Vu-Max® Offers Versatility, Invaluable Accuracy

Clinicians describe how they use this advanced ultrasound technology to aid in diagnosis and management of multiple pathologies, as well as surgical planning.

High-frequency ultrasound systems enable you to visualize, measure and obtain valuable information from structures within the anterior segment of the eye with an image quality that wasn't possible in the past. One of the newest is the Vu-Max® system by Sonomed Inc., a division of Escalon Medical Corporation.

"The Vu-Max® lets me visualize normal anatomy and various pathologies behind the iris plane, which I can't do with optical coherence tomography (OCT)," says Roxana Ursea, M.D., assistant professor of ophthalmology and director of the cornea and refractive surgery division at the University of Arizona department of ophthalmology in Tucson. "These microscopic-resolution images and precision-measurement capabilities for the cornea and anterior segment have been a valuable addition to my practice,"

OCT uses light to image the eye. As the light hits the iris at the front, it's blocked by anterior structures, so it doesn't image the ciliary body and other structures behind the iris. Ultrasound images the entire eye, and the Vu-Max® offers advanced and versatile high-resolution, high-frequency ultrasound technology.

"Being able to see beyond the surface of the cornea and having the entire anterior segment displayed in a single scan — in motion if necessary — has made this device an invaluable tool in the diagnosis and management of ocular pathology in our practice," Dr. Ursea says.

New Surgical Necessity

The value of high-frequency ultrasound for glaucoma, tumor studies and trauma is well known, and enhanced intraocular lens technology is making these systems critical diagnostic tools for both cataract and refractive surgery.

Erik Mertens, M.D., F.E.B.O., medical director of Antwerp Eye Center, in Antwerp, Belgium, has used the Vu-Max® to improve diagnostic capabilities and pre- and postoperative phakic lens implantation. "This device has significantly improved the safety of sulcus phakic lens implantation," he says. "OCT can't visualize the structures behind the iris. It cannot show the anatomy of the sulcus, corpus ciliary, zonules and so on. The Vu-Max® can."

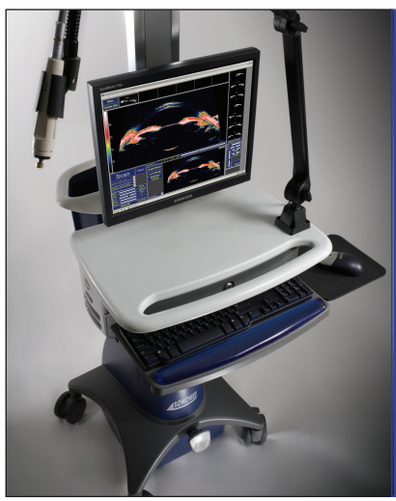
Dr. Ursea explains, "Given the accuracy and reproducibility of the measurements, it's been a great tool in determining which intraocular lens type and design to use as well, and it's given us critical information for surgical planning, helping to avoid possible intra- and postoperative complications."

Tools in the Vu-Max® system allow users to accurately measure the anterior chamber angle in degrees, check sulcus-to-sulcus or angle-to-angle distances and many other dimensions in the eye. Other biometry functions, such as corneal thickness and anterior chamber depth, are easy to obtain as well. As an option, physicians can use a standard 10 MHz and/or 20 MHz probe with the Vu-Max® to image the vitreous and the retina in a complete B-scan.

ClearScan Advanced Capabilities

Shan Lin, M.D., associate professor of clinical ophthalmology at the University of California, San Francisco, is using the Vu-Max® for glaucoma cases. "The Vu-Max® has been instrumental in my glaucoma practice, a large portion of which consists of angle-closure cases," he says, adding, "I look forward to the ClearScan probe tip, which allows me to scan patients without the need for an eye cup or coupling agent."

Thomas C. Prager, Ph.D., M.P.H., clinical professor at the University of Texas Health Science Center in Houston, is developing the ClearScan tip. His research work will be published in a peer-reviewed journal, and he anticipates that the tip will be commercially available in early 2008. The ClearScan is a sterile, water-filled balloon, which is placed against the eye and the probe functions like the gel or saline used in other types of ultrasound testing. "When the eye moves, the cornea doesn't come in contact with the probe. We can image across the eye without tagging the cornea. We can even look at an implanted valve through the eyelid," he says.



The Vu-Max® enables you to measure and analyze microscopic-resolution images of normal anatomy and various pathologies behind the iris plane.

As a clinical researcher, Dr. Prager also uses the Vu-Max® for glaucoma and anterior retinal problems. "With the Vu-Max® ultrasound technology, I can see tumors or cysts. It's great for patients with glaucoma," he explains. I think the Vu-Max® is one of the best ultrasound systems out there in terms of resolution and ease of use."

For more information on the Vu-Max® and other Sonomed products, call (800) 227-1285, or visit www.sonomedinc.com.