The term “app” became a catchphrase several years ago when Apple popularized the term through the company’s iTunes store. The term generally refers to small programs, called applications, developed specifically for mobile devices such as smartphones and tablets.

Potential Uses and Benefits of Mobile Healthcare Apps

Mobile healthcare apps have been developed to provide healthcare professionals with point-of-care access to searchable information, including drug monographs and diagnostic tools. Many professional organizations and educational institutions have designed apps that offer useful links to databases, sources of clinical evidence and best practice guidelines designed for use on a variety of mobile devices. Nurses can use apps to identify pills, to calculate medication dosage, for clinical decision support and to record notes relevant to patient care. Apps can also be used to allow healthcare professionals to communicate with patients by translating questions with yes or no answers into other languages such as Cantonese, Mandarin, Spanish and Russian.1 However, the use of mobile healthcare apps is not without concern.

Concerns and Risks of Mobile Healthcare Apps

Reliability

Apps, such as those created by reputable organizations that simply offer links to databases or best practice guidelines, generally carry minimal or no risk as long as the information is current. However, others can pose significant risks to patients if they are unreliable. For example, an app that affects the programming of a drug infusion pump could lead to a drug overdose if it is inaccurate. An app that incorrectly measures blood oxygen levels in a patient with chronic lung disease could delay lifesaving diagnosis and treatment. Mobile healthcare apps can pose the same risks of failure as medical devices, including faulty design, poor manufacturing quality and user error. Despite the potential concerns associated with their use, the current regulatory requirements for these programs are complex.2 Not all healthcare apps are approved for use by Health Canada, and there is no requirement to clearly identify apps that have received such approval.

App software may be written by a developer without healthcare training. There is no requirement for an app to be reviewed by a physician, nurse or any healthcare organization.3 The rapid growth of the healthcare app market has increased the risk of using an app that is not reliable or evidence-based. Nurses are reminded to consider the source of the app they are using and the variation in quality with commercially-available downloadable apps.
In addition, apps are often adopted almost as quickly as they can be developed. This means errors may only be discovered once the app is on the market. While “recalled” apps can be removed from an online app store, this only prevents new downloads. As a result, there is a risk that recalled or outdated apps could continue to be used by nurses.

**Disclaimers**

Many apps, including those developed by reputable organizations, carry disclaimers warning that app developers make no representations about their completeness, accuracy or reliability and may provide a statement that the app is for general information purposes only. While the inclusion of such a statement may not be sufficient to absolve developers and distributors from liability, nurses should be wary of using apps with a strongly worded disclaimer.

**Proper Use of Apps**

Even reliable apps can pose significant risks to patients if they are incorrectly or improperly used. Nurses should consider whether they are using health apps that have been reviewed and approved by their employers. In addition, nurses should consider whether they have sufficient training to use the app accurately and appropriately. Using apps that have not been sanctioned by employers (or contrary to employer policy) can increase the risk of personal liability for any harm that occurs to patients.

**Improper Use of Apps**

Apps should not be used as a substitute for clinical judgment. As with any other tool, the healthcare professional remains ultimately responsible. While apps can be used to support or assist with clinical decisions, the decision making should be carried out by the nurse, not by the healthcare app. Also, nurses may consider whether the use of the mobile device is distracting them from providing appropriate and professional clinical care.

**Breach of Privacy**

A significant concern related to the use of mobile healthcare apps is the potential for a privacy breach. Some apps can function as an electronic health record system and with increased mobility comes an increased risk that a patient’s personal health information (PHI) will be inadvertently or carelessly disclosed. Nurses should review the privacy settings on both their mobile devices and the app and be aware that default settings may allow sharing of information with others. Nurses using apps that store PHI on the mobile device itself should take appropriate steps to protect and secure the information.

**Current Best Practices for Mobile Healthcare Apps**

- Consider the source and any other information available about the app’s reliability before downloading it.
- Use mobile healthcare apps that have been reviewed and approved by your employer.
- Consider whether you have sufficient training and knowledge to use the app accurately and appropriately in your clinical area.
- Frequently update any apps used to ensure all data is current.
- Avoid relying on the app to complete a task you could not otherwise complete on your own.
Legal and professional issues surrounding the use of mobile healthcare apps are emerging as more nurses adopt these tools in everyday practice. CNPS will continue to update nurses on the legal and regulatory developments in this area.

Please contact CNPS at 1-800-267-3390 if you have questions regarding the professional implications of using mobile healthcare apps and visit our website at www.cnps.ca.


THIS PUBLICATION IS FOR INFORMATION PURPOSES ONLY. NOTHING IN THIS PUBLICATION SHOULD BE CONSTRUED AS LEGAL ADVICE FROM ANY LAWYER, CONTRIBUTOR OR THE CNPS®. READERS SHOULD CONSULT LEGAL COUNSEL FOR SPECIFIC ADVICE.