

Pacific Interventionalists / Synergy Health Concepts Implements Cost Effective Candelis PACS and Cloud Hosted Image Distribution solutions

The Customer

The team at Pacific Interventionalists launched Synergy Health Concepts in 2010 to focus specifically on Chronic Cerebro-Spinal Venous Insufficiency (CCSVI) liberation treatment and care. All physicians at Synergy Health are fellowship trained in image-guided and endovascular procedures and are board certified in General Surgery, Vascular Surgery, or Phlebology. Dr. Joseph Hewett, Dr. Michael Arata, Dr. Nina Grewal, Dr. Todd Harris and the team at Synergy Health have over 60 years of experience with the treatment of venous stenoses and other venous abnormalities.

They have extensive experience with stenoses of the jugular, azygos and other veins that have recently been associated with CCSVI. They are one of the highest volume centers in the world – Synergy Health performs more than 30 venous procedures a day including central venograms, central venous angioplasties, venous stent placements, and CCSVI procedures. Synergy Health's expertise and knowledge of venous stenoses is unmatched making it the leader in the treatment of patients with CCSVI. Synergy Health is one of the only groups in the world to combine the Haacke protocol MRI/MRV with the treatment of CCSVI, thereby providing better care for patients.

The initial cornerstone in the diagnosis and treatment of CCSVI is the pre-procedure imaging. Without accurate images before the procedure, Synergy Health physicians are unable to perform a complete consultation. The pre-procedure imaging used at Synergy Health is the Dr. Mark Haacke MRI/MRV.

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J. Joseph Hewett, M.D, Medical Director

Locations

Costa Mesa, CA

Services

Interventional Radiology, CCSVI

Key Business Challenges

Reliable and cost-effective digital image archiving solution to accommodate large amounts of data

Streamlining and improving radiologist workflow with immediate access to studies for diagnostic viewing and reporting

ImageGrid™ PACS Appliance Key Benefits

Lower administrative and maintenance costs for image archiving

Increased physician productivity from faster access to pre-procedure and CCSVI imaging

CASE STUDY

The Challenge

Treatment of central venous disease involves a variety of invasive imaging techniques. In the majority of cases, a large IV is placed into a larger vein in the groin area. From this location, small catheters are navigated into the neck and chest veins using fluoroscopy or X-ray guidance. Sometimes these venograms do not adequately show the blockages. In these cases, Synergy Health's physicians use an ultrasound attached to the end of the small catheter to create pictures from inside of the veins.

These procedures can generate between 500 MB and 1 GB of data per patients and require a robust and scalable PACS solution for archiving and diagnostic viewing. "Given our volume of procedures and data as well as our mission to provide timely and superior patient care, our team had been searching for a feature-rich, scalable and reliable PACS and Diagnostic Visualization solution." said Joseph Hewett., medical director of Synergy Health. "More importantly, it was essential that the technologies we implemented would enable us to streamline workflow by providing web-enabled remote access for diagnostic reading and reporting. The ideal solution would be one that offered the key features and functionalities for our rapidly growing interventional radiology practice, but at a cost that would not jeopardize our economic viability."

The Haacke MRI/MRV test provides the most information about the patient's brain tissue, MS lesions, vascular anatomy, blood flow characteristics, and iron content and needs to be archived and easily accessible to the radiologists prior to the procedure.

The Solution

Synergy Health Concepts deployed the Candelis ImageGrid™ PACS Appliance as well as Candelis' cloud-hosted Image Transfer and Report Distribution solution called ASTRA™. The ImageGrid PACS, with a fully integrated RAID 5 archive providing 4 TB of capacity, is at the core of the practice's operations and is the central repository of all patients' imaging data, including the pre-procedure Haacke MRI/MRV. A copy of every study is automatically sent to a secondary ImageGrid DICOM Storage/Server system located 50 miles away. The secondary ImageGrid not only provides data back-up for compliance with HIPAA requirements, but also serves as a Disaster Recovery and Business Continuity solution. In addition, the dual and always synchronized ImageGrid storage/server set-up provides the radiologists with the flexibility of accessing studies from either system, thereby streamlining workflow and timeliness of reading and reporting. The radiologists at Pacific Interventionalists/Synergy Health Concepts use ImageGrid's FDA 510(k) cleared Advanced Radiology Viewer with a fully integrated and highly customizable Reporting Module using Voice Recognition to provide timely diagnostic reports. ImageGrid's Report Templates can be used to create customized report templates for each of the four radiologists.

CASE STUDY

Candelis' ASTRA™ solution is a cloud-hosted study and radiologist report sharing and distribution solution and allows for the seamless, secure and HIPAA compliant transfer of results to referring physicians. The service is priced on a per-use basis at 99 cents per transfer (up to 1 GB) and each additional GB is priced at \$0.49. In addition, ASTRA provides Synergy Health with the option of archive studies on the cloud for a defined time period, thereby extending the archiving capacity of the ImageGrid PACS without additional on-site hardware.

“ImageGrid PACS has completely streamlined and optimized our entire workflow, helping us achieve our mission of providing our patients with the best CCSVI services. The fully integrated nature of the solution has given us operating efficiencies which flow directly to our bottom line,” says Dr. Hewett. “The ability to provide timely diagnosis and reports on-site or via remote access has given us the flexibility to pursue strategic growth and partnerships with other facilities.”

The Results

Synergy Health Concepts has been able to achieve physician and staff productivity through immediate and always-online access to all patient imaging data. ImageGrid's ability to handle multiple modalities and its full compatibility with any DICOM-compliant modality means that Synergy Health Concepts can easily add modalities without paying additional fees. The solution's RAID 5 archive can be easily and cost effectively expanded to the hundreds of terabytes, as volumes grow. ASTRA, the cloud-hosted image and report transfer component of the solution, has enabled Synergy Health to save money costs by minimizing and eventually eliminating labor-intensive and costly CD burning.

“ImageGrid PACS has exceeded our expectation and is the most cost-effective and feature-rich PACS solution for Interventional Radiology in the market.” added Dr. Hewett.

ImageGrid has been implemented at a fraction of the cost of competing Interventional Radiology PACS solutions and has been instrumental in helping Synergy Health Concepts to achieve operational efficiencies and low operating costs.

ImageGrid's appliance architecture enables the integration of the PACS server and archive in a single rack-mountable hardware. Its proactive self-monitoring capability has allowed the practice to avoid additional IT administrative costs which are typical of many PACS implementation.