STUDY GUIDE

Component C

The Component C exam is the third of three exams required to be awarded the Canadian Chiropractic Examining Board Certificate. Collectively, these three exams are designed to evaluate competence for practicing chiropractic in Canada.

The Component C exam is an OSCE format (Objective Structured Clinical Examination). During the course of the exam, candidates will rotate through a series of 10 stations. The descriptions of the stations are provided below.

Candidates will be assessed on their ability to:

- Obtain relevant history information through a patient interview and interpret the information
- Perform relevant physical examinations and interpret the findings
- Use physical examinations to differentiate conditions
- Utilize history and physical examination information to formulate diagnoses, differential diagnoses, treatment recommendations, and plans of management
- Communicate with the patient to explain findings, diagnoses, treatment recommendations and plans of management
- Obtain informed consent
- Demonstrate appropriate chiropractic treatment skills
- Respond to patient questions, concerns and behaviors

Station Descriptions:

There are six (7) categories of stations:

1. Patient Interview
2. Physical Examination
3. Multiple: Directed Physical Examination
4. Chiropractic Techniques
5. Patient Communication
6. Combined (patient interview and physical examination)
7. Rest Station

The components and competencies expected in these stations are described in the *Examination Content - Candidate Information* document found on the website.

1. **Patient Interview**:
   - Candidates are tasked to conduct a focused patient interview and take a relevant history based on the information provided on the door sign to the station.
   - Candidates are to interpret the information to arrive at a working diagnosis, formulate plan of management, and then communicate these to the patient.
   - Candidates may also be tasked with responding to specific patient questions.

2. **Physical Examination:**
   - Candidates are tasked with conducting a focused physical examination based on the information provided on the door sign of the station.
   - Candidates are to interpret the door sign information to determine the relevant tests required.
   - Candidates should interpret the physical examination findings to come to a working diagnosis, formulate a plan of management and communicate these to the patient.
   - Candidates may also be tasked with responding to specific patient questions.
   - Candidates should not perform a history on the patient. All relevant history information will be contained in the clinical information on the door sign.
   - The patients are trained to respond to physical examinations and answer questions regarding the results of tests performed (e.g. does this hurt? Where?). They are instructed not to answer questions pertaining to history (e.g. how long have you had this concern?). The examiner will provide findings for exams that the standardized patient cannot portray (e.g. blood pressure, pupil dilation, etc.).
   - If the examiner or patient does not provide any findings, then the test/procedure that a candidate has performed was likely performed incorrectly. Patients and examiners will not provide findings to a test that is performed incorrectly.

3. **Chiropractic Technique:**
   - Candidates are tasked with demonstrating a number of adjustment set-ups based on the door sign requirements.
   - Candidates are to demonstrate manual adjustment set-ups for high velocity low amplitude adjustments. Instrument and drop table techniques are not available as part of the exam. All set-ups to are to be manual techniques.
   - Candidates should bring the set-up the point of tension where if completed, the adjustment would result in cavitation. **Note:** for patient safety and comfort through the exam day, candidates are **NOT** to thrust on the patients; doing so may result in failure of the station.
   - Candidates should communicate and explain their set-ups and process to the patient as they would an actual patient.

4. **Multiple Directed Physical Examinations:**
   - Candidates will be given different patient scenarios and tasked with differentiating one condition from another.
   - One actor will portray each patient scenario. Each patient scenario will have the possibility of two different conditions.
   - Candidates are to differentiate the conditions in each scenario by performing the appropriate physical examinations for the conditions and interpret the results to come to a diagnosis.
   - Candidates are expected to perform a minimum of one physical examination procedure/test for each condition in the patient scenario in order to differentiate one condition from the other. Candidates are permitted to perform more exams/procedures/tests as needed in order to differentiate each condition.

- The standardized patients are trained to respond to the positive and negative findings.
- Candidates are to explain, and provide rationale, for the diagnosis based on the exam results. The rationale should describe both positive and negative findings, and why one test proves the diagnosis over the other test.

5. **Patient Communication:**
   - Candidates are tasked with performing a report of findings based on the clinical information provided on the door sign. The report of findings should include rationale based on history and exam information, and communicating the diagnosis, treatment recommendations and plan of management to the patient.
   - This station also assesses a candidate's ability to obtain informed consent and the ability to communicated with the patient.
   - Candidates may also be tasked with responding to specific patient questions.
   - In some cases, a chiropractic treatment set-up may also be included in this station type.

6. **Combined Stations**:
   - This station combines the tasks of a patient interview and physical examination station.
   - Candidates are expected to conduct a focused interview, a focused physical examination, arrive at a diagnosis and plan of management, and communicate the diagnosis and plan of management to the patient.

7. **Rest Stations:**
   - There are a set of rest stations in the exam. Candidates can use these stations for a rest break, bathroom break, or prepare for upcoming stations.

Station Timing Cycle:

Each station is 12 minutes in length. Candidates will have two minutes to read the station information and tasks that are on the door sign. The door sign is outside of the station room. At the two-minute mark, a signal will sound and candidates are to enter the station room. A copy of the door sign information and tasks is available inside the station room for the candidates to reference as needed.

Once in the station room, candidates have 10 minutes to complete the station tasks. At the 8-minute mark, a signal will sound indicating that candidates have two minutes remaining in the station. At the 10-minute mark a signal will sound indicating the completion of the station. Candidates are to exit the station and move on to the next station. No scoring will be performed after this 10-minute mark.

Station Performance:

Upon entering the station room, candidates are to hand their barcode to the examiner. The examiner will then affix this barcode to the scoreform. In the station room, there is an examiner and a standardized patient. Candidates are expected to interact with the standardized patient only.

Candidates should interact with the standardized patient based on the requirements of the station at a level that is understood by the patient (grade 8). The exam assesses a candidate's clinical skills while interacting with a patient. Patients or examiners will not tell candidates to ask certain questions or examine specific areas. Candidates must decide what to do in the station based on the clinical scenario and tasks presented on the door sign and the responses of the patient. Candidates should interact with patient as they would in a real-life clinical setting. The examiner is assessing this doctor-patient interaction.

Candidates may record information pertaining to the station in the Candidate Booklet provided by at the time of registration at the exam site. This booklet will not be scored and is for candidates to make notes to themselves through the exam. All test materials, including the booklet, are considered property of the CCEB and must be returned upon completion of the Component C exam. These candidate booklets will be collected from the candidates after the exam has been completed.

The CCEB employs a variety of quality control mechanisms at its discretion. These may include videotapes, audiotapes, scoring by the standardized patient, and scoring by quality assurance examiners who randomly attend stations. Observers may also be present in the station.

Examiners will not communicate with the candidates for any other reason unless it is to provide exam findings, or to intervene due to safety concerns of the patient.

Note: If a standardized patient is not eliciting expected responses, it is either candidates are performing the exam incorrectly or not asking the appropriate questions. All stations are designed such that candidates can complete the station tasks solely with history taking and/or physical examinations.

Exam Day Information:

1. Upon arriving at the exam site, you will sign-in and register with exam staff. You will then be taken to the candidate area to receive the exam day instructions.

2. In the candidate area, exam staff will sort you based on your track and starting station.

3. At the appropriate time, candidates will be escorted to the exam tracks. Candidates will be taken to their appropriate track and line up in front of their starting station.

4. A signal will indicate the start of the exam.

5. Do not enter the room until you are instructed to do so. All materials posted on the door are available within the room if you need to refer to them during the exam. You may write in your candidate booklet at any time during the exam.

6. The exam assesses your clinical skills while interacting with a patient. Patients will not tell you to ask certain questions or examine specific areas. You must decide what to do in the station based on the door sign information and tasks, patient responses to questions and exams, and the time limitations of the station. Examiners will be present in each room to assess your performance. Please ensure that you explain any procedures to the standardized patient as you would to any patient in your office. Please do not converse with the examiner.

7. The only diagnostic equipment available in the station room will be a reflex hammer. During the exam, you may need to use a diagnostic instrument that you do not possess. In such situations, you may fake having the instrument. For example, you may say, "Pretend my reflex hammer is a pin-wheel. I am going to test your sensation to pinprick by running my pin-wheel…"

8. Take your material with you to each station. You will not be permitted extra time if you leave these materials behind.

9. At any time in the exam, additional examiners or observers may enter the room for quality control. Do not be alarmed if this happens. It is not indicative of your performance.

10. At the completion of the exam, an examiner will hand you a candidate feedback form. You are welcome to complete this form and hand it to the exam staff.

11. Once the exam has finished, exam staff will escort candidates off of the exam track. You will be sequestered until you are permitted to leave. If you are writing in the morning, you will be sequestered until all of the afternoon candidates have arrived and are sequestered.

12. Post-encounter probe stations may be implemented during the OSCE at the discretion of the CCEB.

Exam Performance Tips:

1. Read the door sign information and tasks. The signs on the doors give specific directions about your tasks to perform in each station. The station directions are also in the room should you need to refer to them.

2. Refer back to the station information and tasks as needed. As you complete the station, reread the station directions to ensure you have completed all assigned tasks.

3. Interact and examine the patient as you would a real patient in your clinic. Communicate and explain things to the patient as you would in your clinic.

4. Be thorough in your examinations. Perform bilateral exams for comparison. Do complete ranges of motion and neurological exams if appropriate. Perform comparison examinations and examine other areas that might be affecting the presentation.

5. Do not omit the obvious. Do not forget to report items inspected in the general observation of a patient (eg: gait, mental status, skin inspections, etc).

6. Be diligent in your time management. Most candidates can complete the station tasks in the allotted time. These examinations are precisely timed. Do not include questions that are meaningless or examinations that are lengthy and not relevant to the station tasks.

7. Explain what you are doing to the patient in terms that would be helpful to the patient. The examiner must know what you are doing in order to give you a mark.

8. When you verbalize a process, you must also perform it in order to get the marks available. For example: You must show proper placement of a thermometer if you wish to take a patient's temperature. Same with an otoscope, taking blood pressure, etc.

9. Use language that a patient can understand (grade 8 level) and explain medical terms where appropriate.

10. When communicating with the patient, do not use statistics unless supported by evidence (e.g., when communicating treatment risks)

11. Do not communicate with the examiner. Only communicate with the patient.

12. Greet the patient on entry. If you shake hands, do not introduce yourself by name. Use your candidate number instead of your name. You do not need to introduce yourself multiple times on stations with multiple patients, nor do you need to ask for consent at each station.

13. Position the patient so that the examiner can observe what you are doing and consider the comfort and privacy of the patient. The examiner may move about the room to adequately visualize what you are doing.

14. Ensure you take the treatment set-ups to the point of tension, but do not thrust. Incidental cavitations from a treatment set-up are expected and will not adversely affect your performance.

VBI Testing

Extension Rotation testing is not accepted by the CCEB

The CCEB is specifically looking for the Candidate to recognize that there is a risk to the patient and that there is no reliable provocative test to screen for VBI. We further wish to evaluate how the Candidate relays this information to the patient.

Currently the CCEB accepts patient history, familial history, and physical examination findings, including (but not limited to) blood pressure, pulse, and auscultation of bruits, as potential indices of risk to the patient. We do not accept any vertebral artery function tests. We are looking to evaluate the chiropractor with regards to risk management and what to do regarding those risks.

The CCEB's position is based on the most recent evidence and guidelines available within the profession as described in the following four items below:

1.	***Chiropractic clinical practice guideline: evidence-based treatment of adult neck pain not due to whiplash. Guidelines Development Committee, The CCA/CFCRB-CPG. JCCA 2005; 49(3):158–209.*** *"Risk-management, recommendation 30.* We *recommend* an assessment for signs and symptoms of unprovoked VBI (differentiated from BPPV) to identify the possibility of impaired vertebral artery flow (signs and symptoms are: nystagmus, nausea, numbness, diplopia, drop attacks, dysphagia, dysarthria, and ataxia), because we *recommend* caution in treating a patient with suspected impairment of flow. However, the evidence does not warrant this being a contraindication to manipulation. *Risk-management, recommendation 31.* We *do not recommend* an assessment for signs or symptoms of unprovoked VBI (differentiated from BPPV) to identify the presence of dissection, or to identify patients with greater or lesser risk of symptomatic (ischemia-provoking) dissection subsequent to manipulation; the assessment lacks predictive value. *Risk-management, recommendation 32.* We *do not recommend* Doppler or provocative pre-manipulative vertebral artery function tests (e.g., deKleyn's test) to identify impaired vertebral artery flow, the presence of dissection, or patients with greater or lesser risk of symptomatic (ischemia-provoking) dissection subsequent to manipulation; the assessment lacks predictive value."
2.	***CCPA Risk Management – CVA and Chiropractic Neck Adjustment*** "In the past it has been taught that those patients at risk of stroke from neck manipulation could be identified by doing vascular challenge tests such as George's Test, Houle's Test and others (basically neck extension with rotation, done bilaterally in either the supine or sitting position). **The tests are not valid in determining the group of patients that are at risk of dissections that may lead to stroke from cervical manipulation.** At best putting the head in extension and rotation can provide the clinician with valuable information about pain and restriction in neck movements. It may also give the practitioner valuable treatment cues e.g. if the neck rotation causes any dizziness it would not be a good idea to do an adjustment to that area on that day."
3.	***Haldeman, S; Kohlbeck, F. J.; McGregor, M; Unpredictability of Cerebrovascular Ischemia Associated With Cervical Spine Manipulation Therapy. Spine 2002; 27(1):49-55*** "Conclusion: We were unable to demonstrate that the extension - rotation test is a valid clinical screening procedure to detect decreased blood flow in the vertebral artery. The value of this test for screening patients at risk of stroke after cervical manipulation is questionable."
4.	The jury recommendations made in the Lana Dale Lewis Inquest case; particularly recommendation 3, state "based on evidence heard, that practitioners (including chiropractors, physiotherapists and physicians/surgeons) be informed by their **regulatory bodies** that provocative testing (prior to performing high neck manipulation) has not demonstrated to be of benefit and should not be performed. Universities and Colleges teaching high neck manipulation should be teaching their students that these tests have not been demonstrated to be of benefit and should not be performed."