OPTOMETRIC Management
The Leading Practice Management Resource for Optometry

Article Date: 6/1/2011

instrumental focus

Three in one

Hand-held, portable device meets major imaging needs.

J. James Thimons, O.D., F.A.A.O.

I recently test-drove the Aviso modular ultrasound platform, from Quantel Medical. After using it for a little more than four months, I believe it's worth your consideration for four reasons: (1) It covers all your major imaging needs. Specifically, it offers ultrasound biomicroscope, A-scan and B-scan imaging. (2) The touch screen control module is portable and roughly iPad size. This makes lost revenue due to a large footprint a non-issue. (3) The touch screen control module is very intuitive, and, therefore, simple to use. (4) It enables ease of access to patients who have physical limitations.

Overview

The Aviso modular ultrasound is comprised of a touch screen module that contains an outlet for one of seven probes. Also, it contains a USB port to display ultrasound images via computer monitor. (As options, Quantel Medical offers Echo Data Manager software for data transfer to your electronic health records system—DICOM, EMR standards—and an iMac monitor or iMac laptop to view images.) The seven probes:

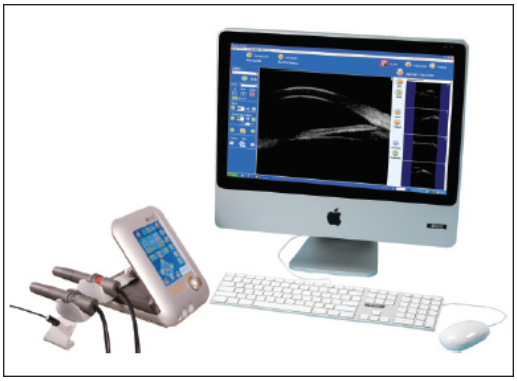
► *50 MHz linear probe*. Designed for glaucoma screening and fine-scale views of the cornea to the ciliary body, this probe enables the identification of cysts or tumors. Also, it allows the view of structures located behind the plateau iris.
► *25 MHz linear probe*. Created to provide detailed pre-operative information on the cornea to the posterior lens surface, this probe is ideal for the post-op evaluation of intraocular lenses.
► *20 MHz posterior pole high-frequency probe*. This probe enables the view of anomalies of the papilla and the macula behind opaque media, such as a dense cataract.
► *20 MHz anterior chamber high-frequency probe*. This probe provides a global view of the anterior chamber.
► *10 MHz probe*. This probe allows a general globe and orbit exam. Also, it acts as a B-scan biometer, making it ideal for advanced myopia or staphyloma cases (it provides automatic axial length measurement).
► *Standard biometry probe*.
► *ProBeam probe*. This is an A-scan probe that includes a builtin laser pointer. The pointer projects a spot of light onto a surface. When the patient focuses on this spot with the eye not being measured, the ultrasound beam lines up naturally with the patient's field of view. The result: Enhanced alignment of the visual axis.

In a two-week period alone, the linear probes aided me in diagnosing plateau iris syndrome, subacute angle closure, Peters-Rieger's syndrome, iris cysts, melanomas and filtering blebs, among other conditions.

Testing procedure

Choose a UBM probe, select the probe type on the touch-screen control module, and instill a couple drops of anesthetic in the patient's eye. Next, fill the clear scan balloon to the instructed pre-set level and the probe head up to the plane of the transducer head with distilled water. (Note: The 25 MHz linear probe is pre-filled and sealed, so you only have to fill the balloon.) Then, fasten the two components together. (You'll spill the first couple times, but then you'll get the hang of it, unless, that is, you have an unsteady hand.) Now, instill wetting drops into the patient's eye. The drops enable the probe to optimally conform to the corneal surface, providing enhanced images. Next, apply the probe to the eye. You'll notice the probe will conform to the globe. As a result, most patients report a "coolness" of the periorbital area and have minimal-to-no aversion reflex. Now, manipulate the probe's head, and have the patient focus his gaze in the appropriate direction. When your computer monitor displays a desired image, step on the Aviso modular ultrasound platform's foot plate to freeze it, analyze it, and if desired, save it.

You must place enough water in the device's water bath system (e.g. clear scan balloon and probe head) to produce clear images. The clear scan balloon should feel like a balloon that's just starting to deflate. When you push on the clear scan balloon and it gives just a little, that's the perfect fill.



In a two-week period alone, the linear probes aided me in diagnosing plateau iris syndrome, sub-acute angle closure, Peters-Rieger's syndrome, iris cysts, melanomas and filtering blebs, among other conditions.

Staff training

A Quantel Medical sales representative provides a full training day. It took my technicians roughly 20 minutes to learn the platform. That said, my technicians are highly trained, and, in particular, on B-scan devices. The learning curve for staff without B-scan experience would likely be a few hours. The reason: Ultrasound devices require a certain level of expertise. Specifically, one must understand how to get to a particular location of the eye and what to look for once there.

Quantel Medical facilitates the identification of conditions by presenting, via Powerpoint, the appearance of certain conditions with ultrasound.

Reimbursement

To bill for UBM, the CPT code is 76513 with the reimbursement per eye averaging $100. The CPT code for B-scan is 76512, with the reimbursement per eye also averaging $100. The CPT code for A-scan is 76519 with the reimbursement per patient averaging $70.

Because the Aviso modular ultrasound platform offers UBM, A-scan and B-scan imaging, has a small footprint, is user-friendly and portable, it has become a welcomed addition to my practice. **OM**

DR. THIMONS PRACTICES IN FAIRFIELD, CONN. IN ADDITION, HE IS ADJUNCT CLINICAL PROFESSOR AT THE NEW ENGLAND COLLEGE OF OPTOMETRY & THE PENNSYLVANIA COLLEGE OF OPTOMETRY AT SALUS UNIVERSITY. ALSO, HE'S CHAIRMAN OF THE NATIONAL GLAUCOMA SOCIETY. E-MAIL HIM AT JTHIMONS@SBCGLOBAL.NET, OR SEND COMMENTS TO OPTOMETRICMANAGEMENT@GMAIL.COM.