



Project Proposal

Pharmacy Foundational Review Guide For Internationally Educated Pharmacists

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For:

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Executive Summary

It is generally accepted that there is a shortage of most health care professionals in Canada, pharmacists included, and internationally-educated health professionals (IEHPs) are starting to be seen as a valuable resource to help allay this shortage. As a result, federal and provincial government ministries, as well as universities and colleges, UBC among them, are starting to look at ways to assist these professionals to integrate into their respective professions in Canada. For internationally-trained pharmacists (ITPs), the Pharmacy Examining Board of Canada (PEBC) examinations are the major hurdle that must be overcome before being eligible for licensure in any of the provinces in Canada.

In December 2004, the design of a completely new, independent program was started under the auspices of the UBC Faculty of Pharmaceutical Sciences, Division of Continuing Pharmacy Professional Development. A Needs Survey was conducted in early 2005 in order to determine the extent of the demand for the program among ITPs, as well as the demand for the various components of the program on the part of Canadian-trained pharmacists who wished to return to practice after an absence. As a result of the Needs Survey, design of the Canadian Pharmacy Practice Programme (CP3) was completed and the program was offered for the first time in May 2005.

Since the inception of the program and while speaking to future registrants, we have become aware of its pivotal nature for many candidates. The creation of the program came, for them, at a time when they were contemplating abandoning their chosen profession due to the difficulties they were encountering in becoming licensed to practise. The program renewed their hope.

We have, however, also discovered a gap in services for many of these international candidates. The process towards Canadian licensure is a lengthy one for ITPs. The steps in this process are as follows: initially, they must have their qualifications assessed; pass an Evaluating Examination (EE), which tests their basic pharmaceutical knowledge; pass a two-part Qualifying Examination, of which Part I is the Multiple Choice Question (MCQ) exam and Part II is the Objective Structured Clinical Examination (OSCE); pass a provincial jurisprudence exam; meet the language requirements of the provincial licensing body; and, finally, complete specified internship hours.

The gap we have discovered is in the initial stages of preparing for licensure. As stated above, one of the required examinations is the EE, which tests basic pharmaceutical knowledge. Many of the ITPs who have immigrated to Canada have been practising in their respective countries for 20 years or more. Even though they have studied this material at university, the passage of years means that the preparation for this exam requires, essentially, relearning the material taught in a four- or five-year program at university. For many adult learners this is a daunting challenge and, without guidance on where to focus their studying, seems an impossible one.

Many candidates have contacted the Canadian Pharmacy Practice Programme for help in preparing for this exam but, currently, such assistance is beyond the scope of the program. We would like to be able to help these much-needed professionals and feel that a Foundational Review Guide as a preparation for the PEBC Evaluating Examination would be the most efficient way to do so.

Project Objective

Many of the ITPs contemplating the hurdles to overcome before attaining licensure in Canada are discouraged by the preparations necessary to pass the PEBC Evaluating Exam (EE). The examination tests basic pharmaceutical knowledge. This knowledge is common to all pharmacy programs worldwide but, because it forms the underpinnings of practise and is not specifically used *per se*, needs to be relearned for the EE. Many candidates assess the challenge involved in preparing for this exam and decide not to proceed. Others prepare themselves using recommended texts but, since this is essentially unfocussed study, attempt the exam several times before either succeeding or giving up.

This project would have as its objective the preparation of a focussed study guide for these candidates. This guide would be in the form of individual modules for each study area, with each module being set up like a standard Continuing Education (CE) lesson: a self-study review of each topic with questions at the end for the candidates to test their understanding of the material.

Rationale

The Canadian Pharmacy Practice Programme (CP3) was established to provide ITPs with the knowledge and skills required to successfully practise pharmacy in Canada. This program prepares the candidates for the two-part PEBC Qualifying Examination. Many candidates attempt these two exams several times before being successful. Since these exams are only offered twice each year and the fees for sitting these exams are significant (\$300 for the Multiple Choice Questions [MCQ] and \$1,350 for the Objective Structured Clinical Examination [OSCE]), the time and financial investment to become a licensed pharmacist is significant for an internationally trained graduate. It was felt that any improvement in the performance of these internationally trained pharmacists would be beneficial in improving access to this important professional resource.

In order to register in the program, a candidate must have passed the EE. In the last year and a half since the inception of CP3, the program coordinators have become a source of information regarding the entire licensing process for ITPs, giving us an insight as to just how much of an obstacle the EE is for potential registrants. We have received 73 queries from candidates who wish to register in our program but need to pass the EE before they are eligible to do so. The majority of these have already attempted the exam more than once and because, like the MCQ and OSCE exams, it is only offered twice each year, the investment in time is significant for these candidates. Some candidates, after failing the EE on three occasions, appeal to PEBC requesting the possibility of a fourth sitting and are required to complete 78 CE units before they are permitted to do so.

As well, the syllabus for the EE has recently been expanded and the next sitting will be the first since the introduction of the new syllabus. Several potential candidates have stated that, due to the lack of any study assistance, whether a guide or a course, they have decided not to pursue licensure.

While we realise that anecdotal evidence could be considered insufficient for a major investment in a project of this type, we have, as yet, been unable to obtain any more concrete numbers from PEBC, the examining body. We have requested from them information on the number of BC candidates who have challenged the EE in each year of the past 3 or 4 years, the number of these candidates who have done so on more than one occasion and the number who do not complete this phase. As

this organisation is historically reticent in providing statistical information, we do not expect to receive a positive response.

Project Suitability

CP3 is offered under the auspices of the Division of Continuing Pharmacy Professional Development (CPPD) at the UBC Faculty of Pharmaceutical Sciences. Pharmacists, as practising professionals, are required to maintain a standard of knowledge throughout their careers. As a result, CPPD has a wealth of experience in providing Continuing Education (CE) to pharmacists in BC, including the preparation and marketing of written CE lessons with test questions.

The department does not feel it has the resources that would be needed to create a classroom-based course to prepare candidates for the EE; however, with the experience within the department and the Faculty members who teach the various subject areas in the UBC Faculty of Pharmaceutical Sciences, the concept of preparing CE-based study guides for each subject area tested on the EE becomes a very feasible one.

The proposed study guide would be made up of a CE module for each subject area in the syllabus of the EE. There are a total of sixteen subject areas and the advantage of the module format is that a candidate would be able to purchase the entire package or any number of individual modules, depending on study requirements. The modules would be as follows:

1. Biochemistry/Genomics and Molecular Biology/Nutrition/Clinical Biochemistry
2. Physiology/Functional Anatomy and Immunology
3. Pathophysiology and Pathology
4. Medical Microbiology
5. Pharmaceutics and Drug Delivery Systems
6. Pharmacokinetics and Biopharmaceutics
7. Medicinal Chemistry
8. Pharmacology
9. Toxicology and Clinical Toxicology
10. Pharmaceutical Analysis
11. Biotechnology and Pharmacogenetics
12. Therapeutics, including Non-Prescription Medication
13. Professional Practice Skills
14. Pharmacy Administration
 - a. Canadian Health Care Systems
 - b. Society and the Profession of Pharmacy
 - c. Pharmacy Management
 - d. Pharmacoeconomics
15. Pharmacoepidemiology and Biostatistics
16. Bioethics

Expected Outcomes

At the end of the project, CPPD will have a study guide, consisting of sixteen individual modules, to provide to EE candidates. Each module will focus on one of the subject areas in the EE syllabus

and will be available as a stand-alone preparation guide for that subject. Together, these sixteen modules will provide a complete review of the materials tested in the EE. With this format, we will be able to provide a range of options for candidates preparing for the EE.

In general, these subject areas, while they form the underpinnings of the clinical knowledge required by practising pharmacists, change little from year to year. As a result, the modules will not need to be frequently updated to remain current, avoiding an ongoing expenditure for that purpose.

With assistance of this type, we foresee that EE candidates will have a greater chance of success with this exam, meaning that fewer of them will need multiple attempts to pass and that candidates will be less likely to give up on Canadian licensure before they even begin the process. This will, in the long term, mean that a smaller proportion of this valuable resource will be lost to the profession of pharmacy and the health care system in Canada.

Work Plan

The expectation is that this project will take one year to complete.

Approach: As is the usual process with CE lessons, experts in the various subject areas will be contracted to develop and write each module. Once a module is completed, it will be reviewed at three levels: by an expert in the subject for completeness and validity; by a language specialist to ensure that the language level is appropriate for an English as a Second Language (ESL) reader; and by a reviewer to ensure general readability and comprehensibility of the material. All comments will be passed on to the author for consideration in revising the manuscript.

Once all revisions are completed, the module will be ready for copy editing and formatting. The printing of the modules will be the final preparation stage. At this point, the modules will be ready for distribution.

Advertising will be concurrent with the preparation of the modules. The College of Pharmacists of British Columbia (CPBC) is one of the first points of contact for ITPs seeking information on the licensing process, as is CP3. In fact, CPBC usually refers all queries to CP3 and, consequently, the program has become the *de facto* central information source for ITPs in BC. CPBC has a complete list of all pharmacists and pharmacies in BC. CP3 has a list of all those ITPs in BC who have enquired about the EE and the licensing process. Between these two sources, an informational campaign should reach all potentially interested candidates.

Project partners: CP3 is in a unique position to engage prospective partners for this project. As part of the UBC Faculty of Pharmaceutical Sciences, the program has received support and cooperation from Faculty members. In fact, the program would not have been possible without their support. When discussing this new project, many of the Faculty members have expressed interest in and support for it. This is particularly important because it is the Faculty members who teach the material covered in the EE syllabus in the undergraduate program and who we expect to draw on as authors for the various modules.

CPPD has the experience that will be invaluable in producing the modules: engaging the authors, the review process, revision and editing and, finally, the formatting and printing of the final version(s).

CPBC will be an invaluable partner in this project. As the licensing body for pharmacy in this province, the college's recognition and support of this project will be invaluable both as an endorsement and a method of publicising the finished product.

Responsibility for the project: While working under the auspices of CPPD and using some of their facilities, CP3 will have overall responsibility for this project. These responsibilities will include engaging the writers, reviewers and editor(s), coordinating the workflow, preparing the finished modules for the formatting and printing process and, concurrently, preparing publicity for the finished product.

CPPD would be responsible for the printing and distribution of the modules through the existing operational facilities that handle the CE needs for practising pharmacists in the province. The resources of this division would be called on (and may need to be augmented) for clerical needs such as mailing out of the modules for review, collating reviewers' comments, photocopying and collation and tabulation of evaluation forms.

Deliverables: The deliverable for this project will be sixteen independent study modules, each one based on a field of study identified in the syllabus of the PEBC EE. These modules will be organised so that they can be used individually if a candidate needs help finding a study focus for a specific topic or as a whole if a candidate wishes guidance in studying all of the fields identified on the examination.

Timeline: The project is expected to take a year to completion, with a further month required to complete the required reports and process document. The expected sequencing is as follows:

Time Period	Responsibility	Activity
Months 1 & 2	CP3	Engage writers
Months 3 through 6	CP3	Initial draft of each module
	CP3	Engage reviewers
Months 7 & 8	CP3	Review and revision of each module
Months 9 & 10	CP3	Copy editing of the revised modules
Months 11 & 12	CPPD	Format and print the finished modules
	CP3/ CPPD	Begin publicising the modules
Month 13	CPPD	Begin shipping finished modules as orders arrive
Month 13	CP3	Prepare required reports and process document

Evaluation Plan

Performance indicators: The objective of this project is to provide a study guide in CE module format to assist ITPs in their preparation to write the PEBC EE, the first examination for these candidates in the process towards licensure as a practising pharmacist in Canada. Since this study guide is a tangible object, the initial performance indicator will be the actual production of this collection of CE modules.

The review process for each module in the study guide will be stringent, with the focus on content, readability (i.e. easy understanding of the content) and the language needs of ESL learners. In this

way, we will ensure that the study guide will meet the intended objective – assist ITPs prepare for the EE sooner and more easily than is currently the case.

The objective of a study guide is to assist ITPs prepare for and pass a specific examination, the PEBC Evaluating Exam. Since preparation for an exam of that magnitude can take months and, even, years, it may be several years for the ultimate performance indicator, increased success in this exam on the part of ITPs, to show itself. However, since we already know that some potential candidates decided not to sit this exam due to its inherent challenges, any increase in the numbers to sit this exam can be taken as an indication of the success of this project.

Project sustainability: Initially, funding is required to initiate and complete this project. The various partners do not have resources available to finance a project of this magnitude.

The UBC Faculty of Pharmaceutical Sciences receives funding through the normal channels for the undergraduate program but, since this project is outside of its mandate, funding for it is not available.

The CPPD division has the mandate to provide continuing education for pharmacists who are currently licensed to practise in BC and does not have resources available for any project that would exceed this mandate.

CP3 is a cost-recovery bridging program for ITPs that is still in its initial stages. The program is only in existence because funding was received from the BC Ministries of Health and Economic Development for its developmental stages and the Pilot Project, consisting of the initial two sessions.

CPBC is a professional licensing body and, again, a project of this sort falls outside of its mandate and, therefore, ability to levy additional fees from its members.

However, once the project is completed (i.e. preparation of the modules for the study guide) the project will become self-sustaining. All ongoing operating costs, such as the filling of orders for the modules, shipping (postage and supplies), any ongoing revisions (if needed) and continuing printing costs should be easily covered by charging a reasonable amount for each module or a pro-rated amount for the study guide in its entirety. Currently, a candidate preparing unassisted for the EE needs to buy several specialised textbooks, totalling hundreds of dollars, to use in unfocused self-directed study and a single, reasonably-priced study guide would be a preferable alternative.

Cost of preparing the EE study guide

We calculate that the project will cost \$113,220. The largest part of the cost, almost half, will be the writers' honoraria.

Since these modules are a type of CE lesson and one of the major activities of the CPPD division is producing and distributing these lessons to practising pharmacists, we have based our costs on current rates. This applies to the honoraria for writers and reviewers (expert, ESL and readability), as well as copy editing, formatting and printing costs. The costs for advertising the modules and their shipping and handling have been extrapolated from the existing costs within the CPPD division for distributing CE lessons to practising pharmacists. (see attached Excel file)