

Medication Management for **RNs**: A Patient Centred Decision-making Framework

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Acknowledgement

The Saskatchewan Registered Nurses' Association (SRNA) would like to acknowledge and credit, The Nurses Association of New Brunswick (NANB) for granting us permission to quote and adapt their publication entitled "*Practice Standard: Medication Administration*" (2013), in the development of this SRNA *Medication Management for Registered Nurses: A Patient Centred Decision-making Framework*.

The Saskatchewan Registered Nurses' Association (SRNA) would like to acknowledge, and credit, The College of Registered Nurses of Nova Scotia (CRNNS) for granting us permission to quote and adapt their publication entitled "*Medication Guidelines for Registered Nurses*" (2014), in the development of this SRNA *Medication Management for Registered Nurses: A Patient Centred Decision-making Framework*.

The following document replaces the SRNA *Medication Administration: Guidelines for Registered Nurses*, 2007.

Mission of the Saskatchewan Registered Nurses' Association

"Better Health for all through nursing regulation, professional practice, and collaboration"

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2066 Retallack Street
Regina, SK S4T 7X5

Phone: (306) 359-4200 (Regina)

Toll Free: 1-800-667-9945

Fax: (306) 359-0257

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Background

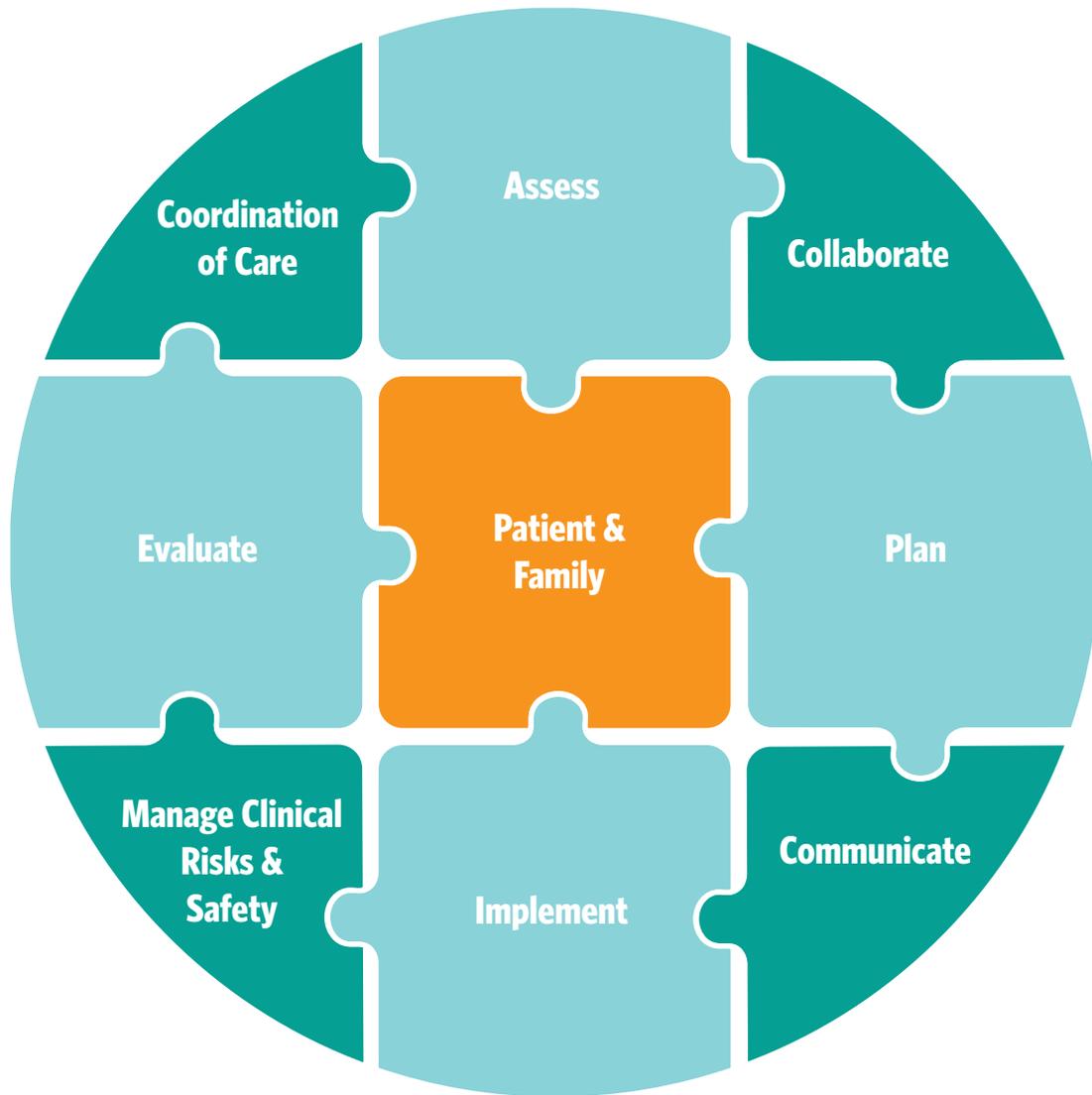
Medication management is one aspect of the responsibilities of a Registered Nurse (RN). RNs across the continuum of care encounter complex systems that can influence many aspects of patient care including medication management. Increased patient acuity, people living longer with multiple co-morbidities, health care professional shortages, new technologies, and limited resources are some of the factors that influence medication management. Medication management is much more than the simple task of giving a patient their medication. Medication management is about RNs and other health care professionals navigating complex systems. Chan, 2011 summarizes “one of the greatest challenges today is not about keeping up with the latest clinical procedures or the latest high-tech equipment. Instead, it is about delivering safer care in complex, pressurized and fast-moving environments” (World Health Organization, 2011).

It is the professional responsibility of all RNs to develop partnerships with patients and other health care providers and contribute to a culture of patient safety. It is critical that RNs in all domains of practice demonstrate leadership, knowledge, critical thinking and decision-making skills in addressing health care challenges and influencing safer care at all levels.

RNs demonstrate critical thinking in medication management by collecting all aspects of information, distinguishing what is relevant information, and providing original and evidence-informed solutions. “Critical thinking is a major component of the nursing process and often considered to be the underpinning to provide the best possible patient care supported by current and progressive approaches. It involves using the mind to develop conclusions, make decisions, draw inferences, and reflect on all aspects of the patient” (Lilley, Harrington, & Snyder, 2011).

RN Responsibility

Patient Centred Medication Management



 **The Nursing Process**

Please Note: RNs are accountable for maintaining professional standards in relation to safe Patient Centred Medication Management. Other health care partners have similar processes and professional responsibilities.

Introduction

“Medication management is defined as patient-centred care to optimize safe, effective and appropriate drug therapy. Care is provided through collaboration with patients and their health care teams” (Canadian Pharmacists Association, 2013). RNs are one of the main health care providers that influence safer medication management. Patients, families, pharmacists, physicians, nurse practitioners, licensed practical nurses, registered psychiatric nurses, regulated care providers, unregulated care providers, and administrators all have roles and responsibilities in the safety of medication management. The key responsibilities of RNs include coordination of care, collaboration, communication, managing clinical risks, and promoting safety.

RNs receive significant educational preparation in medication management throughout their nursing education program. RNs must apply their knowledge about the patient and the medication throughout the assessment, planning, implementation, and evaluation phases of the nursing process. RNs at all phases of the nursing process collaborate with other health care professionals (e.g., pharmacists, physicians). The nursing process is not a linear process. For example, continuous assessment occurs throughout all phases of medication management and is not solely the first step in the process.

The Medication Management for Registered Nurses: A Patient Centred Decision-making Framework document is intended to complement the current SRNA *Standards and Foundation Competencies for the Practice of Registered Nurses* and to reflect RN accountabilities and nursing considerations for each phase of the medication management process. The purpose of the document is to support safe, competent, knowledge-based and ethical medication management by RNs. It is not intended to replace employer policies and procedures or legal advice in relation to specific practice settings.

Throughout this framework, the principles of medication management apply to all registered nurses (RN)s, graduate nurses (GN)s, registered nurse (nurse practitioners) [RN(NP)]s, registered nurse (graduate nurse practitioners) [RN(GNP)]s, and registered nurses with additional authorized practice. Information specific to the role of RN(NP)s in medication delivery is not discussed in this document, except as it relates to RNs accepting orders written by RN(NP)s. However, RN(NP)s retain their scope of practice as a RN and would be expected to follow these medication management guidelines as foundational practice. There are limitations to the practice of the graduate nurse in some clinical settings. More information regarding the practice of graduate nurses can be found in the current SRNA *Guidelines for Graduate Nurse Practice*.

Principles of medication management may require some adaptations to practice environments (i.e. home care). The term patient refers to all persons, residents, clients, and families served by RNs.

Fundamentals of Medication Management for RN Scope of Practice

Components of Medication Orders

- Patient's full name
- Patient identification number
- Date and time of the prescriber order
- Route of administration
- Time of administration
- Frequency of administration
- Signature of approved prescriber
- Legible medication names, dosages and symbols
- Correct transcription and communication of orders
- Transcribed order accurately matches the Medication Administration Record (MAR) and the Electronic Medication Record (EMR)

Correct Process of Safe Medication Administration

- Each time a medication is prepared, the RN refers to the MAR/electronic medical record
- When measuring liquid medications, use standard measuring containers
- When splitting tablets, ensure the medications are scored by the manufacturer and that the medication splits evenly
- Only crush medications that can safely be crushed
- Calculate each dosage when preparing the medication
- Pay close attention to dosage calculations
- Avoid interruptions during the process (e.g., other people or nursing activities)
- Consult with another RN when calculating a new dosage, unusual dosage, or a high alert medication
- Use proper handwashing before preparing medications
- Use aseptic technique when required
- Perform necessary assessments (e.g., assess heart rate before giving antidyrrhythmic medications and some antihypertensives) and document appropriately
- Carefully monitor and record/document the patient's response to the medication especially with the first dose of a new medication or any prn medication
- Record the site of any injections as per agency policy
- Record missed dosages and be aware of the effects of missed dosages, especially for patients with co-morbidities (e.g., diabetic patient, patient with hypertension)
- Complete independent double-checks for high alert medications

RNs' Role in Patient Centred Medication Management

Coordination of Care

- Ensure transcription of orders are accurate
- Ensure medication is available
- Complete appropriate safety checks
- Perform initial assessment and care plans
- Apply evidence and best practice guidelines
- Intervene before a crisis occurs
- Demonstrate overall accountability for an appropriate assignment
- Appropriate assignment and delegation by the point of care RN
- Perform supervision of patient care
- Identify biases that affect decision-making
- Manage workload
- Promote standardization of approaches and processes
- Understand clinical risks
- Update patient care plans frequently and accurately
- Comprehensive admission, transfers and discharge planning
- Create empowering work environments

Collaboration

- Patients and families
- Pharmacists
- Physicians
- RN(NP)s
- LPNs
- Unregulated care providers
- Physiotherapists
- Occupational therapists
- Speech language therapists
- Podiatrists
- Dieticians
- Home care services
- Social workers
- Conflict resolution strategies
- Effective teamwork
- Chronic disease management
- Collaborate with appropriate community-based resources
- Collaborative relationships with other departments
- Build relationships and trust with other members of health care team
- Act as role model, coach, or mentor

Communication

- Advocate in the patient's best interest
- Demonstrate spirit of critical inquiry
- Communicate subtle changes in patient well-being
- Maintain privacy and confidentiality
- Appropriately communicate when high-risk situations are identified
- Provide the correct type and amount of information
- Share understanding and decision-making with patient and family
- Use jargon free language to convey complex information
- Effectively communicate delegated tasks

Manage Clinical Risks and Safety

- Understand systems issues and the effect of complexities of patient care
- Participate in quality improvement initiatives
- Support/promote standardization of documents and processes
- Contribute to a culture of safety
- Utilize current evidence-based resources
- Standardization of medication reconciliation

This is not an all inclusive checklist of medication management.

The intent is to remind RNs of the principles of medication management.

RN Responsibilities

To ensure safe medication management, RNs should:

- draw upon education and knowledge of pharmacology, and pharmacokinetics;
- utilize foundational knowledge including human growth and development, human anatomy, pathophysiology, psychology, nutrition, and mathematics, and further apply these principles into medication management;
- need to consider their own personal competence, the expertise of the staff, the individual patient's needs and the context of the situation when working with patients for their medication management;
- collaborate and consult with other health care providers in the best interest of the patient;
- have the authority, through scope of practice and policy, to administer medications utilizing clinical judgment and critical thinking; and
- enable proper teaching and support to enable the patient to manage their medication regime as independently as possible in the right setting with proper supports in place.

Employer Responsibilities

To ensure safe medication management employers should:

- provide the appropriate orientation, mentorship, resources, and continuing education to enable RNs to safely and competently manage administration of medication;
- support the role of the RN in determining the most appropriate health care provider to administer/assist medications in any given situation;
- encourage collaborative team practice (e.g., team rounds, interprofessional education); and
- have policies and procedures in place to identify roles and responsibilities when a number of different health care professionals are involved in medication management.

Shared Accountability for Safe Medication Administration

RNs, employers and other health care providers have a shared responsibility to create safe practice environments. Quality practice settings include appropriate staffing complement, appropriate medication distribution systems, effective communication and environments to facilitate safe, effective, and ethical care. RNs, employers and other health care providers must work collaboratively to identify risks involved with medication management and create processes for ongoing quality improvement.

Appropriate resources and time needs to be allocated for safe medication management and administration (Institute for Safe Medication Practices Canada, & Canadian Patient Safety Institute 2012b).

Medication Reconciliation

RNs and other health care professionals share accountability to ensure that medication reconciliation is complete for every patient as per agency policy. “Medication reconciliation is a formal process in which health care providers work together with patients, families, and care providers to ensure accurate and comprehensive medication information is communicated consistently across transitions of care. Medication reconciliation requires a systematic and comprehensive review of all the medication a patient is taking to ensure that medication being added, changed or discontinued are carefully evaluated” (ISMP Canada & CPSI, 2012b).

Medication reconciliation involves three steps:

- Verification: collection of the best possible medication history of all the patient’s current medications including prescription medication, non-prescription medication, supplements, herbal and alternative therapies.
- Clarification: review of information that ensures all medications and dosages are appropriate.
- Reconciliation: the RN and other health care providers investigate, communicate, and document changes relevant to medication orders.

These steps should be repeated at key transfer points across the care continuum:

- Admission
- Status change
- Patient transfer within or between facilities or health care provider teams
- Discharge

Patients, family members, and patient advocates are a resource in the reduction of medication errors and should:

- be encouraged to question why they are receiving a medication;
- verify that they are receiving the appropriate medication, dose and route; and
- alert the health professional involved in prescribing, dispensing, or administering a medication to potential problems such as past drug to drug interactions or allergies.

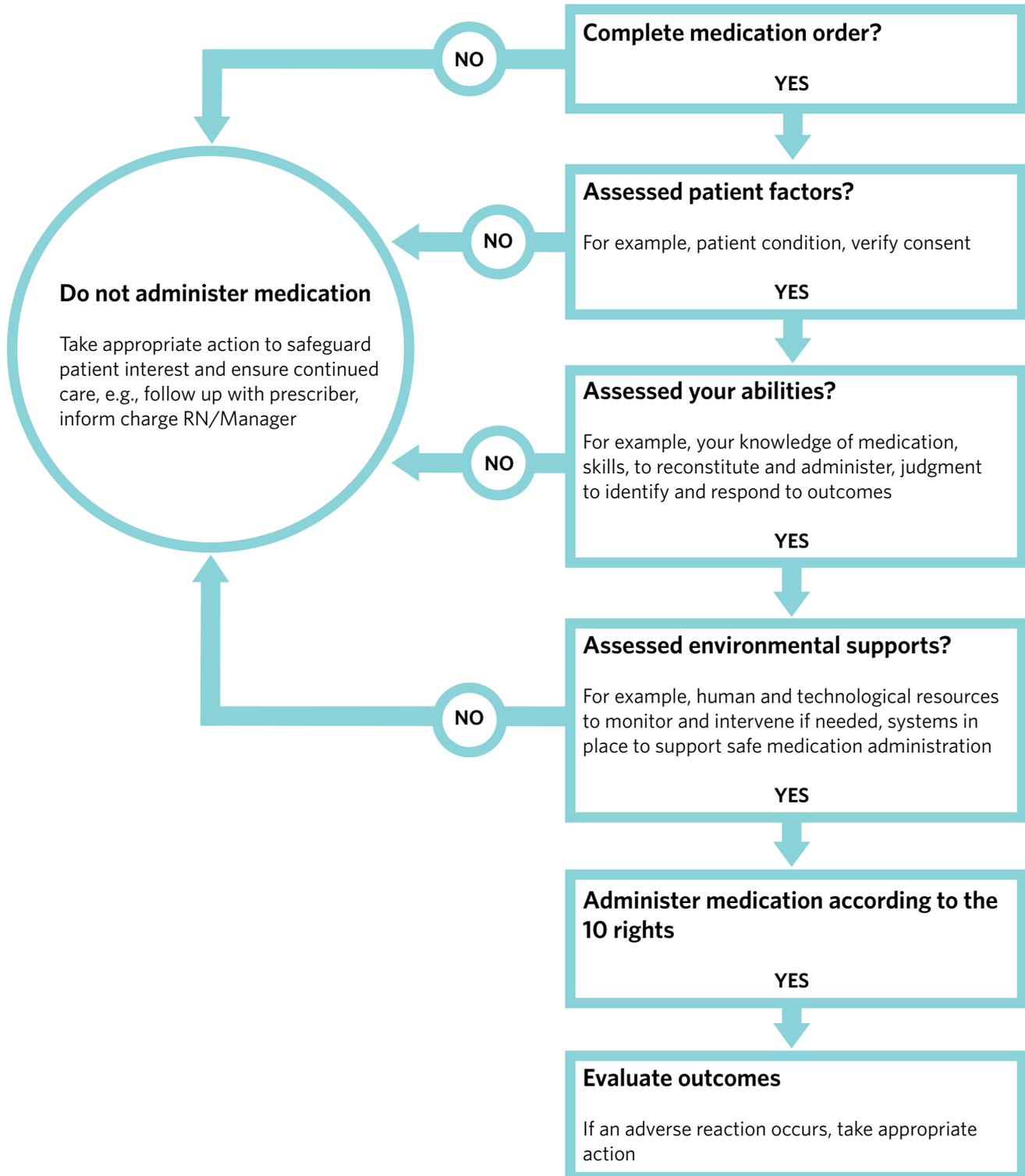
In the event of an actual or potential medication error or suspected medication error, the RN should complete appropriate nursing assessments and notify the appropriate

authorities and physician as required in order to facilitate timely medication assessment and treatment. RNs should follow agency policy and procedures in the event of a medication error.

A medication error can lead to an adverse drug event. An adverse drug event is an undesirable occurrence involving medications that can be preventable or non-preventable, and can range from no patient effects to life-threatening complications including death. Processes need to be in place to track, address, and learn from any medication errors and/or adverse drug event that occur in the practice setting. RNs and health care agencies must work together to identify system and individual risk factors, and to initiate proactive measures to decrease medication errors.

Decision Tree: Deciding About Medication Administration

Use this tool to help you determine whether or not to administer a medication. Be sure to consider all of the phases of medication administration in this decision tree. If the decision tree indicates not to administer the medication, follow up with appropriate steps and re-evaluate.



Medication Management

Assessment

RNs use their knowledge, skills, and judgment in the assessment of the patient, the medication, the practice environments, and resources as part of medication management. If the medication order is incomplete, unclear, inappropriate or misunderstood, or if any of the RN's assessments indicate this medication should not be administered, withhold the medication and follow up with the prescriber in a timely manner.

RNs:

- a) collaborate with other health care professionals to complete the patient medication reconciliation analyzing all existing and new medications, prescription and non-prescription medications, medications being held, discontinued or changed;
- b) assess vital signs including a comprehensive pain assessment;
- c) assess overall health of the patient including fluid, electrolyte, acid-base balance, oxygenation, metabolism, sleep patterns, activity;
- d) assess for allergies, sensitivities and previous adverse reactions;
- e) assess specific patient health conditions that may affect medication management (e.g., dysphasia, cognitive impairment);
- f) assess the appropriateness of the medication as prescribed for the patient in the particular situation and with their specific health conditions, utilizing critical thinking skills and clinical judgment;
- g) assess the appropriateness of the prescribed medication for the patient based on: age, weight, pathophysiology, laboratory results, vital signs, medication knowledge and patient choice or preference;
- h) assess potential risks/side effects, the possible interaction with other medications (including non-prescription, complementary and alternative medications), and any foods that are contraindicated or those that increase or decrease absorption;
- i) review the patient's lifestyle/routine with the patient to identify and eliminate (where possible) any potential barriers or challenges that may exist for patient adherence to the medication regimen;
- j) make clinical decisions and care planning regarding medications, in collaboration with the patient;
- k) ensure that the medication order includes the order date, patient name, medication name, dosage, route, frequency, duration (where applicable), and the prescriber's full name, signature, and designation;

- l) verify that the transcribed order is correct according to the medication system and agency policy;
- m) only accept a verbal order in an emergency situation or where the prescriber is unable to document the orders (e.g., in the operating room or during a code);
- n) only accept orders from authorized prescribers for medications that are within the prescriber's scope of practice;
- o) limit the use of telephone orders to situations requiring direction for patient care when the prescriber is not present;
- p) document date, time, his/her signature and prescriber's name for verbal and telephone orders in the patient's record (the RN is not responsible for ensuring that such orders have been signed by the prescriber);
- q) repeat the verbal and telephone orders in their entirety to confirm accuracy; and
- r) do a "gut check". Does the patient's prescribed medications make sense with the patient's diagnosis and current RN assessment?

Planning

RNs ensure the accuracy, appropriateness, and completeness of a patient's plan of care in regards to medication orders. Care plans foster enhanced communication between members of the health care team. If any aspects of the planning phase are not complete, the RN must question if the medication should be administered.

RNs:

- a) develop individualized patient care plans in collaboration with other health care providers to enhance patient outcomes;
- b) educate patients as a means of enhancing patient safety and decreasing medication errors;
- c) transcribe medication orders as written, or validate the accuracy and completeness of the transcription when others have completed transcription paperwork;
- d) revise patient care plans and medication regime in a timely manner to avoid errors or omissions;
- e) schedule dosing times for medication taking into consideration the effect food may have on medication absorption, contraindicated foods, possible drug interactions, manufacturer recommendations, required interventions (e.g., vital signs) and patient choice or preference;
- f) demonstrate clear, evidence-informed rationale for decisions and take appropriate steps to resolve issues related to medication management;
- g) refuse to administer placebos to patients without their knowledge or consent;
- h) communicate goals and priorities for medication administration orders within

- the health care team;
- i) take appropriate steps to address and resolve disagreements regarding a medication order;
 - j) advocate for systems that provide a mechanism for resolution when there is a disagreement among members of the health care team regarding any aspect of medication management; and
 - k) if giving an off-label medication, ensure there is evidence to support the use of the medication for the purpose being prescribed.

Implementation

RNs prepare, administer, and document the provision of medications to patients in a safe, competent, and ethical manner.

RNs:

- a) ensure medication reconciliation has been completed prior to administration;
- b) prepare and administer medications according to evidence-informed rationale and practice setting policies;
- c) understand that a large selection of narcotic products and medications have look-alike and sound-alike names, packaging and labeling, and patient monitoring requirements that require careful attention;
- d) know the stability, storage, and how to label medications properly once they are reconstituted or mixed;
- e) obtain a new supply of medication if there are concerns about the way in which the medications have been stored or handled;
- f) only administer medications that the RN has prepared him/herself. In limited situations (e.g., cardiac arrest, mass immunization) and when supported by agency policy, an exception may be permissible;
- g) verify the 10 rights: lists of “rights” exist in various lengths in the literature, however, these are the common elements;
 - the right patient
 - the right drug
 - the right dosage
 - the right time and frequency
 - the right route
 - the right documentation
 - the right reason
 - the right to refuse
 - the right assessment and evaluation
 - the right patient education
- h) calculate the amount of medication required to ensure the appropriate dose;

- i) prepare medications as close as possible to the time they are scheduled to be administered. Pre-pouring is not acceptable RN practice;
- j) perform an independent double-check for high-risk medications and ensure appropriate policy and protocols are current;
- k) develop therapeutic relationships with the patient and receive informed consent prior to administration of medications;
- l) check the patient's identification prior to medication administration;
- m) ensure the patient receives appropriate monitoring during and after administering the medications and intervene if necessary;
- n) utilize principles from the CNA *Code of Ethics* when administering medications (e.g., patient consent, patient right);
- o) apply principles of infection prevention and infection control when administering medications;
- p) perform all the procedural steps according to specific policies and procedures for specific medications;
- q) ensure appropriate resources are available to monitor and intervene, if necessary, to manage potential negative outcomes or unintended consequences (e.g., identify when it is necessary to have the prescriber on-site before administration);
- r) intervene during an adverse reaction;
- s) ensure all medication information and packages follow agency policies for disposal to ensure patient confidentiality and privacy is maintained (e.g., not disposing of medication or packaging in regular garbage);
- t) observe patient taking medication – it is not acceptable to leave medications at the bedside for the patient to self-administer;
- u) document actions, advice provided, and patient outcomes;
- v) document medication administration (during administration or immediately after) in the patient's record according to documentation standards and organizational policies and procedures. Pre-signing or signing for all medications at the end of the shift is not acceptable RN practice; and
- w) ensure documentation is clear, reflective of observation, permanent, legible, chronological and follows standards and practice setting policies.

Evaluation

RNs evaluate patient outcomes following medication administration and take appropriate steps for follow up. RNs evaluate overall outcomes of medication management with the patient and health care team.

RNs:

- a) monitor patient outcomes following medication administration including

- effectiveness, side effects, and signs of adverse reactions and drug interactions;
- b) follow up with the prescriber regarding any concerns or questions about the effectiveness of the medication, side effects and/or signs of drug interactions;
 - c) refer patients to the appropriate care provider for further assessment and follow up when necessary (e.g., when the underlying problem persists and the medication has not been effective);
 - d) document actions, advice provided, and patient outcomes;
 - e) ensure documentation is clear, reflective of observation, permanent, legible, chronological and follows standards and organizational policies and procedures;
 - f) document on the patient's plan of care if he/she is capable of self-administering medications, including the type of assistance he/she requires, if any, and the ongoing RN assessment of the patient's capacity to continue self-administration;
 - g) ensure documentation is factual, accurate, complete, timely, and organized;
 - h) dispose of unused portions of medications in an appropriate manner; and
 - i) follow up to support, supervise and evaluate the delegation of any medication assist to unregulated care providers.

Overarching Principles for Consistent Medication Management

RNs:

- a) utilize principles of point of care leadership;
- b) identify and advocate for systems and resources that support RNs in maintaining competency to safe medication management practice;
- c) participate in and support quality improvement initiatives and programs that impact patient safety and medication management;
- d) communicate (verbally and in writing) concerns and solutions related to unsafe medication systems; and
- e) accept orders only sent via secure technologies according to agency policy and processes (e.g., fax, email, electronic health records).

Communicating a Concern about a Medication Order

RNs have a professional responsibility to question the medication order and advocate on the patient's behalf when a medication order is not clear or consistent with therapeutic outcomes prior to administration. RNs need to clearly articulate to the prescriber the rationale supporting concerns. It may be necessary to review related drug information, research, organizational policies and procedures, and consult with RN colleagues or other health care professionals, such as a pharmacist.

Why are Medication Organizational Policies and Procedures Required?

Policies and procedures are necessary to facilitate consistent medication management practices, and to outline organizational specific restrictions or limitations related to the administration of medications. Effective policies and procedures consider the patient needs and the resources available to meet those needs. The SRNA promotes the development of policies and procedures in conjunction with the multidisciplinary team. RNs are required to advocate for policies and procedures in their practice environment when policies do not exist.

Policies and procedures should be established for:

- documenting patient consent;
- documenting the administration of medications;
- retaining and storing records and maintaining patient confidentiality in accordance with privacy and information management legislation;
- non-punitive reporting, tracking and management of medication errors;
- managing conflicts that may arise when there is disagreement and/or concern with a prescriber's orders;
- supplying, transporting and receiving stock medications;
- labeling and storing medications;
- ensuring the security of medications, especially controlled drugs and substances;
- disposing of outdated or unused medications; and
- ensuring a regular review and periodic evaluation of all policies and procedures related to medication management.

Medication Error Reporting

Medication errors present a serious threat to patient safety in hospitals and the community. They are defined as “any preventable event that may cause or lead to inappropriate medication use or patient harm, while the medication is in the control of the health care professional, patient, or consumer. Such events may be related to professional practice, health care products, procedures, and systems including: prescribing; order communication; product labeling; packaging and nomenclature; compounding; dispensing; distribution; administration; education; monitoring; and use” (National Coordinating Council for Medication Error and Prevention, 2006).

Agencies determine the content and use of medication error reporting forms. Such forms allow data to be collected about near misses and factors contributing to the error such as characteristics of the error (e.g., wrong patient, wrong medication, wrong dosage, wrong route, or omitted dose), method of discovery, action taken to safeguard the patient, patient responses and names of individuals involved in the error for the purpose of follow up. Medication errors should be documented according to agency policies and procedures on the patient's medication record in order to inform the interdisciplinary care team of the error and subsequent intervention if needed to safeguard the patient. Documenting on the organization's quality improvement tool alerts the organization to the risk concerns.

Errors can occur at any point during the complex medication administration process: ordering, transcribing, dispensing, administering or monitoring medications. However, most errors occur at patient care transition points: hospital admission, transfers or discharge.

Errors in medication management are caused by many factors, which include:

- inadequate drug knowledge, or lack of available and accessible drug information;
- failure to ensure the 10 rights of medication administration;
- miscommunication among professionals;
- ambiguity in product names or appearances;
- inadequate current or available patient information;
- confusing directions for use;
- lack of policies or outdated policies;
- workload and staffing;
- errors in transcribing orders;
- illegible orders;
- interruptions during preparation or administration of medications;
- dispensing and labeling errors in pharmacy; and
- errors in packaging of medications.

The RN, who gives the wrong medication or an incorrect dosage, assumes legal responsibility for the error. When errors occur the RN is expected to:

- resolve issues and report honestly;
- intervene immediately;
- assess the patient's condition until stable;
- notify appropriate health care team members;
- initiate corrective treatments;

- follow organizational policies and procedures when informing the patient and family;
- advocate for organizational strategies to prevent similar medication error from occurring in the future; and
- participate in the assessment of the incident to determine contributing factors in implementing system changes.

Prevention of Medication Errors

Prevention of medication errors and achieving patient safety can only be achieved with system accountability and system competence (CNA, 2003). Medication system problems often cross several professional boundaries and departments within an organization. Transparency and reporting are the most effective ways to reduce errors. A non-punitive multidisciplinary approach that focuses on why the error occurred, rather than blaming, is necessary to facilitate reporting near misses and medication errors. This promotes open disclosure of medication errors and allows the root cause of the error to be determined and prevention strategies implemented.

Organizational strategies to safeguard medication administration and reduce errors include:

- 24-hour access to current medication management resources (e.g., Compendium of Pharmaceuticals and Specialties, Saskatchewan Health Information Resource Program (SHIRP) – with many references that directly relate to appropriate drug therapy. It is an online reference available through the PIP system);
- implementation of an approved list of prohibited abbreviations and symbols, or implementation of a policy requiring prescribers to write prescriptions without using any abbreviations or symbols;
- provision of an appropriate environment for RNs to prepare medications;
- provision of uninterrupted time for RNs to prepare and administer medications;
- provision of continuing education opportunities for RNs to further develop their competencies related to pharmacology;
- integration of information related to medication systems within orientation programs for new employees;
- standardization of the medication reconciliation process;
- implementation of scheduled maintenance processes for equipment used in the administration of medications (e.g., IV pumps);

- independent double-checking of potentially toxic medications (e.g., chemotherapy drugs) and those requiring complex calculations;
- standardization of telephone order procedures and practices;
- unit dose dispensing;
- bar code medication administration systems; and
- the existence of an actively engaged interprofessional advisory group such as a Pharmacy and Therapeutics Committee, which includes RNs being directly involved in medication management to address safe and effective medication provision and administration.

Critical Incident Reporting

The administration of a wrong medication and/or an adverse drug reaction may be considered a 'critical incident' if it is serious and leads to untoward health effects or potential loss of life. Section 58 of Saskatchewan: *The Regional Health Services Act* (2002) requires that critical incidents that arise as a result of a health service provided by a regional health authority be reported to the Minister of Health. RNs are required by provincial legislation to follow the current Saskatchewan Critical Incident Reporting guidelines. The Act requires that critical incidents need to be investigated promptly in a manner that focuses on identification and resolution of the root cause of the untoward/unexpected outcome. Critical incident reporting to the Minister of Health is the responsibility of the Regional Health Authority and is only initiated once the RN reports the incident using the appropriate internal mechanisms in a timely manner.

Unregulated Care Providers and Medications

The ongoing holistic assessment of health care needs, development of a patient care plan, evaluation of the patient's health status, and the ongoing effectiveness of the medications are the responsibility of the point of care RN. Unregulated care providers do not have the knowledge, skills or judgment to independently manage all aspects of medication management. However, they can assist with aspects of medication assist.

Competent medication management requires the RN to complete initial and ongoing assessments that includes the appropriateness of medications for a particular patient. Delegating the task of medication administration to unregulated care providers requires careful considerations. RNs can only delegate certain tasks and not the entire nursing process. Decisions regarding the most appropriate health care provider to administer medications include the following RN assessments:

- stability of the patient's condition;
- predictability and complexity of care;

- provider competence;
- evidence-informed practice guidelines;
- ability to monitor and address outcomes; and
- the availability of necessary resources.

The RN should not delegate to an unregulated care provider when:

- unsafe processes or environments are identified;
- complexity of the patient includes multi-system issues, polypharmacy, unknown/undiagnosed conditions;
- predictability of the client remains unstable; and
- risk is identified.

Please refer to the current SRNA, *Interpretation of the RN Scope of Practice* for RN responsibilities in assessment, assignment, delegation, and supervision of unregulated care providers.

The Importance of Patient Health Teaching for Safe Medication Management

The RN practices in collaboration with other health care providers to teach patients to safely administer their own medications, and to help them understand the expected positive health outcomes and potential adverse effects. Teaching patients about medication administration should be included in the patient's care plan (including the discharge care plan), and includes the provision of verbal and written information from the pharmacists for each medication.

Health teaching is an essential component of health care and an integral part of a RN's responsibility. Education is a means of enhancing patient safety and decreasing medication errors. The patient should be supported and encouraged to participate actively and collaboratively in obtaining the information he/she requires. RNs are expected to advocate for patients' needs and support them in the management of their medications on their own behalf, respecting patients' rights to decline participation. Patients should be encouraged to keep a list of their current medications for health care appointments or in case of an emergency.

RNs need to assess the patient's level of knowledge about a medication and inform them as to:

- the action of the medication;
- the purpose of the medication;
- any expected and possible side effects;
- the correct administration techniques;

- steps to remember medication regime;
- health implications when medication is not taken; and
- when to contact a health care provider, or the need for ongoing RN assessment.

Case Study to Consider When Reviewing Medication Management Framework

Review the following case study that has been developed and analyzed by the Institute of Safe Medication Practices Canada (ISMP). Think about what assessments and principles of medication management that the RN may have questioned or asked for clarity that might have decreased the risk of medication error and improved this patient's outcome. There are multiple factors that led to this deadly medication error – see how many you can identify.

“After discharge from a hospital, a patient was transferred to a Long Term Care (LTC) facility. During the initial assessment of the patient at the LTC facility, the receiving nurse reviewed the transfer information faxed to the facility. This information included copies of the inpatient medication administration record (MAR), orders, progress notes, discharge summary, and the referral/transfer form. The orders and progress notes included the most recent morning and evening insulin doses. However, the referral/transfer form, discharge summary, and MAR did not specify the insulin doses, although the concentration of insulin, 100 units/mL, was listed on the MAR immediately after the drug name. The LTC nurse referred to the MAR and mistakenly listed the insulin dose as 100 units/mL when she copied the most current medications. The nurse then contacted the patient's LTC physician whom had followed the patient's course of hospitalization, and he instructed the nurse to “continue the same orders.” The nurse transcribed the list of medications onto an order form and sent it to the pharmacy where the order was filled despite the unusually high insulin dose (100 units in the morning and evening). The patient received one dose of 100 units and experienced severe hypoglycemia. The patient was transferred back to the hospital but died a short time after arrival” (ISMP, 2013).

Let's take a few minutes to reflect on the case study. There are numerous opportunities where the RN could have intervened to improve the communication of accurate and appropriate information. Were you able to identify some of these opportunities where the RNs could have intervened?

- medication reconciliation should have been completed at the point of transfer and at the point of re-admission. (i.e. the SRNA does not support an order on transfer from a physician that reads, “continue the same orders”);

- development of mechanisms for review of orders by a pharmacist prior to the first dose being given; better communication between health care providers (i.e. discussion of unusually high dosage);
- the hospital providing information earlier to the LTC facility;
- verification of discharge summaries;
- an appropriate medication reconciliation should have been completed by the LTC care nurse and physician;
- new admissions to the LTC facility should be admitted and assessed by the physician or a RN(NP) in a timely manner;
- high alert medications should include independent double-checks and could have raised a red flag regarding the high dosage at that time;
- standardization of accompanying documents;
- the RN discharging the patient reviews all discharge transfer documents to ensure completeness and clarity prior to transfer; and
- collaboration with the other members of the health care team in the form of regular scheduled meetings is helpful in opening lines of communication in reference to discharge orders and practices.

This list is not inclusive. There are additional opportunities that may also have improved patient outcomes. The statistics are alarming; “Studies have demonstrated that information on discharge summaries and transfer/referral forms do not match for more than 50% of LTC admissions, with at least one medication discrepancy in 70% of all admissions” (ISMP, 2013). All RNs need to be agents in patient safety.

Summary

Medication management is complex and a shared responsibility of the entire health care team and the patient. RNs utilize clinical judgment, critical thinking and evidence-informed decision-making when completing comprehensive assessments, planning, implementation and evaluation within the nursing process. Safe medication management is not just the task of administering the medication. Medication management is not only the RN's responsibility. There is shared accountability between the RNs, the health care team, and agencies to develop a collaborative approach with patients and their families towards creating and supporting safer systems for medication management. RNs are professionally accountable to coordinate care, collaborate with the patient and other members of the health care team, communicate appropriate information, and manage clinical risks to ensure safety.

The Canadian Nurses Association (CNA) summarizes that “nurses have a significant contribution to make in protecting and improving client safety. As the principal health care providers with the patients, overseeing, coordinating and providing care 24 hours a day, seven days a week, nurses are ideally positioned to strengthen the safety net for patient care. The nursing perspective on reducing errors and improving systems must be part of a collaborative approach involving the public, other professions, employers and governments. Adequate resources must be made available to undertake this work at all levels of the health care system” (CNA, 2003).

The SRNA Practice Team is committed to providing RNs with current medication management information. Please visit the SRNA website at www.srna.org for case studies and frequently asked questions on topics and issues related to patient centred medication management.

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Glossary

Adverse drug event: Any undesirable occurrence related to administration of or failure to administer a prescribed medication (Lilley et al., 2011).

Assessment: Includes data collection and the interpretation, analysis, synthesis and evaluation of data. Data collection encompasses gathering information on client status using assessment skills such as observation, interview, history taking, and in direct care environments with individual clients, physical assessment (SRNA, 2015, *Interpretation of the RN Scope of Practice*).

Assignment: The selective care according to employer supports designation of specific responsibilities for patient/client care within employer policies, legislative scopes of practice, competencies of the health care provider, and environmental supports.

Collaboration: The process of working together to build consensus on common goals, approaches and outcomes. It requires an understanding of one's own and others' roles, mutual respect among participants, commitment to common goals, shared decision-making, effective communication relationships and accountability for both the goals and team members (RNAO, 2006 – cited in SRNA, 2015, *Interpretation of the RN Scope of Practice*).

Coordination of care: Involves the identification and organization of the health care needs of the client. It includes assessment, assignment, care planning, supervision, ongoing monitoring, decision-making, and evaluation of care, using the nursing process, with the overarching goal of positive client outcomes. It includes client advocacy, educating, discharge planning and acting on the behalf of clients, in the context of involving others and ensuring that client needs are met by the appropriate members of the health care team (White et al., 2008 – cited in SRNA, 2015, *Interpretation of the RN Scope of Practice*).

Critical incident: A serious adverse event including, but not limited to, the actual or potential loss of life, limb or function related to a health service provided by, or a program operated by, a regional health authority (RHA) or health care organization.

Critical thinking: Major component of the nursing process and often considered to be the underpinning of providing the best possible patient care supported by current and progressive approaches (Lilley et al., 2011).

Delegation: The act of transferring to a competent individual the authority to perform a selected nursing task in a selected situation, while the nurse retains accountability for the delegated task. The authority to delegate must adhere to legislation and to a facility's specific policies and procedures regarding what is within a scope of practice.

Evidence-informed: An approach to decision-making in which the clinician conscientiously integrates critically appraised evidence, clinical practice experience, and knowledge of contextual factors in consultation with the client, in order to decide upon the option that best suits the client's needs. Evidence may include, but is not limited to, published research, grey literature research, clinical practice guidelines, consensus statements, clinical experts, quality assurance and client safety data.

Independent double-check: The term "independent double-check" is often used interchangeably with "double-check" and has been defined as a check where one colleague with no prior knowledge of a previous calculation or setting goes through a series of steps to arrive at a calculation or setting (CPSI, 2008 as cited in College of Nurses of Ontario. *Practice Standard: Medication*. December 2005).

Initial assessment: The first step in the nursing process. It provides the basis for safe and appropriate client care. This is the responsibility of the RN. The purpose of the initial client assessment is to ascertain the client's acuity, complexity and variability and utilize this information to determine assignment of client care to an appropriate care provider (SRNA, 2015, *Interpretation of the RN Scope of Practice*).

Medication errors: The failure to complete a planned action as it was intended, or when an incorrect plan is used, at any point in the process of providing medication to patients.

Medication management: Medication management is defined as patient-centred care to optimize safe, effective and appropriate drug therapy. Care is provided through collaboration with patients and their health care teams (Canadian Pharmacists Association, 2013).

Medication reconciliation: Medication reconciliation is a formal process in which health care providers work together with patients, families, and care providers to ensure accurate and comprehensive medication information is communicated consistently across transitions of care. Medication reconciliation requires a systematic and comprehensive review of all the medications a patient is taking to ensure that medications being added, changed or discontinued are carefully evaluated (ISMP Canada & CPSI, 2012b).

Patient- and family-centered care: Patient- and family-centered care (PFCC) is about providing respectful, compassionate, culturally safe and competent care that is responsive to the needs, values, cultural backgrounds and beliefs, and preferences of patients and their family members by working collaboratively with them. In the PFCC approach, patients and families are actively engaged not only in their own care, but also in the planning, delivery and evaluation of health care services and programs. Patients and families are no longer viewed as clinical objects or visitors, but viewed as essential allies and treated as true partners. PFCC is grounded in mutually beneficial partnerships among patients, families and health care providers.

Point of care: Where the RN is knowledgeable of the individual client's needs based on ongoing nursing assessment and is responsible for the overall care of the client.

Supervision: The active process of directing, assigning, delegating, guiding, and influencing the outcome of an individual's performance of an activity. Supervision is generally categorized as direct (being physically present or immediately available while the activity is being performed) such as in an acute care setting; or indirect (provision of direction through various means of written and verbal communications) such as in a community setting.

© 2015, Saskatchewan Registered Nurses' Association

2066 Retallack Street

Regina, SK S4T 7X5

Phone: (306) 359-4200 (Regina)

Toll Free: 1-800-667-9945

Fax: (306) 359-0257