



MEDICAL COUNCIL
OF CANADA

LE CONSEIL MÉDICAL
DU CANADA

GUIDEBOOK FOR TEST COMMITTEE MEMBERS

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PREFACE

Dear Test Committee (TC) members:

Welcome to the Medical Council of Canada (MCC)!

As a TC member, you will have an opportunity to participate in creating high-quality examinations for our candidates. Dedicated content experts like you are the reason why the MCC enjoys a world-class reputation as a testing organization.

The purpose of this guidebook is to outline your role as a TC member, give you a broad overview of the MCC Examinations and provide you with information and resources that may be helpful when developing content.

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ACRONYMS USED IN THIS GUIDEBOOK

Official Designation		Official Designation	
AIG	Automated Item Generator	MCQ	Multiple-Choice Question
ARTF	Assessment Review Task Force	MOC5	Item Bank for All Item Types
CDM	Clinical Decision Making	NAC	National Assessment Collaboration
CEC	Central Examination Committee	NAC ³	National Assessment Central Coordinating Committee
CTT	Classical Test Theory	NEC	National Assessment Collaboration Examination Committee
EB	Evaluation Bureau	OSCE	Objective Structured Clinical Examination
EECC	Evaluating Examination Composite Committee	PAS	Psychometrics and Assessment Services
IMG	International Medical Graduate	PEP	Patient Encounter Probe
IRT	Item-Response Theory	PHELO	Population Health, Ethical, Legal, Organizational (aspects of the practice of medicine)
ITC	Item-Total Correlation		
IT	Information Technology	PHE	Population, Health and Ethics
LMCC	Licentiate of the Medical Council of Canada	AC	Research Advisory Committee
MCC	Medical Council of Canada	STDO	Senior Test Development Officer
MCCEE	Medical Council of Canada Evaluating Examination	TC	Test Committee
MCCQE Part I	Medical Council of Canada Qualifying Examination Part I	TDO	Test Development Officer
MCCQE Part II	Medical Council of Canada Qualifying Examination Part II	VC	Vice-Chair

1. ABOUT THE MCC

The MCC has a legislated national mandate to assure Canadians that their doctors, wherever they are in Canada and whatever their medical specialty, meet the same demanding and consistent quality standards.

As such, the MCC strives to achieve the highest level of medical care for Canadians through its excellence in evaluating physicians. It assesses over 11,000 medical students and graduates each year through its examinations that are offered in both official languages in sites across Canada, and in the case of the MCC Evaluating Examination (MCCEE), in more than 500 locations in over 80 countries.

GOVERNANCE

The MCC has a unique [governance structure](#) that brings together representatives from both regulatory authorities and faculties of medicine.

The MCC's policy direction is set by its Council, which has 52 positions that include:

- Two appointees from each provincial and territorial medical regulatory authority
- One member from each university in Canada that has a Faculty of Medicine
- Up to five members from the public
- Two student members
- Two postgraduate resident members

OUR STRATEGIC GOALS

As part of its mandate, the MCC is responsible for:

- Providing the Licentiate of the MCC (LMCC) qualification for entry into practice
- Initiating and promoting, with partners, a national integrated strategy of assessment of physicians throughout their careers
- Initiating and promoting innovation, research and development in assessment and evaluation
- Maintaining the Canadian Medical Register and promoting, with partners, the development of a national registry
- Maintaining and promoting liaison with competent provincial, national and international organizations in assessment and evaluation
- Maintaining its standing as an open, transparent, responsive and accountable organization

2. OUR EXAMINATIONS

At the MCC, we offer a number of computer-based (i.e., selected response and short-answer) and clinical skills (i.e., performance-based) assessments. Some of these are required for the LMCC, while others are used to evaluate International Medical Graduates (IMGs) entering the Canadian medical system. All our examinations are offered in both official languages.

The **MCC Qualifying Examination (MCCQE)** is divided into **two parts**:

MCCQE Part I	MCCQE Part II
<p>A one-day, computer-based examination that assesses the competence of candidates who have obtained their medical degree for entry into supervised clinical practice in postgraduate training programs. The examination assesses knowledge, clinical skills and attitudes as outlined in the MCC's Objectives.</p> <p>The examination currently consists of:</p> <ul style="list-style-type: none">• 196 Multiple Choice Questions (MCQs)• approximately 60 Clinical Decision-Making (CDMs) cases consisting of up to 80 questions <p>This information will change for the 2018 examination.</p>	<p>A two-day clinical skills examination that assesses the candidates' core abilities to apply medical knowledge, demonstrate clinical skills, develop investigational and therapeutic clinical plans, as well as demonstrate professional behaviours and attitudes at a level expected of a physician in independent practice in Canada.</p> <p>The examination consists of:</p> <ul style="list-style-type: none">• DAY 1: 8 ten-minute Objective Structured Clinical Examination (OSCE) cases• DAY 2: candidates participate in 4 couplet stations (i.e., six minutes with a standardized patient and six minutes to answer related test items) <p>This information will change as of the fall 2018 examination.</p>
<p><i>For more information – click here</i></p>	<p><i>For more information – click here</i></p>

For IMGs, candidates must take **two important examinations** before they can enter the Canadian training system:

MCC Evaluating Examination (MCCEE)	National Assessment Collaboration (NAC) Examination
<p>A four-hour, computer-based examination offered at more than 500 centres in 80 countries worldwide. IMGs must take the MCCEE as a prerequisite for eligibility to the MCC Qualifying Examinations. The MCCEE is a general assessment of the candidate's basic medical knowledge in the principal disciplines of medicine. It is also designed to assess the skills and knowledge required at the level of a medical graduate who is about to enter the first year of supervised postgraduate training.</p> <p>The examination consists of 180 multiple-choice questions covering the following domains:</p> <ul style="list-style-type: none"> • Child Health • Maternal Health • Adult Health • Mental Health • Population Health and Ethics <p>Please note that the MCCEE is different from the MCCQE Part I as it does not cover any Canadian aspect of medicine. This explains why there is no legal and organizational content in the exam.</p>	<p>A one-day clinical skills OSCE that assesses the readiness of an IMG to enter into a Canadian residency program. It assesses the candidate's core abilities to apply medical knowledge, demonstrate clinical skills, develop investigational and therapeutic clinical plans, as well as demonstrate professional behaviours and attitudes at a level expected of a recent graduate of a Canadian medical school.</p> <p>The examination consists of 12 eleven-minute OSCE stations. The case content covers problems in:</p> <ul style="list-style-type: none"> • Medicine • Pediatrics • Obstetrics and Gynecology • Psychiatry • Geriatric Medicine • Surgery
<p><i>For more information – click here</i></p>	<p><i>For more information – click here</i></p>

3. OUR TEST COMMITTEES

STRUCTURE

There are many Test Committees (TCs) involved in creating our examination content. All TCs include **general specialists and family physicians**, who develop questions at the appropriate level of expertise. Family physicians are essential members of the committees as they provide an anchor for that appropriate level. Specific details on each TC structure are provided hereunder:

▶ *MCCQE Part I*

Five of the seven TCs represent the following disciplines: Medicine, Obstetrics and Gynecology, Pediatrics, Psychiatry and Surgery. Two other TCs are multi-disciplinary: Population Health, Ethical, Legal and Organizational Aspects of Medicine (PHELO) and CDM.

Each TC meets once or twice yearly for three days.

▶ *MCCQE Part II*

The TC represents the following disciplines: Obstetrics and Gynecology, Pediatrics, Psychiatry, Surgery and Medicine. Representation from other disciplines and areas of interest such as Emergency Medicine, Public Health, Rheumatology, Ethics, Oncology or Hospitalists are added to the committee as required.

The TC meets twice a year for up to three days. Each year, the members, based on their availability, also attend one or several additional meeting(s) lasting from one to three days to address aspects of the OSCE process such as developing new content, helping with content review and ensuring the quality of marking. The dates of these other meetings are set annually at the OSCE TC meetings.

▶ *MCCEE*

Six Evaluating Examination TCs represent the following disciplines: Medicine, Obstetrics and Gynecology, Pediatrics, Population Health and Ethics (PHE), Psychiatry, and Surgery.

Each TC meets once yearly for three days.

MCCEE TCs are also developing new content for the MCCQE Part I practice tests. The practice tests are to support candidates wishing to test their level of preparedness for the MCCQE Part I. All practice test content will align with the MCCQE Part I test specifications and the constraints of the new Blueprint. The practice tests will be made available on mcc.ca starting in 2018.

▶ **National Assessment Collaboration Evaluation Committee (NEC)**

The NEC is comprised of physicians representing medical specialty practices relating to the knowledge and skills covered in the NAC examination blueprint, as well as experts in educational assessment. The committee meets twice annually to fulfill its responsibilities. NEC and guest content authors get together twice a year to create and review content, a process that is predominantly independent of NEC meetings.

Please note that there are other committees that may influence TC work and outcomes, for example:

▶ **Technical Advisory Committee (TAC)**

The TAC was comprised of experts in the fields of medical education and assessment. Their goal was to provide MCC with advice and recommendations toward the continuous improvement of our examinations.

▶ **Assessment Review Task Force (ARTF)**

The ARTF goal was to undertake a reflective and strategic review of the MCC's assessment processes, with a clear focus on their purposes and objectives, their structure and their alignment with MCC's major stakeholder requirements.



[Click for *Recalibrating for the 21st century: Report of the Assessment Review Task Force.*](#)

ROLES AND RESPONSIBILITIES

Each TC has an appointed Chair and Vice-Chair, with 7-13 members representing specialists and family physicians from across the country. Some general descriptions have been provided hereunder to help you understand the TC's roles and responsibilities:

▶ **Chair**

The Chair leads the TC in its work, chooses areas for development, reviews examination questions and performs other tasks relating to the examination and the item bank in collaboration with the MCC staff. The Chair acts as a resource to the respective Examination Manager, the Senior Test Development Officers (STDOs) and Test Development Officers (TDOs) with respect to examination content.

The Chair also acts as a liaison between the TC and the Selection Committee by assisting with recommendations of future TC members. Every TC Chair is responsible for surveying their members to determine their availability, level of commitment and contribution. The TC Chair will thus be able to make recommendations to the Chair of the Selection Committee regarding the following year's membership.

The Chairs for the MCCQE Part I and MCCQE Part II TC attend TC meetings and sit as members of the Central Examination Committee (CEC), which meets face to face twice

yearly for three days and takes part in teleconferences as well, when required. The Chairs of MCCEE TCs attend EE TC meetings and the Evaluating Examination Composite Committee (EECC) meetings that are held once per year to a maximum of four days and up to five teleconferences.

The TC Chair serves a three-year term which is renewable once (one exception to the rule is the MCCEE Chair term is not fixed). A Chair must serve as a member on a TC prior to being nominated as Chair.

▶ ***Vice-Chair***

The Vice-Chair (VC) assists in the development and review of examination items, and performs other tasks relating to the examinations and the item bank in collaboration with the MCC staff. The VCs for the MCCQE Part I and MCCQE Part II record minutes. The VC also acts as a resource to the respective Examination Manager and the TDO with respect to examination content. VCs should familiarize themselves with the content of the examination bank in their discipline, assist the Chair in outlining areas for item development and develop objectives pertaining to their discipline and the classification system utilized.

The VC will attend TC meetings that are held once or twice yearly for up to three days. The VC for the Evaluating Examination will also attend the EECC meetings held once per year.

The VC serves a four-year term that is renewable once. The lone exception to the rule is the MCCEE Chair who does not have a term.

▶ ***TC Member Responsibilities***

As a TC member, you are responsible for:

- Attending TC meetings in Ottawa or other location (annually or bi-annually, depending on the TC)
- Developing test items, as required (some of this work is done from home)
- Participating in the review of test items
- Participating in the revision of poor-performing test items, as required
- Participating in marking sessions (for the MCCQE Part I CDM and MCCQE Part II Patient Encounter Probe (PEP))
- Participating in quality assurance activities, as required (e.g., medical proofing, comparative reads of translations, the review of written answers of borderline candidates, standard setting, ad hoc workshops, etc.)

As a general rule, TC members for the MCCQE Part I and MCCQE Part II are appointed by the MCC Selection Committee for a four-year term which is renewable once, depending on the needs of the Committee. The Selection Committee also reviews the six MCCEE TC memberships and offers recommendations if required. As the MCCEE examination is under review based on MCCQE Part I International, changes and updates to the TCs is limited until a firm decision on the future of the MCC is reached.

If, for any reason, a member cannot fulfill their duties, their term may be ended early at the discretion of the MCC.

HONORARIUM AND REIMBURSEMENT

TC members receive a daily honorarium for attending meetings and for pre-meeting content writing (homework) submitted by specified deadlines. Travel and expense costs are reimbursed by the MCC according to the MCC travel policy (please request the most current travel policy from your TDO).

POLICIES

The following are some of the MCC's policies that TC members need to become familiar with.

▶ **Confidentiality**

The MCC takes test security very seriously. All examination content is intellectual property owned by the MCC and protected under Canada's copyright law. All TC members must understand, agree to and sign a confidentiality agreement annually. The MCC may take legal action if exam content is disclosed to unauthorized parties.

▶ **Conflict of Interest**

In some instances, TC members may find themselves in a conflict of interest, for example, when:

- A family member, partner or a friend is taking the examination
- A member is involved in teaching a preparatory course, setting examination blueprints or preparatory programs
- An MCC position is being used for not only financial profit but in return for in-kind benefits, such as gifts, meals or travel
- The required documents are not signed or the confidentiality agreement is not being honoured

In circumstances where members are uncertain whether a conflict of interest exists, they should consult the MCC for guidance and clarification.

▶ **Dismissal**

Each year, the TC Chair, in consultation with MCC staff, reviews the performance of each TC member. Following that review, the TC Chair may recommend that the Selection Committee not re-nominate a member due to lack of commitment, inadequate performance, failure to attend or other concerns deemed unacceptable to the Selection Committee.

▶ ***The Anti-Harassment and Violence Policy***

The MCC is committed to building and preserving a safe working environment for its employees and TC members. As a result, the MCC does not condone and will not tolerate acts of harassment and/or violence. This policy prohibits physical or verbal threats – with or without the use of weapons – intimidation, or violence in the workplace.

SUPPORT AND OVERSIGHT OF TCS

TC members have a large network of support at the MCC, for example:

▶ ***Evaluation Bureau (EB) Staff***

EB oversees the development and administration of MCC examinations and provides support to all TCs. The team includes the Director, Associate Director, Examination Managers, TDOs, Training Officer/Coordinator, Production Coordinators and Editors. The TDOs work closely with TCs to support the creation of examinations. A TDO attends all TC meetings to help ensure that everything runs smoothly for members. Depending on the examination such as the MCCQE Part II, TDO's can also participate in reviewing examination content with the representatives of the test sites. Production Coordinators are also resource people for the TCs (exception is the OSCE examinations) and sometimes attend meetings to provide logistical and administrative support. They may contact TC members on behalf of the TDOs.

▶ ***IT Support***

Since TC members do most of their work online, IT support is key to ensuring efficiency. An IT support team is on site during TC meetings and available through the TDO and Production Coordinators/Assistants when TC members are completing homework (assignments) from home.

▶ ***Central Examination Committee (CEC)***

The CEC is responsible for the overall content and quality of the MCCQE Part I and Part II. They approve examination results, review special cases and discuss policy decisions. The CEC has an appointed Chair and VC, as well as representation from the MCCQE Part I Chairs and Part II TC Chair and Vice-Chair. The Vice-Chair serves as a liaison between the CEC and the MCCQE Part I and MCCQE Part II TCs.

▶ ***Evaluating Examination Composite Committee (EECC)***

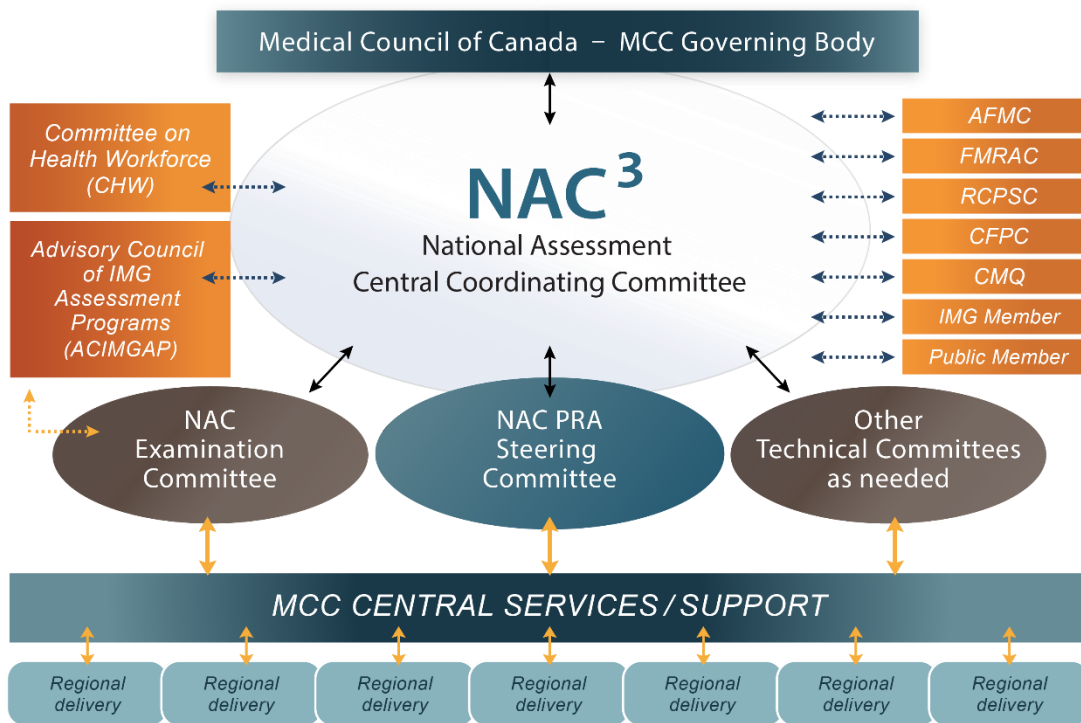
Similar to the CEC, the EECC, which is the oversight committee for the MCCEE, is responsible for the overall content and quality of the examination and approval of examination results. It is composed of the Chairs of all the MCCEE TCs. The VC will replace the Chair if the latter is unavailable to perform the task. The CEC VC acts as liaison between the EECC and the CEC.

► **National Assessment Collaboration Examination Committee (NEC)**

The NEC is comprised of medical education and assessment experts from across the country. It is responsible for the creation, maintenance and performance of NAC examination content. It also determines the eligibility criteria for candidates registering for the NAC examination as and approves candidate results following each examination session. The NEC also addresses matters of unprofessional and irregular conduct/behavior and determines the appropriate decisions and responses to such behaviours. The NEC reports to the NAC³.

► **National Assessment Central Coordinating Committee (NAC³)**

Reporting to the MCC's Council, the NAC³ serves as the NAC's central body. It oversees the development and use of a national, standardized set of assessments that are supported centrally by the MCC but can be administered by regional IMG assessment centres or through the MCC's testing network.



4. PSYCHOMETRICS AND ASSESSMENT SERVICES (PAS)

The MCC Psychometrics and Assessment Services (PAS) team provides support and education for TCs, including guidance on psychometrics, scoring and standard setting. PAS focuses MCC research in the following five areas: test content analysis and blueprinting, test development and scoring, standard setting, test fairness and longitudinal evaluation studies.

ADHERENCE TO STANDARDS FOR EDUCATIONAL AND PSYCHOLOGICAL TESTING

PAS gathers various sources of validity evidence to support the interpretation and uses of test scores. One source of evidence relates to statistical measures, including the reliability (i.e., reproducibility) of an examination and measures of test item functioning, including difficulty and discrimination.

Generally speaking, test items that perform well make it possible to discriminate between candidates who have mastered the content domain and those who have not (i.e., knowledgeable candidates answer correctly, and less knowledgeable candidates do not). A procedure known as an “Item Analysis” is performed to evaluate the quality of an item before it is used on an operational test, assess its use on an operational test form or determine how the item might be revised before it is selected subsequently.

Two main test theories are currently being used by testing organizations for developing and evaluating examinations: Classical Test Theory (CTT) and Item Response Theory (IRT). PAS uses models from both theories to analyze the performance of test items. Most of the statistical analyses for the NAC and MCCQE Part II are derived from CTT, whereas the MCCEE and MCCQE Part I items are evaluated using both test theories (the Rasch model, used by the MCCQE Part I, is an IRT model).

ITEM ANALYSIS

Several statistical properties are reviewed during an item analysis. Two important measures that provide information about how an item is functioning are item difficulty and the discrimination index. These properties are defined differently given the test theory framework.

▶ *Item Difficulty*

A property of a test item, usually represented by the proportion of a group that correctly answers the item, which is obtained from a specific group on a single occasion.

p-value

In the CTT framework, item difficulty is expressed as a proportion of correct responses (e.g., 0.80 indicates that 80% of candidates answered the item correctly). This is often

called a *p-value*. Values range from 0.0 to 1.0. A low value (e.g., 0.05) indicates a difficult question and a large value means the question was easy.

b-parameter

Item difficulty is also used in IRT models (the “b” parameter). In one- and two-parameter IRT models, the item difficulty parameter corresponds to the ability level associated with a 50% probability of a correct response. Item difficulty is mapped to a scale (called the logit scale) with negative numbers indicating easier items, and positive numbers indicating more difficult items. Theoretically, values range from minus infinity to positive infinity, but in practice, most b-parameters range from -3.0 to +3.0. A b-parameter of -3.0 would represent a very easy item and +3.0 a very difficult item. On the IRT scale, a test item scoring 0.00 would usually be considered of average difficulty.

▶ **Discrimination Index**

Item discrimination is the degree to which success on an item corresponds to success on the overall test. An item is considered discriminating if high-ability candidates tend to answer it correctly and low-ability candidates tend to answer it incorrectly. Item discrimination is generally measured by the correlation between the item score and the total score. It describes the relationship between performance on the specific item and performance on the entire test. Item discrimination indices are bounded by -1.0 and +1.0. The higher the value, the better the item distinguishes between higher- and lower-scoring candidates. Positive values indicate that the students who do well on the test have a higher probability of answering the item correctly, while negative values indicate that the students who do poorly on the test have a higher probability of answering the item correctly. Therefore, negative correlations can indicate serious problems with the item content (e.g., multiple correct answers or unusually complex content).

Item discrimination indices include the point-biserial correlation for dichotomous items and the polyserial correlation for polytomous items. A dichotomous item is an item that is scored as either correct or incorrect, such as MCQs. A polytomous item is an item that is scored with more than two ordered categories such as some CDMs.

In addition to item difficulty and item discrimination, results from a distractor analysis are presented to TC members.

▶ **Distractor Analysis**

This refers to the analysis of incorrect options that are listed with the keyed response in a multiple-choice or other selected-response test item. Two statistical indices are usually provided: the percentage of candidates choosing each response and the distractor discrimination.

The percentage of candidates choosing each response option indicates the proportion of candidates who select each of the available answer options.

Distractor discrimination establishes the relationship between a candidate's incorrect response for a specific item and their performance on the entire test. Typically, the magnitude of the correlation between an incorrect answer and total test score is weak or negative. The values of this correlation are compared and contrasted with the item-total correlation. When the magnitude of these distractor-total correlations is stronger than for the correct answer (item-total correlation), it may indicate more than one correct answer or that the item was miss-keyed.

To fulfill your role on the TC, you will need to understand the above concepts to assess how well questions perform.

5. CURRENT PROJECTS AND ACTIVITIES

MCC staff has been contributing to a number of strategic and innovative initiatives, including the following:

MCCQE PART I INTERNATIONAL

This project will support an international and more flexible delivery of the MCCQE Part I, starting in 2019. It is a transformation of the current MCCQE Part I to provide IMGs with access to this critical assessment prior to their arrival in Canada. The project involves significant technical changes to enable a more flexible and widely accessible delivery. Currently, the MCC offers the exam each year to approximately 5,500 candidates in the spring and fall. Candidates take the MCCQE Part I in one of over 17 Canadian university computer labs or vendor-operated centres. In contrast, the new MCCQE Part I will be administered four to five times a year in Canada as well as in 80 countries abroad.

NEW BLUEPRINT PROJECT

The delivery of health care is evolving rapidly, and so too are the competencies expected of medical professionals. The Blueprint project is a substantial review aimed at evaluating how well the MCC examinations reflect the reality of medical practice and the health care needs of society today. The MCC's Blueprint project contains a new framework to assess fundamental core competencies required of physicians at various points in their careers, regardless of specialty. It is a two-dimensional common assessment framework the MCC will use to assess candidates at two decision points, i.e., when they enter into residency and when they begin their independent

practice. The new, Blueprint-based Qualifying Examinations will be launched in the spring of 2018 (MCCQE Part I) and in the fall of 2018 (MCCQE Part II).

WEBSITE: *MCC Blueprint project:*

mcc.ca/about/collaborations-and-special-projects/blueprint-project

		DIMENSIONS OF CARE				Row %
		Health Promotion and Illness Prevention	Acute	Chronic	Psychosocial Aspects	
PHYSICIAN ACTIVITIES	Assessment/ Diagnosis					45±5
	Management					35±5
	Communication					10±5
	Professional Behaviours					10±5
Column %		20±5	35±5	30±5	15±5	100

AUTOMATED ITEM GENERATOR

Now that the MCCQE Part I will be delivered with the new Blueprint in 2018, more frequently (up to five times per year) and internationally by 2019, the MCC wanted to explore alternate ways to produce more questions in less time and potentially at a lower cost. We want to use technology to TCs advantage when creating items. Since 2010, the MCC has been involved in a multi-phase research project with the collaboration of Drs. Mark Gierl and Hollis Lai (MGHL) from the University of Alberta to explore alternate methods of developing MCQs using cognitive models and Automated Item Generation (AIG).

Cognitive models are created based on an MCC Objective (i.e., acute kidney injury) and by task (i.e., diagnosis vs. management) to come up with a list of correct answers related to the chosen topic followed by a list of distractors (incorrect answers) and different variables for a given question stem (i.e., age, gender, presenting complaint, labs, etc.). Inputting the model into AIG generates questions using different combinations of stated variables, correct answers and distractors, which increases the number of questions generated. These questions, although very similar, can be used on multiple simultaneous fixed test forms which will be implemented starting in the spring of 2018.

As of 2016, the six MCCQE Part I MCQ TCs have been using AIG models. Members dedicate approximately a half day of meeting time to this initiative to develop high-quality MCQ items which are then piloted, reviewed and then logged into the active MCQ item bank. Items from the same model are tagged as item enemies in MOC5 to ensure they do not appear on the same test form. To date, it has been noted that AIG items perform as well as traditionally developed items. The AIG process is proving to be an efficient and effective way to develop a large volume of items. The next phase of AIG is to challenge TCs to develop models in underrepresented content areas – psychosocial aspects of medicine and health promotion and illness prevention to name a few. Also, in 2017, the MCC will explore the usability of AIG with CDM.

MOC5

The MCC is designing a new content bank known as MOC5. It incorporates five item banks into one, hence its name, and contains MCQs, OSCEs and CDMs. The new MOC5 application not only addresses the needs of our TC members and exam staff but will also help streamline the content development and management process. MOC5 is also adapted for MCCQE Part II content, which is more elaborate. MOC5 will hold everything related to a given OSCE case, from information on props, to scoring information, to standardized patient instructions, scripts and recruitment guidelines. We look forward to launching MOC5 to all TCs by the fall of 2017.

We look forward to hearing your feedback on these projects and activities along with future undertakings.

6. TEST COMMITTEE RESOURCE TOOL KIT

As a TC member, you have access to a number of resources on the [MCC website](#) to guide item development. Some of these resources are outlined below:

RESOURCES FOR ALL TC MEMBERS

▶ **MCC Objectives**

All MCC examination test form specifications are based on MCC Objectives which serve as an overview of what is expected of candidates. We would encourage you to refer to them prior to developing any questions.

WEBSITE: *MCC Objectives:* mcc.ca/examinations/objectives-overview

▶ **MCC Assessment Evolution Microsite**

Our examination program will undergo significant changes to take effect in 2018 and 2019, a process known as the MCC Assessment Evolution initiative. In short, the major change involves what the MCC exams measure. The MCC will be basing its Qualifying Examinations on a new Blueprint (examination specifications). For the benefit of our stakeholders, we created a microsite which addresses these changes and includes a wealth of knowledge about the examination changes, frequently asked questions, videos, glossary of terms, etc.

WEBSITE: *MCC Assessment Evolution:* mcccevolution.ca

MCQ DEVELOPMENT



Click for *Guidelines for the development of MCQs.*

- Haladyna, T.M., Downing, S.M., & Rodriguez, M.C. (2002). *A review of multiple-choice item-writing guidelines for classroom assessment.* *Applied Measurement in Education*, 15:309-334.
- Pugh, D., De Champlain, A.F., Gierl, M., Lai, H., & Touchie, C. (2016). *Using cognitive models to develop quality multiple-choice questions.* *Medical Teacher*, 38:838-843.
- De Champlain, A.F. (2010). *A primer on classical test theory and item response theory for assessments in medical education.* *Medical Education*, 44:109-117.

CDM DEVELOPMENT



Click for *Guidelines for the development of CDM key feature problems and test cases.*

- Farmer, E., & Page, G. (2005). *A practical guide to assessing clinical decision-making skills using the key features approach.* *Medical Education*, 39:1188-1194.

- Hrynchak, P., Glover Takahashi, S., & Nayer, M. (2014). *Key-feature questions for assessment of clinical reasoning: a literature review*. *Medical Education*, 48:870-883.
- Page, G., & Bordage, G. (1995). *The Medical Council of Canada's Key Features Project: A More Valid Written Examination of Clinical Decision-making Skills*. *Academic Medicine*, 70:104-110.
- De Champlain, A.F. (2010). *A primer on classical test theory and item response theory for assessments in medical education*. *Medical Education*, 44:109-117.

OSCE DEVELOPMENT



[Click for Guidelines for the development of OSCE cases.](#)

- Khan, K.Z., Ramachandran, S., Gaunt, K., & Pushkar, P. (2013). *The Objective Structured Clinical Examination (OSCE): AMEE Guide no. 81. Part I: An historical and theoretical perspective*. *Medical Teacher*, 35:e1437-e1446.
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Your contribution is appreciated!