

# True electronic prescribing not yet a reality for doctors

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The use of computer-based prescription systems by physicians is growing. The College is supportive of the use of technology by physicians because of the tremendous benefits it can provide to patients and physicians in terms of efficiency and patient safety. The CPSO frequently receives calls from physicians asking questions about digital signatures and other issues around electronic prescribing.

As well, the Ontario College of Pharmacists (OCP) has recently issued Guidelines for Electronic Prescriptions Transmitted to Pharmacists by Fax or in Digitized Image Files which may have an impact on physicians as pharmacists may have questions about the computer-based prescription systems used by physicians.

Given all of these factors, this is an opportune time to start the dialogue with physicians about this area. As this is a changing environment, we will be continuing to work on the issues and will be providing you with updates as necessary. Of course, we also welcome any comments you may have.

## What is an e-prescription?

A fully electronic prescription (one that does not involve paper-based intermediaries such as prescription pads or faxed copies) is sent from a physician's computer to a pharmacist's computer. Standardized e-prescriptions eliminate the need to manually enter the data at the pharmacy. It is important to note that neither the use of facsimile transmissions nor the transmission of computer image files (i.e., files containing a computer-generated or scanned image of each prescription) constitutes true electronic prescribing.

## Can physicians use e-prescriptions now?

No. There has been recognition of the benefits of e-prescribing and there are a number of ongoing initiatives related to e-prescribing, however, the practice is not currently allowed due to limitations in federal law. Specifically, the *Food and Drugs Act* and the *Controlled Drugs and Substances Act* do not allow e-prescriptions.

The federal requirements for prescriptions – that written orders need to be signed by a physician; that rubber-stamp signatures aren't valid for written prescriptions and that pharmacists need to verify the signature of the physi-

## Ways to Achieve a Unique Signature

Medipen is an electronic prescribing system whereby a physician uses a special pen to write a prescription. The pen is cradled on a wireless device which sends a "file" to a server at a remote location. When the physician uses the pen to sign his or her name, the image of that signature is captured and put into a file. This is the digitized image file. That file is then sent to the server and is coupled with the unique prescription which the pen has also captured and sent to the server. Both files – the signature and the prescription are unique – and they must go together; the signature file cannot be used for another prescription.

Another way to create a unique digital signature is to sign the computer touch screen directly. In this way, the signature forms part of a particular prescription and because it is not located in a separate file, it can't be used by the physician again.

The CPSO knows that this is a growing field, and we would welcome hearing from physicians who are using these kind of technologies in their offices or are considering doing so in the future. This will provide us with useful information and help us develop appropriate guidance for physicians as technologies emerge.

cian – are what restricts the types of systems that physicians can use to transmit prescriptions to pharmacists. The CPSO is in favour of efforts to move forward on electronic prescribing and has been working with Infoway Canada<sup>1</sup> in its efforts to develop standards for electronic prescribing systems. However, any technology used in a physician's office must have a mechanism for pharmacists to know that the prescriber is whom he or she says they are and have the proper security to protect patient privacy.

### What about using current computer-based prescription systems?

Some physicians are using computer-based solutions that provide most of the advantages of e-prescriptions but rely on computer-generated facsimiles or digitized image files to transmit the prescription to the pharmacy. Computer-based systems for prescribing can include all forms of computer-assisted prescribing, including practice management systems, electronic medical record systems, electronic health-record systems, or stand-alone systems for prescribing.

Currently, many physician offices are using computer-assisted prescribing which includes safety checking against various drug databases.<sup>2</sup> Where there is a functioning electronic medical record, the prescribing can be checked against the allergies and other medications that are listed in the patient profile. These systems generate legitimate prescriptions that can be signed and then given to a patient or faxed to their pharmacy for dispensing. What cannot at this time be done is transmission of the prescription from the physician's electronic system to that of the pharmacy.

In order to make full electronic prescribing an actuality, new regulations would need to be introduced and safety mechanisms developed to prevent prescription.

In order to ensure the authenticity and legitimacy of prescriptions, the OCP has introduced guidelines for electronic prescriptions transmitted to pharmacists by fax or in digitized image files. The guidelines do not apply



to a hospital situation as hospitals are what would be considered a 'closed' environment. The pharmacy would have knowledge of the physicians who work within the hospital. This is different from a community pharmacy where the environment cannot be controlled. As well, hospital pharmacies may have special provisions for the electronic delivery of prescriptions within the hospital (i.e. from physicians within the hospital to the hospital's dispensary).

The following is a summary of the OCP guidelines. It is recommended that physicians look at the guidelines in their entirety on the OCP website at [www.ocpinfo.com](http://www.ocpinfo.com).

- (1) A computer-based prescription system must:
  - a. digitally record and store the unique instance of a prescriber's signature obtained at the time the prescription is signed in addition to other information such as the time of transmission and destination;
  - b. transmit a clearly identifiable, life-size image of the signature; and
  - c. mark any paper copy printed in addition to the electronically transmitted prescription as a 'copy'.

If a digitized image of a physician's signature is pasted onto a number of prescriptions, it will be equivalent to a rubber stamp which provides little or no security against prescription fraud and as such will not be considered to be a unique signature. Pharmacists will be required to ►►

authenticate the source of the prescription. What makes a signature unique is when the physician actually writes his/her signature on each and every prescription. A physician can sign the computer screen or PDA<sup>3</sup> and create a unique signature. What the physician cannot do is store this signature and use it in the future by attaching it to subsequent prescriptions.

- (2) If a physician is using a third-party information technology service provider in order to deliver a prescription by facsimile copy to a pharmacist, a pharmacist must obtain assurance from the physician that the requirements in the *Personal Health Information Protection Act (PHIPA)* are met and that the service provider has put safeguards in place related to privacy and confidentiality of information.

The guidelines also set out a requirement with respect to computer-based systems that transmit prescriptions to pharmacists in digitized image files (i.e., files containing a computer-generated or scanned image of each prescription).


- (3) Before accepting a digitized image of a prescription transmitted in a computer file by a third-party service provider, the pharmacist will have to obtain assurances that the service provider is meeting the requirements of *PHIPA* and that privacy and confidentiality of information is being maintained.

### Will the pharmacist be calling the physician to ask about the computer-based prescription systems?

Yes. In order to ensure that the above requirements are being adhered to, the pharmacist will be calling physicians to ask them about the system they use to transmit an electronic prescription. Pharmacists will endeavour to minimize any disruption to physician's practices. The OCP is in the process of developing a brief questionnaire for physicians to complete in order to provide pharmacists with a better understanding of the system supporting the physician. By providing this information, pharmacists will have some assurance that prescriptions

generated in this manner are authorized by the physician and that there are appropriate safeguards to protect the confidentiality and privacy of the prescription information transmitted to pharmacists. It is anticipated that a physician will only need to complete the questionnaire once unless their computer-based prescription system changes.

### What is next?

The College is hopeful that true e-prescribing will become a reality in the not too distant future. However, in the meantime, in order to protect the public of Ontario, we want to ensure that the technology that physicians use protects a patient's health information and is sufficient to ensure the legitimacy and authenticity of the prescription. It is important for physicians and pharmacists to work together to realize the benefits of prescribing technology while ensuring privacy, safety and security. 

#### ENDNOTES

- <sup>1</sup> Infoway Canada is a subsidiary of Health Canada and is responsible for creating the system of on-line prescribing.
- <sup>2</sup> Such as First Data Bank or Multum.
- <sup>3</sup> The computer/PDA must have software installed that captures the signature as written and that cannot be changed. Each time the physician signs the computer screen/device (with the proper security installed) it is unique.