



College of
Dental Hygienists
of Ontario

Protecting your health and your smile

**New Quality Assurance
Written Assessment (QA Test)**

Registrants who wish to submit their Quality Assurance records via Path 2 or 3 will soon have access to complete the Quality Assurance Written Assessment (simply known as the QA Test). The QA Test will be available in November 2018. However, the test will no longer be administered by the National Dental Hygiene Certification Board (NDHCB). The College found a new provider to administer the QA Test (Skilsure) and registrants will be able to take the QA Test directly in the SMILE Portal. There will no longer be a need to upload your test results into the SMILE Portal as they will automatically appear once the test is completed.

Registrants will need to indicate that they would like to complete their Quality Assurance records via Path 2 or 3, and lock in their selection in Step 3 of their SMILE Portal dashboard. **Once they have selected Path 2 or 3 and locked in their choice, they can no longer change their Path for that audit.** Therefore, before clicking the *“I’m all done”* button within Step 3, registrants should be certain that they have selected the correct Path in Step 3 of their dashboard.

It is expected that preparation to write the QA Test will take 75 hours over a three-year period. Registrants will have a maximum of three (3) attempts to successfully complete the QA Test and the cost will be \$150 per attempt. Every attempt will provide a “Performance Profile” of whether one met or fell below the standard in each of the 10 question competencies.

Development of the Exam

The College was guided through all phases of the exam development by a psychometrician with vast experience in the field.

Psychometricians work to ensure exams are valid and reliable. Their responsibilities may include conducting research, collecting and analyzing test data, developing, administering and scoring exams, as well as providing recommendations for how test results should be interpreted.ⁱ

Competency categories were determined based on areas of remediation historically ordered by the Quality Assurance Committee for registrants who were not successful in Quality Assurance assessments. Subject matter experts (SME) were then surveyed and asked to assign a percentage for each of the 10 competency categories. Data was collected and discussion was held with all SME's regarding percentages assigned by all topic areas.

A large pool of test questions were then developed and 54 dental hygienists volunteered to test the questions in a field test. Participants were asked to answer the questions and then were divided into four groups to provide feedback on content, ambiguity, complexity, and comprehensiveness. The psychometrician then determined the P-value (percentage of candidates answering the question correctly) and the discrimination (a correlation between how well a candidate performs on the individual question

against the candidate's overall performance on the test). Questions that didn't meet performance standards were eliminated, and will be edited and re-tested in the future.

The next step involved setting a passing grade by using the concept of the borderline or minimally competent candidate – also known as the Modified Angoff method. SME's, again under the guidance of a psychometrician, set the specific pass score for each question on the QA Test. Using this method, the overall pass score is set in direct reference to the difficulty of the questions themselves.

What Does This Mean?

In simple terms, since everyone taking the QA Test will have different questions on their test, the passing score for any given test will be unique to the combination of questions that appear on that particular test. For example, a test that has a combination of more difficult questions will not have a passing score as high as a test that has a combination of easier questions on it. The questions that appear on any test will be completely randomized but will match the blue print below for the competencies and type of question.

Upon completion of the QA Test, registrants will not receive a final score or percentage, but will receive an overall exam result (successful or unsuccessful). Additional feedback will include whether the standard was met or not in each of the ten question competencies. This information can be used to help one identify areas of relative strengths and weaknesses if one needs to prepare for another attempt. The feedback should also be used to help identify areas to explore when setting any future continuing education goals and activities. Being unsuccessful in a specific competency does not necessarily indicate that one will be unsuccessful on the QA Test overall. **Notification of incorrect answers at the completion of the test will not be provided.**

QA Test Blue Print

The new QA Test will only be available from September 1st–February 28th for any given audit year. **The availability of the test until February 28th is for administrative purposes only and the test must still be completed on or before January 31st (as part of the Quality Assurance records due date).** The QA Test will be a 100-question multiple-choice, open-book test and will be available in English and in French. Registrants will be permitted up to two and a half hours to complete the QA Test. Based on accepted examination guidelines, reasonable question/time ratio is 1 minute per question. It is designed to ensure that registrants have sufficient knowledge of dental hygiene theory and practice by asking them to answer knowledge (20%-30% of test), application (45%-55% of test) and critical thinking (20%-30%) questions. Each question stem will refer to only one question and will have three or four multiple-choice options associated with it. There will not be any case studies that require you to answer multiple questions.

Please note: While the QA Test is 100 questions, only 90 questions will be scored. The QA Test contains 10 experimental questions that are being assessed for future use. Answers to these experimental questions will not count toward the final score.

The table below outlines the QA Test blue print.

Competencies	Percent of Exam	Knowledge Questions Per Test (20%-30%)	Application Questions Per Test (45%-55%)	Critical Thinking Questions Per Test (20%-30%)
Community Health	5	1-2	2-3	1-2
Emergency Protocols	7	1-2	3-4	1-2
Health and Safety/WHMIS	5	1-2	2-3	1-2
Infection Prevention and Control	22	5-7	10-13	5-7
Pharmacology	7	1-2	3-4	1-2
Process of Care	20	4-6	9-11	4-6
Professionalism/Communication	7	1-2	3-4	1-2
Radiography (Exposure and Interpretation)	5	1-2	2-3	1-2
Special Needs/Medically Compromised	7	1-2	3-4	1-2
Jurisprudence/Ethics/Record Keeping	15	3-5	6-9	3-5
Totals	100	20-30	45-55	20-30

How Can You Prepare for the QA Test?

The questions will be based on knowledge, skills and judgment needed to practise dental hygiene competently. Therefore, the following may be useful in helping to prepare for and take the exam:

- Any current dental hygiene textbook and/or dental hygiene review book
- CDHO Registrants' Handbook
- CDHO's Jurisprudence Education Module
- CDHO Drugs in Dental Hygiene Practice Course
- CDHO Knowledge Network
- CDHO Guidelines
- CDHO Legislation and Bylaws
- Milestones Publications
- Dental Drug Reference

Please note: The QA Test may include questions about the administration of local anaesthetic. Although this topic may not have been taught in Ontario when many currently practising dental hygienists graduated, it is now included as part of the curriculum in Ontario dental hygiene schools, thus, questions regarding the administration of local anaesthetics may be encountered when completing the QA Test.

Sample Test Questions

Below are a few sample test questions to provide an idea of what the questions on the QA Test may look like. The competency and question type are shown for demonstration purposes only. The competency and question type will not appear on the actual QA Test.

- 1. What type of correlational relationship would the following statement indicate? *Research has shown that the caries rate decreases as the consumption of fluoridated water increases.***
(Community Health – Knowledge)
 - A. Inverse
 - B. Positive
 - C. Strong
 - D. Weak

- 2. Which of the following would be best to address the headache associated with the abrupt withdrawal from nitrous oxide conscious sedation?** (Pharmacology – Application)
 - A. Oxygen
 - B. Ibuprofen
 - C. Acetaminophen
 - D. Aspirin®

- 3. Bill, 45 years old, presents to the dental office for dental hygiene care. His medical history reveals he is being treated for tinea pedis. During the assessment, the dental hygienist finds generalized marginal inflammation, generalized moderate subgingival calculus deposits, and generalized bleeding on probing, with 4 mm probing depths in the posterior regions. Radiographs reveal no indication of bone loss. Which of the following conditions represents the most accurate clinical diagnosis of Bill's periodontal status?** (Process of Care – Critical Thinking)
 - A. Aggressive periodontitis
 - B. Chronic periodontitis
 - C. Chronic plaque-induced gingivitis
 - D. Gingivitis associated with systemic disease

4. **Where is 90% of chlorhexidine gluconate 0.12% excreted?** (Pharmacology – Knowledge)

- A. Feces
- B. Urine
- C. Liver
- D. Small intestine

5. **A 30-year-old man is diagnosed with neurological symptoms indicative of Creutzfeldt-Jakob disease. The dental hygienist wants to ensure that all the instruments used on this client are sterilized properly. How should the dental hygienist reprocess his/her instruments?** (Infection Control – Critical Thinking)

- A. Routine practices for reprocessing is adequate since all clients are treated as potentially being infectious.
- B. The instruments should be placed in glutaraldehyde cold-soak solution overnight and then sterilized, ensuring that the sterilizer reaches the maximum 134 degrees Celsius.
- C. A biological indicator and a Type 5 chemical indicator strip should be put in the package with the instruments.
- D. The instruments cannot be reprocessed and should be discarded.

Answers and Rationales

1. The correct answer is A. An inverse relationship exists when the variables vary in opposite directions, so as one variable increases in value, the other decreases and vice versa.
2. The correct answer is A. If 100% oxygen is not breathed for a full 5 minutes at the end of the procedure, a headache may occur. While answers B, C and D may all offer headache relief, they are not the best option. The best answer is oxygen.
3. The correct answer is C. Absence of bone loss would indicate that the diagnosis would be gingivitis. Since tinea pedis is not a systemic disease, the answer would be chronic plaque-induced gingivitis.
4. The correct answer is A. 90% of Chlorhexidine excretion takes place in the feces with 1% in the urine. This information can be found in a dental drug reference.
5. The correct answer is D. Creutzfeldt-Jakob disease is a rapidly progressive, invariably fatal neurodegenerative disorder believed to be caused by an abnormal isoform of a cellular glycoprotein known as the prion protein. Prions are infectious proteins and lack RNA or DNA and are incredibly resistant to sterilization. There are currently no accepted methods of sterilization to destroy prions and medical devices used should be disposable and/or discarded after use.

¹ <http://yas.getyardstick.com/what-is-a-psychometrician-finally-youll-know/>