

# Canadian Pharmacy Residency Board



## Accreditation Standards for Pharmacy (Year 1) Residencies

**2021 updated Standards  
Based on May 6, 2018 version**

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## **Acknowledgements**

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The framework used in this document was designed to align with the CPRB Accreditation Standards for Advanced (Year 2) Pharmacy Residencies (published in 2016) and the AFPC Educational Outcomes for First Professional Degree Programs in Pharmacy in Canada 2017. These documents are all based on the CanMEDS Physician Competency Framework, developed and administered by the RCPSC.

### **\*Annual Updates:**

The Standards are updated annually as part of the Board's quality improvement process. Annual updates to these standards are denoted with an asterisk (\*) at the end of the standard. Full explanations regarding the updates can be found in the Appendix table.

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## 1.0 INTRODUCTION

### 1.1. Definition

The Canadian Pharmacy Residency Board (CPRB) defines a year 1 residency in pharmacy practice, subsequently referred to as a “pharmacy residency”, as an organized, directed, accredited program that builds upon competencies of an accredited entry-to-practice professional degree program in pharmacy. The pharmacy residency includes experience in the areas of patient care, management and improvement of medication-use systems, leadership, management of one’s own practice, provision of medication- and practice-related education, and project management. Canadian pharmacy residencies have their roots in hospital pharmacy practice; however, contemporary pharmacy residencies are delivered in diverse practice settings. Pharmacy residencies develop clinical, interprofessional, and leadership skills that can be applied to any position in any practice setting.

### 1.2 Purpose of the Standards

The CPRB Accreditation Standards for Pharmacy (Year 1) Residencies outline the basic criteria to be used in evaluating such programs in organizations that are applying for accreditation by the CPRB. The CPRB Accreditation Standards will be uniformly applied to all pharmacy residency programs that apply for accreditation. The accreditation process incorporates evaluation of both the residency program and the pharmacy services provided. Each standard is followed by a description of the requirements to meet the standard. Throughout the Accreditation Standards, where the auxiliary verb “shall” is used, an absolute requirement is implied. Use of the auxiliary verb “should” denotes a guideline that is recommended for compliance.

### 1.3 Purpose of Pharmacy Residencies

The purpose of pharmacy residencies is to develop pharmacists’ patient care skills to the “proficient” level. This represents progression beyond the “competent” level that is expected upon completion of the first professional degree.

Residency program competencies, also known as educational outcomes, include (at a minimum) those listed in the table below. These outcomes are intended to correspond with the AFPC Educational Outcomes for First Professional Degree Programs in Pharmacy in Canada 2017, as shown.

CPRB Competency	AFPC Role(s)
3.1 Provide Evidence-Based Patient Care as a Member of Interprofessional Teams	Care Provider, Health Advocate, Collaborator, Communicator, Professional
3.2 Manage and Improve Medication-Use Systems	Leader-Manager, Professional
3.3 Exercise Leadership	Leader-Manager, Professional
3.4 Exhibit Ability to Manage One’s Own Practice of Pharmacy	Professional
3.5 Provide Medication- and Practice-Related Education	Communicator, Scholar, Professional
3.6 Demonstrate Project Management Skills	Scholar, Professional

All of the AFPC roles are essential for a pharmacist, but they do not have equal importance in all positions. In particular, during residency education, most of the pharmacist’s time will be devoted to the care provider role. Also, the competencies (or educational outcomes) and associated requirements listed in Section 3.0 describe what graduates will be able to do at the *end* of the pharmacy residency.

Within these Accreditation Standards, the following definitions apply:

Term	Refers to (definition):
<b>Assessment</b>	<ul style="list-style-type: none"> <li>The estimation of the nature, quality, or ability of a person or thing, typically in an ongoing and process-oriented fashion, with a focus on identifying areas for improvement; for example, assessment would typically be used to describe a pharmacy resident's performance during a rotation as a component of a longitudinal process</li> </ul>
<b>Program coordinator</b>	<ul style="list-style-type: none"> <li>The individual accountable for planning, organizing, and executing tasks to ensure effective management of the residency program</li> </ul>
<b>Department</b>	<ul style="list-style-type: none"> <li>Organizational structure for the oversight and/or provision of pharmacy services, as applicable to the organization in which the residency program operates</li> </ul>
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>The making of a judgment about the amount, number, or value of a person or thing, typically in a summative and product-oriented fashion, with a focus on one or more final scores; for example, evaluation would typically be used to determine the quality of a program at a certain point in time</li> </ul>
<b>Organization</b>	<ul style="list-style-type: none"> <li>The corporate entity that operates the residency program (e.g., hospital, community pharmacy, family health team, health authority or region)</li> </ul>
<b>Pharmacy residency</b>	<ul style="list-style-type: none"> <li>An organized, directed, accredited program that builds upon the competencies of an accredited Canadian entry-to-practice professional degree program in pharmacy</li> </ul>
<b>Primary partner</b>	<ul style="list-style-type: none"> <li>The organization that is primarily responsible for a jointly offered residency program</li> </ul>
<b>Primary preceptor</b>	<ul style="list-style-type: none"> <li>The individual who is responsible for developing learning goals and objectives aligned with the residency program's intended outcomes and who ensures that the resident is supervised in all aspects of the rotation and associated learning activities</li> </ul>
<b>Program director</b>	<ul style="list-style-type: none"> <li>The individual who is accountable for the strategic planning and oversight of the residency program</li> </ul>
<b>Project</b>	<ul style="list-style-type: none"> <li>An individual or collaborative enterprise that is carefully planned and designed to achieve a particular aim</li> </ul>

The terms “**coordinator**”, “**department**”, “**organization**”, “**pharmacist**”, “**preceptor**”, and “**resident**”, where expressed in singular, shall also be read as plural.

It is the organization's responsibility to award the certificate of residency and to confer any associated credential. In accrediting a residency program, the CPRB does not presume to certify any individual resident. Reference may be made in the residency certificate to the program's accredited status in accordance with the provisions of the CPRB Accreditation Standards for Pharmacy (Year 1) Residencies.

#### 1.4 Special Note Regarding the Truth and Reconciliation Commission of Canada: Calls to Action

The CPRB recognizes that Canada is a society of diverse peoples and that all peoples are entitled to have access to compassionate, empathetic, culturally safe pharmacy care. The CPRB also acknowledges that the health inequities experienced by Canada's Indigenous peoples require special consideration in the design and delivery of pharmacy

curricula. Recognizing the commitment made in the AFPC Educational Outcomes for First Professional Degree Programs in Pharmacy in Canada 2017, to promote curricular content that advances the process of reconciliation with Canada's First Nations, Métis, and Inuit peoples, the standards set forth here are intended to support the delivery of residency training that will reinforce the development of intercultural competency that begins in these programs.

## 2.0 STANDARDS FOR PROGRAM ADMINISTRATION

### 2.1 Qualifications

#### 2.1.1 Organization Standard

Pharmacy residency programs shall be operated in organizations whose governing bodies, senior management, professional staff, and employees collaborate to seek excellence and have demonstrated substantial compliance with professionally developed and nationally applied criteria.

#### Requirements

1. The organization shall meet accreditation standards, regulatory requirements, and other applicable standards.
  - a) An organization that participates in offering a pharmacy residency program shall be accredited by Accreditation Canada, if eligible for such accreditation.
  - b) A college, school, or faculty of pharmacy that participates in offering a pharmacy residency program shall be accredited by the Canadian Council for Accreditation of Pharmacy Programs (CCAPP).
  - c) Other organizations that participate in offering a pharmacy residency shall have demonstrated substantial compliance with applicable professionally developed and nationally applied standards.
  - d) The organization's accreditation status from the applicable credentialing body and most recent survey report shall be available for review by the residency accreditation survey team.
2. Two or more organizations working in cooperation may jointly provide a pharmacy residency program.
  - a) The organizations shall have contractual arrangement(s) or signed agreement(s) that clearly define their respective responsibilities for all aspects of the residency program and that delineate the name of the jointly offered program for the purposes of conferring a residency certificate or credential. Such contract(s) or agreement(s) shall be available for review by the accreditation survey team.
  - b) Each organization governed by such a contract or agreement shall meet the Requirements of Standard 2.1.1. One organization shall be designated the primary partner and shall be responsible for all aspects relating to accreditation, including but not limited to applying for accreditation, paying fees, responding to accreditation survey reports, and acting as the point of contact with CPRB or its designates.
  - c) In the event that the primary partner delegates day-to-day responsibility for the residency program to its partner organization (or one of its practice sites), the partner organization (or its practice site, as applicable) shall submit routine reports to the primary partner, and a method of on-site inspection by a representative of the primary partner shall be in place to ensure that the terms of the agreement are being met.
  - d) All reports and inspections shall be documented and signed by representatives of all parties bound by the contract or agreement and shall be available for review by the accreditation survey team.
3. The organization, or the primary partner defined in the agreement for a jointly offered residency program, shall maintain authority for the program and responsibility for its quality.
4. The organization shall adhere to CPRB Accreditation Policies and Procedures, including adherence to the rules of the Pharmacy Residency Application and Matching Service (PRAMS).
5. The organization shall have sufficient resources to ensure that the educational goals and outcomes of the program are met. Evidence for sufficiency of resources shall include:
  - a) a patient population and opportunities for professional practice experience to satisfy the requirements of the residency program;
  - b) program administration staff, professional and technical pharmacy preceptors, and administrative support staff to ensure program stability and delivery, to provide adequate supervision of trainees, and to support continuous quality improvement of the program;
  - c) non-academic support for residency trainees, consisting (at a minimum) of workspace, equipment commensurate with that made available to pharmacist employees of the organization, access to

- library and drug information resources, and counselling and advisory assistance.
6. The organization shall support the development of relationships between the department and other areas of the organization, as well as affiliated academic institutions or their faculties (departments), for the purposes of advancing collaborative instruction that promotes interprofessional models of training and of advancing research and patient care. Evidence for such support shall include:
    - a) administrative endorsement of initiatives such as collaborative research, joint projects, and committee work;
    - b) sharing or exchange of instructional staff or space for patient care, research, or education purposes.
  7. The organization shall provide teaching and learning environments that promote residents' safety and freedom from intimidation, harassment, and other forms of abuse.

### **2.1.2 Department Standard**

Pharmacy residencies shall be operated in departments that have demonstrated a commitment to education and that provide an exemplary environment conducive to the goals and outcomes of the residency program.

#### **Requirements**

1. The department shall operate the residency program in a manner that ensures that attainment of the competencies (educational outcomes) of the program takes precedence over any services that the organization may obtain from the resident.
2. The department shall provide experience in a broad range of pharmacy services.
  - a) Scheduling of residents on a duty (service) roster is acceptable, provided that the activities of the duty (service) roster are in keeping with the objectives of the pharmacy residency. Tasks related to the duty (service) roster shall be assessed in a manner similar to the assessment of other academic requirements of the residency program (e.g. as part of the formal longitudinal assessment), and the department shall not assign the resident to perform repetitive tasks solely to meet its service needs\*.
3. The department shall be led and managed by a professionally competent, legally qualified director who provides effective leadership and management for the achievement of the short- and long-term goals of the department and the organization relating to delivery of pharmacy services and medication use. Evidence for the director's leadership and management shall include:
  - a) a departmental mission or vision statement;
  - b) a document articulating the scope and depth of pharmacy services, including available staff to deliver such services;
  - c) documentation of the department's involvement in education of staff (e.g., orientation, in-service training, continuing professional development) and students (e.g., entry-level or post-entry level professional or technical trainees);
  - d) organizational structure of the department;
  - e) short and long-term goals;
  - f) a quality improvement plan.
4. The department should have evidence of a spirit of collegiality; should demonstrate mutual understanding and agreement among preceptors and administrators on the mission, goals, and objectives of the residency program; and should accept the responsibilities necessary to achieve the objectives of the residency program. Evidence for these departmental characteristics shall include:
  - a) active participation of preceptors and administrators on the residency advisory committee (see Requirement 2.1.3.6);
  - b) a defined method to ensure adequate learning resources for pharmacy residents.
5. The department shall form an integral part of the care delivery system within the organization in which the residency program operates.
  - a) Pharmacy services are of a scope and quality commensurate with identified needs of all patients served by the organization.



- b) The department is involved in the overall planning of patient care services.
  - c) Pharmacy services extend to all areas of the organization where medications for patients are prescribed, dispensed, administered, and monitored.
  - d) Pharmacists are responsible for the procurement, preparation, distribution, and control of all medications used, including special access and investigational drugs, except where those responsibilities are assigned to another party through legal agreements.
6. The department (if applicable) shall provide a safe and effective drug distribution system for all medications used within the organization, in a manner consistent with the patient population(s) being served, organizational needs, and patient safety considerations.
- a) The drug distribution system, if provided, meets all applicable accreditation and provincial regulatory standards.
7. The department shall provide patient care services in a manner consistent with organizational and patient safety needs.
- a) Pharmacists are important members of the interprofessional teams that deliver care in areas where residency training is provided.
  - b) Pharmacists are responsible for identifying, preventing, and resolving drug therapy problems for individual patients and/or groups of patients.
  - c) Pharmacists participate prospectively in the design and implementation of pharmaceutical care plans, including medication-therapy monitoring plans.
  - d) Pharmacists work collaboratively with other team members to review the appropriateness and safety of medication orders.
  - e) Pharmacists document all significant patient care recommendations and resulting actions, treatment plans, and/or progress notes in the appropriate section of the patient's health record or the organization's clinical information system, or another system with equivalent purpose (e.g., drug information or investigational drugs service).
  - f) Pharmacists provide written and oral consultations regarding medication-therapy selection and management for patients whose care they are managing.
  - g) Management by pharmacists of diseases and/or medications is consistent with applicable laws, regulations, and practice-site policy.
  - h) A system to support continuity of care is used routinely.
  - i) The quality of services provided in areas where residency training is conducted is assessed routinely.
8. The department shall provide or make available essential drug information resources to allow the safe and optimal use of medications, as evidenced by:
- a) demonstrated ability to respond to drug information inquiries from the organization's healthcare providers (or others, as applicable);
  - b) participation in the development of medication-use and safe medication practice policies and procedures;
  - c) reporting and monitoring of medication incidents and accidents (including reporting of adverse drug events), followed by development and implementation of appropriate modifications to the medication-use system to limit these negative outcomes;
  - d) promotion and facilitation of the optimal use of medications through development of medication-related documents (such as educational tools, protocols, and order sets), active participation in continuing medical education for the organization's healthcare providers, and dissemination of recommendations following medication-use evaluations;
9. The department shall work in collaboration with the organization and its other healthcare providers to advance the safety and quality of the medication-use system.

### 2.1.3 Residency Program Administration

#### Standard

The residency program shall be directed by pharmacists who hold to high professional ideals and who have the desire and aptitude to teach and administer the program.

#### Requirements

1. The residency program shall be administered and directed by a professionally competent person (the program director) who is:
  - a) recognized by the organization as a member of the administrative team that is responsible for leading and managing the department;
  - b) administratively responsible and fully accountable for the residency program, including compliance with CPRB Accreditation Standards and program policies and procedures.
2. The program director may delegate:
  - a) coordination of the program to one or more qualified program coordinators;
  - b) administration responsibilities to one or more qualified persons;
  - c) preceptor responsibilities to other qualified persons.
3. The program director shall:
  - a) have recognition from peers or professional organizations for leadership in the profession;
  - b) have administrative experience of at least 2 years' duration, where administrative experience is interpreted to mean experience as a director, manager, coordinator, supervisor, senior or lead clinician, course master (coordinator), or faculty section head;
  - c) have demonstrated ability to supervise, teach, and mentor residents, through past or present participation as a preceptor, tutor, course coordinator, or professor;
  - d) hold membership in the Canadian Society of Hospital Pharmacists.
4. The program coordinator shall:
  - a) have completed an accredited pharmacy residency (CPRB or American Society of Health-System Pharmacists [ASHP] Commission on Credentialing) or equivalent advanced practice (post-licensure) training in the field of pharmacy (e.g., Fellowship, Doctor of Pharmacy as a second professional degree, advanced [year 2] pharmacy residency, Master's degree in advanced pharmacotherapy) *OR* certification in a defined area of practice (where such certification is available from a recognized organization) *OR* equivalent experience, where equivalent experience is interpreted as 3 years' experience;
  - b) have relevant pharmacy practice experience;
  - c) hold membership in the Canadian Society of Hospital Pharmacists.
5. The program director shall ensure that administrative responsibilities for the residency program are assigned and fulfilled in the areas of (at a minimum):
  - a) development and maintenance of policies and procedures for the residency program;
  - b) strategic planning for the residency program and its operations;
  - c) acquisition of resources to support and advance the residency program;
  - d) marketing, recruitment, and admission of individuals qualified to undertake residency training;
  - e) support, training, and supervision of residents, as well as consideration for their safety and wellness (e.g., when carrying out educational activities involving travel, patient encounters, house calls, after-hours consultations in isolated service areas);
  - f) support, training, and supervision of preceptors;
  - g) development of academic content and educational approach for the residency program;
  - h) program assessment (continuous quality improvement);
  - i) assessment of learners (in terms of attainment of educational outcomes);
  - j) maintenance of program archives (records);
  - k) monitoring of residents' attendance and degree of preceptor oversight (e.g., during rotations, longitudinal service, fulfillment of duty [service] roster assignments, non-rotational experiences such as courses and committee service).
6. A residency advisory committee shall be in place to provide general oversight of and guidance on the design and

operation of the program, with the following characteristics.

- a) The committee's terms of reference, meeting minutes, and associated documents (e.g., position papers, projects) shall be available for review by the accreditation survey team.
- b) The committee shall include representation from the program's residents; if there is more than one resident in the program, at least one representative shall be elected by the group.
- c) The committee should include a representative from each participating site (facility or department) and each major component of the program.
- d) The committee shall include representation from primary preceptors.
- e) Committee members may be appointed or elected, and all members must be active participants on the committee, as evidenced by regular attendance at meetings.
- f) The committee shall have representation external to the department, interpreted as any qualified individual who does not have line accountability to the department or a senior administrator to whom the department reports.
- g) The committee shall regularly communicate its deliberations and decisions to the department or organization.
- h) Where two or more residency programs are operating within the same organization, the residency advisory committees shall regularly communicate with each other.
- i) Where two or more residency programs are operating within the same organization, one residency advisory committee may be aligned, integrated, or partnered with another residency advisory committee, so long as it can be demonstrated that the needs of the pharmacy residency program are being met.
- j) The committee shall ensure appropriate remediation or probation for any resident who is experiencing difficulties achieving the appropriate level of competence.

#### **2.1.4 Preceptors**

##### **Standard**

The resident shall be under the preceptorship of individuals who have the experience, desire, and aptitude to teach.

##### **Requirements**

1. A preceptor shall have the knowledge, skills, and practice experience to act as a role model and to assist in the development of the resident's skills.
2. A defined process shall be in place for orientation of new preceptors.
3. Continuing preceptor development shall be made available to all instructional staff.
4. A qualified pharmacist shall be designated as the primary preceptor for each learning experience (hereafter referred to as a rotation).
  - a) The primary preceptor shall be responsible for ensuring that a training plan is established and that all assessments are completed.
  - b) Co-preceptors or secondary preceptors from pharmacy or from professions other than pharmacy may be appointed to assist in delivering the educational experience, but such preceptors shall be fully apprised of rotation objectives, the resident's progress to date, and assessment expectations of the program.
  - c) The primary preceptor shall develop specific goals and objectives for the resident, in consultation with the program director or program coordinator.
  - d) The program director or program coordinator shall review rotation goals and objectives at least every 2 years.
5. In each rotation, time shall be allocated for instruction, observation, and assessment of the resident.
6. The preceptor shall review and confirm learning goals and objectives with the resident at the beginning of the rotation.
7. The preceptor shall provide timely and regular feedback to, and assessment of, the resident.
8. A defined process shall be in place for preceptor self-assessment and incorporation of constructive feedback provided by the resident, program coordinator, program director, and (where applicable) other preceptors and members of the interprofessional team.

9. A primary preceptor for the project component of the residency (see Standard 3.6) shall be assigned to the resident.

## **2.1.5 Residents**

### **Standard**

Pharmacy residents shall be individuals who hold to high professional ideals and who have a commitment to continued learning, beyond entry-level competencies.

### **Requirements**

1. The resident shall demonstrate a commitment to the profession by adhering to standards and participating in healthcare professions regulation.
  - a) The resident shall be registered as a pharmacist by the appropriate Canadian pharmacy regulatory authority; if not registered as a pharmacist at the time of application to the program, the resident shall become registered as a pharmacist at the earliest opportunity upon being admitted into the program.
  - b) The resident shall be a member of the Canadian Society of Hospital Pharmacists.
2. The resident shall contribute actively and constructively to the mission, vision, goals, education, and quality improvement initiatives of the residency program and the department.
3. The resident shall be committed to making active use of constructive feedback provided by preceptors, the program coordinator, and the program director.
4. The resident shall exhibit appropriate professional behaviours and relationships in all aspects of practice, including technology-enabled communication, reflecting honesty, integrity, commitment, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality.
5. The resident shall demonstrate a commitment to excellence in all aspects of practice and to active participation in collaborative care and service delivery.
6. The resident shall demonstrate a commitment to the well-being of other healthcare professionals to foster optimal patient care, and shall promote a culture that recognizes, supports, and responds effectively to colleagues in need.
7. The resident shall be responsible and accountable for acquiring all competencies of an accredited pharmacy residency.
8. The resident shall engage in the continuous improvement and enhancement of his or her professional activities through ongoing learning of the following nature:
  - a) developing, monitoring, and revising a personal learning plan to enhance professional practice;
  - b) regularly analyzing their performance, using various data and other sources to identify opportunities for learning and improvement;
  - c) engaging in collaborative learning to contribute to collective improvements in practice.

## **2.2 Program Planning and Operation**

### **2.2.1 Admissions Criteria, Policies, and Procedures**

#### **Standard**

The program shall use formal criteria, policies, and procedures for evaluation, ranking, and admission of qualified applicants to the residency program.

#### **Requirements**

1. Each applicant's qualifications for acceptance into the residency program shall be evaluated using an established, formal, criteria-based process.
2. The program director and program coordinator shall be responsible for selection of applicants who qualify for admission to the program.
  - a) Applicants may be offered benefits (including awards, bursaries, and/or return-of-service contracts or agreements, or equivalent); however, an applicant's acceptance or rejection of such benefits shall not influence the decision on admission to the residency program, nor shall it influence the decision

- regarding a resident's graduation from the residency program.
- b) Applicants who are accepted into the program shall receive a letter outlining their acceptance. All terms and conditions (e.g., pre-requisite or concurrent coursework, internships, structured practical training) shall be clearly outlined in the letter of offer/admission.
3. A resident's acceptance of an offer of admission to the program shall be documented in writing before the residency program begins.
  4. A formal process shall be in place to assess the prior learning of each resident before the residency program begins.
  5. The start and end dates of the resident's course of study shall be defined before the resident's entry into the program.
    - a) A full-time residency shall be defined as a minimum of 52 weeks of continuous training (including approved leave or vacation).
    - b) Residency training may occur on a part-time basis, however, such a program shall be composed of a minimum of 52 weeks training (including approved leave or vacation not exceeding that which would be offered in a full-time program) offered over not more than 24 months, and breaks in residency training shall not exceed 45 working days.
    - c) The residency period may be shortened when a resident has been given credit for prior learning, as per Requirement 2.2.1.5 (below).
    - d) Non-residency days shall be clearly defined at the beginning of the program, and educational benefits to the resident shall take priority over services provided by the resident.
  6. A program that grants credit for prior learning outside of an accredited residency program, or allows transfer of credit for rotations completed with another accredited residency program, shall:
    - a) grant credit in an amount not exceeding 25% of the total residency training period, interpreted to mean not more than 25% of the total residency days required to achieve the full-time or part-time program as defined in Requirement 2.2.1.4;
    - b) have well-defined and documented processes in place for granting prior learning credit and/or transfer credit
    - c) have a policy in place that specifies the impact of granting credit with regard to **either**:
      - i. reducing the duration of the residency **or**
      - ii. maintaining the duration of the residency by providing additional program content;
    - d) maintain documentation that provides evidence to support the decision to grant credit;
    - e) retain documentation in the resident's training record regarding the program requirements for which prior learning credit or transfer credit was granted;
    - f) award transfer credit only for learning objectives or rotations completed at another accredited residency program within 24 months before entering the program that is granting transfer credit.
  7. The program shall have a policy defining the due date for the written report of the resident's project (as per Standard 3.6). The due date shall be not more than 90 days beyond completion of the scheduled residency term.

## 2.2.2 Educational Approach

### Standard

The residency program shall use a systematic process to design, plan, and organize an academic program to facilitate the resident's achievement of the intended educational outcomes.

### Requirement)

1. The program director shall oversee development of learning goals and objectives for the residency program.
  - a) Learning goals and objectives shall address content that supports all required educational outcomes of the pharmacy residency.
  - b) Learning objectives shall be clearly written, outcome-oriented, observable, and measurable.
2. Rotations shall be selected to enable residents to meet all required educational outcomes of an accredited pharmacy residency.
  - a) Learning goals and objectives shall be assigned to each rotation.

- b) The program coordinator and/or preceptor of each rotation shall write a detailed description (outline) of each learning experience.
3. The residency program should use instructional methods (e.g., observational methods, case studies, seminars) and delivery formats (e.g., longitudinal versus block scheduling, simulation, distance technology) that will provide the optimal learning environment to achieve the educational outcomes.
4. Residency activities shall provide:
  - a) broad exposure to contemporary pharmacy services for the prescription, use, and management of medications in the treatment of patients;
  - b) opportunities to develop interprofessional collaborative practice skills alongside other members of the healthcare team;
  - c) opportunities to develop skills to work effectively with patients, other healthcare professionals, administrators, educators, students, researchers, and change leaders;
  - d) opportunities to develop critical thinking, ethical and scientific reasoning, problem-solving, decision-making, time management, practice management, self-directed learning, teaching, professionalism, change management, and leadership skills.
5. There shall be a defined process for initial selection, ongoing review, and support of the residency project (as per Standard 3.6).
  - a) There shall be a defined process for solicitation, evaluation, and approval of project topics.
  - b) The time allotted for the residency project shall not exceed 10 weeks (interpreted as 50 residency days).
  - c) The scope of the project shall be such that it does not interfere significantly with other rotations.
  - d) A pharmacist affiliated with the department shall be designated the primary preceptor for each project.
  - e) A process shall be in place to provide ongoing review, support, and feedback to the resident.
6. In planning (scheduling) the program syllabus, an individualized plan shall be developed for each resident at the commencement of that resident's program.
  - a) Based on the assessment of the resident's prior learning, baseline knowledge, skills, attitudes, competencies, and interests, a broad written plan for the resident's program shall be developed, which will include customized learning goals and activities. The plan should build on the resident's strengths and should address the areas for development.
  - b) The resident shall be given, at the beginning of the residency program, a detailed schedule of all planned rotations.
  - c) Residency experiences shall be structured to provide a systematic approach to enhancing the resident's problem-solving and decision-making skills.
  - d) Each resident shall provide service within a team (e.g., clinic, unit, consult service) that supports development of interprofessional collaborative practice skills to optimize patient safety.
  - e) Individualization of a resident's experiences to account for specific interests must not interfere with achievement of the program's learning goals and objectives.
  - f) The department shall balance the assignment of resident activities to meet program outcomes with concerns for patient safety and the resident's well-being.
  - g) Scheduling of experiences need not be limited to the systems and services of the organization that operates the residency program; however, the training environment of each rotation should meet the requirements described in this Standard (i.e., Standard 2.2.2).
  - h) The schedule should be written in sufficient detail to give the resident a clear understanding of each activity in a rotation or across a series of rotations.
  - i) The level of responsibilities and the degree of supervision assigned during each rotation shall be consistent with the resident's skill levels.
7. A formal process shall be in place to orient the resident to the residency program, the department, and the organization.
8. When the course of study begins, the resident shall receive a manual that provides a comprehensive description of the residency program and contains, at a minimum, the following elements:
  - a) expectations of residents and preceptors;
  - b) intended educational outcomes of the program;

- c) description (learning goals and objectives) of each rotation available to the resident;
- d) description (learning goals and objectives, schedule) of the formal academic curriculum (e.g., mandatory coursework, mandatory academic half-days or full days);
- e) criteria for completion of the program;
- f) policies concerning professional, family, and sick leave and the effect such types of leave will have on the resident's ability to complete the program;
- g) policies governing scheduling of residency experiences, including duty (service) roster shifts, if applicable;
- h) procedures for assessments of the resident, preceptor, program coordinator, and program director;
- i) procedures for evaluation of the training site (rotation) and residency program;
- j) processes for remedial action if there are deficiencies in the resident's progress;
- k) processes that shall be used to address all discrepancies in assessment;
- l) policies governing intimidation, harassment, and other forms of abuse.

### **2.2.3 Assessment of Residents and Evaluation of Program Components**

#### **Standard**

The pharmacy department shall operate the program in a manner that reflects the principles of continuous quality improvement.

#### **Requirements**

1. An ongoing review process shall be in place to:
  - a) assess the resident's performance (formative and summative);
  - b) evaluate the preceptor's performance;
  - c) evaluate the performance of the program coordinator and the program director;
  - d) evaluate rotations and learning environments (e.g., instructional delivery methods, facilities, personnel, and other resources) to ensure that they are used with optimal effectiveness and are conducive to developing the highest level of practice;
  - e) evaluate overall performance of the residency program.
2. The resident shall use a learning portfolio or equivalent to facilitate self-assessment and provide evidence of skill development over the course of the program.
  - a) The learning portfolio should include preceptor assessments, monthly reports, quarterly or other summative assessments, self-assessments, career objectives, clinical activities during the rotations, awards, projects, and other documentation relating to the resident's progress throughout the duration of the residency program.
3. Feedback on and discussion of the assessments and evaluations shall be conducted in an open and collegial atmosphere, allowing for an unbiased discussion of the strengths and weaknesses of the resident, the preceptor, the instructors/teachers, and the overall operation of the program, while respecting the confidentiality of all parties.
4. The resident shall be assessed on development of competencies associated with the program.
5. Assessment tools that are competency- and criteria-based and that reflect the intended outcomes shall be available for all learning experiences in the program and/or rotations in the program.
6. Residents shall be informed promptly when serious concerns exist, and they shall be given an opportunity to correct their performance.
7. With respect to the assessment process for residents, the program shall ensure that the following conditions are met:
  - a) There is a process for assessment and documentation of longitudinal development of competencies.
    - i. Assessment of the resident will include feedback from a variety of people, including other healthcare professionals, peers, supervisors, and patients and their families.
    - ii. Assessment of the resident will incorporate direct observation of the resident in a variety of settings.

- b) Longitudinal assessment of a resident's progress shall be ongoing throughout the program and shall be facilitated by direct interaction for this purpose between the resident and the program director and program coordinator, at least twice within the residency year.
  - c) The resident shall perform written self-assessments based on the learning objectives established for each rotation, to assist the resident in identifying any objectives that were not met during the rotation.
    - i. A resident shall review the self-assessment with the preceptor (with or without the program director or program coordinator) at the time of regularly scheduled assessments.
  - d) The resident's achievements shall be regularly assessed in terms of the program and the learning goals and objectives of the rotation.
    - i. The assessments shall relate to the resident's progress in achieving goals and learning objectives.
    - ii. Subjective criteria such as personality traits should be considered only in relation to their effect on achieving goals and objectives.
    - iii. A midpoint assessment should be completed for each rotation.
    - iv. For each rotation, a written final self- assessment shall be completed by the resident and a written final assessment shall be completed by the preceptor\*. The final assessment shall be conducted within 1 week of completion of the rotation. The assessment meeting shall be conducted by the preceptor for each rotation or by the program director or program coordinator, with input from the preceptors.
    - v. A written record of the final assessment of each rotation or residency requirement (e.g., for program requirements completed using a format other than a rotation) shall be maintained and shall be reviewed with the resident and signed by the program coordinator and/or program director.
8. With respect to preceptors, an ongoing review process shall be in place that:
- a) shall obtain feedback from the resident through the following means:
    - i. The resident shall complete a written evaluation of the preceptor, and feedback shall be provided to the preceptor in a timely fashion.
    - ii. The resident shall evaluate the preceptor on the basis of the preceptor's knowledge, skills, and attitudes as a role model and teacher.
  - b) shall provide for the program director and/or program coordinator to review and sign off on all evaluations of the preceptor and the rotation in a timely fashion;
  - c) shall provide an effective mechanism to give preceptors and instructors/teachers in the program honest and timely feedback on their performance.
9. With respect to the program director and program coordinator, a process shall be in place to evaluate and provide feedback concerning their roles, as well as the role of any site coordinators (as applicable), in coordinating and supporting the residency program.
- a) Residents' feedback shall be incorporated into the evaluation process for the program director and program coordinator.
10. With respect to the rotation and training environment, an ongoing review process shall obtain feedback from the resident.
- b) At the end of the rotation (at a minimum), the resident shall complete a written evaluation of the rotation, based on its structure and content and on the degree to which the learning objectives were met.
  - c) The written evaluation shall be discussed with the preceptor in a timely fashion.
11. With respect to the overall performance of the residency program, the program shall have a process that meets the following objectives:
- a) to incorporate assessment and evaluation of the resident, preceptor, program coordinator, program director, and rotations (training environments) as part of the program's continual review and improvement process;
  - b) to communicate a resident's continual progress in achieving the program's intended outcomes, both from one preceptor to the next preceptor and from one rotation to the next rotation (to allow individualization of each rotation on the basis of previous experience);



- c) to address discrepancies of assessment (e.g., disagreement about an assessment or feedback provided by a preceptor);
  - d) to remedy the situation if deficiencies in the progress of the resident are noted;
  - e) to assess the achievement of the intended educational outcomes of the program;
  - f) to assess early withdrawals from the residency program.
12. The program shall maintain appropriate documentation regarding each residency trainee for a period of one full accreditation cycle (until the next on-site survey), including, at a minimum:
- a) documentation of the evaluation, ranking, and admission of qualified applicants to the program, as defined in Standard 2.2.1;
  - b) the resident's learning portfolio or equivalent (see Requirement 2.2.3.2a for content);
  - c) the resident's activities/schedule.

#### **2.2.4 Program Completion**

##### **Standard**

The organization shall attest to the requirements for completion of the residency program.

##### **Requirements**

1. Criteria shall be in place to define successful completion of the program.
  - a) Successful completion of the program shall reflect the final status of the resident and shall not be an average over the entire residency.
  - b) Assessment regarding the resident's successful attainment of program requirements shall be based on the views of preceptors directly involved in the resident's education and shall not be the opinion of a single individual.
2. The organization shall recognize those who have successfully completed the residency program by providing a transcript and/or by awarding an appropriate certificate of residency.
  - a) A residency certificate shall not be issued to any individual who has failed to complete the prescribed program or to meet the intent of this Standard (i.e., Standard 2.2.4).
3. The organization shall maintain, in perpetuity, a record of:
  - a) all individuals who successfully complete the program, in the form of (at a minimum) a copy of the resident's transcript letter and/or residency certificate;
  - b) all individuals who are unsuccessful in completing the program;
  - c) the academic years for which accreditation was granted.
4. Accredited programs should grant the ACPR (Accredited Canadian Pharmacy Resident) designation to residents who successfully complete the residency program.

### 3.0 RESIDENCY PROGRAM COMPETENCIES (EDUCATIONAL OUTCOMES)

#### 3.1 Provide Evidence-Based Patient Care as a Member of Interprofessional Teams

##### Standard

The resident shall be proficient in providing evidence-based pharmacy care as a member of interprofessional teams.

##### Requirements

1. The resident is proficient in pharmacy practice:
  - a) places a high priority on, and is accountable for, selecting and providing pharmacy services that are appropriate to the patient;
  - b) applies knowledge of clinical and pharmaceutical sciences relevant to pharmacy practice and healthcare practice in general;
  - c) effectively carries out professional duties;
  - d) demonstrates the ability to proactively communicate issues to affected stakeholders, including patients and their families, and to resolve those issues, when possible.
2. The resident shall integrate best available evidence into decision-making, by:
  - a) demonstrating proficiency in identifying, selecting, and navigating resources;
  - b) accurately appraising the literature as it relates to the clinical situation(s);
  - c) integrating evidence into decision-making.
3. The resident shall work effectively with other healthcare professionals, by:
  - a) establishing and maintaining inter- and intra-professional working relationships for collaborative care;
  - b) recognizing overlap and sharing of responsibilities with other pharmacists and with healthcare providers in other professions for episodic or ongoing care of patients;
  - c) actively participating with other care providers in making care decisions;
  - d) demonstrating respect for colleagues and members of inter- and intra-professional teams;
  - e) recognizing when care should be handed over to another team member;
  - f) demonstrating effective, safe transfer of care during care transitions between different settings or stages, and during transitions of care responsibility, using oral, written, and electronic communication as appropriate.
4. The resident shall engage in respectful, empathetic, compassionate, non-judgmental, culturally safe, tactful conversations with patients, communities, populations, and members of the healthcare team.
5. The resident shall advocate for the patient in terms of meeting the patient's health-related needs.
6. The resident shall incorporate principles of shared decision-making into his/her practice and shall be governed by the patient's desired outcome of therapy.
7. The resident shall place a high priority on, and be accountable for, selecting and providing care to patients who are most likely to experience drug-related problems.
8. The resident shall perform patient-centred clinical assessments and establish care plans for individual patients by:
  - a) establishing a respectful, professional, ethical relationship with the patient;
  - b) confirming or establishing goals of care;
  - c) identifying and prioritizing drug-related problems;
  - d) eliciting a history and performing assessments in an organized, thorough, and timely manner;
  - e) gathering, appraising, and accurately interpreting relevant patient information from appropriate sources, including the patient, the family or caregivers, other healthcare professionals, and the health record;
  - f) preparing a care plan that includes consideration of the patient's goals and the roles of other team members;
  - g) implementing the care plan;
  - h) proactively monitoring drug therapy outcomes, and revising care plans on the basis of new information;
  - i) documenting and sharing, verbally and in writing, information about the care being provided, complying with legal, regulatory, and organizational requirements and any additional measures that will optimize clinical decision-making, patient safety, confidentiality, and privacy.

### **3.2 Manage and Improve Medication-Use Systems**

#### **Standard**

The resident shall demonstrate a working knowledge of medication-use systems, as well as the roles of pharmacy personnel and other care providers within the system, in order to manage and improve medication use for individual patients and groups of patients.

#### **Requirements**

1. The resident shall be able to relate the advantages and limitations of key components of the medication-use system used to provide medications to patients. Examples may include but are not limited to unit dosing, traditional dispensing, computerized medication administration records, e-prescribing, clinical decision-support tools, barcode administration, compounding, and intravenous and/or oncology admixture services.
2. The resident shall work in cooperation with pharmacy, nursing, and medical staff, as well as other members of the organization's team, to improve medication use for individual patients and groups of patients.
3. The resident shall demonstrate an understanding of the policies and procedures used to prepare and dispense medications in accordance with patients' needs.
4. The resident shall demonstrate an ability to assess medication orders and to identify and resolve problems.
5. The resident shall demonstrate the ability to clarify medication orders with prescribers and document such clarifications appropriately.
6. The resident shall demonstrate the use of safe medication practices.

### **3.3 Exercise Leadership**

#### **Standard**

The resident shall apply leadership and management skills to the professional practice environment in which the residency program is operated.

#### **Requirements**

1. The resident shall demonstrate an understanding of the differences between management and leadership.
2. The resident shall demonstrate responsibility for, and shall look for opportunities to improve upon, patient care and safety throughout the residency.
3. By completing an administrative project (distinct from the project described in Standard 3.6), the resident shall demonstrate:
  - a) knowledge with respect to at least one of the following areas:
    - i. governance and organizational structure (e.g., roles of the pharmacy management team and various departments);
    - ii. human resources;
    - iii. financial management;
    - iv. continuous quality improvement;
    - v. visioning and strategic, operational, and project planning;
    - vi. change management;
    - vii. ethical and legal frameworks and standards of practice;
  - b) administrative problem-solving;
  - c) effective communication (verbal and written).
4. The resident shall demonstrate respect for, pride in, and commitment to the profession, through both appearance and actions.

### **3.4 Exhibit Ability to Manage One's Own Practice of Pharmacy**

#### **Standard**

The resident shall apply skill in the management of his/her own practice of pharmacy, to advance his/her own learning, to advance patient care, and to contribute to the goals of the program, department, organization, and profession.

## Requirements

1. The resident shall consistently demonstrate efforts to refine and advance critical thinking, scientific reasoning, problem-solving, decision-making, time management, communication, self-directed learning, and team/interprofessional skills that are the hallmarks of practice leaders and mature professionals.
2. The resident shall manage his/her own practice and career, setting priorities to establish healthy work–life balance, and shall implement processes to ensure personal practice improvement.

### 3.5 Provide Medication- and Practice-Related Education

#### Standard

The resident shall effectively respond to medication- and practice-related questions, and shall educate others.

## Requirements

1. The resident shall respond effectively and in a timely manner to medication- and practice-related questions received from others, by:
  - a) accurately interpreting medication- and practice-related questions;
  - b) conducting a systematic literature search;
  - c) critically appraising the literature;
  - d) formulating a response;
  - e) communicating, verbally and in writing, responses to questions.
2. The resident shall provide effective education to a variety of audiences (e.g., patients, students, other pharmacy residents, healthcare professionals [including students of those professions], the public, and other stakeholders) and in a variety of instructional settings (e.g., seminars, lectures, case presentations, patient interactions)\*.
  - a) The resident shall create an effective training/teaching plan that enables successful delivery of instruction to and completion of learning goals by the learner, within the specified timeframe, by:
    - defining learning goals and objectives;
    - selecting the instructional format and instructional media;
    - communicating effectively with a variety of audiences;
    - when appropriate, creating and carrying out an assessment plan that aligns with the learning goals.
  - b) The resident shall promote a safe learning environment for the learner.
  - c) The resident shall ensure that patient safety is maintained when learners are involved in patient care.
3. The resident shall demonstrate skill in the four roles used in practice-based teaching in a variety of settings which shall include patient-care settings\*:
  - a) direct instruction;
  - b) modelling;
  - c) coaching;
  - d) facilitation.
4. The resident shall demonstrate scholarly writing skills in all written work, including but not limited to the written report of the project.

### 3.6 Demonstrate Project Management Skills

#### Standard

The resident shall use effective project management skills to undertake, conduct, and successfully complete a project related to pharmacy.

## Requirements

1. The resident shall be involved in project development and in data collection, analysis, and interpretation.
2. The resident shall prepare a written report of the project in a format suitable for publication in a peer-reviewed journal.
3. The resident shall present and defend the outcomes of the project.

#### 4.0 BIBLIOGRAPHY

American Society of Health-System Pharmacists (ASHP). ASHP accreditation standard for postgraduate year one (PGY1) pharmacy residency programs. Bethesda (MD): ASHP; 2016 [cited 2018 Jan 14].

<https://www.ashp.org/Professional-Development/Residency-Information/Residency-Program-Directors/Residency-Accreditation/Accreditation-Standards-for-PGY1-Pharmacy-Residencies>

Association of Faculties of Pharmacy of Canada (AFPC). AFPC educational outcomes for first professional degree programs in pharmacy in Canada 2017. Ottawa (ON): AFPC; 2017 [cited 2018 Jan 14].

<http://www.afpc.info/content/2017-educational-outcomes>

Canadian Council for Accreditation of Pharmacy Programs (CCAPP). Accreditation standards for the first professional degree in pharmacy programs. Toronto (ON): CCAPP; 2013 [cited 2018 Jan 14]. <http://ccapp-accredit.ca/university-degree-programs-in-pharmacy/>

Canadian Hospital Pharmacy Residency Board (CHPRB). Accreditation standards, January 2010. Ottawa (ON): CHPRB; 2009 [cited 2018 Jan 14]. <https://www.cshp.ca/standards>

Dreyfus SE, Dreyfus HL. A five-stage model of the mental activities involved in directed skill acquisition. Berkeley (CA): University of California, Berkeley; 1980 [cited 2018 Jan 14]. <http://www.dtic.mil/dtic/tr/fulltext/u2/a084551.pdf>

Frank JR, Snell L, Sherbino J, editors. CanMEDS 2015 physician competency framework. Ottawa (ON): Royal College of Physicians and Surgeons of Canada; 2015 [cited 2018 Jan 14].

<http://canmeds.royalcollege.ca/en/framework>

Truth and Reconciliation Commission of Canada (TRC). Truth and Reconciliation Commission of Canada: calls to action. Winnipeg (MB): TRC; 2015 [cited 2018 Jan 14]. [http://nctr.ca/assets/reports/Calls\\_to\\_Action\\_English2.pdf](http://nctr.ca/assets/reports/Calls_to_Action_English2.pdf)

## 5.0 Appendix 1: Standards Amendments

Standard	Year of update	Programs will be Accredited against these updates	2018 Original Wording	New Wording (changes in bold)	Why was the change made?
2.1.2.2a	2021	On or after July 1 2022	.....Tasks related to the duty (service) roster shall be assessed in a manner similar to the assessment of other academic requirements of the residency program, and the department shall not assign the resident to perform repetitive tasks solely to meet its service needs.	.....Tasks related to the duty (service) roster shall be assessed in a manner similar to the assessment of other academic requirements of the residency program <b>(e.g. as part of the formal longitudinal assessment)</b> , and the department shall not assign the resident to perform repetitive tasks solely to meet its service needs.	The standard currently states that If service shifts are a requirement of the residency program (or a condition of acceptance into the residency program) then these shifts should be assessed. For clarity, an assessment example was added.
2.2.3.7.d.iv	2021	On or after July 1 2022	A written final assessment shall be completed for each rotation.....	For each rotation, a <b>written final self-assessment shall be completed by the resident</b> and a <b>written final assessment</b> shall be completed by the <b>preceptor</b> .	The intent of the standard is that both the resident and preceptor each complete a <b>written</b> final assessment. The wording of the standard was amended to clarify this.
3.5.2	2021	On or after July 1 2022	The resident shall provide effective education to a variety of audiences (e.g. students, other pharmacy residents, healthcare professionals [including students of those professions], the public, and other stakeholders) and in a variety of instructional settings (e.g. seminars, lectures, case presentations).	The resident shall provide effective education to a variety of audiences (e.g. <b>patients</b> , students, other pharmacy residents, healthcare professionals [including students of those professions], the public, and other stakeholders) and in a variety of instructional settings (e.g. seminars, lectures, case presentations, <b>patient interactions</b> )."	Wording amended as a reminder that medication and practice-related education can occur in the presence of patients. "Patients" and "patient interactions" were added as examples of audiences and instructional settings, respectively.
3.5.3	2021	On or after July 1 2022	The resident shall demonstrate skill in the four roles used in practice-based teaching.	The resident shall demonstrate skill in the four roles used in practice-based teaching <b>in a variety of settings which shall include patient-care settings</b> .	Residency training takes place in practice-based environments. At such, there should be opportunity for the resident to demonstrate at least one of the four roles in a practice-based setting in order to meet this standard. (i.e. the roles cannot all be demonstrated in only faculty-based courses or labs.)