

By Rainer Waedlich, MD (with OM staff)

# EHR “must make it easier to do our jobs”

*So says Matthias Maus, MD, the obvious EHR expert to be interviewed for this piece: By the time the Institute of Medicine had published its plea in 1997 (for what we now call an EHR) in every physician's office, the paperless work environment Dr. Maus created for his ophthalmic clinics was already 11 years old. Today, Dr. Maus, a German ophthalmologist-entrepreneur, owns three eye clinics in Germany and Vienna. He credits efficient data management, structured workflow processes and cross-center communications as cornerstones of his success.*

*Dr. Maus introduced that paperless work environment using an international EHR system working with IFA Systems; he helped start this publicly traded German EHR company and served as its board chair until July. He stepped down from this position to focus on the expansion of his centers under the brand “Sehkraft” (“eyesight”).*

**Rainer Waedlich, MD: With more than 25 years of experience, you are an expert for Health IT in eye care. Where do you see the most important benefits for using information technology in your clinics?**

**Matthias Maus, MD:** Even 25 years ago I was convinced that digital systems are key for efficiency and quality in healthcare — especially in eye care. Our team developed customized applications for structured workflow management to handle refractive/ cataract/glaucoma cases, and electronic calendars for patient and staff scheduling.

When we started, a paperless clinic was not at all the standard in Germany. From day one, the system eased documentation, enhanced quality management and ensured certain standards of care were implemented and controlled. In addition, it saved time in search or with legibility. Structured data also enabled statistic analysis of medical outcomes, patient satisfaction, efficiency of resources and effectiveness of marketing campaigns.

**RW: What do you mean by structured data?**

**MM:** This is a big topic and one that is very important for clinicians and administrators to understand. A good analogy for structured vs. unstructured data is the difference between an

organized library and a mountain of books piled up without any system. Structured data allows data to be saved in a consistent manner, which improves speed and makes it possible to generate reports.

It is possible to store data without structure. The most extreme — and worst — example would be storing everything as text. Text storage makes it almost impossible to search and organize data, because different people might use different terms, spelling and abbreviations to store the same finding. Structured data normalizes how information is stored and usually indexes terms using numbered IDs. This opens up tremendous functionality for storage, retrieval, reporting, analysis and standardization.

Some EHR systems did not use structured data early on. Today, all the major EHR systems use structured data. It is essential.

**RW: You said EHR creates efficiencies. Doesn't EHR actually slow down your clinic?**

**MM:** No! Quite the opposite. Well-designed EHR systems organize processes into workflows. These workflows anticipate the sequences and processes. All our devices — phoropters, topographers, aberrometers, lasers and so on — are integrated into the EHR



public and private care and the importance of financial and people management and cost in every organization.

**HOW CAN I GET THERE?**

First, find the medical world where the only approach is the philosophy. I have served on the boards for Henry International, The Colburn Center for research and physically-challenged children and adults, Operation Goodthrough for the children of American families, The ILL of Life for organ donation and donated organs, The Thomas Memorial Foundation for organ donation, and several foundations for research.

I have seen a clear direction

and, more people and organization.

I understand the importance of the organization and its role in the organization. I understand the importance of the organization and its role in the organization. I understand the importance of the organization and its role in the organization.

For example, I see that I need to know that my job will not be done in the same system. By working with the staff, I can find the solution and the way of thinking. I can also do it and see the way of thinking. I can also do it and see the way of thinking.

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**LAST YEAR I WAS NOT HERE**

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Remember that we are the future of the

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ible and any customizations are easy and efficient. For example, when we are investing in new diagnostic or therapy technologies, we can create the new workflow profiles in 30 minutes — totally independent from the software provider or any external services. As an example, we integrated the new 2RT Laser from Ellex to treat early AMD (a completely new procedure for us) within only one week including procedures and rules, quality management, calendar slots, structured data, and macros. All changes are then included in our staff training and education.

One especially valuable part of our EMR system is its ability to connect all diagnostics tools — including automatic phoropter, topography, the most sophisticated OCT — to our network. This connectivity permits access to every measurement from all workstations. We save time, we can dig deeper into diagnostics, and we are able to educate our patients in a much better way. We also communicate within and among the various offices with ease and speed.

**RW: What is your advice for your colleagues?**

**MM:** Workflow, quality management, and the underlying information technology are substantial tasks for leadership. Successful ophthalmologists should understand the principles of professional health IT, like structured data, statistics and well structured input. All those items impact patient satisfaction, efficiency, productivity, quality of care and legal compliance of the clinical pathways — especially in the area of surgery.

In larger offices, better resource scheduling saves costs, avoids the typical rush hour effects, and results in a more profitable business. Of course, the IT partner is also an important factor for success in this context. The software provider should be specialized in ophthalmology and follow international standards. This protects your investment and is the basis for long-term efficiency. Ophthalmologists who do not understand and implement these rules will lose patients sooner or later due to the difference in perceived quality. **om**