DRAFT E-Prescribing Guidelines for Canadian Nurses

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Preamble

Innovations in technology have helped to improve health care globally. Traditionally, a technological innovation in health care referred to equipment or device invention or improvement. More recently, information and communication technologies have shown great promise for improving health outcomes by creating a more efficient and safer health system. Medication errors causing harm are common and preventable (Institute of Medicine, 2000; Canadian Institute for Health Information & Canadian Patient Safety Institute, 2016), and it has been recognized that they could be avoided by employing technology in the prescribing process (Institute for Safer Medication Practices, 2000; Government of Canada, 2010). The ISMP recognized that e-prescribing adoption should be well-thought out, requires proper planning, design, evaluation and re-design; and, that e-prescribing is only a tool that will bring about benefits it is used appropriately. As e-prescribing is now being implemented in Canada, it is important that health care professionals become engaged in the adoption process.

Nurses, as the largest group of health professionals in Canada, are critical to the adoption and meaningful use of e-prescribing in Canada. All regulatory categories of nurses across Canada will be significant users of an e-prescribing system, as prescribers or in carrying out medication management activities and client education. To realize the benefits of this technology, it is critical that nurses have access to resources that will enable them to gain information about e-prescribing, be engaged in the adoption process, and contribute to the improvement of the supporting systems, tools, and processes.

The Canadian Association of Schools of Nursing (CASN), with support from Canada Health Infoway (*Infoway*), has developed e-prescribing guidelines. As an educational tool for current and future nurses, these guidelines aim to provide evidence-informed, consensus-based recommendations that will prepare nurses to participate in the planning and implementation of e-prescribing in an organization, and to be safe and effective users of the e-prescribing system.

Purpose, Scope and Use

Purpose

The purpose of this document is to provide e-prescribing recommendations to prepare nurses for the implementation of e-prescribing within a health care organization and to support them to become safe and effective users of the e-prescribing system.

The guidelines aim to:

- Provide nurse educators with the best available evidence and information about e-prescribing to support the inclusion of content related to e-prescribing in nursing education programs.
- Inform nurses about e-prescribing, the benefits and risks of e-prescribing, and how to become safe and effective users of e-prescribing system
- Encourage nurses to participate in the planning and implementation of e-prescribing in their health care organization, and advocate for optimal e-prescribing through continuous quality improvement and evaluation of the e-prescribing system.

Scope

CASN's mandate is to promote excellence in nursing education, thus the primary audience for this document is nurse educators, with the goal of providing recommendations to guide the preparation of future nurses for e-prescribing. The guidelines may also benefit other nurses or health professionals working in various roles, settings and geographic locations looking for information on e-prescribing.

This document does not intend to replace information contained in jurisdictional entry-level competencies or practice standards. This document does not intend to provide information on how to prescribe, or other medication management activities. This document is not a comprehensive resource on e-prescribing, and does not provide information on how e-prescribing functions using specific software.

Use of the Guidelines

The guidelines may serve a variety of functions:

In nursing education they can be used in conjunction with the *Entry-to-Practice Nursing Informatics Competencies* (CASN, 2012), to better prepare nurses for working in technology-enabled environments. The guidelines can assist with the development of course content on e-prescribing. This document may be used as a supplementary resource on medication management activities, in addition to other classroom materials, and clinic/simulation experiences that build competence in this area.

Health care organizations that are planning to implement e-prescribing, or have already done so, may use these guidelines to review and revise their existing policies and procedures, which can help to identify gaps and strengthen existing documents, or identify the need for new policies and procedures. Nurses or other health professionals in practice settings, may find the guidelines useful in developing knowledge

about e-prescribing. Other health professionals may use these guidelines as a reference when developing their own discipline-specific guidelines or policies.

E-Prescribing and Other Key Terms

Electronic prescribing (e-prescribing) is the secure electronic creation and transmission of a prescription between an authorized prescriber and a patient's pharmacy of choice, using clinical Point of Service (POS) solution, in a manner which integrates clinical workflow and software (Canadian Medical Association and Canadian Pharmacists Association, 2012).

The transmissions of prescriptions using electronic equipment, such as fax machines, are not e-prescribing. Examples of facsimile transmission include: transmitting of a digital image of a prescription, or creating a prescription in an EMR and faxing the prescription (Saskatchewan College of Pharmacy Professionals, 2016). E-prescriptions are (securely) transmitted as data between the point of service solution used by a prescriber, and the pharmacy practice management system at a pharmacy.

Client: A client may be an individual, group, family, community or population that receives nursing care.

Nurse: Regulated health care professionals with different nursing designations who are licensed to practice by a provincial nursing regulatory authority.

Prescriber: A person who is authorized under the laws of a province or territory of Canada to give a prescription within the scope of his or her practice of a health discipline (Drug and Pharmacies Regulation Act of 1990, 2017).

Please note that additional definitions for other terms used in this document can be found in the Glossary of Terms on page 14.

Context

Introduction

Medications are the most common health intervention in the world, and can greatly improve the health of individuals. While the correct use of medication leads to better health, preventable errors involving the inappropriate or incorrect use of medication can lead to harm (Canadian Patient Safety Institute, 2016). Medication errors are a common occurrence: 1 in 10 Canadian adults with health problems reported receiving the incorrect medication or an incorrect dosage of medication. Medication errors resulted in 700 preventable deaths each year in Canada, and 7,000 in the United States (Canadian Institute for Health Information, 2007; Institute of Medicine, 1999). It is a global concern, and the World Health Organization (WHO) recently launched a campaign titled Medication Without Harm, with the goal of reducing preventable medication incidents causing harm by 50% (WHO, 2017).

Medication errors causing harm can occur due to a variety of human or environmental factors. Medication errors are common because there are so many points in the process where an error can be introduced: prescribing, order entry, dispensing, administration and/or monitoring (Ho & Li, 2016). Though medication incidents can occur because of an error at any stage in the medication process, incidents are most commonly initiated in the prescribing phase (Hughes & Blegen, 2008).

The number of harmful incidents and preventable deaths related to medication incidents prompted the Institute for Safe Medication Practices (ISMP) to call for technology to be harnessed to improve medication safety, in the form of e-prescribing (2000). Since then, various Canadian organizations have recognized that e-prescribing can be harnessed to improve medication safety (Canadian Medical Association & Canadian Pharmacists Association, 2012; Canadian Medical Protective Association, 2016; College of Physicians and Surgeons of Ontario, 2017).

E-Prescribing in Canada

E-prescribing has been achieved in a variety of health care settings that are mandated by different legal structures. Systems used around the globe have diverse functionalities, and their adoption was accomplished with unique implementation plans (Samadbiek, Ahmadi, Sadoughi & Garavand, 2017; Deetjen, 2016). In some countries, the e-prescribing system is used national and use is mandatory. Canada has lagged behind other developed countries with regards to use of digital health solutions (The Commonwealth Fund, 2018), and e-prescribing is no exception.

In 2007, Health Canada determined that no modification to the regulations of the Food and Drugs Act, the Controlled Drugs and Substances Act, and the Personal Information Protection and Electronic Documents Act would be required for e-prescribing implementation to occur. Therefore, there are no regulatory impediments to e-prescribing in Canada, and e-prescribing can be done as long as it achieves "the same objectives as written prescriptions". While there are no federal impediments to e-prescribing, the provinces and territories are responsible for its implementation (CPA & Canadian Association of Chain Drugstores, 2009). Since that time, a variety of health care organizations have advocated for implementation: In 2009, the National e-Pharmacy Task Force created principles and proposed security

standards for e-prescribing, based on the regulatory requirements that must be achieved, and in 2012 the Canadian Pharmacists Association (CPA) and the Canadian Medical Association (CMA) released a joint statement with a vision that e-prescribing would be achieved across Canada by 2015.

Despite these calls to action, progress towards e-prescribing has been slow across the country. Several factors have inhibited progress, many related to digital readiness. At the time when Health Canada began exploring legal regulations required for e-prescribing, electronic medical record (EMR) adoption was only at 23% (Canada Health Infoway, 2016). Issues noted by the CMA include the lack of this functionality in EMRs, the lack of interoperability between EMRs and pharmacy practice management systems, the lack of a fully functional drug information system, and concerns about signature authentication. Additionally, there was a lack of government leadership and incentives for organizations to adopt e-prescribing (Simpson, 2016). The literature around e-prescribing adoption at the country level suggests that there is not a particular implementation model for e-prescribing that will guarantee success, but that there are some factors that will lead to better outcomes: digital maturity, strong system design, data standards, good leadership and readiness by the public and the workforce (Deetjen, 2016; Samadbiek et al., 2017). Until recently, many of these success factors were not present in Canada.

In recent years, progress has been made towards the actualization of e-prescribing in Canada. Across the country, the adoption of various digital health solutions has increased (Commonwealth Fund, 2018). EMR adoption rose by 50% in a decade (Infoway, 2016), and by 2016 4 in 10 prescriptions were being generated in an EMR (Infoway, 2017). Additionally, greater national leadership around e-prescribing has emerged: the Government of Canada aimed to support better prescribing practices through supporting e-prescribing implementation (Health Canada, 2016).

The Government of Canada funded Infoway to build a national e-prescribing service. Infoway created PrescribeIT, a service that allows the secure transfer of prescriptions between primary care settings and pharmacies, secure messaging between pharmacists and prescribers (including renewal requests), and is integrated with provincial drug information systems (DIS) and the public drug formulary. PrescribeIT connects EMRs or stand alone applications already in use with the pharmacy practice management systems being used by local pharmacies (Canada Health Infoway, 2018a). According to PrescribeIT, client choice is a critical component of e-prescribing. Thus, if a client's pharmacy of choice is not equipped for e-prescribing, the prescriber can still print prescriptions for the client (Canada Health Infoway, 2018b). In cases where prescriptions can be transferred electronically to the pharmacy of choice, but a client requests a non-authoritative copy of the prescription, they can be provided with a printed summary of the prescription information in the form of a prescription receipt. These receipts cannot be used to obtain the prescribed medication. The Government of Canada and Infoway are providing leadership and support to assist with e-prescribing adoption in Canada, however at this time e-prescribing is not mandatory nor is the use of the PrescribeIT service.

E-Prescribing: Benefits, Risks, and Challenges

As e-prescribing is growing around the world, research is emerging detailing the results of e-prescribing implementation. E-prescribing has resulted in some benefits, risks and challenges. This research is

important for Canadian organizations that are considering e-prescribing implementation, as it contains lessons learned that will help to alleviate implementation challenges and reduce some of the risks of e-prescribing.

E-Prescribing: *Benefits*

Improved medication safety, through the reduction of medication errors, is the most compelling reason to implement e-prescribing. E-prescribing eliminates errors attributed to hand writing prescriptions such as adverse events resulting from dispensing and/or administering the incorrect drug or incorrect dosage as a result of an illegible hand written prescription (Corley, 2003; Franklin et al. 2007; Hughes & Blegen, 2008; Phillips et al., 2015; Ahmed et al., 2016). When digitally created prescriptions are transferred to a pharmacy by fax or email, they must still be entered into a pharmacy management system, a possible point where an error can occur (Infoway, 2018c). When e-prescribing is part of a larger digital health system, prescribers may have access to a client profile and decision support tools that can prevent other kinds of prescribing errors: client profiles allow prescribers to see what drugs a client has already been prescribed or is allergic to, preventing harmful interactions or allergic reactions (Gandhi et al., 2005; Qureshi et al., 2005; Ahmed, 2016; Weingart, Massagli, Cyrulik, Isaac, Morway, Sands & Weissman, 2009). Systems may be equipped with clinical alerts that appear to the prescriber with information about drugs, dosages, allergies, interactions, or other important information.

E-prescribing is used widely in Sweden, Estonia, and the United Kingdom, and as a result there have been reduced error rates attributed to the elimination of hand written prescriptions (Deetjen, 2016). Two teaching hospitals in Australia found that e-prescribing significantly reduced rate of errors of the number of incomplete, illegal and unclear medication orders (Westbrook, Reckmann, Li, Runciman, Burke, Lo, Baysari, Braithwait, and Day, 2012). Franklin and colleagues (2007) discovered that prescribing and administration errors decreased by 50% following the implementation of an e-prescribing system in a hospital in the United Kingdom.

Time savings is often cited as a reason to implement e-prescribing, however the findings in the literature are mixed. Studies have shown that implementing e-prescribing results in increased staff time (Franklin et al., 2007), no change in staff time (Van Wilder et al., 2016), or time savings (Schade, Sullivan, de Lusignan & Madeley, 2006; Phillips et al., 2015). Though time may not be saved, e-prescribing may result in greater efficiencies and better workflow. Reasons for these improvements include having client information in one location, having drug formulary information readily available, decreasing the need for clarification calls between prescribers and pharmacists, faster process for refilling prescriptions (Bramble et al., 2013; Lapane, Rosen & Dubé, 2011; Phillips et al., 2015). Studies that included a qualitative evaluation of e-prescribing by nurses showed that nurses felt e-prescribing allowed them to be more efficient and was worth the time and effort because of the increase safety with use of the system (Barber, Cornford & Klecun, 2007; Bramble et al., 2013; NHS, 2009). According to Barber, Cornford and Klecun (2007) nurses "saw a future in this system, with a better, more careful and error free regimen of care, with time saved becoming available for more creative nursing activity".

The use of e-prescribing may decrease security issues that are associated with current prescribing processes. Currently, the majority of Canadian prescriptions are still hand written (Infoway, 2016). Hand written prescriptions can be lost and stolen, potentially resulting in privacy breaches or prescription fraud. Prescriptions that are faxed are still pose security issues: prescriptions may be faxed to the incorrect recipient, resulting in a privacy breach. Newer fax machines and photocopiers make it possible for the fax point of origin and number to be manipulated, making it harder to detect prescription fraud (Ontario College of Pharmacists, 2013). The transfer of a prescription as data may result in added security, benefiting both clients and clinicians.

Clients may find they benefit from the convenience of the e-prescribing system. Schleiden and colleagues (2015) found that 84% of the 57 adults over 50 that they interviewed preferred e-prescribing to paper prescriptions. The participants reported they saved time by making shorter trips to the pharmacy, and did not have to make additional trips to their clinic and the pharmacy to replace lost or damaged prescriptions. A smaller study of 12 clients reported similar satisfaction related to convenience, and that some participants noted an improvement in safety with the elimination of hand written prescriptions (Frail, Kline & Snyder, 2014). Finland implemented a mandatory national e-prescribing system and there is widespread satisfaction with this service amongst the general public (Lamsa, Timonen & Ahonen, 2017), similar positive attitudes about e-prescribing amongst the general public exist in Sweden (Deetjen, 2016).

E-Prescribing: Risks and Challenges

Studies conducted in locations that have implemented e-prescribing to assess if errors have been reduced have shown promise, however new types of errors may emerge, especially in the early phases of implementation. Ahmed and colleagues (2016) reviewed the impact of e-prescribing on client safety in hospital settings, and discovered different kinds of errors that emerged with the use of e-prescribing. These included making incorrect selection from drop down menus, or putting in incorrect or conflicting information in free text fields. Clinical alerts may be present when e-prescribing is integrated with an electronic record. While these errors can contribute to increased safety, it has been reported that the high frequency of alerts and their generic nature can lead to alert fatigue, a term used to describe health care professional de-sensitization to clinical alerts. Alert fatigue can lead to overriding alerts that could prevent a medication error (e.g. drug allergies or interactions) (Bramble et al., 2013; Ahmed et al., 2016). Different approaches have been suggested to deal with these new errors including: smaller lists of drop down items, minimizing the amount of free text, designing order sentences (pre-written medication orders), and creating care sets (combinations of orders for a clinical situation), and integrating maximum dose checks and dose calculators into the software (Ahmed et al., 2016; Lanham et al., 2016). It has also been suggested to tailor alerts or design alert hierarchies to reduce alert fatigue (Ahmed et al., 2016; Bramble et al., 2013).

Work arounds are another potential safety issue that arise in the use of technologies. Work arounds are defined as quick fixes that correct an issue temporarily (Koppel, Metlay, Cohen, Abaluck, Localio, Kimmel & Trom, 2005). When examining the implementation of e-prescribing in a rural ambulatory care practice, Abbott, Fuji and Galt (2015) found that nurses had developed work arounds because the system design did not fit well into their work flow. Work arounds may be unavoidable, however they can become

problematic when the underlying issue is not reported or addressed. Organizations should define procedures to follow in the case where workarounds are being used as a band aid solution. The need for work arounds may be reduced with thoughtful selection and design process for the e-prescribing system.

Clients may experience some challenges as a result of e-prescribing implementation. Confusion around e-prescribing may lead clients to believe that their prescription will be ready to be picked up at the pharmacy upon arrival (automatically filled), which can cause frustration. E-prescriptions may accidentally be transferred to an incorrect pharmacy (ISMP Canada, 2018). In research conducted on satisfaction with e-prescribing, clients who preferred paper prescriptions felt that they lacked information or control about the medications they were being prescribed (Schleiden et al., 2015; Lamsa et al. 2017; ISMP Canada, 2018). This may be mitigated by providing clients with a print out of their prescription information, and reviewing the plan of care with the client.

When the ISMP advocated for the use of e-prescribing, they stated "there are no perfect solutions for any area of human endeavor, and computerized medication management systems certainly are not a panacea" (2000). E-prescribing has some risks and challenges, however many organizations, communities, and countries are proceeding to transition to e-prescribing systems because of the potential benefits to public and health care professionals.

E-Prescribing Implementation: Lessons Learned

As e-prescribing implementation starts to become a reality in Canada, it is critical that nurses and other health professionals are aware of recommendations and lessons learned by other organizations that have implemented an e-prescribing system.

Thorough planning for e-prescribing implementation is critical for successful adoption (Gagnon, Nsangou, Payne-Gagnon, Grenier & Sicotte, 2013). Health care professionals should be involved in the software design process to ensure it is user-friendly, free of technical errors, and fits into their workflow (Gagnon et al., 2013). In Quebec, an e-prescribing network had low rates of adoption due to issues with the system and problems with interoperability (Gagnon, Gagnon, Sicotte, Langue-Dube & Motulsky, 2013). The Australian Commission on Safety and Quality in Health Care (2017) concluded that proper planning for the implementation of electronic medication management systems lessend the safety risks that can occur when these systems are implemented.

The European Federation of Nurses Associations (2015) recommended that nurses take a proactive approach in engaging with e-prescribing implementation initiatives to ensure the system meets nursing requirements. A 2017 survey of Canadian nurses found that only 70% of nurses in a supervisory role, and 56% of all nurses, were consulted on decisions about the introduction of electronic tools (Canada Health Infoway, Canadian Nurses Association, and Canadian Nursing Informatics Association). Nurses, especially those authorized to prescribe, should be consulted in system design and updates to ensure the system meets their needs.

Education and training can help to improve the e-prescribing implementation process (Gagnon et al., 2014; Villaseñor, Walker, Fetters & McCoy, 2017; Brown, Reygate, Slee, Coleman, Pontefract, Bates &

Slight, 2017). Insufficient training is associated with sub-optimal use of the system (Brown et al., 2017). Exposure to e-prescribing prior to implementation can improve attitudes about the usefulness of the system, and decrease perceived barriers (Villaseñor et al., 2017; Gagnon et al., 2014). Education and training should be ongoing as the system evolves. More research is needed about the most effective means of education and training to determine the best approaches (Brown et al., 2017).

Guidelines

Recommendations for all nurses:

1. Client-centered care

a. Informs the client when e-prescribing is in use, and documents the client's pharmacy of choice.

b. Discusses the roles and responsibilities of health care professionals and the client related to e-prescribing.

c. Reviews the client's information in the EMR to ensure it is accurate, complete, and up to date in order to support full functioning of e-prescribing clinical decision support tools.

d. Reviews the plan of care with the client, and offers prescription information in the form of a prescription receipt.

2. Advocacy and Leadership

a. Participates in the acquisition and development of digital health solutions that allow for e-prescribing, and plans e-prescribing implementation with other members of the health care team.

b. Contributes to client safety, quality improvement, and evaluation activities related to e-prescribing.

3. Responsibility and Accountability

a. Practices in accordance with relevant legislation, nursing scope of practice, professional standards, and organizational policies for e-prescribing.

b. Engages in continual learning that promotes optimal and consistent use of the digital health solutions that allow e-prescribing.

c. Reports, and advocates for the resolution of errors or issues with the e-prescribing system, recognizing the legal and ethical risk of using work arounds.

d. Engages in training and planning for a system outage, and responds appropriately in the event that e-prescribing is not available.

e. Participates in a collaborative intra- and inter- professional dialogue to understand their roles and responsibilities related to e-prescribing.

f. Adheres to security, privacy, and confidentiality measures in place during the e-prescribing process.

Recommendations for nurses with prescribing authority:

a. Prepares electronic prescriptions in accordance with jurisdictional regulatory standards, provincial or territorial policies, being mindful of clinical practice guidelines for safe and effective care.

b. Demonstrates that clinical judgement for safe prescribing must prevail in the e-prescribing process, remaining cognizant of errors that can occur when generating an e-prescription, and vigilantly reviewing the confirmation screen before sending the e-prescription.

Glossary of Terms

Disclaimer: This glossary is a list of terms related to electronic prescribing in the context of nursing practice commonly used at the time of publication. It does not intend to provide an exhaustive list of terms related to electronic prescribing.

Alert fatigue: Health care professionals become fatigue or desensitized to clinical alerts when they are confronted with a high number of alerts, many of which are inconsequential. This state may lead to accidentally ignoring clinical alerts that require action (Agency for Healthcare Research and Quality, 2018).

Client: A client may be an individual, group, family, community or population that receives nursing care.

Clinical alerts: When clinical decision support systems are in use, prompts appear to health care professionals about clients and their conditions. In the context of e-prescribing, clinical alerts would likely include drug warnings, dosage, interactions, or allergies.

Clinical decision support: Tools that provide timely information about a client to a health care professional to inform decisions about the client's care. Clinical decision support can include reminders about preventative care, and alerts about potential harmful situations (Agency for Healthcare Research and Quality, 2018).

Controlled drugs and substances: "A controlled substance is any type of drug that the federal government has categorized as having a higher-than-average potential for abuse or addiction. Such drugs are divided into categories based on their potential for abuse or addiction. Controlled substances range from illegal street drugs to prescription medications" (Health Canada, 2018).

Controlled Drugs and Substances Act: "An Act respecting the control of certain drugs, their precursors and other substances and to amend certain other Acts and repeal the Narcotic Control Act in consequence thereof" (Controlled Drugs and Substances Act of 1996, 2017).

Digital health: Digital health refers to the use of information technology/electronic communication tools, services, and processes to deliver health care services or to facilitate better health (Canada Health Infoway, 2018c).

Drug: As defined by the Food and Drugs Act (1985), "drugs include any substance or mixture of substances manufactured, sold or represented for use in: a) the diagnosing, treating, mitigating or preventing a disease, disorder or abnormal physical state, or any of their symptoms, in human beings or animals, and b) restoring, modifying or correcting the body structure of human beings or animals or the functioning of any part of the bodies of human beings or animals".

Drug formulary: A formulary is "a list of drugs covered as benefits for eligible beneficiaries" (Patented Medicines Prices Review Board, 2017). Provincial and territorial governments maintain a formulary of drugs covered in provincial and territorial drug coverage plans.

Drug information system: "A system that enables authorized users to access, manage, share and safeguard a client's medication histories" (Canada Health Infoway, 2018d).

Drug Product Database: A database maintained by Health Canada of all drug approved for use in Canada (Health Canada, 2015).

Electronic health record (EHR): A secure, integrated collection of a person's encounters with the health care system that contains a comprehensive client health history (Canada Health Infoway, 2018d).

Electronic medical record (EMR): A computer-based client record used in a single clinical practice that details client demographics, medical and drug history, and diagnostic information (Canada Health Infoway, 2018e).

Electronic prescribing (e-prescribing): e-Prescribing is the secure electronic creation and transmission of a prescription between an authorized prescriber and a client's pharmacy of choice, using clinical Point of Service (POS) solution, in a manner which integrates clinical workflow and software (Canadian Medical Association and Canadian Pharmacists Association, 2012). Entering a prescription into an EMR and faxing a printed copy of the prescription does not constitute e-prescribing.

Facsimile transmission: The use of electronic equipment to transfer the digital image of a prescription (e.g. faxing). This term is used to differentiate the transmission of a prescription as data (e-prescribing) from other forms of prescribing using electronic equipment.

Food and Drugs Regulations: Contained in the Food and Drug Act, these regulations prescribe the standards of composition, strength, potency, purity, quality or other property of the article of food or drug to which they refer (Food and Drug Regulations, 2018).

Interoperability: Describes the extent to which systems and devices can exchange and interpret data. In healthcare, interoperability is achieved health information systems can exchange data and subsequently present the data to a user in a way that it can be understood within and across organizational boundaries (Healthcare Information and Management Systems Society, 2013).

Licensed Practical Nurse (LPN): "LPNs work independently or in collaboration with other members of a health care team; assess clients and work in health promotion and illness prevention; assess, plan, implement and evaluate care for clients; and, work in a variety of practice settings, including hospitals, nursing homes, long-term care facilities, community health centres and clinics" (Canadian Institute for Health Information, 2018).

Medication: Term used to describe drugs that are used in the prevention, diagnosis, cure, treatment, or relief of a symptom or disease. Generally, the terms drug and medication are used interchangeably (Buck & Picinbono-Larose, 2018).

Medication errors: A preventable drug event involving inappropriate use of a drug by a client or health care professional that may or may not cause harm (Lilley, Rainforth, Collins, Snyder, & Swart, 2017).

Medication management: "Patient-centred care that optimizes safe, effective, appropriate drug therapy. Care is provided through collaboration with patients and their healthcare teams" (Canadian Pharmacists Association, Canadian Society of Hospital Pharmacists, Association of Faculties of Pharmacy of Canada, and Institute for Safe Medication Practices Canada, 2016).

Nurses: Regulated health care professionals with different nursing designations who are licensed to practice by a provincial nursing regulatory authority.

Nurse Practitioner (NP): Licensed by jurisdictional nursing regulators. NPs are graduate prepared health care providers who practice autonomously and independently. NPs provide direct care to patients to diagnose and manage disease/illness, prescribe medications, order/interpret laboratory/diagnostic tests, and initiate referrals to specialists. (Nurse Practitioner Association of Canada, 2018).

Personal Information Protection and Electronic Documents Act: "An Act to support and promote electronic commerce by protecting personal information that is collected, used or disclosed in certain circumstances, by providing for the use of electronic means to communicate or record information or transactions" (Personal Information Protection and Electronic Documents Act, 2000).

Pharmacology: The study or science of drugs. For nurses, pharmacology is important to understand how the drug affects the human body, therapeutic benefits, and potential toxicity (Lilley, Rainforth Collins, Snyder, & Swart, 2017).

Pharmacy Practice Management System (PPMS): Information management systems used by community pharmacies and pharmacists (National Association of Pharmacy Regulatory Authorities, 2013).

Point of service solution: The software used to generate and send an e-prescription. Typically this is done in an EMR, but this could be completed using a stand alone application.

Prescriber: A person who is authorized under the laws of a province or territory of Canada to give a prescription within the scope of his or her practice of a health discipline (Drug and Pharmacies Regulation Act of 1990, 2017) .

PrescribeIT: A national e-prescribing service in Canada that will allow prescribers to send prescriptions electronically from their office computer system to the client's preferred pharmacy (Canada Health Infoway, 2017).

Prescription: As defined by the Food and Drug Regulations (1985), "an order given by a practitioner directing that a stated amount of any drug or mixture of drugs specified therein be dispensed for the person named in the order".

Prescription receipt: A non-authoritative printed summary of prescription information. These receipts cannot be used to obtain the prescribed medication.

Registered Nurse (RN): Registered Nurses (RNs) are "self-regulated health-care professionals who work autonomously and in collaboration with others to enable individuals, families, groups, communities and populations to achieve their optimal levels of health. At all stages of life, in situations of health, illness,

injury and disability, RNs deliver direct health-care services, coordinate care and support clients in managing their own health. RNs contribute to the health-care system through their leadership across a wide range of settings in practice, education, administration, research and policy" (CNA, 2015).

Registered Psychiatric Nurses (RPNs): "RPNs are autonomous professionals that work collaboratively with clients and other health care team members to coordinate health care and provide client-centered services to individuals, families, groups and communities. RPNs focus on mental developmental health, mental illness and addictions while integrating physical health care and utilizing bio-psycho-social and spiritual models for a holistic approach to care" (Registered Psychiatric Nurse Regulators of Canada, 2018).

Work arounds: Quick fixes that provide a temporary correction for a technology issue. Work arounds do not address the underlying problem causing the issue.

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