COLLEGE OF PHARMACY
OF NEWFOUNDLAND AND LABRADOR

STANDARDS OF PRACTICE

Administration of Drug Therapy by Inhalation or Injection

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1. INTRODUCTION

Standards of Practice are minimum standards that all registered pharmacy professionals are expected to meet. Regardless of position or practice environment, when a pharmacy professional performs a specific role, they must perform it to the level specified in the Standards of Practice and meet all of the standards associated with that role. These Standards describe the minimum expectations involved in administering inhalations or injections to patients and are intended to promote consistency in the provision of this service to the people of this province.

These Standards are **NOT** applicable to the emergency administration of rescue medications such as epinephrine and naloxone.

In this document, the use of,

- "drug therapy" includes both medications and vaccinations. It does not include drugs or other substances used for cosmetic purposes; and
- "pharmacy professionals" refers to pharmacists, pharmacy technicians, pharmacy interns, pharmacy students, pharmacy technician interns, and pharmacy technician students.

2. EXPECTATIONS

2.1. **Pharmacists and pharmacy technicians** who wish to participate in the administration of inhalations or injections must apply to CPNL for authorization.

2.2. Authorization applications will be reviewed to ensure applicants meet the following requirements:

a) *Education and Training*. Applicants must have either:

i) graduated from a pharmacy program accredited by the Canadian Council for the Accreditation of Pharmacy Programs (CCAPP) where education and training on the administration of inhalations and injections is a component of the core curriculum;

ii) successfully completed an education and training program on the administration of injections that has received Competency-Mapped Accreditation by the Canadian Council on Continuing Education in Pharmacy (CCCEP) that was completed within one year of the date of application; or

iii) be currently authorized to administer inhalations or injections in comparable jurisdiction.

b) *First Aid & CPR/AED*. Applicants must have current certification at levels equivalent to:

i) First Aid – Emergency/Basic or Standard/Intermediate

ii) CPR/AED – Level C, HCP, or BLS

FIRST AID AND CPR COURSE ACCEPTABILITY

- Only in-person or blended-learning courses will be accepted.
- CPNL does not specify or endorse a particular First Aid or CPR provider. It is the responsibility of the pharmacy professional to consult with the course provider to ensure the course meets the above requirements.

2.3. Once authorization applications have been reviewed and approved, authorization will be issued to the pharmacist or pharmacy technician. Drug therapy must not be administered by inhalation or injection until notification of authorization is received from CPNL.

2.4. Once authorized, pharmacists and pharmacy technicians must:

a) maintain competence and skill level in administering inhalations or injections;

b) maintain appropriate First Aid and CPR certification; and

c) participate in the administration of inhalations and injections only in accordance with provincial guidelines, standards established by CPNL, and within the limits of their own competence.

3. LIMITATIONS

3.1. Pharmacy professionals:

a) may not administer COVID-19 vaccine by injection, or influenza vaccine by inhalation or injection to a child younger than two years of age;

b) may not administer any other injection to a child less than five years of age;

c) may not administer a drug or other substance used for cosmetic purposes;

d) should not administer an inhalation or injection to a family member or someone of a "close personal or emotional relationship" unless there is no alternative;

e) should not administer an inhalation or injection to any patient with a reported history of adverse reaction to related inhalations or injections;

f) may only administer a Schedule I inhalation or injection where it has been prescribed by an authorized prescriber (including an authorized pharmacist); and

g) must limit their administration of injections to those products that can be administered intramuscularly or subcutaneously and within the limits of their own competence (see section 4.1 c)).

3.2. Pharmacy technicians, pharmacy interns, pharmacy students, pharmacy technician interns, and pharmacy technician students may administer drug therapy by inhalation or injection only after an authorized pharmacist has assessed the patient and determined that the administration of the drug therapy is appropriate, and when they are being provided with appropriate oversight and clinical support.

3.3. In accordance with Health Canada's Subsection 56(1) class exemption for pharmacists administering controlled substances in Canada, only pharmacists may administer controlled substances.

4. PRACTICE STANDARDS

4.1. When inhalations or injections are administered to patients, the following minimum standards must be met:

a) *Physical Environment*. The environment in which administrations take place must:

i) take patient privacy into account;

ii) be clean, safe, suitably furnished, and equipped for the type of drug therapy being administered; and

iii) be suitable to post-therapy observation, including the provision of any necessary aftercare or management of adverse reactions.

b) *Informed Consent*.

i) Informed consent should be obtained directly from the patient unless it is considered appropriate, and in the patient's best interests, to communicate with the patient's agent on their behalf.

ii) Prior to the drug therapy being administered, an authorized pharmacist must provide the patient or the patient's agent with sufficient information specific to the circumstances to allow them to make an informed decision regarding the administration. This should include but is not limited to information about:

- the drug therapy being administered;
- the purpose, expected benefits, and risks of the drug therapy;
- the expected reaction / response and related time frame, if applicable;
- common and rare side effects;
- the rationale for the required observation period following the inhalation or injection, if applicable;

- any other monitoring and/or follow-up, including scheduling of subsequent administrations in a series, if applicable; and
- details of planned communications within the patient's circle of care, as appropriate.

c) *Competency and the Code of Ethics.* There is no obligation for a pharmacy professional to administer drug therapy.

i) The decision to administer drug therapy to a patient must be made by an authorized pharmacist, following the assessment noted in section 4.1 d). This decision must be based on clinical suitability, cost-effectiveness, and the best interests of the patient. If there is insufficient information or concern about added risks to the patient, the patient should be referred to their primary health care provider or another appropriate health care professional.

ii) Pharmacy professionals must not administer drug therapy under conditions that compromise their judgement or integrity, nor impose such conditions on other pharmacy professionals.

iii) Pharmacy professionals must use their professional judgement to determine whether the specific circumstance of each administration is within their scope of practice, competence, and experience.

iv) Pharmacy professionals must only administer drug therapy when they have the appropriate knowledge and training to do so competently and appropriately.



INJECTION INTO ALTERNATE SITES

Most formal training in the administration of intramuscular injections is limited to injection into the deltoid muscle. Additionally, training for subcutaneous injections is usually limited to injection into the back of the arm. Prior to administering injections into alternate sites (e.g., abdomen, buttocks, hip, or thigh), pharmacy professionals must consider whether they have the appropriate training and competence to do so.

For clarity, such training should include the opportunity for the pharmacy professional to have landmarked and administered the medication into the site under the guidance of a competent individual who can assess and confirm their competency.

d) *Assessment to Determine Appropriateness for the Patient.*

i) Prior to drug therapy being administered to a patient, an authorized pharmacist must conduct and document a patient assessment appropriate to the

circumstances, using a combination of patient interview, review of the patient's electronic health record, and other sources, as appropriate. This can include, but is not limited to, the patient's:

- demographic information;
- physical characteristics and/or measurements (height, weight, etc.);
- condition and status (e.g., fever, signs of infection, blood pressure, heart rate, pregnancy);
- indication for administration of drug therapy;
- relevant laboratory and/or diagnostic test results;
- history with inhalation/injections (vaccination history, previous adverse effects, etc.);
- current medical conditions, medications, non-medication therapies;
- allergies and intolerances (including latex allergies);
- pregnancy and lactation status;
- risk factors, including immunocompetency; as well as
- any other personal circumstances, practical needs, values, preferences, or other information relevant to the assessment.

ii) Once this assessment has been completed, the pharmacist should use the information gathered to determine whether the administration of the drug therapy is appropriate for the specific patient under the specific circumstances. It should be in the best interests of the patient and not knowingly put the patient at increased risk.

iii) The pharmacist must be satisfied that the drug therapy being administered is for an intended use that reflects an indication approved by Health Canada or is widely accepted as best practice in Canada and supported by clinical evidence.



VACCINE GUIDANCE

Vaccines must be administered in accordance with the product monograph, the current Canadian Immunization Guide,[1] and the Newfoundland and Labrador Immunization Manual[2]. Current versions of these references must be accessible when assessing the appropriateness to administer a vaccination.

[1] Available at: https://www.canada.ca/en/public-health/services/canadian-immunization-guide.html
[2] Available at: https://www.gov.nl.ca/hcs/publichealth/cdc/health-pro-info/#immunization

e) *Administration.*

i) Once an authorized pharmacist determines that it is appropriate for a patient to receive the drug therapy by inhalation or injection:

- the pharmacist may administer the drug therapy themselves;
- an authorized pharmacy technician or other authorized health professional (e.g., a nurse)[3] may administer the drug therapy; or
- a pharmacy intern, pharmacy student, pharmacy technician intern, or pharmacy technician student may administer the drug therapy in accordance with Appendix A.

ii) In situations where a pharmacy technician or other authorized health professional administers drug therapy, an authorized pharmacist must be present in the pharmacy or other place where the administration is taking place to provide appropriate oversight and/or clinical support, as required.



PHARMACY TECHNICIANS, INTERNS, AND STUDENTS

Per section 3.1 b), pharmacy technicians, pharmacy interns, pharmacy students, pharmacy technician interns, and pharmacy technician students may administer drug therapy only after an authorized pharmacist has assessed the patient and determined that the administration of the drug therapy is appropriate, and when they are being provided with appropriate oversight and clinical support.

f) *Administration Procedures.* Pharmacy professionals must follow best practices[4] when performing the administration including choosing an appropriate site, route, and method of administration. This includes:

i) preparing the inhalation or injection for administration including:

- checking the product lot number and expiry date;
- ensuring the product is stable, has been properly stored and is clearly labeled;
- assembling appropriate equipment and supplies (e.g., syringes, needles, administration sets);
- ensuring injections are prepared using aseptic technique; and
- properly storing prepared products after reconstitution or mixing, if applicable.

[3] The health professional should consult with their regulatory authority as appropriate to ensure that they are practicing within their scope and standards of practice.

[4] "Vaccine administration practices: Canadian Immunization Guide", Public Health Agency of Canada, https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-1-key-immunization-information/page-8-vaccine-administration-practices.html

ii) ensuring ready access to drugs, health care products, aids, devices, equipment, and supplies to treat emergencies and adverse reactions associated with the administration of drugs (in accordance with the recommendations of the Canadian Immunization Guide[5]).

iii) applying universal precautions for infection control including:

- washing hands before and after administering drug therapy to the patient;
- wearing appropriate personal protective equipment;
- handling all body fluids and tissues as if they were infectious, regardless of a patient's diagnosis; and
- properly disposing of waste materials including sharps.

iv) preparing and providing care to the site of administration, including:

- selecting and landmarking the site;
- assessing and preparing the site; and
- using appropriate dressings.

g) *Monitoring and Follow-Up*.

i) The pharmacy or other health professional administering the drug therapy must monitor the patient for adverse or allergic reactions and be prepared to respond appropriately, if they arise, including:

- providing basic first aid;
- performing CPR;
- administering epinephrine and diphenhydramine by injection, if necessary;
- managing sensitivity/anaphylactic reactions; and
- addressing needle-stick injuries.

ii) All moderate and major adverse events that occur following vaccine administration must be reported in accordance with the Public Health Agency of Canada requirements[6]; and

[5] "Anaphylaxis and other acute reactions following vaccination: Canadian Immunization Guide", Public Health Agency of Canada, https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-2-vaccine-safety/page-4-early-vaccine-reactions-including-anaphylaxis.html

[6] "Reporting Adverse Events Following Immunization (AEFI) in Canada", Public Health Agency of Canada, https://www.canada.ca/en/public-health/services/immunization/reporting-adverse-events-following-immunization/form.html

iii) The authorized pharmacist who performed the assessment, in collaboration with any pharmacy or other health professional involved in the administration of the drug therapy, must create and document a follow-up plan appropriate to the circumstances and the patient's needs. This could include details related to the therapeutic goal of the drug therapy, any necessary aftercare, signs of emergency or adverse reaction, and/or scheduling of subsequent administrations in a series, if applicable.

h) *Documentation*. Documentation methods (e.g., electronic, or paper-based) should be determined based on professional judgement and collaboration with the pharmacy team. Whichever method is chosen, documentation should include details related to:

i) the patient assessment (as described in section 4. d)), including the name of the pharmacist who performed the assessment;

ii) information about the administration including, but not limited to:

- substance and dose given;
- lot number and expiry date;
- site and route of administration;
- patient response, including any adverse reactions or necessary post-administration management;
- date and time of administration; and
- name of the pharmacy or other health professionals who performed and/or supervised (if applicable) the administration.

iii) instructions given to the patient; and

iv) follow-up plans, or other information to allow for continuity of care, and the results of the follow-up, if applicable.

Patients should also be provided with suitable documentation for their records or to share with other health professionals in their circle of care.

i) *Record administrations of vaccinations in the provincial electronic health record*. To help ensure the completeness of provincial vaccination records, the administration of all vaccinations must be recorded in the Pharmacy Network (or other appropriate regional health authority-approved record), resulting in their inclusion in the provincial electronic health record. This documentation is in addition to documentation recorded in accordance with section 4.1 h) and pharmacy dispensing records.



Pharmacy professionals are advised to contact the Digital Health division of NL Health Services (formerly the NL Centre for Health Information) Service Desk if they have questions about how to properly record the administration of vaccinations, or other injections, in the Pharmacy Network.

j) *Communicate within the circle of care*. Pharmacy professionals should collaborate and use professional judgement to identify situations where it may be appropriate to directly communicate with other health professionals within the patient's circle of care regarding administration of drug therapy.

APPENDIX A

Interns and Students Administering Drug Therapy by Inhalation or Injection

Pharmacy interns, pharmacy students, pharmacy technician interns, and pharmacy technician students may administer drug therapy by inhalation or injection in accordance with the following:

1. **Prior to participating in the administration of drug therapy by inhalation or injection, all interns and students must:**
   - have received education and training on the administration of inhalations and injections in accordance with the requirements of section 2.1 a);
   - hold current First Aid and CPR/AED certification in accordance with section 2.1 b);
   - be appropriately registered as an intern or student with CPNL; and
   - hold current professional liability insurance.

2. **Supervision Requirements**
   - *Pharmacy students* must be under the direct supervision of a pharmacist who is authorized by CPNL in accordance with section 2 to administer drug therapy by inhalation or injection. When providing direct supervision, the pharmacist must be present when the activity is being performed and able to observe and promptly intervene to stop or change the actions of the individual being supervised. The pharmacist remains responsible and accountable for the administration of the drug therapy to the patient.
   - *Pharmacy interns* must be under the supervision of a pharmacist who is authorized by CPNL in accordance with section 2 to administer drug therapy by inhalation or injection.
   - *Pharmacy technician students* must be under the direct supervision of a pharmacy technician who is authorized by CPNL in accordance with section 2 to administer drug therapy by inhalation or injection. When providing direct supervision, the pharmacy technician must be present when the activity is being performed and able to observe and promptly intervene to stop or change the actions of the individual being supervised. The pharmacy technician remains responsible and accountable for the administration of the drug therapy to the patient.
   - *Pharmacy technician interns* must be under the supervision of a pharmacy technician who is authorized by CPNL in accordance with section 2 to administer drug therapy by inhalation or injection.