First user experience with the Haag-Streit FUNDUS MODULE 300

By Jean-Antoine Pournaras, MD

In my consultation hours as retina specialist, there is no instrument I rely on more than my slit lamp. This pure optomechanical instrument is a true all-rounder and is formative for the consultation routine. I can see everything in excellent resolution and with enormous dynamics – but only analog. This is a limitation of the conventional slit lamp system that has become increasingly important: how do we document, how do we share information with colleagues, how do we explain to patients? All this happens nowadays with digital images – not analog.

For capturing digital images in our hospital, we have a pool of high-end instruments providing fantastic digital documentation of almost any pathology. The issue is that all this documentation is done in a specific imaging department: we need to schedule patients in for imaging, need to send them over and sometimes need to see them afterwards to discuss the images. The workflow can be inefficient for both patient and examiner.

With the introduction of the Fundus Module 300, it has become possible to combine slit lamp examination and posterior imaging. I had the opportunity to test this device prior to the official market release and could evaluate how well the Fundus Module 300 meets the requirements of a retina specialist.
How does it fit my workflow?
As outlined above, the current situation is not always satisfying from an efficiency point of view. Sometimes it would be just great to quickly capture an image of the retina while the patient is sitting in front of the slit lamp. This is where the Fundus Module comes in, because it perfectly matches this need. With this new camera, the days of patients needing to go to the imaging department for any fundus images are over. A majority of the images can now be captured directly on the slit lamp, while only patients for which a high-quality, wide angle fundus image is required need to be sent to the imaging department.

In brief, the Fundus Module provides the flexibility to document the retina of any patient during the slit lamp exam—and it does not take more than one extra minute of examination time!

How does it work?
The Fundus Module is plugged in to a base plate which is permanently mounted on the biomicroscope. It connects automatically with the PC and the control panel just by putting it on the slit lamp. The control panel, which is placed conveniently in front of the slit lamp joystick, provides intuitive control of the illumination level and release of image capturing. After capturing, the images are automatically uploaded into the EyeSuite software. The images are viewed, edited and stored in this tidy software.

Thanks to the stable mounting of the Fundus Module on the slit lamp, the alignment of the camera and the image capturing is very simple. Image capturing can be done in auto-focus or in manual-focus mode.

A very useful functionality is the standby position of the Fundus Module. It can remain on the slit lamp as it is retracted from its capturing position. In this way, the slit lamp is fully functional and, once an image is required, the camera is instantly ready.

How good is the image quality?
A determining factor in fundus documentation is certainly the image quality. Surprisingly for me, the image quality can be compared to a full-blown screening fundus camera. In other words, with the Fundus Module 300, I get serious fundus images on my slit lamp. This is really a novelty.
The 40° field of view is sufficient for documentation. Having said that, I think the next step should be a mosaicking function in the software which allows images to be stitched together. This would enable getting one picture of an important section of the retina.

Summary
I am excited about this new instrument and believe that it is attractive for all retina specialists working in a similar clinical environment as we do in our hospital. For me, the increased efficiency in the workflow is the biggest benefit of the Fundus Module 300.

Author:
Dr. Jean-Antoine Pournaras
Jules Gonin Eye Hospital
University of Lausanne
Switzerland