



Medication Management Policy / Procedure

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Applies To:	Clinical Programs, Pharmacy, Respiratory Therapy, Certified Orthoptists/Ophthalmic Medical Technologists		

POLICY

All healthcare professionals are responsible to be knowledgeable of, understand, and practice according to their scope of practice (professionally and individually), scope of employment, and level of competency. Healthcare professionals must also practice in accordance with the standards of practice set by their individual regulatory bodies. Qualified healthcare professionals practicing at the IWK Health Centre will administer medications in a manner that is safe, competent, effective, and ethical and in accordance with the health centre's supporting policies. Administration of medication requires specific knowledge, skill and judgment and is an essential component of safe and quality patient care.

Qualified health care professionals may administer medication that has been ordered by an approved prescriber.

The qualified healthcare professional shall only administer a medication he/she has prepared personally with the following exceptions:

- Medications in properly labelled multidose vials or products premixed by Pharmacy.
- Continuous IV infusions and intermittent IV infusions that are properly labelled.
- Patient's own medications that have been verified by pharmacy
- Premixed products repackaged by third party vendors contracted through Pharmacy or Purchasing.

This policy does not apply to radiopharmaceuticals, or contrast media distributed through Diagnostic Imaging.

.PROTOCOL**The qualified healthcare professional will:**

1. Verify/check the Medication Administration Record (MAR)/written order for the patient's name, medication name, dose, route, time and concentration prior to medication preparation and administration.
2. Confirm the allergy status of the patient prior to medication administration.
3. Prepare medications for only one patient at a time. Pre-pouring of medications is not permitted.
4. Administer a medication prepared personally with the following exceptions:
 - Medications in properly labelled multidose vials or products premixed by Pharmacy.
 - Continuous IV infusions and intermittent IV infusions that are properly labelled.
 - Patient's own medications that have been verified by pharmacy
 - Premixed products repackaged by third party vendors contracted through Pharmacy or Purchasing.
5. Adhere to the "7 Rights" of Drug Administration when administering any medication.
 - Right client (checking a minimum of two unique patient identifiers)
 - Right medication
 - Right route (route of administration ordered is a recommended one)
 - Right time
 - Right dose
 - Right reason/assessment
 - Right documentation
6. Prior to administration of an initial dose or when a dose has been adjusted, communicate to the patient/family the name of the medication, its use and when the next dose is scheduled. Also inform them of the potential benefit and adverse effects. (Exception(s): emergency situations or when patient not fully aware (example post-operatively). Documentation of dose administration on the MAR signifies that this medication information has been provided to the patient/family.
7. If medication is to be continued upon discharge, further education should be provided on benefits to compliance, risks of non-adherence, and how to recognize and respond to an adverse reaction. Information on the cost of the drug is also relevant.
8. Discuss any questions concerning a medication order with a Registered Nurse (RN) or Prescriber (as deemed appropriate). If further clarification is desired,

contact the pharmacist prior to the administration of the medication. The pharmacist shall provide advice as to dosing appropriateness and shall contact prescriber directly if they share the concern. If the pharmacist does not share the concern and the prescriber remains decided about the original treatment plan, discuss the concern with immediate supervisor. If there is a refusal to implement the order, inform the physician of the decision and action to date.

9. Access the medication profile to ensure appropriate administration and safety guidelines are followed. Prior to administration of any medication, determine:
 - medication is within its expiry date;
 - healthcare professional is authorized to administer the medication;
 - amount of diluent required, if applicable;
 - IV standard concentrations are observed and match pump settings;
 - recommended rate and method of injection, if appropriate;
 - necessary precautions, incompatibilities and side effects
10. Perform proper hand hygiene, prior to preparing and administering medication
11. Leave all medications in the original container or unit dose packaging until the time of administration. If the medication cannot be administered immediately once removed from the original package, a label must be attached that clearly identifies the name of the drug. Do not pre-pour medications.
12. Administer medications according to standard administration times (see Policy 20.06 for exceptions). Ideally, doses should be administered within 30 minutes (either before or after) of scheduled administration time.
13. Check that the medication and/or route of administration falls within the guidelines of the healthcare professional's licensing body **and** any applicable health centre policies.
14. Seek an independent double check for high alert medications. Both health care professionals shall document appropriately on the MAR.
15. Administer only those medications distributed by the IWK Pharmacy or verified and approved for use by pharmacy, including natural products.
16. Document doses on the MAR or on the Intake and Output Record, immediately following medication administration. Signature/initials indicate adherence to the "7 Rights" of Drug Administration.
17. Promptly notify the Team Leader or supervisor and use the on-line IWK Safety System (SIMS) to report the event when a medication-related adverse event occurs or a good catch is identified.

REFERENCES

Standards of Practice for Registered Nurses 2017, Nova Scotia Colleges of Nurses
<https://crnns.ca/wp-content/uploads/2015/02/RNStandards.pdf>

Medication Guidelines for Registered Nurses in Nova Scotia 2017, College of Registered Nurses of Nova Scotia
<https://crnns.ca/wp-content/uploads/2015/05/Medication-Guidelines.pdf>

Code of Ethics for Registered Nurses, Canadian Nurses Association (2017)
<https://crnns.ca/wp-content/uploads/2015/02/code-of-ethics-for-registered-nurses.pdf>

Standards of Practice and Code of Ethics for LPNS in Canada (2013)
<https://clpnns.ca/practice-standards-and-code-ethics/>

Guidelines for Licensed Practical Nurses in Nova Scotia The Professional Practice Series Medication Administration 2013, Revised 2019
<https://clpnns.ca/wp-content/uploads/2019/01/Med-admin-2019.pdf>

Standards of Practice for Respiratory Therapists, Nova Scotia College of Respiratory Therapists,
http://www.nscrt.com/index.php?option=com_content&view=article&id=39&Itemid=91

Scope of Practice of Respiratory Therapists, Nova Scotia College of Respiratory Therapists,
http://www.nscrt.com/index.php?option=com_content&view=article&id=27&Itemid=34

Levels of Practice. The Canadian Society of Respiratory Therapists,
http://www.csrt.com/en/professional/levels_practice.asp

National Competency Profile for Respiratory Therapists. The Canadian Society of Respiratory Therapists,
<http://www.csrt.com/en/education/pdf/NCP-Report-2011.pdf>

2011 National Competency Profile for Respiratory Therapists Companion Document Foundation Knowledge,
http://www.csrt.com/en/education/pdf/Guide/Pharmacological_Principles.pdf

2011 National Competency Profile for Canadian Orthoptists
<http://www.tcos.ca/english/members/resources.php>

2011 National Canadian Orthoptic Syllabus
<http://www.tcos.ca/english/members/resources.php>

2011 JCAHP Criteria for Certification and ReCertification
http://www.jcahpo.org/certification/pdfs/CriteriaforCert_FULL.pdf

Related Documents

Policies

Policy 3.06 – Medication Order Requirements

Policy 3.10 – Pharmacist Medication Order Clarifications

Policy 3.90 - Medications Brought into Hospital by Patients

Policy 10.11 - Medication Administration Record (cMAR)

Policy 10.15 – Labeling of Medications Outside of Pharmacy.

Policy 20.06 - Standard Medication Administration Times

Policy 20.09 - Dissolve and Dose Drug Administration System

Policy 20.10 - Injectable Medications

Policy 25.05 - High Alert Medications

Clinical Policy 540 – Patient Alerts (Allergies-Adverse Reactions-Cautions)

Clinical Policy 1140 – Administration of Intravenous Medications

Infection Prevention and Control Policy IC 205.2 – Hand Hygiene

Forms

Intake and Output Record - IWKINOU

Appendices

Appendix I – Medication Administration by Licensed Practical Nurses

Appendix II - Scope of Practice and Levels of Practice for Respiratory Therapists

Appendix III – Medications Administered by Respiratory Therapists

Appendix IV – Medications Administered by Certified Orthoptists/Ophthalmic Medical Technologist

APPENDIX A

DEFINITIONS

Competence

Competence is the ability to integrate and apply the knowledge, skills and judgement required to practice safely

Context of Practice

Context of practice refers to conditions or factors that affect the practice of the professional. This can include the patient population, location of practice setting, type of practice setting and service delivery model, level of care required, staffing and availability of other resources

Individual Scope of Practice

While the scope of practice defines the boundaries of the discipline for all its members, the scope of practice of an individual is further defined by the specific education and experience, and the context of her/his practice (e.g., hospital vs. community setting).

Qualified Healthcare Professional

This includes Registered Nurses (RN), Licensed Practical Nurses (LPN), Respiratory Therapists (RT), Certified Orthoptists (OC(C))/Certified Ophthalmic Medical Technologist (COMT) as well as other healthcare professionals whose professional regulating bodies and the IWK Health Centre have approved medication administration to be within their scope of practice and employment. The appropriate education and training is required to attain and maintain the competency as is applicable to the specific healthcare professional

Scope of Employment

This term refers to the range of responsibilities defined by employers through specific job descriptions and policies.

Scope of Practice

The scope of practice is defined as the roles, functions and accountability which members of a profession are educated, and which they are authorized by legislation to perform.

Appendix B

Medication Administration by Licensed Practical Nurses

Licensed Practical Nurses (LPN) attain initial competence in medication administration during their basic nursing education. Intravenous (IV) medication administration became an entry level competency for LPNs beginning in 2012. Currently, the administration of IV medication as an entry level competency is based on practice guidelines developed by the College of Licensed Practical Nurses of Nova Scotia (CLPNNS). The CLPNNS practice guidelines assist with determining the appropriate practice context for the LPN through the application of a Double Predictability Review (CLPNNS, 2010).

The employer is responsible for developing the clinical parameters in which LPN's will practice. This will be accomplished through policies and procedures (CLPNNS, 2010). **Each LPN is accountable and responsible for determining their individual capacity to undertake their roles, functions and activities within the employer's policies** (CLPNNS, 2010).

The LPN and the employer must recognize that medication administration via the intravenous route has limited and specific context to LPN practice and lacks broad applicability across patient types. The LPN and employer are responsible and accountable to determine the limited and specific patient populations within the agency (CLPNNS, 2010). A list of IV medications that LPNs may administer can be found on the appropriate care area in their Models of Care Collaborative Guidelines.

To determine the appropriateness of the LPN administering IV or IV push medications, both the clinical patient outcomes and the outcomes of the medications/medication administration must be deemed predictable. A **Double Predictability Review** needs to be applied to the practice context by reviewing both the overall predictability of the client context (care, outcomes, and plan) and the predictability of the outcomes of the IV or IV push medications (CLPNNS, 2010).

To apply the **Double Predictability Review**, answer the following four questions. All answers to the questions must be "yes". Any "NO" response would indicate that the client context **Does Not Support** the LPN to engage in IV medication administration (CLPNNS, 2010).

1. Are the overall outcomes of the client identified and documented in a plan of care and are they deemed to be predictable and well anticipated? (Client Predictability).
2. Is the route (IV or IV push) deemed to be best practice for this client based on their established plan of care? (Medication Predictability).

3. Are the medications to be administered via IV/IV push **not** identified by the Institute of Safe Medication Practices (ISMP) High Alert medications and/or the IWK's list of high alert medications? (Medication Predictability).
4. Are the outcomes of the prescribed medications well established and identified in a plan of care. (Medication Predictability).

Certain client situations will not support the LPN to administer IV/IV push medications. Situations where client needs are deemed complex or the plan of care is unknown/un-established would preclude the LPN from performing IV/IV push regardless of the medication to be administered (CLPNNS, 2010).

*LPNs may not administer any medication via IV/IV push appearing on the ISMP High Alert list or medications identified by individual agencies as High Alert, regardless of the client context. For the purpose of this policy and LPN practice at the IWK, IV push refers to the slow direct push method of medication administration.

Client Issue	Rationale
Lack of or established plan of care (verbal or written)	The overall predictability of the client's needs have not been established
Initial doses of medications	The client's response to the medication has not been determined
Sliding scale orders for medications based on patient assessment findings Crisis situations	Active titration would indicate that the client's needs are changing and unanticipated. Requires advanced priority decision making.
Any medication that could immediately (within 5-10 minutes) impact the hemodynamic stability of the client	Requires advanced assessment and decision making. Is listed on the IWK High Alert*medication list
A medication that requires the interpretation of additional assessment parameters before, during or after IV/IV push (e.g. cardiac, hemodynamic or fetal monitoring)	Interpretation of the data requires advanced decision making and assessment

The LPN **may**:

- administer medications (including narcotics and controlled drugs) via the following routes:
 1. oral
 2. rectal
 3. subcutaneous
 4. intramuscular
 5. transdermal
 6. intradermal
 7. topical
 8. vaginal
 9. aural
 10. nasal (**Note: LPNs are **not** permitted to administer medications given via the nasal route for the purpose of sedation, e.g.: midazolam).*)
 11. sublingual
 12. ophthalmic
 13. inhalation
 14. through nasogastric and gastrostomy tubes
 15. intravenous (as appropriate based on the CLPNNS Practice Guidelines and the Double Predictability Review)
- change premixed potassium chloride bags/syringes either available commercially or prepared by pharmacy to a maximum of 40 mEq/liter (4 mEq%) administered via peripheral line
- order medications (as required) from the Pharmacy night cupboard
- witness and verify for narcotic wastage
- participate in controlled substance inventory counts
- pickup controlled substances from pharmacy or sign for narcotics delivered to the care area
- return controlled substances to pharmacy

The LPN **may not**:

- administer IV intermittent or continuous infusions via a central venous access device (CVAD)
- initiate and administer continuous subcutaneous narcotic infusions
- care for, monitor or remove pleural/epidural catheters
- administer hypodermoclysis (subcutaneous hydration)
- administer medications included on the IWK High Alert Medications List via the IV or IV push routes

Appendix C

Scope of Practice and Levels of Practice for Respiratory Therapists

Scope of Practice for Respiratory Therapists

Respiratory Therapy means the application of a professional Respiratory Therapist's knowledge, skills and judgement in the provision of diagnostic, assessment, and therapeutic modalities to assist in the management of cardio-respiratory and related disorders to achieve optimal respiratory health, wellness and functional performance. This will include, but is not limited to:

- conduct patient cardio-respiratory assessment,
- perform basic respiratory care therapy modalities,
- perform airway management techniques,
- optimize pulmonary ventilation,
- apply medical gas therapy,
- provide cardio-pulmonary resuscitation and stability,
- administer prescribed pharmaceutical substances,
- procure blood samples from various sites,
- perform pulmonary diagnostic testing,
- perform cardiac diagnostic testing,
- perform hemodynamic monitoring,
- perform hyperbaric medicine therapy,
- perform anaesthesia assistance,
- perform such delegated medical functions as are approved in accordance with the medical act,
- educate patients, families, colleagues and healthcare professionals concerning respiratory care,
- perform such other aspects of respiratory therapy as may be described in regulations approved by the Governor in Council

Levels of Practice

The Canadian Society of Respiratory Therapists (CSRT) acknowledges that the practice of respiratory therapy has evolved quickly since its inception. Today the profession faces many challenges, including shortages of health care professionals, an aging population, increased incidence of chronic respiratory disease, the introduction of new technology and challenges relative to patient access and the ability to provide quality and comprehensive respiratory care.

In addition, governments and health care organizations are demanding more collaborative, inter-professional and innovative respiratory care delivery systems to meet the diverse health needs of society. As a result, the profession of respiratory therapy will continue to evolve and the level of practice will be adapted to meet the needs of a complex health care delivery system.

The CSRT recognizes that respiratory therapists may work at various levels of practice defined as:

Integrated Practice

Integrated practice may require additional on-the-job training but does not require additional training. This level includes respiratory therapists who provide care within the current scope for entry-to-practice.

Specialized Practice

This level of practice requires additional education and training in combination with on-the-job experience in order to develop a higher level of skill mastery. The respiratory therapist working in specialty practice has the knowledge, skills and judgement that fall within the boundaries of the education, theory and practice of the original scope of practice.

Advanced Practice

This classification of practice requires graduate education, extensive clinical experience, advanced clinical reasoning, research expertise and knowledge transfer skills. Elements of advanced practice may be outside the established scope of the respiratory therapist and may consist of additional controlled acts or regulated tasks according to provincial legislation. The respiratory therapist working in advanced practice will evaluate, interpret and incorporate new knowledge into clinical practice.

The CSRT recognizes that a respiratory therapist's level of practice is a subset of the scope of practice of the profession, in accordance with individual knowledge, skills and judgement. The CSRT recommends that all respiratory therapists work within their scope of practice according to provincial legislation, employer regulations and their

individual knowledge, skills and judgement. It is the responsibility of each respiratory therapist to determine their individual competency before undertaking any aspect of patient care, as outlined in the CSRT Code of Ethics and the CSRT Standards of Practice.

The CSRT strongly supports the safety of all respiratory therapists and the patients and clients for whom they provide care. The CSRT encourages continuing education and training that will enhance the respiratory therapist's ability to provide safe, ethical patient care.

Sources

Canadian Association of Medical Radiation Technologists (November 2005). Advanced Practice. Accessed on November 29, 2010 from http://www.camrt.ca/english/profession/advanced_practice.asp

Canadian Nurses Association (2008). Position Statement: Advanced Nursing Practice. Accessed on November 2010 from <http://www.cnaa.ca/>

College of Respiratory Therapists of Ontario (March 2010). Position Statement: Scope of Practice and Maintenance of Competency. Accessed on November 29, 2010 from <http://crto.on.ca/pdf.Positions/SOP.pdf>

Approved by the CSRT Board of Directors on November 30, 2010

Appendix D

Medications Administered by IWK Respiratory Therapists

Via Endotracheal tube:

- Lung surfactants
- EPINEPHrine 1:1000 Injection
- Lidocaine endotracheal spray
- Lidocaine 1% Injection

Via Endotracheal tube (Emergency situations only, for example- cardiac arrest, seizures, birth depression):

- EPINEPHrine 1:10,000

Via nebulizer (or multidose inhaler):

- Budesonide
- Ipratropium
- Fluticasone
- Methacholine Chloride via dosimeter (for challenge test – Pulmonary function)
- Pentamidine
- Salbutamol
- Sodium Chloride 3%
- Terbutaline (Pulmonary Function Bronchodilator Response)

Via small particle aerosol generator (SPAG):

- Ribavirin

During intubation:

- Lidocaine

Gases via Ventilator Circuit (not considered medication)

- Nitric oxide
- Nitrogen

Gases (via mask) (not considered medication):

- Helium

Appendix E

Medications Administered by Certified Orthoptists/Ophthalmic Medical Technologists

Certified Orthoptists/Ophthalmic Medical technologists perform diagnostic and highly technical procedures, in consultation with an ophthalmologist. They plan, implement and monitor treatment of a wide variety of ocular disorders, including disorders of binocular vision and ocular motility. They are engaged in a range of activities including research into ocular motility, education of other eye care professionals (including ophthalmology residents), patient education and vision screening. They are also particularly trained in the assessment of pediatric, geriatric and neurological impaired patients.

Many orthoptists /ophthalmic medical technologists have additional skills in retinoscopy, contact lens evaluation, assessments of visual fields and low vision, and electro-physiology.

Orthoptists/Ophthalmic medical technologists attain competence in ophthalmic medication administration during their basic orthoptic/ophthalmic medical technology education. Certified Orthoptists/Ophthalmic medical technologists are authorized to administer the following ophthalmic medications topically upon receipt of a physician order:

Parasympathetic antagonists (parasympatholytics)

Atropine

Cyclopentolate Hydrochloride and phenylephrine hydrochloride

Cyclopentolate Hydrochloride

Homatropine

Tropicamide

Sympathetic agonists (sympathomimetics)

phenylephrine

Ophthalmic Anaesthetics

Proparacaine Hydrochloride

Tetracaine

Ocular Dyes

Fluorescein sodium

Rose Bengal® (4,5,6,7-tetrachloro-2',4',5',7'-tetraiodofluorescein)

Inodocyanine green

IWK Policies Replaced

(none)

Version History

Major Revisions (e.g. Standard 4 year review)	Minor Revisions (e.g. spelling correction, wording changes, etc.)
	April 2019 updated references for Nursing; point 6. Amended.