

PenVasc is a comprehensive Vascular Information System (VIS) ensuring peak productivity and efficiency in the vascular lab. PenVasc delivers an auto-populated worksheet and direct narrative report generation, and easy integration with your HIS, RIS, PACS and EMR, while managing many aspects of the billing. What's more, PenVasc streamlines critical processes including automatic collection of quality assurance, lab utilization and patient data for accreditation. Deployed at vascular labs throughout the United States, PenVasc VIS solutions optimize efficiency, productivity, workflow and revenue for standalone practices and multi-facility enterprises.

PenVasc Delivers:

- Automated clinical reporting, information tracking, QA and billing tools
- Robust scalable client/server software architecture, fully integrated or free standing
- Integrates with existing PACS or combined solution with PenPACS
- Synchronized image viewer for report generation and review
- Patient and referring physician letters
- Accreditation package (licensed from ICAVL®)
- One-step QA/QC with multiple correlative studies
- Intuitive real-time, auto populated, one screen, one-step data capture, report generation and physician approval
- Software facilitates access from Internet with remote desktop capabilities
- World-class PenCare customer support; available 24/7/365

How PenVasc Works: Improves Efficiency Providing More Patients with High Quality Care

- As imaging is completed, the images and DICOM Structured Report (SR) are received by PenVasc VIS.
- PenVasc automatically extracts the SR data and populates the exam template worksheet and calculates any derived fields. The technologist confirms data and releases an automatic PenVasc preliminary narrative report for the physician to review and approve.
- The physician selects preliminary exam from the work-list, confirms impressions and recommendations based on images provided and approves report for automatic distribution to referring physicians and local IT systems. Instant access provided to prior exams and images.

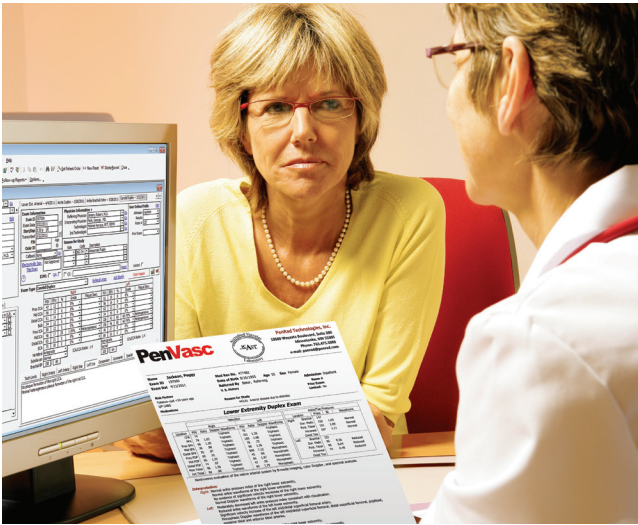
"Since 1999, our team has relied on PenVasc for improved efficiency, standardization and management of clinical data," said Martin Evans, MD, medical director, Vascular Lab, Surgical Associates of Richmond, Richmond, VA.

The screenshot displays the PenVasc software interface. On the left, there's a patient demographic section with fields for Name, Exam, PenVasc, Medical Record No, First Name, Last Name, Birth Date, Sex, Referring Physician, and Record Last Updated. The main area is divided into several panels: Exam Information (Exam ID, Exam Date, Start/Stop, Transcribed), Physician Information (Referring Physician, Interpreting Physician, Technologist, 2nd Technologist), Reason for Study, and User Defined Fields. Below these is a table for 'Exam Type: Carotid Duplex' with columns for 'Right' and 'Left' sides, listing vessel segments (Prox CCA, Mid CCA, Distal CCA, Bulb, Prox ICA, Mid ICA, Distal ICA, ECA, Vertebral, Subclavian, Brachial BP) and their corresponding PSV, EDV, % Grade, and Plaque Desc. At the bottom, there are 'Tech Limits' and 'No plaque formation of the right CCA. Minimal heterogeneous plaque formation of the right mid ICA.'

PenVasc Modules

Vascular

- PenVasc optimizes efficiency in the laboratory environment by eliminating handwritten worksheets, dictation and transcription. PenVasc automates data infrastructure of the accredited vascular lab.
- Electronic patient worksheets are automatically populated with patient demographics and exam order information.
- Image information and technical data are automatically incorporated into the worksheet, pending physician approval. Once approved, worksheets are formatted into a one page detailed narrative report, saved to the patient chart and distributed to referring physicians, EMR, PACS, HIS, etc.



Surgical Registry

- The Surgical Registry tracks and correlates surgical outcomes and research data with just a few clicks. Registry includes life-table analysis with definable parameters.


Cardiac

- Report, track and manage patients who have non-invasive cardiac exams. Adult and pediatric echocardiogram worksheets generate narrative reports with a click of a mouse.

Appointment Scheduler

- Schedule call-backs and surgical follow-ups with a click of the mouse.

**Optimize your vascular lab with PenVasc—
attend at a 'live' demo.
Visit penrad.com for details.**



Accredited Vascular Laboratory
ICAVL

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Name: Jackson, Peggy
Exam ID: 197359
Exam Dat: 3/22/2011

Med Rec No.: 477482
Date of Birth: 8/16/1955
Age: 55
Sex: Female
Referred By: Baker, Referring
V. S. History:
Reason for Study: 362.34 Amaurosis Fugax
Admission: Inpatient
Room #: 123
Equip. Used:
Prior Exam:
Limited: No

Carotid Duplex Exam

Grade	I	II	III	IV	V
PSV	1-125	1-125	126-250	127-650	None
EDV	0-40	0-40	41-100	101-300	None
% Stenosis	1-39	40-59	60-79	80-99	100-100

Exam Data:

Right					Left				
ICA	EDV	Grade	Plaque Desc.	ICA/CCA Ratio	ICA	EDV	Grade	Plaque Desc.	ICA/CCA Ratio
50	8	0%		1.1	54	12	0%		4.2
61	12	0%			59	14	1-49%	Homogeneous	
51	8	0%			54	12	0%		
34	12	0%			34	10	0%		
55	9	0%			226	66	60-79%	Heterogeneous	
40	11	1-39%	Heterogeneous		153	28	40-59%	Heterogeneous	
72	19	0%			62	21	0%		
83	0%	0%			65	0%	0%		

ICA/CCA Ratio: Normal Antegrade 150, Intimal Thickening Vertebral Brachial BP, Normal Retrograde 100

Interpretation:
Right: No plaque formation of the right CCA. Minimal heterogeneous plaque formation of the right mid ICA.
Left: No plaque formation of the left CCA. Moderate heterogeneous plaque formation of the left proximal ICA; Doppler findings suggests a hemodynamically significant stenosis.
Impression:
Right: 1-39% stenosis of the right mid ICA. The right vertebral artery flow is antegrade.
Left: 60-79% stenosis of the left proximal ICA with moderate hemodynamic significance based on pulse Doppler criteria. Subclavian steal with reversed vertebral artery flow direction noted on the left side.

Phil White, M.D.
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Vascular Surgery
 3/23/2011
 Performed By: **Jack Johnson, RVT**
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 Report Prepared by In Record Time! Vascular Database

PenVasc is developed in partnership with In Record Time, LLC