, image storage, staff CME and many other expenses. Just as many hospitals have taken these burdens away from physicians, many phlebologists have also joined large vein center conglomerates to lose those same burdens. Image storage solutions are not cheap and

many do not communicate with EHRs to allow a seamless chart for a patient. Practices are then left with server expenses or cloud storage expenses. Perhaps accreditation organizations like the IAC can push companies to create solutions for image storage.

Aside from those burdens, staffing burdens exist as well. Many ultrasonographers are not trained in venous mapping and reflux studies. Schooling does involve vascular/venous ultrasound – to rule out a DVT. On the job training oftentimes fine-tunes these skills for sonographers and their skill set is far more comprehensive and clinically significant. The protocols set forth in accreditation allow, again, a base for the sonographer to learn and then finesse the study depending on the patient’s presentation and protocols developed in the laboratory they are involved/employed with. In addition to these standards set forth for mapping and reporting, there is still room for labs to create additional protocols and reporting to meet the needs of their patients.

Vein Center accreditation also requires on-site visitation where ultrasound images, reports and procedures can all be observed and evaluated. This allows immediate feedback and assessment of processes in some regards (official delinquencies are outlined in a letter later after the visit) in a non-threatening environment.

Conclusion

In the end, the work for accreditation does allow standardization across staffing, facility, reporting, and quality, giving practices tools for success. It is time-consuming and is not tied to reimbursement amounts. However, many insurance companies are requiring accredited labs perform vascular and vein mapping studies. The extra meetings and quality measures required are not reimbursable energy spent. However, the moral obligation seems undeniably satisfied when accredited facilities are closing the gap on diagnostic testing in venous disease. **V**

The IAC Standards & Guidelines for Vein Center Accreditation: *Superficial Venous Evaluation and Management* are available for download as a PDF on the IAC website:

https://www.intersocietal.org/vein/seeking/vein_standards.htm

Content changes were made as part of a recent revision. The current standards became effective on October 1, 2019.