

# *From bits of paper... to just bits*

**Converting paper records to an electronic format  
is a bigger job than many clinics can do alone.**

BY ROSIE LOMBARDI

**E**scaping the tyranny of paper is harder than most doctors imagine – even after an EMR system is implemented. Family practices often go into an EMR conversion believing they'll finally be rid of paper going forward, and only have to worry about storing historical patient files.

But storage costs for thousands of paper patient files can be expensive. By law, family practices need to retain patient records on-site for 10 years after the last visit. To avoid these costs, many practices are scanning them to create space-saving digital records, and they often assume this task can be handled by hiring temporary staff to scan old files over the course of a few months.

"We thought we'd just scan our files

as we went along, but things changed when we saw what we were up against," says Dr. Harvey Blankenstein, a family physician at the 1100 Family Health Organization (FHO), one of several FHOs in the North York Family Health Team in Toronto.

The family practice comprised of seven doctors and six support staff implemented a Nightingale EMR system last December, and went live in February this year. The practice was also moving to a new office in August, and wanted to avoid expensive real estate costs for storage of their paper files on-site.

But there were many unexpected paper complexities in making the switch to digital EMR records. "I don't think we really appreciated the scope of the project," says Blankenstein. Major workflow

issues quickly emerged. New paper continued to flow into the practice: laboratory reports, faxes and other medical documents that had to either be scanned or input into the EMR.

Doctors were struggling to learn how to use the new EMR program, while also compiling and inputting cumulative patient profiles. "Scanning old files doesn't obviate the need to create and input those profiles into the EMR. You need to do both."

The office hired a student to deal exclusively with scanning, but she was soon overwhelmed. "We were bombarding her with paper even after old charts were scanned. We had to generate new paper charts because we couldn't keep up with scanning and inputting all the information into the EMR although the

old chart was done. It all became a mammoth task.”

Most doctors have an average of 1,500 patient files each to scan, and many of these are several inches thick for longstanding patients with complex conditions. But few family practices have the high-end equipment needed to handle the job.

“We didn’t have a proper scanner for our student to do that volume,” says Blankenstein. “We had a multi-function scanner, fax and photocopy machine that we needed for our regular office tasks. If she scanned all day, then we couldn’t use it for anything else. Doing the job in-house would have entailed buying another expensive machine, but we didn’t have the office space for another piece of equipment.”

There were also some longer-term paper issues that came as a big surprise, he says. Even after the initial year-long teething pains of converting paper for an EMR are finally over, family practices need to consider that many laboratories can’t or won’t upload results digitally.

They need to either make arrangements to scan these reports on an ongoing basis, or partner with select labs that can provide information electronically.

“We assumed most labs will transmit results electronically, but we only found out after the fact that it’s not so. They’re only willing to interface with you if the volume justifies it, and nobody would give us the magic number about how much that is. They’ll send you paper results if the volume is low, and that means you’ll have to scan them into the EMR as image files instead of having the actual data. This is a big issue for us, as it’ll determine which labs we’ll direct patients to.”

Overwhelmed by all these problems, the practice decided to look outside for a document management provider to provide assistance. “It was getting to the point where we had to slow down our patient bookings.”

The office manager, Sherri Weisz, took the lead on the project and did the due diligence

needed to gather information about several providers’ offerings, and in organizing meetings with the physicians to evaluate it. After short-listing the top three, the practice settled on Toronto-based DocuDavitt Solutions Inc.

“We chose them because they’re willing to store paper files in addition to scanning them, and were flexible about working with our schedules and coming up with financial arrangements that allow us to amortize the costs over a few years,” says Blankenstein.

“For us, the costs were reasonable, as we could spread them out and it was more cost-effective than buying a scanner and hiring a student, which would have taken more time, and we still would have needed to store the paper.”

### Don’t DIY

The 1100 Family Health Organization’s experience is fairly typical, says Sid Soil, president of DocuDavitt Solutions. “Many doctors come to us after getting frustrated with doing the job themselves. We take their paper away and empty their offices.”

Document management companies use commercial scanning equipment with proprietary software that barcodes the paper files to speed up scanning, says Soil. “It’s possible for a student to do a competent job, but we can do 1,500 files in a week or two, versus an entire summer.” In addition, higher quality results can be achieved, as documents can be enhanced so writing is larger, blacker and more legible, and providers have quality assurance processes in place to catch errors.

Many doctors’ offices seek external providers right off the bat, but some come after they’ve started the job themselves, says Elan Eisen, president of Record Storage and Retrieval Services Inc. (RSRS), another Toronto-based document management provider that was short-listed for the project. “In scans done by students, we find pages from one file mixed with others in almost every project. Often we have to start from scratch and redo their files, which makes the job even more costly.”

A key issue doctors frequently overlook when using





Fujitsu fi-6770 production scanner does 90 pages per min.

their own office equipment is that searchable PDF files can only be produced if they use the optical character recognition (OCR) features, says Soil. “Many don’t scan with OCR because it requires an extra step and slows things down.” Unfortunately, this produces image files instead of readable characters, which makes it impossible to use search software to automatically find keywords within a particular file. “We use our search features all the time – a file can have hundreds of pages,” says Dr. Blankenstein.

Even with OCR, it’s not possible to feed data from a patient’s scanned historical record directly into the corresponding EMR record, says Soil. PDF files are typically appended to the EMR system as a separate application that runs on the side but can be opened with a click. “Most EMR vendors don’t want doctors putting in tons of historical patient information as it bogs down the system,” says Eisen.

Some offices opt to store both paper and electronic records with DocuDavIt so that they have back-up if the server is down, says Soil.

Eisen says some offices without an EMR in place are scanning their files to support a future transition. “Many are waiting for government funding, but they don’t have room for all their mounting paper. They do it as a first step to an EMR.” Pediatricians are also scanning their paper records to avoid storage costs, as they must store them for up to 28 years, and specialists are using document

management software with scanned records as an alternative, since most EMR systems are designed for family practices and are unsuitable for their areas.

A new issue is emerging as more and more doctors implement disparate EMR systems, says Soil. “If a patient leaves one doctor’s office with an EMR

to go to another with a different EMR, you have to pass on both the paper historical file and electronic file. But it’s expensive to convert the EMR record, so it’s easier to print it. You always have to create paper.”

For both vendors, ball park costs for a basic scanning project are about \$6,000 for a typical doctor’s load of 1,500 historical patient records, or about \$120 per box for about 50 boxes.

#### Paper logistics

There are many project management issues to consider in organizing files for scanning by an external provider so that workflow isn’t affected, says office manager Sherri Weisz.

The participation of an office coordinator is essential, notes Soil. DocuDavIt picks up paper files from doctors’ offices and works with their schedules so scanning coincides with their vacation schedules, upcoming patient visits and so on. “They often provide us with access to their online calendars, or e-mail us to let us know they need certain patient files scanned.” The company also provides a hybrid service, storing an office’s paper patient records, and scanning and uploading them to their EMR on demand.

Even with DocuDavIt’s assistance, managing the logistics of scanning and uploading 7,000 historical patient files for the 1100 Family Health Organization required a great deal of administrative effort, says Weisz.

“It was a massive task going through the charts, putting them in boxes and sending them off, because you need to log them all. It’s your responsibility to know which charts left your office. We also went through each chart quickly to ensure everything was in order before boxing it. It took five staff members an entire weekend to go through, label and log the 50 boxes we prepared for our first doctor. Our secretaries did lots of overtime during this project.”

The effort was further complicated by delays in setting up the EMR system, which was implemented in December but didn’t go live until February. “This threw our schedule off for the scanning, because we started it in December. But by the time our EMR was up and running two months later, we had a lot of catch-up charts to scan too, and we wound up with two PDFs for some patients.”

Weisz also tracked the costs, which she says were almost double what they’d originally estimated. DocuDavIt’s basic scanning costs are a nickel per page, but many charts have more pages than they appear to at first glance. “There are lots of two-sided reports, sticky notes, telephone messages and so on in files.”

A great deal of her time was spent figuring out the logistics in accordance with a doctor’s schedule and preferences. “How many files will you send, when will you send them, and in what order? We decided to handle one doctor’s files at a time, as there’s no way we could deal with 7,000 files at once.”

A small office with one or two doctors and one support staff would be overwhelmed by the task, she says. “The secretary needs to deal with everyday business, so it would be impossible to do during the day – they would need to do it after hours or hire extra staff.”

To avoid headaches, the timing of an EMR implementation and scanning of back records should be carefully planned to coincide, Weisz says. “I strongly recommend that once the decision is made to go live with an EMR system, not another piece of paper goes into a patient’s chart.” ●