Understanding Breakthroughs in Medical Record Keeping - OCRs

Keeping track of medical records is a critical factor in any practice. New trends in medical records are surfacing every day, especially around electronic medical records. One buzzword associated with EMRs that has been coming up a lot is Optical Character Recognition, or OCR, a process involved in the scanning and translation of paper records into digital records.

We've formed a set of questions & answers around the topic to help doctors considering or already using this technology with any queries they might have.

OCR… What is it exactly?

Optical Character Recognition basically takes handwriting or printed text and converts it into text that is editable or readable to machines. This converted text (which is essentially an image) can be used to fill in fields in an Electronic Medical Record.

Isn't that just scanning?

A scan is just a digital photograph or photocopy of a hard document. You can't edit or manipulate the text in a scan the way you can with images created in OCR.

Does the College have any policy covering OCR?

The College does not have any established policy covering OCR, but it does reference scanning. It asserts that original, hard copy records can be shredded once a scan has taken place.

High quality scanning should usually result in a quality reference document with good data, but there is always a chance that a low quality scan could result in an illegible record. Additionally, if technologies and standards evolve with time, a digital record that is relevant today could be irrelevant and therefore illegible in the future.

To ensure a high quality of scanning, the CMPA provides the following guidelines:

- Hire a service provider that has experience and a strong reputation
- Make sure that there are protocols in place to ensure a high quality digital record
- Confirm that the scanning involves QCs (Quality Checks)
- Create and share a documented list of protocols pertaining to the scanning that all parties involved will have access to
- Make sure that the data created cannot be altered (e.g.: a read-only PDF)

Is there anything to worry about when it comes to OCR?

As with any endeavor, mistakes can happen— even with machines. Although OCR engines are technologically advanced, their ability to interpret data is not always perfect. It can be affected by the source material: whether it's a good copy or not, whether it's handwritten or printed, etc. Sometimes letters or numbers can be "misread". Obviously this could create a critical situation if two numbers were interpolated in the result of a test, for example.
The legality and relevance of an OCR document can also be questioned. A court of law or the College may not consider it an authentic copy of a record, since it has essentially been interpreted.

Is it safe then to use OCR?

Certainly, as long as QCs take place during the process. Most quality providers will have a person on staff who verifies that the OCR has read the record correctly.

There are exceptions:

- If a test result is received as a hard copy and not a digital copy, OCR should be avoided. Misread test results can create dangerous complications for a patient. Whenever lab tests are involved, you should retain the original hard-copy and just scan it or manually enter it into a digital system.
- If OCR is being used as a comprehensive system of record keeping, a scan or the original hard copy should still be kept on file as backup.