IN CONVERSATION WITH

Robert Johnston,
Clinical Director and co-founder of Medisoft

What is your current role with Medisoft?

Clinical Director, i.e. I head up the analysis for and design of Medisoft's ophthalmology electronic medical records (EMR) product. I don't program: all coding is done by Medisoft's team of computer programmers. I work with a team of analysts to work with ophthalmologists, orthoptists and optometrists from around the UK to determine the clinical content and design.

What advantages do you think an ophthalmology department would gain from using an electronic medical record system like Medisoft?

1. The ability to produce beautifully-presented reports and graphs at the click of a button, which show a wide range of aspects of the activity in the ophthalmology department and the outcomes of medical and surgical treatments. Annual appraisal at the click of a button and the ability to publish peer-reviewed audits (>50 peer-reviewed publications in the last five years have been based on Medisoft's audit reports).
2. Records available at all times from any location with a computer, including in non-clinical areas such as the ophthalmologist's office. This benefit is even bigger for ophthalmology departments that operate across more than one site.
3. Charts, algorithms and calculations (e.g. IOL power calculations and risk calculators) are of great benefit in helping doctors to make quick and appropriate treatment decisions. The best known example is determining the risk of posterior capsular rupture adjusted for case mix complexity during cataract surgery that is now a requirement for every cataract surgeon to declare at annual appraisals.
4. As detailed clinical information is entered into the system in a structured way, relevant data can be automatically pulled into letters to GPs, optometrists and other referring clinicians.
5. The automatic generation of letters saves a lot of secretarial time. At thoseTrusts where the letters are transmitted electronically to GPs, the cost of printing and posting is also saved.
6. The system is invaluable in helping to reorganise the delivery of ophthalmic services. For example, technicians can perform a standard set of diagnostic tests to assess the status of patients' retinal disease or glaucoma, and the tests can be reviewed virtually by a doctor, using the Medisoft system. This has transformed the efficiency in anti-VEGF clinics and glaucoma virtual review clinics.
7. The system includes a sophisticated Clinic List / Patient Workflow feature so the doctor knows who has arrived who has seen the nurse or other non-doctor clinicians and who is now waiting to see them.
8. If the system is used in all ophthalmic clinics and all ophthalmic theatre sessions, paper notes don't need to be used at all, generating enormous cost savings for the Trust.
9. Web portal for the return of data from community optometrists – particularly important for the National Ophthalmology Audit being run by The Royal College of Ophthalmologists.

How many hospitals are currently using Medisoft?

150

What are the challenges in expanding the system in Europe?

1. Translation of all captions and clinical terms into foreign languages.
2. Incorporating different databases of medications.
3. Putting local coding systems against diagnoses and procedures.
4. A myriad of localisation issues which means a lot of localisation work needs to be done. For example, in many European countries, a comma is used instead of a decimal point in a number.
5. We have already done this in Portugal

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and are in advanced discussions with sites in France and Switzerland.

What other features could EMR software offer in the future?

1. Detailed features for subspecialties currently not so well supported, i.e. uveitis, neuro-ophthalmology and oncology.
2. Different data input screens for different types of devices, especially mobile devices.
3. Patient web portal.

Could EMR systems ever completely replace paper records, do you think, and how soon could this be a reality?

Yes, this is already a reality at several sites in the UK for whole departments and for selected types of clinics at dozens of centres throughout the UK!

Please see the February/March and April/May 2015 issues of Eye News for a similar interview with Professor James Morgan, Clinical Director of OpenEyes.