ZONARE'S z.one ultra Puts Vascular Labs in the "HOV" Lane

Hybrid Solution of High End Ultrasound Performance and Portability Offers Value and Productivity Benefits to Freestanding and Hospital-based Vascular Labs

Dr. Glenn Jacobowitz is Vice Chief of the NYU Division of Vascular Surgery, Director of Vascular Surgical Services at Tisch Hospital, and Associate Professor of Surgery

NYU Vascular Associates is one of the largest vascular surgery teams in the country with decades of experience treating patients with vascular disease with an emphasis on minimally invasive therapies. Providing vascular surgical services at the Tisch Hospital at NYU, the NYU Division of Vascular and Endovascular Surgery is located in the heart of New York City at the NYU Langone Medical Center. Considered an authority in the treatment of vascular and venous diseases, NYU physicians regularly serve in leadership roles in national societies and participate in major clinical trials designed to increase knowledge of vascular disease and develop new techniques and technologies.

Vascular Ultrasound: Proven Screening Tool

Vascular disease is among the leading causes of death in the U.S., yet is generally asymptomatic until a catastrophic event occurs. Ultrasound, a critical tool for the efficient diagnosis and treatment of vascular





NYU Langone Medical Center

"At the end of the day, no matter how much we liked and appreciated the mobile attributes of the z.one ultra system, it would have been a non-starter had the unit not delivered the image quality and penetration needed to make fast, accurate diagnostic decisions," said Dr. Jacobowitz. "Not only was our technologic staff impressed with its performance and ease of use, the software-based architecture offered our practice a reliable, high-value system that can continually be upgraded to the most current technology via the Internet."

disease, has been proven to be accurate in detecting vascular disease prior to active warning signs and before a major medical incident such as stoke or sudden death from aneurysm rupture.

Four years ago, NYU Vascular was in the market for three ultrasound systems to support the practice's office-based imaging capabilities. According to Glenn Jacobowitz, M.D., Vice Chief of the NYU Division of Vascular Surgery, Director of Vascular Surgical Services at Tisch Hospital, historically we had purchased conventional units from one of the large multi-modality vendors where the image quality was good, but not amazing. Additionally, these large systems generated tremendous heat during use, which was especially problematic for our NYC-based practice with small exam rooms. Dr. Jacobowitz explained, "We needed to identify an ultrasound system that guaranteed high image quality and also offered flexibility and portability, and generated minimal heat during use. After exploring the traditional ultrasound vendor offerings, NYU purchased three z.one *ultra* Systems from ZONARE."



Big Performance; Small Footprint

Delivering high quality images, the small footprint z.one *ultra* system weighs only 144 pounds yet includes a fullsize keyboard and a 19" high resolution flat screen monitor mounted on an articulating arm and offers users a full viewing angle. A system boot-up time of 15 seconds coupled with a three hour battery pack and small footprint, allows clinicians to take the system in and out of patient rooms easily and efficiently.

As a result the software-based architecture of the z.one platform provides a substantially lower lifetime cost of ownership including reduced service costs due to the compact nature of the technology.

As Dr. Jacobowitz explained, "In a classic office-based sonographic workflow, a patient goes into an exam room, gets scanned and then has to be moved to free up the ultrasound system to scan the next patient. With the z.one system, we now have the ability to move the systems from room to room – rather than patients – this has been very beneficial to our workflow and productivity. Not only does it eliminate issues with immobile patients, it dramatically increases the ability for the systems to work in parallel to support diagnostic screening and treatment procedures."

Hybrid: Performance and Portability

"The ZONARE z.one system is analogous to a hybrid car that delivers the performance of a high end system with convenient portability," added Dr. Jacobowitz. "The technical staff quickly found the compact design allowed for more room in our small exam rooms and the lack of heat generation allowed for a comfortable environment for the staff to work, even during the summer months. Finally, the savings we experienced relative to the reduced power consumption associated with the system translated into a better bottom line for the group."

In 2010, NYU Associates acquired three additional z.one *ultra* systems to accommodate increased patient volume. With a current patient base of nearly 13,000, the six ZONARE systems typically perform more than 2,000 ultrasound exams each year. "The multi-dimensional capabilities of the z.one system combined with ZONARE's commitment to value as evidenced by the ongoing



progression of upgrades and support, not only validated our original but made expanding our capabilities a very easy decision," noted Dr. Jacobowitz.

When the hospital based vascular lab needed to replace four ultrasound systems, the practice's overall satisfaction with the z.one systems' performance and value, resulted in Dr. Jacobowitz recommending ZONARE without reservation.

"As Director of the hospital vascular laboratory, I was convinced the z.one systems would provide the performance and portability needed, as well as support the hospital's conversion to digital storage of images and electronic generation and verification of reports. The DICOM compatibility of the ZONARE systems has allowed for a seamless transition to interfacing our exams, images and reports with the hospital-mandated EMR. This has also allowed practitioners to view images throughout the Enterprise and from remote work stations if necessary, which has increased productivity and enhanced patient care."

Zone Sonography

Zone Sonography technology is a fundamentally new approach to echo data acquisition and image formation. All conventional ultrasound systems, both cart-based and compact, acquire and process echo data line-by-line and therefore are limited by the time required for sound pro-pagation in the patient's body. Zone Sonography technology acquires larger quantities of data very quickly in a relatively small number of large 'zones' each of which contains a volume of data equivalent to many lines in a conventional system. Zone Sonography technology acquires significantly more echo data in 1/10 time it takes conventional ultrasound systems.

As a result, the throughput is substantially faster and there is more time for a variety



Dr. Jacobowitz is Vice Chief of the NYU Division of Vascular Surgery, Director of Vascular Surgical Services at Tisch Hospital, and Associate Professor of Surgery. Dr. Jacobowitz is well published in many areas, including carotid artery surgery and endovascular aortic aneurysm treatment. He is also the institutional principle investigator for a national trial comparing open surgical repair with minimally invasive endovascular repair of abdominal aortic aneurysms.

of advanced processing options while still delivering extremely high image quality. Since it is implemented almost entirely in software, Zone Sonography systems are smaller, lighter and less expensive than traditional systems yet deliver performance and flexibility that far exceeds any other ultrasound technology.

"The z.one *ultra* has provided our vascular practice and hospital lab high quality ultrasound performance in an affordable and cost effective manner. The mobile attributes of the z.one *ultra* system support its use as a stationary departmental system or as an effective point of care system. ZONARE has effectively provided the vascular market the ability to continue to provide its patient population with the highest level of ultrasound performance and has done so in direct consideration of the physical and economic constraints within which vascular labs operate,"



877-966-2731 650-230-2800

email: info@zonare.com zonare.com

© 2012 ZONARE Medical Systems, Inc. All rights reserved. Printed in U.S.A.