



**CANADIAN PHARMACY TECHNICIAN EDUCATORS ASSOCIATION**

**EDUCATIONAL OUTCOMES**

**for**

**PHARMACY TECHNICIAN PROGRAMS IN CANADA**

**(Revised February 2017)**

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## SUMMARY OF THE EDUCATIONAL OUTCOMES

Graduates ***reliably demonstrate*** the knowledge, skills, values, and attitudes that enable them to:

### 1.0 THE PHARMACY TECHNICIAN ROLE AS A PROFESSIONAL

- 1.1 Comply with federal and provincial/territorial legislation and regulatory requirements.
- 1.2 Uphold ethical principles.
- 1.3 Respond appropriately to situations of illegal, unethical, or unprofessional practice or professional misconduct.
- 1.4 Model professional behaviour at all times.
- 1.5 Document activities of practice in a professional, timely, and retrievable manner.

### 2.0 THE PHARMACY TECHNICIAN ROLE AS A PROVIDER OF CARE

- 2.1 Establish and maintain a caring and professional relationship with patients.
- 2.2 Gather pertinent patient information for review by the pharmacist and other health professionals within the circle of care.
- 2.3 Collaborate with the pharmacist and other health professionals to support care plan activities.

### 3.0 THE PHARMACY TECHNICIAN ROLE IN PRODUCT DISTRIBUTION

- 3.1 Receive, interpret, process, and transfer prescriptions.
- 3.2 Prepare products for dispensing according to legislation, regulatory requirements, and standards, policies, procedures, guidelines, and best practices.
- 3.3 Prepare sterile and non-sterile products according to federal and provincial/territorial legislation and regulatory requirements.
- 3.4 Verify technical aspects of the prescription to ensure accuracy and quality of products.
- 3.5 Collaborate with the pharmacist and the intra-professional health team in the release of the product.

### 4.0 THE PHARMACY TECHNICIAN ROLE AS A CONTRIBUTOR TO A SAFE, EFFECTIVE AND EFFICIENT PRACTICE SETTING

- 4.1 Optimize the safety, efficacy, and efficiency of operations in the practice setting.
- 4.2 Collaborate in the management of pharmacy inventory to ensure safe, effective, and efficient product distribution.
- 4.3 Collaborate in the management of record keeping activities within the practice setting.

### 5.0 THE PHARMACY TECHNICIAN ROLE IN HEALTH PROMOTION<sup>2</sup>

- 5.1 Support patient-specific health promotion activities in collaboration with the pharmacist and members of the intra- and inter-professional health teams.
- 5.2 Collaborate with the pharmacist and members of the intra- and inter-professional health teams in public health initiatives.
- 5.3 Contribute to a healthy practice environment and to the promotion of a healthier population, community, and environment.

### 6.0 THE PHARMACY TECHNICIAN ROLE AS A KNOWLEDGEABLE PROFESSIONAL

- 6.1 Apply knowledge and research findings to make evidence-based decisions when responding to questions that are within the scope of practice.
- 6.2 Model a thorough understanding of the knowledge required of a pharmacy technician.

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<sup>2</sup> Definition of health promotion - See GLOSSARY

6.3 Apply knowledge fundamental to the pharmacy technician role in daily practice.

## **7.0 THE PHARMACY TECHNICIAN ROLE AS A COMMUNICATOR AND EDUCATOR**

7.1 Use effective communication and interpersonal strategies within a respectful and caring environment.

7.2 Communicate effectively, safely, and professionally with patients and members of the intra- and inter-professional health teams.

7.3 Engage in health teaching and in providing educational and information-sharing opportunities.

## **8.0 THE PHARMACY TECHNICIAN ROLE IN INTRA- AND INTER-PROFESSIONAL COLLABORATION**

8.1 Establish and maintain collaborative professional relationships.

8.2 Collaborate as effective members of the intra- and inter-professional health teams.

8.3 Deliver optimal health services acting within the scope of practice and in collaboration with the members of the intra- and inter-professional health teams.

8.4 Accept referrals from and make referrals to the pharmacist.

## **9.0 THE PHARMACY TECHNICIAN ROLE AS A CONTRIBUTOR TO QUALITY AND SAFETY**

9.1 Contribute to and support a culture of patient safety as members of the intra- and inter-professional health teams.

9.2 Contribute to risk management, quality control, assurance, and improvement, and to risk management as members of the intra- and inter-professional health teams.

9.3 Ensure the quality, safety, and integrity of products.

9.4 Ensure a safe practice environment.

## CPTA EDUCATIONAL OUTCOMES

### 1.0 THE PHARMACY TECHNICIAN ROLE AS A PROFESSIONAL

Graduates of pharmacy technician programs comply with federal and provincial/territorial legislation<sup>3</sup>, policies, bylaws, and standards and with regulatory requirements<sup>4</sup>, that are the Standards of Practice<sup>5</sup>, Code of Ethics, policies, procedures, guidelines, and best practices. At all times, graduates act in a manner that embodies the pharmacy technician<sup>6</sup> profession and reflects well on the role that intra- and inter-professional health teams<sup>7</sup> have in furthering optimal health and well-being.

#### End-of-program Outcomes

Graduates **reliably demonstrate**<sup>8</sup> the knowledge, skills, values, and attitudes that enable them to:

- 1.1 Comply with federal and provincial/territorial legislation and regulatory requirements.
- 1.2 Uphold ethical principles.
- 1.3 Respond appropriately to situations of illegal, unethical, or unprofessional practice or professional misconduct.
- 1.4 Model professional behaviour at all times.
- 1.5 Document activities of practice in a professional, timely, and retrievable manner.

Graduates **reliably demonstrate** the knowledge, skills, values, and attitudes that enable them to:

#### 1.6 END-OF-PROGRAM EDUCATIONAL OUTCOME<sup>9</sup>

**Comply with federal and provincial/territorial legislation and regulatory requirements.**

##### ENABLING OUTCOMES<sup>10</sup>

- 1.1.1
  - a. Act in compliance with federal and provincial/territorial legislation and model the regulatory requirements at all times.
  - b. Adhere to established workplace standards, policies, procedures, guidelines, and best practices for activities of practice.
- 1.1.2
  - a. Comply with federal and provincial/territorial legislation and with regulatory requirements for workplace and occupational health and safety.
  - b. Adhere to the practice setting's health and safety policies, procedures, guidelines, and best practices.
- 1.1.3
  - a. Comply with federal and provincial/territorial legislation and regulatory requirements for ensuring privacy and confidentiality of personal health history.
  - b. Protect privacy and confidentiality when gathering, using, and disclosing or transmitting patient health information in verbal, written, and electronic formats.

<sup>3</sup> Definition of legislation - See GLOSSARY

<sup>4</sup> Definition of regulatory requirements – See GLOSSARY

<sup>5</sup> Definition of standards of practice - See GLOSSARY

<sup>6</sup> Definition of pharmacy technician – See GLOSSARY

<sup>7</sup> Definitions of intra-professional health team and inter-professional health team - See GLOSSARY

<sup>8</sup> Definition of reliably demonstrate - See GLOSSARY

<sup>9</sup> Definition of educational outcome - See GLOSSARY

<sup>10</sup> Definition of enabling outcome - See GLOSSARY

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## 1.2 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Uphold ethical principles.**

### ENABLING OUTCOMES

#### 1.2.1

- a. Commit to the professional code of ethics as established by the regulatory authority.
- b. Provide safe, competent, and ethical patient care.
- c. Apply knowledge of ethics to practice.

#### 1.2.2

- a. Respect patient rights to quality care, dignity, privacy, confidentiality, and autonomy in decision-making.
- b. Respect the diversity<sup>11</sup> of patients, members of the intra- and inter-professional health teams, and of the community.
- c. Use ethical reasoning and an ethical decision-making process when addressing situations of ethical distress and ethical dilemmas.

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## 1.3 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Respond appropriately to situations of illegal, unethical, or unprofessional practice or professional misconduct.**

### ENABLING OUTCOMES

#### 1.3.1

- a. Recognize actions and situations in the practice environment that are illegal, unethical, or unprofessional.

#### 1.3.2

- a. Take appropriate steps to address actions and situations that are illegal, unethical, or unprofessional.
- b. Recognize the role of the legal authorities and the regulatory authority in addressing illegal, unethical, or unprofessional actions or situations.

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## 1.4 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Model professional behaviour at all times.**

### ENABLING OUTCOMES

#### 1.4.1

- a. Recognize the rights, roles, and responsibilities of the regulatory authority to protect the public.
- b. Commit to the primary professional purpose to practise in the best interests of patients<sup>12</sup> and to protect the public from harm.
- c. Model the roles and responsibilities described in the scope of practice<sup>13</sup> and by regulatory requirements.
- d. Act in a manner that embodies the best interests of the patient and protection of the public.
- e. Act autonomously, in consultation, and collaboratively within the scope of practice and regulatory requirements.

#### 1.4.2

- a. Model the knowledge, skills, behaviours, values, and attitudes required by the pharmacy technician.

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<sup>11</sup> Definition of diversity – See GLOSSARY

<sup>12</sup> Definition of patient– See GLOSSARY

<sup>13</sup> Definition of scope of practice – See GLOSSARY

- b. Be responsible for personal performance and conduct.
- c. Accept accountability<sup>14</sup> for own practice and consequences of one's decisions and actions.
- d. Be accountable to patients and refer when required to ensure continuity of care.
- e. Promote understanding of the pharmacy technician role and its relationship to the roles of members of the intra- and inter-professional health teams.

#### 1.4.3

- a. Consult with the pharmacist and as appropriate other health professionals when uncertain about own knowledge, skills, personal competence, and/or scope of practice.
- b. Apply knowledge<sup>15</sup> of pharmaceutical sciences, pharmacy practice, and biological sciences to recognize when to consult.
- c. Refer to the pharmacist those questions, issues, and concerns of patients and members of the intra- and inter-professional health teams that are outside their personal competence or the scope of practice.

#### 1.4.4

- a. Commit to ongoing self-evaluation, improvement, and lifelong learning.
- b. Assess own strengths and areas for improvement to develop a professional learning plan.
- c. Seek out and accept feedback to identify strengths and limitations in knowledge, competence, and performance.
- d. Use information from research, theory, regulatory requirements, and from members of the intra- and inter-professional health teams to develop, implement, and evaluate professional learning plans.
- e. Incorporate learning into practice.
- f. Document learning and maintenance of competence.

#### 1.4.5

- a. Establish and maintain appropriate professional boundaries with patients, members of the intra- and inter-professional teams, and members of the community at all times.

#### 1.4.6

- a. Respect and preserve the patient's privacy and confidentiality.
- b. Protect confidentiality of corporate and practice setting information.

#### 1.4.7.

- a. Make ethical decisions when managing perceived and actual conflicts of interest.

#### 1.4.8

- a. Apply knowledge of the federal legislation such as the *Canada Health Act* and related provincial/territorial legislation, standards, bylaws, and policies that affect pharmacy practice and health care.
- b. Describe the organization of the health care system from the municipal to national levels.
- c. Recognize the inter-relationship and differences in the scopes of practice and the roles and responsibilities of diverse health professionals.

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## 1.5 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Document activities of practice in a professional, timely, and retrievable manner in compliance with federal and provincial/territorial legislation, standards, and policies.**

### ENABLING OUTCOMES

#### 1.5.1

- a. Enter, update, and maintain paper- and electronic documentation in an accurate, clear, concise, legible, and timely manner.

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<sup>14</sup> Definition of accountability – See GLOSSARY

<sup>15</sup> For further details of pharmaceutical sciences, pharmacy practice, and biological sciences see, *Accreditation standards and guidelines for pharmacy technician programs. (CCAPP, July 2014)*



- b. Ensure the completeness of patient information and health history including prescription and non-prescription medications.
- c. Verify that document entry and record keeping complies with legislation and regulatory requirements.
- d. Store, secure, and dispose of patient personal information and health records correctly.
- e. Use paper-based, electronic, and other resources to locate and select personal and health information.

**1.5.2**

- a. Recognize when documentation can and cannot be shared with members of intra- and inter-personal health teams and third parties.

**1.5.3**

- a. Select and use appropriate methods including technology to access, retrieve, transmit, receive, and share patient and health information within the circle of care<sup>16</sup>.
- b. Provide, within legal and ethical requirements, documented information with patients and authorized recipients in a respectful, private, and confidential manner.
- c. Document all steps taken when sharing patient information.

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<sup>16</sup> Definition of circle of care – See GLOSSARY

## CPTA EDUCATIONAL OUTCOMES

### 2.0 THE PHARMACY TECHNICIAN ROLE AS A PROVIDER OF CARE

Graduates of pharmacy technician programs in Canada collaborate as active members of the circle of care to support care plan activities that meet the patient's health goals. Within the circle of care, graduates support patients by acting autonomously, consulting the pharmacist, and interacting with other health professionals as appropriate.

#### End-of-program Outcomes

Graduates **reliably demonstrate** the knowledge, skills, values, and attitudes that enable them to:

- 2.1 Establish and maintain a caring and professional relationship with patients.
- 2.2 Gather pertinent patient information for review by the pharmacist and other health professionals within the circle of care.
- 2.3 Collaborate with the pharmacist and other health professionals to support care plan activities.

Graduates **reliably demonstrate** the knowledge, skills, values, and attitudes that enable them to:

#### 2.1 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Establish and maintain caring and professional relationships with patients.**

##### ENABLING OUTCOMES

#### 2.1.1

- a. Evaluate and refine communication techniques and skills that build rapport.

#### 2.1.2

- a. Interact with patients and with members of the intra- and inter-professional health teams using empathy, sensitivity, tact, and respect.
- b. Employ verbal and non-verbal communication strategies and techniques that support the diversity of patients and health team members.

#### 2.1.3

- a. Respect the patient's uniqueness and autonomy.
- b. Focus on the patient and the patient's needs, values, and health goals including level of desired care.
- c. Respect patient rights to quality care, dignity, privacy, and confidentiality.
- d. Uphold the patient's rights to informed decision-making.
- e. Recognize the role that the patient's values, personal history, and health state has in meeting patient health goals and in providing optimal care.

#### 2.1.4

- a. Support the patient's right to determine personal health goals and to participate in and evaluate effectiveness of health care provided.
- b. Confirm that patients understand the pharmacy technician's role in their healthcare.

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#### 2.2 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Gather pertinent patient information for review by the pharmacists and health professionals within the circle of care.**

## ENABLING OUTCOMES

### 2.2.1

- a. Gather pertinent information using a variety of interview and communication techniques and best practices.
- b. Recognize the difference between expressed consent and implied consent.
- c. Recognize situations in which it is necessary to obtain the patient's expressed consent to gather and share personal and health information.
- d. Obtain consent from the patient to gather and share personal and health information.
- e. Adhere to the practice setting's communication policies, procedures, and protocols when interviewing the patient.

### 2.2.2

- a. Provide care that respects the effects that culture, language, demographic, and physical characteristics may have on health.

### 2.2.3

- a. Use paper based and electronic health records to obtain the patient's personal and health related information.

### 2.2.4

- a. Obtain accurate and comprehensive personal and health information required for medication reconciliation from the patient and from other sources.
- b. Conduct a Best Possible Medication History (BPMH) interview in a manner that ensures accurate communication.
- c. Identify discrepancies between the BPMH and the prescriber's orders.
- d. Communicate discrepancies between the BPMH and the prescriber's order to the pharmacist in a clear, concise and timely manner.

### 2.2.5

- a. Collaborate in the planning for, implementation, and evaluation of patient care by applying knowledge of physical parameters <sup>17</sup> such as temperature, pulse, respirations, blood pressure, age, gender identification, and of physical measurements such as height and weight.
- b. Ascertain/measure and document accurate parameters needed for safe care.

### 2.2.6

- a. Create patient profiles or health records.
- b. Ensure currency and accuracy of information regarding patient demographics, health and medication history, physical parameters, allergies, medical devices, self-care products, and third-party information.

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## 2.3 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Collaborate with the pharmacist and health professionals to support care plan activities.**

### ENABLING OUTCOMES

#### 2.3.1

- a. Respond appropriately to patient needs related to issues such as dosage forms, special packaging, or labelling.
- b. Collaborate with the pharmacist and other health professionals to resolve concerns related to issues such as dosage form, special packaging and labelling.

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<sup>17</sup> Depending on the jurisdiction in which graduates practise any or all of the following parameters may be required in pharmacy technician practice: ascertaining age, gender identification; measuring temperature, pulse, respirations, blood pressure, height, and weight.

### 2.3.2

- a. Support and educate patients in making informed health, well-being, and care decisions.
- b. Seek out information needed to assist patients in making informed decisions regarding the selection and use of medical devices and supplies.
- c. Inform patients of the use of point-of-care home monitoring products, medical devices, and supplies.
- d. Seek out information regarding third party benefits coverage to support patients making informed decisions.
- e. Inform patients about the third-party plan benefits coverage for prescription drugs, non-prescription drugs, and self-care products.

### 2.3.3

- a. Apply knowledge of laboratory and diagnostic test results to identify and communicate relevant information and concerns to the pharmacist in a timely manner.
- b. Recognize the importance of laboratory and diagnostic tests to the patient's health and the need to monitor adherence.
- c. Provide monitoring information including adherence information and laboratory and diagnostic test results to the pharmacist and to other members of the intra- and inter-professional health teams as appropriate.

### 2.3.4

- a. Communicate relevant information and identified concerns to the pharmacist in a clear, concise, and timely manner.
- b. Communicate relevant personal and health information including physical parameter results to the appropriate health professional respecting legal and other requirements.
- c. Share information that supports the patient's health goals.

## CPTEA EDUCATIONAL OUTCOMES

### 3.0 THE PHARMACY TECHNICIAN ROLE IN PRODUCT DISTRIBUTION

Graduates of pharmacy technician programs in Canada collaborate with the pharmacist and other members of the intra- and inter-professional health team to ensure safe, accurate, and efficient prescription processing, documentation, and product distribution.

#### End-of-program Outcomes

Graduates **reliably demonstrate** the knowledge, skills, values, and attitudes that enable them to:

- 3.1 Receive, interpret, process, and transfer prescriptions.
- 3.2 Prepare products for dispensing according to legislation, regulatory requirements, and standards, policies, procedures, guidelines, and best practices.
- 3.3 Prepare sterile and non-sterile products according to federal and provincial/territorial legislation and regulatory requirements.
- 3.4 Verify technical aspects of the prescription the prescription to ensure accuracy and quality of products.
- 3.5 Collaborate with the pharmacist and the intra-professional health team in the release of the product.

Graduates **reliably demonstrate** the knowledge, skills, values, and attitudes that enable them to:

#### 3.1 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Receive, interpret, process, and transfer prescriptions.**

## ENABLING OUTCOMES

### 3.1.1

- a. Verify validity, clarity, completeness, and authenticity of prescriptions received.
- b. Collaborate with the pharmacist to resolve concerns related to the validity, clarity, completeness, and authenticity of the prescription.
- c. Verify completeness of patient personal and health information.
- d. Apply knowledge of non-proprietary and proprietary drug names.
- e. Apply knowledge of indications, dosage forms, doses, routes, directions for use, side effects, and adverse reactions of commonly used prescription/non-prescription drugs and self-care products and devices.
- f. Document patient alerts to ensure appropriate action.
- g. Refer to the pharmacist potential issues, questions or concerns related to the prescription including:
  - Changes in the drug, dosage, directions for use, refills, patient profile or health status of the patient
  - Alerts generated, including potential allergies and interactions
  - Potential duplications in therapy
  - Potential adherence problems.

### 3.1.2

- a. Receive and document verbal prescriptions.
- b. Clarify with the prescriber any incomplete, unclear, or unusual verbal prescriptions.
- c. Confirm the validity and authenticity of the verbal order.
- d. Collaborate with the pharmacist and members of the intra-professional health team to ensure the accuracy and completeness of verbal prescriptions received.
- e. Identify and refer to the pharmacist issues, questions, or concerns including incomplete, unclear, or unusual dosages that require patient assessment, clinical analysis or application of therapeutic knowledge.

### 3.1.3

- a. Transfer to and receive prescriptions from another pharmacy in response to a patient request and in compliance with federal and provincial/territorial legislation and regulatory requirements.

### 3.1.4

- a. Interpret measurement systems, pharmaceutical and medical terms, abbreviations and symbols on prescriptions.

### 3.1.5

- a. Solve pharmaceutical calculations that require common and decimal fraction conversion, manipulation of ratios and proportions, and percentages.
- b. Perform accurate calculations such as:
  - Doses based on body weight, body surface area, and age;
  - Days supplied/duration of therapy;
  - Compounded product ingredient quantities;
  - Dilution of commercial products;
  - Small and large volume parenteral therapy.
- c. Perform accurate conversions between measurement systems.
- d. Document calculations and conversions clearly, accurately, and in a timely manner.

### 3.1.6

- a. Report situations or patterns of unusual drug prescribing, usage, diversion, or misuse to the regulatory authority, governmental agencies, and law enforcement when appropriate.

### 3.1.7

- a. Ensure completeness of information needed for third party insurance processing.
- b. Apply knowledge of formularies, benefit lists, interchangeable products, co-payment, deductible limits, and prescription quantities when processing prescriptions and providing pharmacy services.
- c. Apply drug schedules, legislation, policies, procedures, formularies, and guidelines to adjudicate

- prescriptions for payment.
- d. Complete accurate on-line adjudication of claims, pricing, billing, and reports.
  - e. Review documentation of pharmacy services such as provision of immunizations, medication reviews, pharmacist opinions, and other non-product related services needed for third party adjudication/billing.
  - f. Explain third-party plan coverage and payments for prescription and non-prescription products and devices to patients.

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### 3.2 END-OF-PROGRAM EDUCATIONAL OUTCOME

#### **Prepare products for dispensing in compliance with legislation and regulatory requirements.**

#### **ENABLING OUTCOMES**

##### **3.2.1**

- a. Select the pharmaceutical product or compound that correctly meets the requirements of the prescription.
- b. Apply knowledge of proprietary and non-proprietary names of drugs to prepare products for dispensing.
- c. Apply knowledge of drug dosages and dosage forms when selecting products.

##### **3.2.2**

- a. Determine interchangeability of a product ordered by a prescriber.

##### **3.2.3**

- a. Apply principles of drug solubility, stability, incompatibility, contamination, and product handling to ensure product integrity.
- b. Verify accuracy of product selection by checking Drug Identification Numbers (DIN), Natural Product Numbers (NPN), Homeopathic Medicine Number (DIN-HM) or Universal Product Code (UPC).
- c. Verify integrity of products by checking expiration dates, product safety seals, physical appearance, and odour.
- d. Collaborate with the pharmacist and the intra-professional team to identify and resolve issues and concerns associated with product integrity.
- e. Document issues and concerns that arise during product preparation.

##### **3.2.4**

- a. Measure products accurately using appropriate techniques, equipment, supplies, and technology to obtain accurate quantities.
- b. Verify weights, volumes, and product counts of prepared products.
- c. Use appropriate equipment, supplies, and technology to obtain accurate product counts.

##### **3.2.5**

- a. Package products in a suitable container to maintain product integrity, stability, pharmaceutical elegance and where applicable, sterility.

##### **3.2.6**

- a. Select the appropriate product packaging such as child resistant vials, snap caps, and compliance packaging by considering the patient's safety and ease of use.
- b. Select and provide aids that ensure safe administration of products.
- c. Select appropriate packaging for medication administered by members of the inter-professional health team that is easy to use, minimizes errors and maximizes patient safety, such as unit-dose and multi-dose packaging.

##### **3.2.7**

- a. Prepare labels that comply with federal and provincial/territorial legislation and regulatory requirements.
- b. Ensure readability of labels.
- c. Generate and affix the prescription/product label with pharmaceutical elegance.
- d. Affix auxiliary labels according to standards, policies, procedures, guidelines, best practices and

- patient needs.
- e. Package or repackage and label bulk drugs correctly.

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### 3.3 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Prepare and compound sterile and non-sterile products according to federal and provincial/territorial legislation, regulatory requirements, and recognized standards, policies, procedures, guidelines and best practices.**

#### ENABLING OUTCOMES

##### 3.3.1

- a. Perform common sterile and non-sterile compounding calculations accurately.
- b. Calculate the amount of drug product required for a single dose, for a day, and for a full drug order, or as required for batch products.
- c. Calculate drug dose based on body weight, body surface area or age, and determine the amount to be released based on prescription dose, frequency, and duration of therapy.
- d. Identify abnormal or unusual calculation results or values and re- calculate/resolve these.
- e. Verify and document calculations and the results.

##### 3.3.2

- a. Prepare and compound sterile products in compliance with federal and provincial/territorial legislation and regulatory requirements and document the process.
- b. Recognize and respond to situations that compromises sterile compounding.
- c. Select the correct products, supplies, and equipment to compound according to approved formulation instructions.
- d. Ensure infection control and prevention by complying with federal and provincial/territorial legislation and regulatory requirements and by following the practice setting's policies and procedures such as proper hand washing practices and using personal protective equipment (PPE).
- e. Gather, prepare and place products in the laminar airflow hood according to established standards, policies, procedures, guidelines, and best practices.
- f. Prepare, reconstitute, and compound sterile products accurately according to approved formulation instructions.
- g. Use compounding techniques correctly to ensure a sterile, safe, effective, and a pharmaceutically elegant product.
- h. Apply knowledge of pharmaceutical products, excipients, diluents, solvents, solutions and buffers.
- i. Ensure that the prepared product meets quality assurance criteria.
- j. Package the final compounded sterile product appropriately and in the correct container.
- k. Label products according to legislation, regulatory requirements, and the practice setting's standards, policies, procedures, guidelines, and best practices.
- l. Store sterile products in a manner that ensures the integrity, sterility, and stability of the product
- m. Clean workspace and equipment including the laminar hood according to established standards, policies, procedures, guidelines, and best practices

##### 3.3.3

- a. Prepare and compound non-sterile products and document the process in compliance with federal and provincial/territorial legislation and regulatory requirements.
- b. Select the correct products, supplies, and equipment to compound according to approved formulation instructions.
- c. Ensure infection control and prevention by complying with federal and provincial legislation and regulatory requirements and by following the practice setting's policies and procedures such as *proper hand washing practices* and using personal protective equipment (PPE).
- d. Prepare and compound non-sterile pharmaceutical products according to approved formulation

- instructions.
- e. Use compounding techniques correctly to ensure a safe, effective, and a pharmaceutically elegant product.
  - f. Perform accurate measurements and weights using prescription balances and volumetric glassware correctly.
  - g. Apply knowledge of pharmaceutical products, excipients, diluents, solvents, solutions, and buffers.
  - h. Package the final compounded product appropriately and in the correct container.
  - i. Ensure that the prepared product meets quality assurance criteria.
  - j. Label products according to legislation, regulatory requirements, and the practice setting's standards, policies, procedures, guidelines, and best practices.
  - k. Store non-sterile pharmaceutical products in a manner that ensures the integrity and stability of the product.
  - l. Clean and organize workspace and equipment according to established standards, policies, procedures, guidelines, and best practices.

**Graduates reliably demonstrate the knowledge, skills, values, and attitudes that enable them to:**

### 3.4 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Verify the technical aspects of the prescription to ensure accuracy and quality of products.**

#### **ENABLING OUTCOMES**

##### **3.4.1**

- a. Perform independent double checks accurately and as required.

##### **3.4.2**

- a. Verify the accuracy and completeness of pharmaceutical products prepared for release.
- b. Confirm that information on label matches information on prescription.
- c. Confirm that Drug Identification Number (DIN), Natural Product Number (NPN) or Homeopathic Medicine Number (DIN-HM) on the stock bottle matches the identification number in computer and on label.
- d. Ensure product in package matches stock bottle.
- e. Confirm that quality assurance criteria have been met including:
  - Products are not expired and will not expire within the duration of use.
  - Visual check.
  - Correct calculations.
  - Verification of package contents.

**Graduates reliably demonstrate the knowledge, skills, values, and attitudes that enable them to**

### 3.5 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Collaborate with the pharmacist and intra-professional health team in the release of the product**

##### **3.5.1**

- a. Confirm that the pharmacist has completed the therapeutic assessment prior to the product release.
- b. Confirm that the pharmacist has provided consultation and education to the patient prior to product release.
- c. Confirm that all appropriate regulated health professionals have verified the prescription and completed appropriate documentation before releasing the product to the correct patient or authorized recipient.

##### **3.5.2**

- a. Identify and refer patients who require consultation or education related to:



- New prescriptions;
  - Repeat and/or modified prescriptions;
  - Medical devices and related products;
  - Non-prescription and self-care products.
- b. Document patients who require telephone follow-up.

## CPTEA EDUCATIONAL OUTCOMES

### 4.0 THE PHARMACY TECHNICIAN ROLE AS A CONTRIBUTOR TO A SAFE, EFFECTIVE, AND EFFICIENT PRACTICE SETTING

*Pharmacy technicians contribute to the management of the practice setting with the goal of ensuring safe, effective and efficient product distribution.*

#### End-of-program Outcomes

Graduates **reliably demonstrate** the knowledge, skills, values, and attitudes that enable them to:

- 4.1 Optimize the safety, efficacy, and efficiency of operations in the practice setting.
- 4.2 Collaborate in the management of pharmacy inventory to ensure safe, effective, and efficient product distribution.
- 4.3 Collaborate in the management of record keeping activities within the practice setting.

Graduates **reliably demonstrate** the knowledge, skills, values, and attitudes that enable them to:

#### 4.1 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Optimize the safety, effectiveness, and efficiency of operations in the practice setting.**

##### ENABLING OUTCOMES

##### 4.1.1

- a. Use organizational and time management skills effectively.
- b. Prioritize, organize and manage product distribution workflow.
- c. Apply knowledge of pharmacy management systems.
- d. Adhere to the practice setting's drug-distribution policies and procedures, guidelines, and best practices.
- e. Manage distribution systems such as individual patient prescriptions, unit dose, and compliance dose in diverse settings.
- f. Maintain the practice setting's drug distribution system.
- g. Use electronic and manual inventory management systems correctly.
- h. Recommend opportunities for increased effectiveness and efficiency in the practice setting.

##### 4.1.2

- a. Act as a leader when working with other pharmacy technicians, pharmacy technician students, and pharmacy assistants and other support personnel.
- b. Supervise pharmacy technicians, pharmacy technician students, and pharmacy assistants and other support personnel to support ongoing safety, effectiveness, and efficiency of the practice setting.

##### 4.1.3

- a. Adhere to standards, policies, guidelines, and best practices when using automated devices and technology.
- b. Operate automated dispensing, unit dose packaging, infusion, and compounding equipment safely, effectively, and efficiently.
- c. Perform audits on automated dispensing, unit dose packaging, infusion, and compounding equipment, and other medication.

#### 4.2 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Collaborate in the management of pharmacy inventory to ensure safe, effective, and efficient product distribution.**

#### 4.2.1

- a. Apply knowledge of inventory and formulary management systems and strategies.
- b. Purchase, receive, handle, store, and distribute pharmaceutical products including narcotics and controlled substances safely, efficiently, and within legislation, regulatory requirements, and the practice settings' standards.
- c. Ensure that products remain in date by rotating inventory, restocking, and monitoring expiry dates.
- d. Use electronic and manual inventory management systems correctly.
- e. Apply knowledge of actual and potential medication risk and safety issues related to inventory management.

#### 4.2.2

- a. Order drugs, supplies, and stock inventory from licensed and legitimate sources to maintain appropriate inventory levels.

#### 4.2.3

- a. Identify issues with the drug supply chain, including drug shortages and drug recalls.
- b. Collaborate with the pharmacist, members of the intra- and inter professional health teams, and the patient to resolve issues in the drug supply chain.

#### 4.2.4

- a. Remove, send back to the distribution centre/manufacturer, or dispose of recalled, expired, returned, and unusable drugs, products, and supplies safely.
- b. Comply with legislation and policies and procedures to dispose of drugs including controlled substances, or products.

#### 4.2.5

- a. Reconcile controlled substances' inventory upon receiving and periodically.
- b. Receive, verify, and reconcile pharmacy inventory.

#### 4.2.6

- a. Apply knowledge of actual and potential medication safety issues related to inventory management.
- b. Reconcile inventory errors and discrepancies following established policies, procedures, guidelines, and best practices.
- c. Investigate inventory discrepancies and communicate these to the pharmacist and/or other health professionals and/or other appropriate authorities.
- d. Document inventory discrepancies and actions taken.
- e. Collaborate with the pharmacist and other health professionals to reduce and prevent inventory discrepancies.

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### 4.3 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Collaborate in the management of record keeping activities within the practice setting.**

#### **ENABLING OUTCOMES**

#### 4.3.1

- a. Use data management skills effectively to enter, update, access, retrieve, and store records.
- b. Use pharmacy software systems competently.

#### 4.3.2

- a. Use technology and best practices to maintain the integrity, security, and permanence of pharmacy records.

## CPTEA EDUCATIONAL OUTCOMES

### 5.0 THE PHARMACY TECHNICIAN ROLE IN HEALTH PROMOTION

Graduates of pharmacy technician programs in Canada support activities that promote health and well-being. Graduates collaborate with the pharmacist and as appropriate other health team members in planning, implementing and evaluating activities and initiatives that promote the health of individuals, families, communities, and populations.

#### End-of-program Outcomes

Graduates **reliably demonstrate** the knowledge, skills, values, and attitudes that enable them to:

- 5.1 Support patient-specific health promotion activities in collaboration with the pharmacist and members of the intra- and inter-professional health teams.
- 5.2 Collaborate with the pharmacist and members of the intra- and Inter-professional health teams in public health initiatives.
- 5.3 Contribute to a healthy practice environment and to the promotion of a healthier population, community, and environment.

Graduates **reliably demonstrate** the knowledge, skills, values, and attitudes that enable them to:

#### 5.1 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Support patient-specific health promotion activities in collaboration with the pharmacist and members of the health team.**

##### ENABLING OUTCOMES

##### 5.1.1

- a. Apply knowledge of determinants of health that act as facilitators of and barriers to, the patient's health and well-being.
- b. Share with the pharmacist and as appropriate with members of the intra- and inter-professional health team those determinants of health that affect the patient's health goals and care plan.

##### 5.1.2

- a. Obtain and document information about the patient's determinants of health as these relate to their health goals and care plan.

##### 5.1.3

- a. Collaborate in planning, implementing, and evaluating patient health promotion plans and activities.
- b. Identify, use, and share learning strategies that meet the patient's health needs and learning goals.
- c. Participate in activities that promote healthy lifestyle choices for patients, families, and communities.

##### 5.1.4

- a. Facilitate the patient's access to and interaction with support agencies and health services in the practice setting and in the community.

#### 5.2 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Collaborate with the pharmacist and members of the intra- and inter-professional health teams in public health initiatives.**

### 5.2.1

- a. Apply knowledge of public health promotion and maintain currency and relevancy of that knowledge.
- b. Identify factors that facilitate or create barriers to optimal public health and wellness.
- c. Identify community agencies and organizations that support the health and well-being of patients and families.

### 5.2.2

- a. Support professional efforts by pharmacy technicians and pharmacists to achieve a healthier population and community.
- b. Participate in community initiatives that advance public health and well-being.
- c. Keep current with public health initiatives available to the population and community.

### 5.2.3

- a. Participate in planning, implementation and evaluation initiatives for disaster, pandemic and emergency.

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## 5.3 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Contribute to a healthy practice environment and to the promotion of a healthier population, community, and environment.**

### ENABLING OUTCOMES

#### 5.3.1

- a. Collaborate with the pharmacist and members of the intra-professional health team to develop, implement, and evaluate policies, procedures, guidelines, and best practices related to handling and disposal of drugs, hazardous materials, and waste.
- b. Consider the environment when handling and disposing of drugs, hazardous materials, and waste.
- c. Provide information regarding safe handling and disposal of outdated or unused medications, equipment, and supplies to patients.

#### 5.3.2

- a. Minimize the risk of disease transmission from the pharmacy setting such as:
  - Following relevant legislation, regulatory requirements and the practice settings' policies and best practices related to preventing disease transmission
  - Handwashing
  - Engaging in personal health and wellness practices including up-to-date immunization
  - Staying away from the practice setting when sick.
- b. Participate in initiatives in the practice setting that promote individual health, well-being, and healthy lifestyle.

## CPTEA EDUCATIONAL OUTCOMES

### 6.0 THE PHARMACY TECHNICIAN ROLE AS A KNOWLEDGEABLE PROFESSIONAL

Graduates of pharmacy technician programs in Canada use relevant theory, research, information gathered from a variety of sources to think critically and make evidence-based decisions that support optimal patient care and safe and effective product distribution.

#### End-of-program Outcomes

Graduates **reliably demonstrate** the knowledge, skills, values, and attitudes that enable them to:

- 6.1 Apply knowledge and research findings to make evidence-based decisions when responding to questions that are within the scope of practice.
- 6.2 Model a thorough understanding of the knowledge required of a pharmacy technician.
- 6.3 Apply knowledge fundamental to the pharmacy technician role in daily practice.

Graduates **reliably demonstrate** the knowledge, skills, values, and attitudes that enable them to:

#### 6.1 END-OF-PROGRAM EDUCATIONAL OUTCOME

Apply knowledge and research findings to make evidence-based decisions when responding to questions that are within the scope of practice.

##### ENABLING OUTCOMES

###### 6.1.1

- a. Apply knowledge of pharmaceutical sciences, pharmacy practice, and legal and regulatory requirements to clarify requests for information requiring pharmacist referral.
- b. Direct any question, issue or concern that is outside the pharmacy technician scope of practice to the pharmacist or health care professional.

###### 6.1.2

- a. Locate, select, retrieve, and organize evidence-based information using paper-based and technological resources.

###### 6.1.3

- a. Consider the content, context, and target audience when presenting or providing information to patients and others.
- b. Organize and provide relevant information to the target audience using appropriate media and strategies.
- c. Use evidence-based information and theory to respond to questions that are within the scope of practice, role, and personal competence.

#### 6.2 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Model a thorough understanding and use of the evidence-based knowledge required of a pharmacy technician.**

###### 6.2.1

- a. Use fundamental principles of scientific and scholarly research to review and consider information from all sources.

###### 6.2.2

- a. Evaluate information for its validity and relevance using critical thinking, fundamental principles of scientific research, and informatics and information technology.
- b. Apply research findings and other relevant information to make evidence-based decisions.
- c. Incorporate changes in theory, practice, legislation, and regulatory and legislative requirements that improve practice.

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### 6.3 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Apply the knowledge, skills, behaviours, values, and attitudes fundamental to the pharmacy technician role in daily practice.**

#### **ENABLING OUTCOMES (Does not map to NAPRA)**

##### **6.3.1**

- a. Apply foundational knowledge related to the pharmacy technician role including:
  - Pharmacy practice;
  - Social, developmental, communication, interpersonal and behavioural science;
  - Biomedical science;
  - Health, wellbeing, and health promotion;
  - Health care systems;
  - Informatics, administrative, and business theory;
  - Pharmaceutical sciences; and,
  - Legislation and regulatory requirements.
- b. Act in a manner that demonstrates the comprehensive knowledge required for the professional role.
- c. Apply knowledge and expertise to resolve routine, previously encountered problems, issues, and situations.
- d. Collaborate with the pharmacist to resolve novel problems, issues, and situations.

## CPTEA EDUCATIONAL OUTCOMES

### 7.0 THE PHARMACY TECHNICIAN ROLE AS A COMMUNICATOR AND EDUCATOR

Graduates of pharmacy technician programs in Canada communicate and interact effectively and professionally with patients, members of the intra- and inter-professional health teams, and with the community. Graduates use diverse communication, interpersonal, and learning-teaching strategies and techniques in these interactions. Pharmacy technicians collaborate with members of the intra- and inter-professional health teams to support health education.

#### End-of-program Outcomes

Graduates **reliably demonstrate** the knowledge, skills, values, and attitudes that enable them to:

- 7.1 Use effective communication and interpersonal strategies within a respectful and caring environment.
- 7.2 Communicate effectively, safely, and professionally with patients and members of the intra- and inter-professional health teams.
- 7.3 Engage in health teaching and in providing educational and information-sharing opportunities.

Graduates **reliably demonstrate** the knowledge, skills, values, and attitudes that enable them to:

#### 7.1 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Use effective communication skills and interpersonal strategies within a respectful and caring environment.**

#### ENABLING OUTCOMES

##### 7.1.1

- a. Listen to the spoken word, comprehend, and respond accurately and with ease in an official Canadian language.
- b. Read, write, and speak fluently in an official Canadian language at the competency level defined by the provincial/territorial pharmacy regulatory authority.

##### 7.1.2

- a. Reduce barriers to and enhance the facilitators of successful communication.
- b. Model communication skills that create professional and collaborative relationships with patients and members of the intra- and inter-professional health teams.
- c. Use diverse verbal and non-verbal communication strategies and techniques that are appropriate, effective, respect diversity, and meet the needs of the target audience.

##### 7.1.3

- a. Use interviewing approaches and techniques that embody respect, empathy, and the ability to obtain accurate information.
- b. Ensure the privacy of the person being interviewed.

##### 7.1.4

- a. Apply knowledge of communication and learning theory to select the method that is appropriate to the target audience, purpose, setting, and situation.

##### 7.1.5

- a. Apply knowledge of interpersonal theory when interacting with patients and members of the intra- and inter-professional health teams.
- b. Apply knowledge of conflict theory to resolve disagreements and conflict in a professional manner.

##### 7.1.6

- a. Communicate with empathy, respect, sensitivity, and tact.
- b. Interact with members of the community in a professional manner.



## 7.2 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Communicate effectively, safely, and professionally with patients and members of the intra- and inter-professional health teams.**

### 7.2.1

- a. Use communication strategies, terminology and abbreviations that maximize safe practice when processing prescriptions and when interacting with patients and members of the intra- and inter-professional health teams.

### 7.2.2

- a. Ensure that information can be efficiently accessed and retrieved by members of the health team.
- b. Contribute to the development and review of the practice setting's communication and documentation standards, policies, procedures, guidelines, and best practices.

### 7.2.3

- a. Facilitate communication by effectively using technology including a variety of visual and educational media and communication and information sharing technology such as email, texting, and fax.
- b. Apply knowledge of adaptive communication technologies such as visual and hearing aids when interacting.

## 7.3 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Engage in health teaching and in providing educational and information-sharing opportunities in collaboration with the pharmacist.**

**ENABLING OUTCOMES  
Does Not Map to NAPRA**

### 7.3.1

- a. Incorporate effective learning strategies and techniques into educational and information-sharing opportunities.
- b. Provide information and demonstrations regarding technology, policies, and procedures in collaboration with the pharmacist.

## CPTEA EDUCATIONAL OUTCOMES

### 8.0 THE PHARMACY TECHNICIAN ROLE IN INTRA- AND INTER-PROFESSIONAL COLLABORATION

#### End-of-program Outcomes

Graduates ***reliably demonstrate*** the knowledge, skills, values, and attitudes that enable them to:

Graduates of pharmacy technician programs in Canada work in collaboration with pharmacists and members of the intra- and inter-professional health teams. Graduates are responsible and accountable for being effective members of the team and for their role in the provision of care. As partners in the collaborative relationship they have an integral role in the delivery of comprehensive services, best use of resources, and in ensuring continuity of care. Graduates contribute to the successful achievement of intra- and inter-personal health teams' goals and objectives.

#### End-of-program Outcomes

Graduates ***reliably demonstrate*** the knowledge, skills, values, and attitudes that enable them to:

- 8.1 Establish and maintain collaborative professional relationships.
- 8.2 Collaborate as effective members of the intra- and inter-professional health teams.
- 8.3 Deliver optimal health services acting within the scope of practice and in collaboration with the members of the intra- and inter-professional health teams.
- 8.4 Accept referrals from and make referrals to the pharmacist.

Graduates ***reliably demonstrate*** the knowledge, skills, values, and attitudes that enable them to:

#### 8.1 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Establish and maintain collaborative professional relationships.**

##### ENABLING OUTCOMES

##### 8.1.1

- a. Establish and foster collaborative relationships with members of the intra- and inter-professional health teams.
- b. Mentor other pharmacy technicians, pharmacy technician students, pharmacy assistants, and other support personnel.
- c. Use a leadership skill and style that is appropriate to the situation.

##### 8.1.2

- a. Identify own role and responsibilities in the provision of care and services.
- b. Promote understanding of the pharmacy technician role and its relationship to the roles of other health professionals.
- c. Respect the roles and responsibilities of the other members of the intra- and inter-professional health teams to practice.

#### 8.2 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Collaborate as effective members of the intra- and inter-professional health teams.**

##### 8.2.1

- a. Use interpersonal, group, and team building skills effectively to foster positive working relationships and the achievement of goals.
- b. Interact professionally with members of the intra- and inter-professional health teams.

### 8.2.2

- a. Contribute information that supports the patient's health goals during the planning, implementing, and evaluating of collaborative care plans.
- b. Contribute to the development, review, and updating of patient care plans.
- c. Use critical thinking skills when participating in team problem solving and decision-making.

## 8.3 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Deliver optimal health services acting within the scope of practice and in collaboration with the pharmacist and members of the intra- and inter-professional health teams.**

### ENABLING OUTCOMES

#### 8.3.1

- a. Collaborate with intra-professional team members to identify, allocate, and conserve resources needed to provide optimal patient care.
- b. Make efficient use of resources in own practice.

#### 8.3.2

- a. Collaborate in the planning, implementation, and evaluation of the policies, procedures, best practices and the health team's operational goals, objectives, and functioning.
- b. Collaborate with members of intra- and inter-professional health teams to incorporate changes to the Canadian health care system that affect pharmacy practice and health care.

#### 8.3.3

- a. Facilitate continuity of care to achieve the patient's health care goals.
- b. Work effectively with members of the intra- and inter-professional health teams to ensure a supportive and seamless approach toward patient care and product distribution.

## 8.4 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Accept referrals from and make referrals to the pharmacist.**

#### 8.4.1

- a. Refer to the pharmacist whenever patient assessment, clinical analysis, application of therapeutic knowledge, counselling, and/or consultation is required.
- b. Ensure that referrals are made accurately, clearly, concisely and in a timely manner.

#### 8.4.2

- a. Upon referral by the pharmacist provide patients and members of the intra- and inter-professional health teams with information such as:
  - Prescription and other care-related information
  - Technical aspects of the use of point-of-care home monitoring products, medical devices, and supplies.
- b. Act responsibly and professionally when accepting referrals from the pharmacist.

## CPTEA EDUCATIONAL OUTCOMES

### 9.0 THE PHARMACY TECHNICIAN ROLE IN QUALITY ASSURANCE AND RISK MANAGEMENT

Graduates of pharmacy technician programs in Canada model quality, safety, and risk management best practices in the practice setting. Graduates collaborate with members of the intra- and inter-professional health teams to develop, implement and evaluate policies, procedures and activities directed toward quality control, assurance, and improvement, risk management, and safe practice.

#### End-of-program Outcomes

Graduates ***reliably demonstrate*** the knowledge, skills, values, and attitudes that enable them to:

- 9.1 Contribute to and support a culture of patient safety as members of the intra and inter-professional health teams.
- 9.2 Contribute to risk management, quality control, assurance, and improvement, and to risk management as members of the intra- and inter-professional health teams.
- 9.3 Ensure the quality, safety, and integrity of products.
- 9.4 Ensure a safe practice environment.

#### End-of-program Outcomes

Graduates ***reliably demonstrate*** the knowledge, skills, values, and attitudes that enable them to:

##### 9.1 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Contribute to and support a culture of patient safety as members of the intra- and inter-professional health teams.**

##### ENABLING OUTCOMES

###### 9.1.1

- a. Engage in best practices that promote patient safety
- b. Promote a safe practice culture by modeling safe behaviour.
- c. Use effective strategies and techniques that enhance and improve safety in the practice setting.
- d. Collaborate with members of intra- and inter-professional health teams to develop, implement and evaluate safe practices.

###### 9.1.2

- a. Comply with federal and provincial/territorial legislation and regulatory requirements, regarding medication incidents.
- b. Inform the pharmacist of medication incidents and discrepancies.
- c. Use best practices when informing patients regarding medication incidents that have occurred upon referral from the pharmacist.

###### 9.1.3

- a. Share problems, resolutions, system changes, and lessons learned regarding patient safety the members of intra- and inter-professional health teams.
- b. Evaluate system in collaboration with the members of intra- and inter-professional health teams to enhance safety.

##### 9.2 END-OF-PROGRAM EDUCATIONAL OUTCOME

**Contribute to risk management, quality control, assurance, and improvement as members of intra- and inter-professional health teams.**

##### ENABLING OUTCOMES

###### 9.2.1

- a. Apply knowledge of quality control, assurance, and improvement related to drug distribution.

- b. Collaborate with the pharmacist and members of intra- and inter-professional health teams to ensure a safe, professional, and quality focused practice setting.
- c. Develop, implement, and evaluate policies, procedures and activities directed towards safety and quality in practice.

#### 9.2.2

- a. Anticipate, recognize, and manage factors that place patients, self, and others at risk.
- b. Identify risk factors and contribute to the resolution of these.
- c. Use risk management strategies in own practice.
- d. Collaborate with the members of intra- and inter-professional health teams to respond effectively and professionally to potential and actual high-risk practices and situations.

#### 9.2.3

- a. Identify actual and potential medication safety issues, medication incidents, and close calls.
- b. Respond effectively to medication incidents and close calls in order to mitigate harm and prevent recurrence.
- c. Document medication safety issues, medication incidents and close calls.
- d. Use data to examine and reconcile statistics related to medication safety issues, medication incidents and close calls/near misses.
- e. Collaborate with the members of intra- and inter-professional health teams to reduce and prevent medication incidents, close calls and unsafe practices.

#### 9.2.4

- a. Identify high-risk situations including high alert drugs and products and high-risk processes.
- b. Take action to promote safety and reduce issues related to high-alert drugs and high-risk processes.
- c. Contribute to the development and evaluation of policies, procedures, guidelines, and best practices that address the potential dangers of high-risk practices and situations.

### 9.3 END-OF-PROGRAM EDUCATIONAL OUTCOME

#### **Ensure the quality, safety, and integrity of products.**

##### **ENABLING OUTCOMES**

#### 9.3.1

- a. Follow policies, procedures, guidelines, and best practices for operating, cleaning and maintaining compounding, packaging, dispensing, and storage equipment.
- b. Perform or schedule routine maintenance of equipment and resolve minor day-to-day issues.
- c. Perform and document audits on dispensing, compounding, packaging and storage of products, supplies and equipment.

#### 9.3.2

- a. Store and transport products, supplies, and equipment safely and efficiently.
- b. Apply principles of drug solubility, stability, incompatibility, contamination, and product handling and storage, including principles of cold chain management to ensure the quality, safety and integrity of products.

#### 9.3.3

- a. Use recognized quality assurance criteria and techniques to evaluate the quality of products, supplies, and equipment.
- b. Use only supplies, products, and equipment that meet quality assurance criteria.

### 9.4 END-OF-PROGRAM EDUCATIONAL OUTCOME

#### **Ensure a safe practice environment.**

##### **ENABLING OUTCOMES**

#### 9.4.1

- a. Collaborate in the development/revision, implementation, and evaluation of best practices that create a safe workflow and minimize distractions.
- b. Identify and resolve distractions that lead to an unsafe practice environment.

**9.4.2**

- a. Identify and engage in practices that promote optimal personal health and wellness and support work-life balance.

**9.4.3**

- a. Collaborate in identifying, planning for, and implementing measures that support a safe working environment including:
  - Appropriate resource allocation.
  - Injury prevention programs and activities.
  - Ergonomics.
  - Correctly and consistently following safety-related policies and procedures.
  - Identification and resolution of workplace hazards.

**9.4.4**

- a. Handle hazardous products safely by minimizing personal exposure and reducing environmental contamination.