



Roman's empire

Dubai-based Aroma Software is bringing e-prescribing software support to the market and managing director Roman Konovalov is well placed to describe the scent of change. He tells *Medical Times* how the industry is turning to the IT crowd to reduce the region's rate of medication errors.

How can IT improve the healthcare workflow?

Many hospitals still keep their workflows on paper, and that causes them a lot of issues, making sure they have proper and secure archive rooms and so on. IT solutions for healthcare are paperless, and reduce unnecessary extra costs. They can also provide doctors with

relevant information about patients and medications in an interactive manner, which can support clinical decisions. There is a software class called Clinical Decision Support System (CDSS) that helps doctors make the right decisions while they write a prescription. As an example, when a doctor works with Computerised Physician Order

Entry (CPOS), the system can generate clinical alerts.

How eager are regional medical facilities to upgrade or establish IT systems?

There is a pretty large difference between the UAE and Saudi Arabia. In the UAE, the decision maker is typically an employed person, who might be afraid of making decisions. In Saudi Arabia it is common for the owner to also be the CEO, and so unafraid of making decisions as it's their own risk. So from our experience, it's easier to establish IT systems in healthcare organisations in Saudi Arabia than in the UAE. Another problem comes from the fact that there are a lot of expatriates in the UAE. Sometimes they don't really care about what will happen after five or more years because it's likely they will be outside the country by that time. There is not always a long-term approach to developing safety in healthcare.

You've just completed an analysis of scripts from local hospitals - what rate of prescription errors did you see?

We made an analysis of about 3,000 prescriptions from different hospitals across the UAE. Our analysis showed that medication errors on drug-to-drug interactions happen at a rate of 17.7%, with 6.7% of all prescriptions leading to serious adverse drug events. And about 76% of the drugs on the registry were harmful if dispensed to pregnant women. The Dubai Health Authority dispenses about 60,000 prescriptions a month so medication errors could potentially be costing the nation hundreds of millions of dirham per year and hundreds of deaths for 'unknown' reasons. I would

urge the authorities to ensure all healthcare professionals have IT solutions that reduce medication errors and provide alerts when they are writing prescriptions.

We understand that the 3,000 prescriptions we have used for analysis is not a particularly large number, so we are still continuing our study. By the end of the spring we plan to complete the analysis of a few hundred thousand prescriptions, which should give a clearer picture.

What sort of takeup do you see from doctors?

I think the best sign that your software is in use is when your customers remind you themselves that their licence will expire soon. About 73% of our customers from the first year asked us in advance to provide them with the new license and many also asked us for a subscription for more than a year as they then receive discounts. We have had 95% of our licences renewed.

Some of our customers are very active in making suggestions of what we could add as a new functionality [to the software]. This kind of feedback is very well appreciated as it gives us an understanding of what doctors and pharmacists really need.

Is there a danger of over reliance on IT?

No matter how advanced the software is, the doctor is the only one who makes the final decision. Even if the system shows an alert, doctor will always have a right to overwrite this warning. No IT system will ever be able to completely avoid medication errors. IT can help reducing a large number of mistakes, and very often the error reduction is drastic, but I do not think any system can avoid prescription mistakes altogether. **MTI**