AFPC Educational Outcomes for First Professional Degree Programs in Pharmacy in Canada 2017

USER MANUAL – SECTION A

Orientation Resource: Conceptual

Framework for 2017 Educational Outcomes







INTRODUCTION

The Association of Faculties of Pharmacy of Canada (AFPC) Educational Outcomes focus on what graduates are able to do at the end of a Baccalaureate or Doctorate program that is the first professional degree in pharmacy (i.e., entry-to-practice pharmacy degree programs). The AFPC Task Force on Educational Outcomes was struck by the AFPC Council of Faculties to revise the 2010 version. The 2017 Educational Outcomes for First Professional Degree Programs in Pharmacy in Canada were approved by the AFPC Board of Directors in June 2017.

The <u>2017 Educational Outcomes</u> (EO2017) comprises multiple Role Statements: Care Provider, Communicator, Collaborator, Leader-Manager, Health Advocate, Scholar and Professional. The Professional Role is the overarching ethos of the discipline of pharmacy. Key Competencies define what graduates need to achieve by the end of the program. To support the 2017 version, several documents are included in an <u>AFPC Educational</u> Outcomes 2017 User Manual:

- A. Orientation Resource Conceptual Framework for 2017 Educational Outcomes (July 2017)
- B. Crosswalk to CIHC National Interprofessional Competency Framework (July 2017)
- C. Sample Learning Objectives (July 2017)
- D. Glossary of Terms (July 2017)
- E. User Guide for the Professional Role (June 2018)

This document provides a brief introduction to the theoretical structure, assumptions and principles that underpin the AFPC Educational Outcomes 2017. It is primarily intended as an orientation resource for new instructional personnel and persons involved in pharmacy curriculum design, evaluation and/or program quality improvement roles. Content was guided by learning needs identified through analysis of focus group discussion transcripts¹ and stakeholder feedback about the AFPC Educational Outcomes for First Professional Degree Programs in Pharmacy 2017 Draft Version 3. Since an in-depth discussion of all concepts is not feasible in this orientation resource, it is understood that users will seek out the recommended readings and use additional references to supplement learning. Donna Woloschuk was the Consultant who prepared this resource.

After reviewing this resource guide, the reader should be able to:

- 1. Compare the conceptual frameworks that underpin the AFPC Educational Outcomes 2010 and the AFPC Educational Outcomes 2017.
- 2. Explain the terms competency and competence.
- 3. Explain the historical and present day relationship between the EO2017 and:
 - a. The National Association of Pharmacy Regulatory Authorities (NAPRA) Professional Competencies for Canadian Pharmacists at Entry to Practice^{2,3}
 - b. Part 3 of the Canadian Pharmacy Residency Board (CPRB) Accreditation Standards January 2010⁴
 - c. Part 3 of the CPRB Accreditation Standards for Advanced (Year 2) Pharmacy Residencies May 2016⁵
 - d. The Canadian Council for Accreditation of Pharmacy Programs (CCAPP) Accreditation Standards for Canadian First Professional Degree in Pharmacy Programs January 2018⁶
- 4. Make connections between the following concepts: educational outcomes, competencies, milestones and entrusted professional activities (EPA).
- 5. Identify sources of candidate EPA for student pharmacists.
- 6. Describe, using an example, how EPA can be used to evaluate progression in a first professional degree program.

CONCEPTUAL FRAMEWORK: EVOLUTION SINCE 2010

Canada is moving inexorably toward the goal of graduating pharmacists with a Doctor of Pharmacy degree as the first professional degree in pharmacy. The *AFPC Educational Outcomes for First Professional Degree Programs in Pharmacy in Canada 2017*⁷ (EO2017) represent a conceptual shift in the application of competency-based education in pharmacy in Canada (Table 1). Foremost in the conceptual shift is the application of competency-based education terminology in role statements that make up the educational outcomes. EO2017 differentiates competency from competence as described by Khan et al.⁸ In brief, "competency" describes a skill while "competence" is the ability to perform the skill. Therefore, in EO2017, key and enabling competencies describe the skills that a graduate must demonstrate by the end of the academic program. For curriculum committee members, key and enabling competency statements from EO2017 should prompt the following questions:

- What would a student pharmacist need to know (facts, principles, procedures, theories, mental capabilities to process knowledge, experience, etc.) to be able to perform this competency?
- How would a student pharmacist need to feel (believe, value, behave) to be able to perform this competency fully?
- What psychomotor capabilities would a student pharmacist need to possess to perform this competency?
- What would or should it look like if this competency were performed by a student pharmacist in the early, middle and culminating stages of development, and at graduation from the program?
- How might we evaluate the extent to which a student pharmacist is able to perform this skill with a defined capability at time point "x"? (Figure 1).

Responses to these questions establish the learning objectives, content, expected progression of learning and assessment structure that informs a curriculum in relation to a particular competency.

The goal of pharmacy education is the second shift in EO2017. The goal of the 2010 AFPC Educational Outcomes for First Professional Degree Programs in Pharmacy (Entry-to-Practice Pharmacy Degree Programs) in Canada (EO2010) was to ".... graduate Medication Therapy Experts who could integrate knowledge, skills and attitudes from the seven (Care Provider, Communicator, Collaborator, Manager, Advocate, Scholar, Professional) domains in the educational outcomes." In comparison, EO2017 calls for graduates who are "...Care Providers who use their Medication Therapy Expertise to benefit patients, communities and populations."

This conceptual shift means that the development of medication therapy expertise is to be evaluated, minimally, in the context of the Care Provider role. It follows that the foundational sciences, which are the basis of medication therapy expertise, are referenced as an enabling competency in the Care Provider role (*Enabling Competency CP1.1*) rather than in the Scholar role, where many programs mapped foundational sciences in the past. Additionally, since the goal is for graduates to use their medication therapy expertise in the care of patients, the *Concepts: Care Provider Role Concept A3 – application of core clinical and biomedical sciences to pharmacy care* in EO2017 indicate that application or higher levels of cognition (Bloom's taxonomy) is required. The comment of one stakeholder about EO2017 Draft Version 3 provides an accurate summary of the conceptual shift: "While the emphasis on patients in pharmacy education and practice has been emerging for some time, putting patient care at the center seems to complete a process of maturation and professionalization almost three decades in the making." 12

Table 1: Comparison of the Conceptual Framework for the AFPC Educational Outcomes 2010 and AFPC Educational Outcomes 2017

AFPC Educational Outcomes 2010 ⁹	AFPC Educational Outcomes 2017 ⁷
The goal is to graduate Medication Therapy Experts who can integrate knowledge, skills and attitudes from the seven (Care Provider, Communicator, Collaborator, Manager, Advocate, Scholar, Professional) domains in the educational outcomes.	The goal is to graduate Care Providers who are medication therapy experts and who are grounded in a Professional identity. These graduates skillfully integrate Communicator, Collaborator, Leader-Manager, Scholar and Health Advocate capabilities in their Care Provider role.
The expression of each domain is independent of and has no particular relationship to one another.	Domains are called Roles. The relationship of Roles to one another is defined:
	The Professional Role and its associated competencies are the overarching ethos of the discipline.
	The Care Provider competencies are the core of what pharmacists do. All other roles are evaluated, minimally, in relation to the Care Provider role.
	 Communicator, Collaborator, Leader-Manager, Health Advocate and Scholar competencies support the Care Provider and Professional roles.
Patient care services are an integral component of distributing and dispensing medications.	Patient care is the core of the discipline of pharmacy; distributing or overseeing distribution, dispensing or overseeing dispensing, prescribing and administering medications are part of pharmacists' patient care role.
Outcomes are expressed as statements within each of the Care Provider, Collaborator, etc., domains. Competencies are not referenced in a domain.	Competencies that are the foundation of pharmacist education are organized under Role headings. All of the role headings, taken together, equal the Educational Outcomes. A single role statement (e.g. Scholar) is not an educational outcome in and of itself and therefore its enabling competencies would not be evaluated in isolation of enabling competencies for other roles.
Concepts that underpin the domain statements are not identified.	There is an explicit description of the concepts that underpin the key and enabling competencies for each role statement. The concepts guide development of milestones and learning objectives associated with key and enabling competencies for a role.
Terminal (at graduation) performance levels are described in a companion document. Levels provide descriptions "at", "above" and "below" expected performance.	Performance levels (milestones) have not yet been defined nationally but the competencies as written would enable development of a performance continuum for "entry to" through "exit from" the pharmacy profession. Milestones support evaluation of progression throughout the academic program, at the end of the program, at the point of entry to the profession, at transition to Year 1 or Year 2 residency programs, and/or transition to specialty training programs that might develop in the future. Milestones would simplify and harmonize the competencies and implied performance expectations of Canadian pharmacy organizations (e.g. NAPRA; Canadian Pharmacy Residency Board/CPRB; bodies that might define competencies for specialties in pharmacy in Canada in the future)

AFPC EDUCATIONAL OUTCOMES RELATIVE TO COMPETENCIES OF OTHER PHARMACY ORGANIZATIONS

What might not have been evident in EO2010 is the relationship between the AFPC Educational Outcomes and the competencies produced by other Canadian pharmacy organizations, including the assumed levels of performance that form the foundation of those documents. Most Canadian pharmacy educational outcomes published after 2007 were constructed using the conceptual framework adapted for healthcare by Khan et al (Figure 1). "Training" referred to in Figure 1 was understood to mean the process of developing new skills through what is taught in a first professional degree program in pharmacy. "Deliberate practice" was interpreted as the facilitated (as in the case of structured internships or post-graduate academic programs such as residencies or fellowships) or unfacilitated (self-rehearsed) development of skills beyond the pharmacy entry-to-practice level defined by NAPRA. APRA. In addition, performance level definitions of Khan et al were used to design the various competencies and supporting documents published by Canada's pharmacy organizations:

- **Incompetent**: unable to perform the skill
- **Novice**: rule (protocol)-based performance of the skill; unable to handle complexity; tasks associated with the skill are seen in isolation from other tasks
- Advanced beginner: guideline-based performance of the skill; can partly handle complex tasks associated with the skill; task seen as part of a whole series of steps
- **Competent**: performance uses rules and guidelines but also incorporates experience in using the skill; able to handle complex tasks; task is seen as one construct
- Proficient: performance increasingly based on experience; performs to standard routinely; able to
 dissect and think critically about complex tasks; identifies options and opportunities beyond the
 immediate task
- Expert: performance based on experience and intuition; performs beyond standard; moves easily and without effort between analytical and intuitive analysis of complex tasks; routine application of options and opportunities beyond the immediate task
- Master: performance as a reflex (don't need to think about it); sets new standards of performance; deals with highly complex situations intuitively; possesses a unique vision of what is possible beyond the task at hand.

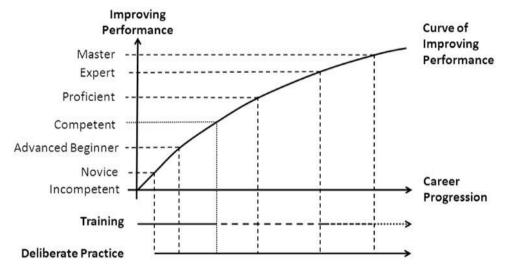


Figure 1: Curve of improving performance adapted for health care (Khan et al⁸ modified from Dreyfus and Dreyfus¹⁰ and ten Cate et al¹¹)

As indicated in the performance level definitions provided above, experience is required for performance levels at and beyond competent. At the time of EO2010 implementation, most Canadian first professional degree in pharmacy programs were baccalaureate programs with at least 16 weeks of required practice experiences throughout the program. The AFPC Levels of Performance Expected of Students Graduating from first Professional Degree Programs in Canada and an another expected performance at competent, a level of performance consistent with that expected by the Pharmacy Examining Board of Canada in its Pharmacist Qualifying Examination Part I and Part II, which was based on the National Association of Pharmacy Regulatory Authorities (NAPRA) Professional Competencies for Canadian Pharmacists at Entry to Practice 2009³ and as revised in 2014 (hereinafter referred to as NAPRA2014).

The advent of first professional Pharmacy Doctorate programs, which contain significantly more practice experience within the academic program itself, provide the opportunity for student pharmacists to achieve competent performance at an earlier point in the academic program and potentially could lead to minimally proficient levels of performance on the curve of improving performance for some competencies by the end of the program (Figure 1). In fact, the *Canadian Council for Accreditation of Pharmacy Programs (CCAPP)*Accreditation Standards for Canadian First Professional Degree in Pharmacy Programs 2018 (CCAPP2018)⁶ anticipated that such a change could occur, or might have already occurred in the most long-standing of entry-level Doctorate in Pharmacy programs in Canada. For example, CCAPP2018 calls for programs to demonstrate that students are "...practice- and team-ready before starting culminating direct patient care required practice experiences". In other words, for programs that have, in the past, required student pharmacist performance to be competent at the end of the program, this standard communicates the expectation of students' practice and team-readiness at an earlier stage in student pharmacist development. In making this change, the expectation is that student pharmacists will have sufficient preparation to make maximal use of culminating practice experiences to improve Care Provider performance (beyond minimally competent to competent or beyond) before graduation — in effect, this shifts the curve of improving performance to the left.

Given the important connections between the EO2017 and NAPRA2014 competencies, one might ask why it was necessary to produce educational outcomes for first professional degree programs in pharmacy that are distinct from the NAPRA2014 competencies. One important reason relates to the purpose of each document. NAPRA2014 competencies underpin the National Model Licensing Framework that supports labor mobility; they also form the basis for the Pharmacy Examining Board of Canada's national competency assessment examinations. By comparison, EO2017 describe competencies that define the educational outcomes of an academic program that leads to a degree in pharmacy. Although most graduates of pharmacy degree programs eventually achieve licensure as a pharmacist in a Canadian jurisdiction, first professional degree programs in pharmacy also prepare graduates who can apply expertise in roles that do not involve pharmacist licensure (e.g. foundational sciences; management, leadership and advocacy roles; health policy or health policy administration roles; research roles). EO2017 provide sufficient latitude to develop both broad and pharmacy-specific capabilities in graduates that are alluded to by CCAPP2018.

A second reason for the differences between EO2017 and NAPRA2014 is the continued gap between capabilities of graduates upon graduation from a first professional degree program in pharmacy, and the capabilities required by some regulatory authorities for licensure at entry-to-practice. In 2010, most regulatory authorities required a pharmacy graduate to complete additional practice experiences (e.g. structured practical training program, internship) or other evaluations of readiness to practice pharmacy before licensure as a pharmacist. Since 2010, changes in pharmacy curriculum have narrowed the capability gap at graduation, which has prompted several regulatory authorities to eliminate the need for graduates to obtain additional practice experience prior to registration/licensure. However, at the time that EO2017 were developed, several regulatory authorities still had a requirement for structured practice experiences prior to licensure as a pharmacist. For this reason, harmonization of EO2017 with the NAPRA2014 competencies was impractical. Although a program might be able to show that it meets EO2017, this does not mean it has automatically met NAPRA2014. EO2017

has been designed to enable collaborative development of national milestones that could facilitate harmonization of EO2017 with NAPRA2014 when the time is right.

Many Canadian Faculties of Pharmacy deliver or work in partnership with pharmacy residency programs. The Canadian Pharmacy Residency Board (CPRB) Accreditation Standards January 2010⁴ emphasize design of residency programs that facilitate deliberate practice along the framework for the curve of improved performance established by EO2010. Accordingly, proficient is the expected performance level for the Care Provider competency for Year 1 residencies.⁴ Competent was selected as the performance level for the leadership, project management, education/teaching and practice management competencies. This performance level along the curve of improved performance recognizes that EO2010 did not call for significant development of those skills. The CPRB Accreditation Standards for Advanced (Year 2) Pharmacy Residencies 2016⁵ communicate the expectation that program design will continue a resident's professional growth along the curve of improved performance in the areas of care provision, leadership, education/teaching and research. In CPRB2016, performance is anchored at expert for the residency equivalent of EO2010's Care Provider and Collaborator roles ("Provide evidence-based direct patient care as a member of interprofessional teams"), and at proficient for the remaining competencies. The design of EO2017 enables the collaborative development of national milestones that could facilitate harmonization of AFPC EO2017 with those of CPRB2010 and CPRB2016, as well as other organizations that, in the future, might develop competencies for training or certification of specialist pharmacists.

The development of milestones for each enabling competency, as has been done for the discipline of Medicine in Canada¹⁶ for all phases of development (e.g. initial training to exit from the discipline), can minimize misaligned expectations and provide clarity about progress along the continuum of improving performance. For example, CanMEDS 2015 milestones for the Collaborator role define the expected performance for a medical student at the end of the program with respect to the enabling competency "negotiating overlapping and shared responsibilities with other healthcare providers". The performance expectation is extremely modest and certainly well below the level that would be considered minimally competent. It is not that this enabling competency is of little importance when compared with other competencies in undergraduate medical curriculum. Rather, it is that having a high level of this skill at the medical student stage of training expects too much too soon given the amount of experience that can be acquired with this skill in an undergraduate program. Since milestones for residency, transition to practice, continuing professional development and transition out of medical practice have been defined, another medical student with a different level of skill could be credited with achieving a milestone beyond what is expected at the medical student stage of development. Perhaps most importantly, the assessment of this and other milestones are valid consistent across Canada rather than being program-specific.

MAKING CONNECTIONS: EDUCATIONAL OUTCOMES, COMPETENCIES, MILESTONES, ENTRUSTED PROFESSIONAL ACTIVITIES

Curriculum designers are experts at working "backwards" from the competencies that comprise educational outcomes (Outcomes) in order to design a curriculum (Figure 2). If a curriculum designer knows the intended outcomes, it is possible to define learning objectives that relate to each competency. Those objectives can then be organized into units of instruction or courses. When those units of instruction or courses are delivered in a particular way (Structure), this enables a student to achieve the intended outcomes in a reliable, efficient and effective manner. Strategic assessment (Process) at various intervals during delivery of the curriculum assures, and evaluation at the end of the program, ensures that the intended educational outcomes have been met.

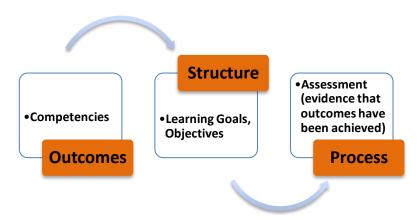


Figure 2: Curriculum design in competency-based education

The intent of competency-based education is to allow students to progress based on their ability to demonstrate a competency at their own pace. However, for practical reasons, the pharmacy curriculum needs to have intelligent and deliberate design that paces skill acquisition for a group of students while still respecting the individualistic principles of competency-based education. For designers of competency-based pharmacy curriculum, the fundamental challenge is how to bundle content and design the best sequence (scaffold, ladder) of instruction to provide students with the opportunity to develop competencies at a pace which is neither too slow for all nor too rapid for some. At the same time, there must be a system of assessment that can reliably identify students who are clearly not prepared to progress to the next stage of development. Ideally, the system of assessment can also identify students who are clearly prepared to perform a competency and who can progress to perform tasks with independence (entrusted professional activity) in simulated and actual care situations (Figure 3).

The concept of milestones and entrusted professional activities (EPA) in pharmacy education is not particularly new, but applying the language of milestones and EPA to what is already in place might well be new to some individuals. A milestone is an observable measure, along the curve of improved performance, of an individual's ability to engage in the practice of pharmacy. EPA are essential tasks (EPA) are the means by which achievement of milestones is measured. EPA are essential tasks (activities) of the practice of pharmacy that an individual can be trusted to perform within a given timeframe and that can be delegated to that individual to perform. In other words, EPA translates competency milestones (usually a bundle of them) into a product of pharmacist work. Assessment of an EPA provides a window through which one can observe the particular bundle of competencies that underpin the EPA.

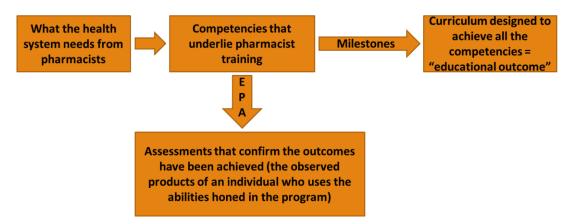


Figure 3: Relationship between Educational Outcomes, Competencies, Milestones and Entrusted Professional Activities

Using products of pharmacy work to measure performance is not new to pharmacy first professional degree programs in Canada. Most programs expect student pharmacists to demonstrate the ability to prepare a care plan, perform a medication history, educate a patient, prepare a drug pursuant to a prescription, and so on. In assessment tools for practice experiences, a broadly-stated task (e.g. perform a medication history) is often a requirement in each experiential placement over the duration of the program; however, in many cases the degree to which the task is performed in the environment and the type of interview that is carried out is at the discretion of the preceptor. Unlike the United States or the Netherlands, Canada has not yet developed a nationally agreed list of EPA for pharmacy. ^{19.20} In addition, the level of entrustment (Table 2) that a student pharmacist must demonstrate to progress to the next stage of development along the continuum of performance improvement has not been defined nationally.

Preceptor/mentor/supervisor actions with respect to student pharmacists are influenced by pharmacy practice legislation in the province where the student is being assessed; therefore, the extent to which a student pharmacist is entrusted to perform a task is often at the discretion of the preceptor/mentor and the level of entrustment is not necessarily reflected in the final assessments that are submitted by preceptors. The result is that, in experiential placement settings, one preceptor might entrust a student pharmacist to oversee a junior colleague who is performing a focused medication interview (EPA Level 5), but another preceptor will only permit the same student pharmacist to complete a best possible medication history when a preceptor is present (EPA Level 2). There are many possible interpretations of this scenario. Is the preceptor assessing the student pharmacist in the first instance related to a task for which the student pharmacist is not yet prepared or is the student fully prepared and enabled by the preceptor to carry out the task? In the second instance, is the student pharmacist unprepared, leading the preceptor to distrust the student pharmacist's ability to perform the task without supervision, or is the student pharmacist fully prepared but restricted in his/her opportunity to gain valuable (increasingly independent) practice experience? Is it possible to conclude that the student pharmacist is "practice ready"? Making full use of EPA concepts, especially as it relates to demonstrating practice-readiness and team-readiness as required by CCAPP2018, requires that there is an explicit statement of EPA and levels of entrustment or similar evaluation of progression along the continuum of development.

Table 2: Levels of Entrustment¹⁸

EPA Level (1=low; 5=high)	Performance Level Description
1	Observation only, even with direct supervision
2	Perform with direct, proactive supervision
3	Perform with reactive indirect supervision (e.g. on request and supervisor readily available)
4	Indirect supervision (at a distance and after the fact)
5	Learner provides supervision to more junior colleagues

As stated earlier, EPA provide a window through which to view student pharmacist performance related to a milestone. When the EPA has been achieved, the milestone has been reached and it's time to move along to preparation for the next milestone. Although most competency-based education documents limit the number of milestones in order to reduce complexity, it is entirely reasonable for a program to design "mini-milestones" that mark a student pharmacist's progress along the developmental continuum prior to graduation. For example, consider the EO2017 Care Provider enabling competency "Collect, interpret and assess relevant, necessary information about a patient's health-related care needs.". Candidate EPA for "gathering patient information" might include a comprehensive patient interview (CPI), a focused patient interview (FPI), a best possible medication history (BPMH), and so on. As previously stated, EPA need to be completed within a defined timeframe and this information can be used for performance coaching to aid progression or remediation of below expected performance. Using high performance athletes as an example, high (or minimally acceptable) performance has a clear goal when the gold medal (or qualifying) standard is known.

Setting aside the debate about the validity of current performance metrics in pharmacy practice, it is possible to estimate a target timeframe for gathering patient information from comprehensive and follow-up medication review performance metrics (expressed as billable hours) that exist in several provinces. In all provinces where reimbursement for such tasks exists, the reimbursement is assumed to include time required to gather patient data as appropriate to the comprehensive (e.g. CPI, BPMH) or follow-up (FPI, BPMH) task. What would comprise the bundle of competencies for a milestone involving gathering patient information? What would the performance descriptors be if the student pharmacist were a novice versus an advanced beginner? Which patient information gathering EPA would be most suited to provide a window on performance of that novice student pharmacist? Would one use the same EPA for the beginner or advanced beginner student pharmacist? At which level of entrustment would the novice student pharmacist need to perform in order to progress beyond the first milestone? Does the level of entrustment change if it's a beginner student, an advanced beginner, a student who is poised to begin the culminating required direct patient care experiences, or the student who is about to graduate? Who makes the entrustment decision and how is it arrived at? The answers to these questions guide the development of EPA aligned with milestones that confirm attainment of the competencies that make up the educational outcomes.

When it comes to EPA that involve gathering patient information or any other competency, it's important to inquire about and observe what happens in every day practice settings. Many pharmacists work in environments where BPMH are conducted by pharmacy technicians, pharmacy assistants who have added training, reception staff (e.g. in primary care or family health team settings), or health professions students. A task such as a BPMH, which is arguably the simplest of patient information gathering tasks when compared with CPI and FPI, could become the first rung on a "Gathering Patient Information EPA Progression Ladder".

BPMH also lends itself to progressively higher levels of entrustment over the curve of improved performance in a student pharmacist's development. In fact, in organized healthcare settings, BPMH done by a junior student are often overseen and assessed by a more senior learner. Would all preceptors entrust and score a novice student pharmacist and a graduating student pharmacist correctly if the EPA being assessed were a BPMH? Without a program's clear statement of the expected level of entrustment, and clarity regarding when a BPMH must be demonstrated with a particular of entrustment, it's impossible to know for sure.

SUMMARY

EO2017 calls for graduates who are "...Care Providers who use their Medication Therapy Expertise to benefit patients, communities and populations." EO2017 were constructed using the conceptual framework described by Khan et al.⁸ Although a program might be able to show that it meets EO2017, this does not mean it has automatically met NAPRA2014. EO2017 has been designed to enable collaborative development of national milestones that could facilitate harmonization of EO2017 with NAPRA2014, CPRB2010 and CPRB2016 when the time is right. CCAPP2018 calls for programs to demonstrate that students are "...practice- and team-ready before starting culminating direct patient care required practice experiences". EPA can be used to measure the milestones along the curve of improved performance, of a student pharmacist's ability to engage in the practice of pharmacy. Assessment of an EPA provides a window through which one can observe the particular bundle of competencies that underpin the EPA. The Care Provider enabling competency "Collect, interpret and assess relevant, necessary information about a patient's health-related care needs." and the associated EPA (BPMH, CPI and FPI) provides one example of how EPA or a deliberately sequenced series of EPA can be used to evaluate progression in a first professional degree program.

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Donna Woloschuk was the Consultant who provided assistance for this project and prepared User Manual Sections A – D documents. Section E, the User Guide for the Professional Role, was prepared by the AFPC AdHoc Professionalism Committee.

RESOURCES

Recommended Readings:

Fjortoft N. The challenge of the Accreditation Council for Pharmacy Education's Standard Four: Identifying, Teaching, Measuring. Am J Pharm Educ 2016;80(5) Article 73.

Khan R, Ramachandran S. Conceptual framework for performance assessment: competency, competence and performance in the context of assessments in healthcare – deciphering the terminology. Med Teach 2012; 1-9. doi: 10.3109/0142159X.2012.722707

Pittinger A, et al. Entrustable professional activities for pharmacy practice. Am J Pharm Ed 2016; 80(4): 57.

Helpful Resource:

American Association of Medical Colleges. Core Entrustable Professional Activities for Entering Residency: Curriculum Developers Guide. Washington, DC: Ibid: 2014

REFERENCES

- 1. Cor K. Association of Faculties of Pharmacy of Canada Educational Outcomes Focus Group Report. Edmonton AB, 2016.
- The National Association of Pharmacy Regulatory Authorities (NAPRA). NAPRA Professional Competencies for Canadian Pharmacists at Entry to Practice 2014 http://napra.ca/Content_Files/Files/Comp_for_Cdn_PHARMACISTS at EntrytoPractice March2014 b.pdf Accessed March 12, 2017.
- 3. The National Association of Pharmacy Regulatory Authorities (NAPRA). NAPRA Professional Competencies for Canadian Pharmacists at Entry to Practice 2009. Accessed June 2, 2009.
- CPRB Accreditation Standards for Advanced (Year 2) Pharmacy Residencies May 2016
 http://www.cshp.ca/programs/residencytraining/CPRB%20Accreditation%20Standards%20for%20Advancedmackw20Pharmacy%20Residencies.pdf Accessed March 12, 2017.
- Canadian Council for Accreditation of Pharmacy Programs. Accreditation Standards for the First Professional Degree in Pharmacy Programs, January 2018. Toronto, ON: CCAPP; 2017. Available: http://ccapp-accredit.ca/wp-content/uploads/2016/01/Accreditation-Standards-for-Canadian-First-Professional-Degree-in-Pharmacy-Programs.pdf Accessed March 12, 2017.
- 7. Association of Faculties of Pharmacy of Canada. Educational Outcomes for First Professional Degree Programs in Pharmacy in Canada 2017. June 2017. Available: http://www.afpc.info/node/39
- 8. Khan R, Ramachandran S. Conceptual framework for performance assessment: competency, competence and performance in the context of assessments in healthcare deciphering the terminology. Med Teach 2012; 1-9. DOI: 10.3109/0142159X.2012.722707
- Association of Faculties of Pharmacy (AFPC). Educational Outcomes for First Professional Degree Programs in Pharmacy (Entry-to-Practice Pharmacy Programs) in Canada. Vancouver BC: 2010. Accessed March 12, 2017.

- 10. Dreyfus HL, Dreyfus SE. Mind over machine: The power of human intuition and expertise in the era of the computer. New York, NY: The Free Press; 1986.
- 11. ten Cate O. Nuts and bolts of entrustable professional activities. J Grad Med Ed 2013; 5(1): 157-8.
- 12. Association of Faculties of Pharmacy of Canada Educational Outcomes 2017 Draft Version 3 Consultation, March 2017 (unpublished data).
- 13. Halapy H, Satchu S. Comparison of Canadian pharmacy education and practice standards with Accreditation Standards of the Canadian Pharmacy Residency Board. Can J Hosp Pharm 2016; 69(6):473-9.
- 14. The Canadian Council for Accreditation of Pharmacy Programs (CCAPP) Accreditation Standards for Canadian First Professional Degree in Pharmacy Programs 2005.
- 15. AFPC Levels of Performance Expected of Students Graduating from first Professional Degree Programs in Canada (AFPC 2011) https://www.afpc.info/sites/default/files/EO%20Levels%20of%20Performance%20May%202011%20AFPC %20Council.pdf Accessed March 12, 2017.
- 16. Frank JR, Snell LS, Sherbino J, et al. Draft CanMEDS 2015 Milestones Guide May 2014. Ottawa: The Royal College of Physicians and Surgeons of Canada; 2014 May.
- 17. Australian Healthcare and Hospitals Association. Pharmacy Standards Review Project Final Report for the Pharmacy Practitioner Development Committee. Deakin, Australia: Ibid; March 2015.
- 18. Pittinger A, et al. Entrustable professional activities for pharmacy practice. Am J Pharm Ed 2016; 80(4): 57.
- 19. American Association of Colleges of Pharmacy (AACP). Core Entrustable Professional Activities for New Pharmacy Graduates. Alexandria, VA: Ibid; November 2016. Available: http://aacp.org/resources/education/cape/Pages/EPAs.aspx Accessed March 12, 2017.
- 20. Royal Dutch Pharmacists Association. Education Plan: Advanced Community Pharmacist Education Program April 2012. Ibid: April 2012.



PO Box 59025 Alta Vista Ottawa, ON Canada K1G 5T7 613-298-7167 executivedirector@afpc.info