# Table of Contents

Table of Contents ..................................................................................................................... 2  
Introduction ............................................................................................................................... 4  
Policies and Procedures for the Assessment of Clinical Skills ............................................... 5  
Background and Overview ....................................................................................................... 5  
History ..................................................................................................................................... 5  
Purpose .................................................................................................................................... 5  
Structure .................................................................................................................................. 5  
Certification ............................................................................................................................... 6  
Test Constructions Process and Validity Procedure while Preparing for the Assessment .......... 8  
Personnel and Committee Structure ....................................................................................... 8  
Selection of Assessment Centres ............................................................................................. 10  
Requirement Selection ............................................................................................................. 10  
Assessment Preparation and Administration ......................................................................... 11  
Information for Participants .................................................................................................... 12  
Validity and Reliability Procedures during the Administration of the Assessment ............... 12  
Personnel ................................................................................................................................ 12  
Training and Calibration ......................................................................................................... 13  
Set Up and Verification ............................................................................................................. 14  
Participant Registration, Orientation and Set up .................................................................... 14  
Validity and Reliability Procedures during the Evaluation Session ...................................... 15  
Personnel ................................................................................................................................ 15  
Training and Calibration ......................................................................................................... 16  
The Evaluation Process ........................................................................................................... 16  
Grading Process ....................................................................................................................... 17  
Post Evaluation Review .......................................................................................................... 18  
Reporting ................................................................................................................................. 18  
Results .................................................................................................................................... 23  
Appeals .................................................................................................................................... 24  
Attachment 1 - Summary of Act ............................................................................................. 25
Attachment 2 – Competencies for a Beginning Dental Practitioner in Canada .......................... 30
Attachment 3 – External Evaluation Procedures....................................................................... 33
Attachment 4 – Publications...................................................................................................... 34
Introduction

The National Dental Examining Board of Canada (NDEB) was established by an Act of Parliament in 1952 with a mandate to establish the qualifying conditions for a national standard of competence for general dentists and to issue certificates to dentists who successfully meet this standard. The Act was supported by all ten provincial licensing authorities and by the Canadian Dental Association (CDA). Since that time, the NDEB certificate has been accepted by provincial licensing authorities as evidence of having met the national standard.

High-stakes examinations such as those conducted by the NDEB should be concerned with reliability and validity because these measures are required in making pass/fail decisions affecting candidates for licensure or certification. Protection of the public is of foremost concern and the NDEB has the obligation to inform its ten provincial constituents that it is doing its best to provide the highest quality examination and assessment program possible. Examination and Assessment policies and procedures provide a guide for the examination and assessment program. Such policies and procedures assist with establishing and improving reliability and validity. The Standards for Educational and Psychological Testing (American Educational Research Association (AERA), American Psychological Association (APA), and the National Council on Measurement in Education (NCME)) provides standards for testing organizations. This Technical Manual provides a comprehensive summary of information pertaining to the examinations and assessments developed and administered by the NDEB, and demonstrates the NDEB’s compliance with accepted international standards.
Policies and Procedures for the Assessment of Clinical Skills

Background and Overview

History

In 1906 under the auspices of The Canadian Dental Association (CDA) the Dominion Dental Council was formed to conduct national written examinations, the successful completion of which would grant the candidate a Dominion Dental Council certificate. The National Certificate could then be presented to the Provincial Dental Regulatory Authorities (DRA’s) as evidence of the candidate’s ability to meet a basic national standard of competence. Some DRA’s were prepared to grant licenses to practice on the basis of the certificate, however, others chose to accept the certificate as an academic base only and required the candidate to pass additional provincial practical tests.

The Dominion Dental Council proved to be rather ineffective. A name change to The Dental Council of Canada in 1950 along with attempts to improve the efficiency of the examination mechanism still failed to attract strong support from the DRA’s. This was in spite of the fact that the DRA’s agreed with the general concept. They had indicated a desire to be free of provincial licensing examinations, providing a reliable national examination system could be established.

The following year, 1951, the CDA encouraged the ten DRA’s to develop a satisfactory plan for a National Examining Board. Its purpose was to provide a facility by which members of the profession could become eligible, on a national basis, to apply for practice privileges in the province of their choice. The result was the incorporation of The National Dental Examining Board of Canada (NDEB) in 1952 by an Act of Parliament of Canada. The Act was supported by all ten DRA’s and by the CDA and this support continues today.

Purpose

According to the Act of Parliament, the NDEB is responsible for the establishment of qualifying conditions for a national standard of dental competence for general practitioners, for establishing and maintaining an examination facility to test for this national standard of dental competence and for issuing certificates to dentists who successfully meet this national standard.

Structure

The National Dental Examining Board of Canada is composed of twelve members. Each DRA appoints one member and two members are appointed by the Commission on Dental Accreditation of Canada (CDAC). In 1994, the Board designated representatives from the Royal College of Dentists of Canada (RCDC) and the CDA. In 2004, the Board designated a representative from the Canadian Dental Regulatory Authorities Federation (CDRAF) as an official observer and appointed a Public Representative. The full Board meets annually. The NDEB also has standing committees dealing with examinations, appeals, finances and by-
laws. The NDEB is a non-profit organization supported by fees charged to candidates and participants for examinations and assessments and certification.

Certification

The NDEB grants certification to candidates from the following groups:

Graduates of Dental Programs accredited by the Commission on Dental Accreditation of Canada and by the American Dental Association Commission on Dental Accreditation

Prior to 1971, a graduate of an undergraduate dental program in Canada was required to successfully complete the NDEB examination (written essay-type) in order to be certified. This policy was changed in 1971, when the NDEB decided to recognize the examinations and evaluation administered by Canadian faculties of dentistry and issue certificates to current graduates of these faculties without further examination. The condition for certification established at this time was graduation from an undergraduate dental program approved by the Commission on Dental Accreditation of Canada.

In 1988 concern was expressed by several DRA’s about the validity of establishing clinical competence solely by accreditation. This concern was further intensified by the extension of the accreditation cycle from five to seven years. Therefore, in 1989, the NDEB established a committee “to explore whether the granting of a certificate on the basis of accreditation alone continues to be acceptable.” This committee (Certification Review Committee or CRC) presented its report at the 1990 NDEB Annual Meeting. The report stated that certification based on accreditation alone was no longer acceptable, a finding which was further supported in the Parker Report.

In 1994, the NDEB certification process was modified so that graduates of accredited Canadian dental programs were required to pass the Written and Objective Structured Clinical (OSCE) Examinations.

As a result of a formal agreement between accrediting organizations, graduates of the United States, Australia, New Zealand and Ireland dental programs are considered “accredited graduates”. To be certified, these graduates must pass the Written Examination and the OSCE within a specified period of time.

The NDEB, through its representatives on the Commission on Dental Accreditation of Canada and through an appointee on each undergraduate program survey team actively participates in the accreditation process. In addition, the NDEB gives an annual grant to the Commission to be applied to accreditation costs of undergraduate dental programs in Canada, the United States, Australia, New Zealand and Ireland.

Certification of Graduates of Non-Accredited Dental Programs

Until December 31, 1999, graduates of non-accredited dental programs were certified either by passing a certification examination that consisted of the Written Examination and a three part Clinical Examination or by successfully completing an accredited Qualifying or Degree Completion Program at an accredited university and then successfully completing the Written Examination and the OSCE.
Since January 1, 2000, graduates of non-accredited dental programs have been required to successfully complete a Qualifying or Degree Completion Program prior to being eligible to take the NDEB examinations.

With the adoption of the Agreement on Internal Trade in 2009, all professions and trades essentially have labour mobility (portability) in Canada. In dentistry, after numerous meetings and intense and lengthy negotiations, the CDRAF unanimously requested that the NDEB implement a new certification process based on the previous ODQ Equivalency Process and be integrated with the admission process for Qualifying/Degree Completion Programs. The NDEB Equivalency Process was implemented in 2011. The Assessment of Clinical Skills is one of three Assessments in the Equivalency Process.

Competencies for a Beginning Dental Practitioner in Canada

In 1993, the NDEB in cooperation with the ACFD, CDA and CDAC conducted a process to establish "Competencies for the Beginning Dental Practitioner in Canada". These competencies, which were the first nationally accepted competencies, were used to establish examination blueprints, guide educational programs and were included in accreditation standards. They have also been used as a resource for many national and international processes in dentistry and other professions.

In 2004, the NDEB initiated a review process that resulted in the revision of the competency document (Appendix B). This document, which has been accepted by the NDEB, the ACFD, CDA and CDAC is used in the establishment of blueprints for all NDEB Examinations and Assessments.

Assistance to Other Organizations

The NDEB provides consultation and existing examination related material to the DRA’s on request. Beginning in 1998, at the request of the DRA’s, the NDEB assisted the ACFD in the administration of the ACFD Eligibility Examination which was required to apply for Qualifying/Degree Completion Programs. In 2001, formal agreements between the NDEB and the ACFD were signed. These agreements related to the administration of the ACFD Eligibility Examination and to administrative services provided by the NDEB for the ACFD. With the implementation of the NDEB Equivalency Process the final ACFD Eligibility Examination was held in February 2010.

The NDEB also provides examination services on request to any DRA and has formal agreements for provision of services with l’Ordre des dentistes du Québec.

As directed by the CDRAF, ACFD and NDEB (in collaboration with RCDC) developed the Dental Specialty Core Knowledge Examination (DSCKE). The DSCKE was administered for the first time in the fall of 2009.

Summary

The NDEB is conscious of its responsibility to certify only candidates who meet the national standard for the purpose of public protection. The Board has proposed and followed a series of strategic plans.
Each year, the NDEB assesses its certification, examination and assessment procedures and the responses of the candidates and participants, making adjustments where indicated to improve the validity and reliability of the examination and assessment. The Examinations Committee annually reviews the standards and procedures of the respective examinations and assessments and makes recommendations to the Board.

In addition to this ongoing internal review, the NDEB has initiated several external evaluation procedures over the years.

Test Constructions Process and Validity Procedure while Preparing for the Assessment

The primary basis for establishing validity for certification examinations is to show that the process for examination development is a valid reflection of that part of the professional domain that the examinations purport to assess. That is, construct validity is about the relationships between the construct (professional competence) and the instruments. The Assessments in the Equivalency Process are built to be consistent with the "Competencies for a Beginning Dental Practitioner in Canada". The content categories reflect both the educational programs and the demands of practice, and the examinations and assessments are vetted by practitioners. The content blueprint of the Assessment of Clinical Skills was established on the direction of the Canadian Dental Regulatory Authorities and is identical to the blueprint of the Assessment of Clinical Skills administered by l'Ordre des dentistes du Québec from 2001 to 2010. The blueprint was approved by a joint Examinations Committee meeting of the NDEB and l'ODQ and is shown as Requirement Selection. The blueprint will be reviewed following the completion of a formal Task Analysis in 2015.

In addition to the logical basis for asserting construct validity, the NDEB has carried out several studies, both internal and published, that support validity claims (Appendix 1).

Personnel and Committee Structure

Examinations Committee

The Examinations Committee of the Board consists of nine members appointed by the Board. One of these members may be the Public Representative. No more than two persons can be recommended to be members by each of l'Ordre des dentistes du Québec and the Association of Canadian Faculties of Dentistry. Staff support for the Committee includes the Executive Director, the Examinations Project Manager, the Examinations Coordinators and the Chief Examiners for the Written Examination; OSCE Examination; Assessment of Fundamental Knowledge (AFK); Assessment of Clinical Skills(ACS), and, Assessment of Clinical Judgement(ACJ).

The Examinations Committee ensures that its recommendations will provide for the conducting of Examinations and Assessments in a manner fair and equitable for all concerned. Each year the Examinations Committee of the Board:
• Reviews the standards and procedures of all Examinations and Assessments and makes recommendations to the Board on all matters concerning the Examinations and Assessments.
• Reviews the passing standard for each Examination and Assessment and makes a recommendation to the Board.
• Reviews a roster of possible Examiners suggested by representatives of Accredited Programs located in Canada and by the Provincial Dental Regulatory Authorities. The Committee recommends a list of Examiners to permit the Board to appoint a sufficient number of Examiners to develop, construct, validate, administer and evaluate all of the Examinations and Assessments offered to candidates and participants by the Board.
• Recommends to the Board, Chief Examiners for each of the Board's Examinations and Assessments.
• Reviews the protocols for each of the Board’s Examinations and Assessments and submits the protocols to the Board for approval.
• Makes decisions under regarding voiding the results of a person’s Examination or Assessment and whether the person has the privilege of repeating the Examination or Assessment.

Suggestions for protocol changes (including the evaluation criteria) are initiated by staff and Chief Examiners from experience during the administration of the Assessment and from changes in the structure or format of the Assessment made by the NDEB Examinations Committee.

Examination and Assessment dates are published by policy, well in advance, to permit the staff, candidates and participants to plan appropriately. Normally, the ACS is offered in June of each year.

Individuals suggested for appointment as examiners by the DRA's, the Deans and Directors of the dental programs in Canada and the Canadian Forces Dental Services are reviewed by the Examinations Committee and subsequently appropriate individuals are recommended to the Board for appointment.

In addition to appointing examiners, on recommendation of the Examinations Committee, the Board appoints consultants who are recognized for their expertise and/or experience in examination and assessment development.

The results of the Assessment are reported to the Examinations Committee.

Assessment integrity is maintained by the Committee through the review of Assessment Coordinators’ and Assessment Supervisors’ reports on irregularities identified during an Assessment session. If a participant is reported to have compromised the Assessment by cheating or violating the regulations, the Committee has the authority to void the results of that participant's Assessment and to prohibit the participant from taking the Assessment in the future.

Staff Support

The Executive Director/Registrar is responsible for staff supervision and the implementation of all policies approved by the Board to ensure the process operates efficiently and effectively.

The Chief ACS Examiner is responsible for the development of the Assessment including selection of Assessment Supervisors, Invigilators, Facilitators, Evaluators, Assessment teeth, calibration (both of materials and personnel) and review of results.
The Examinations/Assessments Project Manager, in consultation with the Executive Director/Registrar and Chief Examiner, prepares and administers the Assessment including arrangements with hosting institutions and staff, preparing protocols, identification cards, correspondence with Assessment Supervisors, Assistant Assessment Supervisors, Invigilators, Facilitators and Evaluators, and production and translation of Assessment material. The Examinations/Assessments Project Manager is supported by an Examinations Coordinator, and Assessments Coordinator and Clerks and Office Administrative Assistant. The Examinations/Assessments Project Manager contracts with specific personnel at each Assessment centre who have been trained to assist in the administration of the Assessment of Clinical Skills.

All staff are responsible for carrying out directives from the Examinations Committee as approved by the Board.

Selection of Assessment Centres

The ACS is held in June and December at participating host Faculties of Dentistry across Canada. A minimum of 25 participants must register for a location to establish an Assessment centre at that location. At least one centre must be able to accommodate participants who request a French language ACS.

At least nine months prior to the Assessment, a letter is sent to the Dean/Director of 9 Canadian Faculties of Dentistry requesting that their school host a site. This letter gives detailed information regarding both the physical and human resources required in order to host a session and the financial arrangements.

For new ACS sites, the Chief Examiner, the Assessment Supervisor and Assistant Supervisor assigned to the Assessment Centre and a NDEB staff person perform a site visit and orientation session. During the site visit the Chief Examiner determines that the school’s dental clinic is acceptable and Assessment equipment is compatible with the clinic’s equipment. There is variation in the equipment at the different schools but all of the ACS centres have equipment, lighting and space that meet the standard of a clinical practice.

Requirement Selection

The ACS evaluates a participant’s clinical skills through the completion of dental procedures (requirements) on a simulated patient (manikin). The NDEB Examinations Committee reviews and revises the requirements annually and recommends the requirements to the Board as part of a protocol.

Assessment Requirements - Blueprint

Participants will be required to perform the following procedures:

- Class II amalgam preparation.
- Class III composite resin preparation.
- Full metal crown preparation.
- Metal-ceramic (porcelain fused to metal) crown preparation.
- Endodontic access preparation on a molar tooth.
• Direct Class II composite resin restoration on a pre-prepared* tooth
  Direct Class IV composite resin restoration on a pre-prepared* tooth
  Class II amalgam restoration on a pre-prepared* tooth.
• Provisional crown restoration for a pre-prepared* metal-ceramic (porcelain fused to metal) crown preparation on Day 2 of the Assessment. The original unprepared tooth will be in the typodont used on Day 1 of the Assessment.
• Rubber dam application

Participants will also be evaluated on the following:
• Record keeping.
• Infection control and material hygiene.

* a pre-prepared tooth will be supplied.

Assessment Preparation and Administration

The NDEB performed an in-depth review of commercially available manikins and typodont products prior to deciding to use the Nissin system distributed in North America by Kilgore International. The NDEB determined that this product simulates actual patient conditions better than other available systems.

Typodont systems are reviewed every 3 years so that advances in simulations can be integrated into the Assessment.

In the Assessment protocol, participants are supplied detailed information on all of the simulated teeth used in the Assessment. Kilgore International will sell teeth to individuals, allowing participants to become familiar with the simulated teeth used in the ACS. For some of the requirements, Nissin manufactures custom teeth for the NDEB and these are only available to the NDEB. However, standard versions of these custom teeth are available for participants to purchase.
All Assessment teeth are placed in the manikins by NDEB staff in Ottawa. The Chief Examiner checks each typodont to verify that the appropriate teeth are placed, aligned and occlude properly. One to two weeks prior to the Assessment, assessment material is shipped to the Assessment centres where it is securely stored.

Information for Participants

The NDEB website, www.ndeb.ca, has a comprehensive description of the ACS process. The information includes details of costs, times and locations. It identifies the application process and requirements; the types of dental procedures on the ACS, details the criteria used in the evaluation process of these procedures and grade derivation grids. Applicants are informed of the manufacturer of the simulated teeth. The grading criteria provided on the website are identical to the criteria used by Supervisors, Invigilators and Evaluators. The website is thorough and available to interested individuals prior to application.

The quality and comprehensiveness of the information on the website about the ACS represents best practices in transparency and accountability. The objective information available ensures fairness in allowing participants to prepare and practice the required procedures.

When participants receive confirmation of their ACS application, they are also provided with details of the equipment available to them at their assigned Assessment centre. This includes a written description and several photographs of the handpiece coupler compatible with the school’s equipment.

Validity and Reliability Procedures during the Administration of the Assessment

Personnel

The Chief Examiner and Assistants to the Chief Examiner are appointed by the Board. In consultation with the Registrar and other NDEB staff, they are responsible for overseeing the preparations for the ACS administration including; appointing appropriate personnel; assisting with communications between the NDEB and personnel for each site; selecting the specific teeth used in the Assessment; preparing typodont teeth for Assessment restorations; drafting Assessment documents; preparing training and calibration documents including PowerPoint presentations; directing staff on the preparation and assembly of materials and assuring uniformity of the typodont set ups.
The following personnel are appointed to be present at each Assessment centre:

- **Assessment Supervisors and Assistant Supervisors** – These are examiners appointed by the Board on the recommendation of a DRA or Faculty of Dentistry who act as Supervisors and Assistant Supervisors. They have advanced training in the ACS process and procedures. These individuals are calibrated and responsible to ensure appropriate training and calibration of Invigilators set up and security of Assessment materials; ensure compliance with standardized Assessment protocols; address any onsite disputes on process; ensure independent Invigilator assessments of infection control and rubber dam requirements and confirm the evaluation of the onsite assessments of infection control and rubber dam requirements.

- **Invigilators (2-10)** – These are examiners appointed by the Board on the recommendation of a DRA or Faculty of Dentistry who act as Invigilators. They are calibrated to set up; monitor the process and evaluate the onsite assessments. In a half day session, held just prior to the ACS, these individuals receive training and are calibrated using standardized PowerPoint presentations. They then prepare the clinic facilities for the ACS. Invigilators are responsible to set up the clinic; monitor participant compliance during the Assessment; report infractions; evaluate infection control and rubber dam placements based on the standardized criteria and assist in securing Assessment materials for transport.

- **Registered Dental Assistants (2-4)** – Dental Assistants are recommended by the host institution. They have knowledge of the clinic and operations, provide access to Faculty sites; obtain and monitor Faculty equipment; support Supervisors and Invigilators in their Assessment functions. Dental assistants do not provide dental assisting services to any of the participants. Dental assistants are trained and delegated tasks by the Assessment Supervisors.

- **NDEB Staff (1-2)** – Staff members of the NDEB are onsite to provide support; ensure compliance with NDEB standardized processes and procedures; secure Assessment material and equipment during transport to and from NDEB offices in Ottawa.

- **Assessment Coordinator (1)** – This is a full time clinical Faculty member, usually the Faculty of Dentistry Clinic Director. They provide onsite pre-Assessment logistical support; provide general support to the Assessment Supervisors; monitor use of Faculty material, supplies and personnel.

- **Equipment Technician (1-2)** – An equipment technician is provided by the Faculty of Dentistry to calibrate equipment prior to the Assessment; assist participants in initial set up; address any malfunctions during the Assessment and provide general support to the Assessment Supervisors.

### Training and Calibration

Each category of Assessment personnel receives specific written instructions before the Assessment. On the day prior to the Assessment, the Assessment Supervisor and Assistant Supervisor conduct training and calibration sessions for Invigilators and school staff. Strict adherence to the ACS schedule and procedures for uniform administration of the ACS are emphasized. Assessment Coordinators review any unique features of equipment or operations of each clinic and discuss safety and emergency protocols.
Set Up and Verification

On the day prior to the Assessment, all personnel assist in setting up the clinic for the Assessment. Participants are assigned to specific clinical operatories based on seating charts prepared by the Examinations Project Manager at the NDEB. NDEB Assessment personnel verify that the typodont ID number on each manikin matches with the operatory assignment map and that the appropriate participant photo ID card is visible in each operatory. Assessment Supervisors and Invigilators verify the uniform setup of each manikin, torso and typodont, including the occlusion.

Participant Registration, Orientation and Set up

On the morning of Day 1 of the Assessment, participants’ identifications are verified with government issued photo ID and confirmed to match material sent to the NDEB during the application process.

Participants receive a short, scripted orientation session accompanied by a standardized PowerPoint where ACS procedures and regulations are reviewed. Participants have the opportunity to ask questions of the Assessment Supervisor and Coordinator.

At the time indicated in the ACS schedule, participants are directed to their pre-assigned operatories in the clinic. All Assessment personnel are available to assist participants setting up their equipment and ensuring that equipment is in working order. The equipment technician addresses any technical issues. Participants are also able to prepare the teeth assigned for practice during this time.

During the Assessment

At the indicated time, the list of requirements for the day is distributed and the Assessment begins.

Supervisors and Invigilators circulate and ensure that anatomically possible operating and patient postures are maintained throughout the Assessment. Participants are not graded on improper postures, but they are directed to correct non-anatomically possible positions. If a participant consistently refuses to use anatomically possible operating and patient posture following three directions they may be stopped and their grade will be a Fail.

The infection control requirement is observed and graded by examiners throughout the two days of the Assessment. Violations are noted and recorded on forms pre-printed for each participant. Final grades for this requirement are tabulated after the Assessment is completed.

The rubber dam requirement is performed at different operatories at times pre-assigned to each participant throughout the two days of the Assessment. Participants are advised of their assigned time in their Day 1 registration materials. After the completion of the placements, two Invigilators independently grade each placement. Supervisors verify the placement and the grading to ensure consistency. A photograph of the placement is taken before the rubber dam is removed in preparation for the next participant.

Although very few defects with typodont teeth are found, if a defect is identified at any time during the ACS, Supervisors and Invigilators are trained to determine whether a defect is of such consequence to require
replacement of the tooth and a possible time extension or whether the tooth with the defect should remain and notes to Evaluators be made on the Participant’s Communication pages.

Participants who experience undue delays because of clinic equipment failures or other circumstances, are given time extensions by the Supervisors or Invigilators.

At the end of each day, participants are asked to stop working and leave the clinic while typodonts and Participant Communication pages are collected.

At the end of Day 2, all typodonts and documents are boxed and shipped to Ottawa for grading. Grading forms used at the centres for the infection control and rubber dam requirements are duplicated, with the instructions that they be destroyed once the originals are verified to be received intact in Ottawa.

Validity and Reliability Procedures during the Evaluation Session

Personnel

Chief Examiner and Assistants to the Chief Examiner

The Chief Examiner and Assistants ensure appropriate personnel are appointed for the evaluation session; prepare all training and calibration material including PowerPoint presentations and example requirements for calibration; direct the text programming of the evaluation computers; draft documents used in evaluation procedures; direct the set up of the typodonts and documents for evaluation and provide direction to Facilitators and Evaluators throughout the evaluation session.

Facilitators

These are examiners appointed by the Board on the recommendation of a DRA or Faculty of Dentistry who act as evaluation Facilitators. Two or more Facilitators are appointed for each requirement. They direct the calibration session for their assigned requirement; review requirements and grades in cases where Evaluators have not fully agreed on grades or locations and determine the appropriate final grades and coordinate discussion between Evaluators on any issues that arise during the evaluation session.

Evaluators

These are examiners appointed by the Board on the recommendation of a DRA or Faculty of Dentistry who act as Evaluators. Sufficient Evaluators are appointed for each requirement. They evaluate the required procedures performed by the participants’ and assign grades based on the criteria listed in the ACS Protocol.
NDEB staff

Full-time staff members of the NDEB are onsite to secure Assessment material and equipment during transport to and from NDEB offices in Ottawa; set up and take down the calibration and evaluation material; provide computer support and enter participant grades from the Assessment centres into the central evaluation computer system.

Training and Calibration

About six weeks prior to the evaluation session, Facilitators and Evaluators are sent specific material related to the requirement they are assigned to evaluate. Materials include the grading criteria, written guidelines for evaluation, a typodont and several Assessment teeth for their assigned requirement. Evaluators and Facilitators are directed to practice the requirement several times themselves so that they are familiar with how the typodont teeth differ from natural teeth and the challenges that participants face during the Assessment. Evaluators are also directed to familiarize themselves with the evaluation criteria and guidelines.

The Evaluation Session starts with an introduction to the process and NDEB and an orientation on the use of tablet computers for recording evaluations. Each Evaluator has the exclusive use of a tablet style computer for grading. Then, each requirement’s Facilitators and Evaluators spend two to three hours in calibration and practice grading activities. Firstly, they review example typodont teeth prepared to illustrate almost all of the requirement’s possible grades. They then practice grading using 10 examples of completed requirements, each with a suggested evaluation. They practice entering the evaluations on their tablet computers. The calibration materials are selected and prepared by the Chief Examiner and verified by the Assistants to the Chief Examiner.

Once evaluations have started, Facilitators are given extra instruction in the facilitation process and in the use of the tablet computers for facilitation procedures.

The Evaluation Process

Typodonts and associated Participant Communication pages are arranged numerically by participant number, with no indication of the participant name or Assessment centre. Each individual requirement is graded independently by two Evaluators. If there is not perfect agreement between the two evaluations (grade, error and location), the Facilitators’ computer will show that facilitation is needed. A Facilitator reviews the typodont and the evaluations and assigns the appropriate grade, error and location.

In a similar fashion, the written Records of Procedure pages are sorted numerically and independently graded by two separate Evaluators. Discrepancies in grading are reviewed and final grades assigned by Facilitators.

Facilitators are advised to look for patterns of grading discrepancies amongst the Evaluators and if such patterns are noted, to revisit the calibration materials with the Evaluators involved.
Grading Process

Grading

All requirements are assessed using a four point system.

- **A+**: Clinically perfect, no corrections needed
- **A**: Clinically acceptable. Corrections could be made, but deficiencies will not affect function or durability.
- **D**: Clinically unacceptable. Corrections must be made to allow function or provide durability.
- **E**: Clinically unacceptable. Significant corrections or alternate treatment needed.

Requirements have one to three categories for grading. Each category is graded using the four point system. Final grades for each requirement are calculated using the following grid:

- 2 or more A+ and no D or E = A+
- 2 or more A or A+ and one D = A
- 2 D and no E = D
- 3 or more D or 1 E = E

Participants overall grades for the twelve requirements of the ACS are calculated using the following grid:

- 8 A+ or A and no E = Pass
- 9 A+ or A and one E = Pass
- Less than the above grades = Fail

Computer Support

A central server compiles all evaluations and gives reports on the progress of the session. Results are immediately viewable in the same format that participants access results on-line. Results are released after verification and statistical analysis is completed. No further staff processing or handling of results is necessary.
Post Evaluation Review

After all evaluations are completed, the Chief Examiner, Assistants to the Chief Examiner and other selected experienced Evaluators review all of the evaluations. Particular attention is paid to participants who have received marginal failing grades. The main objective of the review is to ensure that the number of false negative results from the Assessment is minimal. Favourable consideration is given to those participants who demonstrate a conservative approach to tooth preparations and those who are judged to have made errors consistent with those made because of the differences between typodont teeth and natural teeth. Some participants’ grades may be raised to passing grades. The guideline for raising to a passing grade is a demonstration of skills that could be considered equivalent to that of a new graduate of an accredited dental program.

Reporting

Detailed results are provided to participants on using the online system. Participants receive an email notification once results are posted. Participants can log in and view their overall results and a Report of Results containing details for each requirement. A partial example of a participant’s Report of Results follows.
Partial Example of a Participant’s Report of Results

<table>
<thead>
<tr>
<th>Class II Amalgam Preparation</th>
<th>Result: A+</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A+</strong>: External Outline Form</td>
<td>No errors</td>
</tr>
<tr>
<td><strong>A</strong>: Internal Form</td>
<td>Minor overpreparation occlusally</td>
</tr>
<tr>
<td></td>
<td>Mesial-occlusal</td>
</tr>
<tr>
<td></td>
<td>Axial wall too deep: &gt; 1.5 mm</td>
</tr>
<tr>
<td></td>
<td>Mesial</td>
</tr>
<tr>
<td></td>
<td>Distal</td>
</tr>
<tr>
<td><strong>A+</strong>: Finish</td>
<td>No errors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Infection Control</th>
<th>Result: A+</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A+</strong>: Infection Control</td>
<td>No violations</td>
</tr>
</tbody>
</table>

| Full Metal Crown Preparation | Result: A+ |
A: Path of Draw and Axial Convergence

Minor undercuts. Manageable by lab.
Mesial

A+: Preservation of Tooth/Structural Durability

No errors

A+: Finish and Margin

No errors
<table>
<thead>
<tr>
<th>Provisional Crown Restoration</th>
<th>Result: E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D: Margin Contour and Adaptation</strong></td>
<td></td>
</tr>
<tr>
<td>Underextended 0.5 – 1.0mm</td>
<td></td>
</tr>
<tr>
<td>Distal</td>
<td></td>
</tr>
<tr>
<td><strong>D: Morphology and Occlusion</strong></td>
<td></td>
</tr>
<tr>
<td>Undercontoured</td>
<td></td>
</tr>
<tr>
<td>Distal</td>
<td></td>
</tr>
<tr>
<td><strong>D: Polish</strong></td>
<td></td>
</tr>
<tr>
<td>Unacceptable roughness</td>
<td></td>
</tr>
<tr>
<td>Distal</td>
<td></td>
</tr>
</tbody>
</table>
Metal-ceramic Crown Preparation

Result: A

A: Path of Draw and Axial Convergence

Minor undercuts. Manageable by lab.

Labial
Mesiolabial

D: Preservation of Tooth/Structural Durability

Buccal, mesial, distal reduction 1.5 - 2.5mm

Buccal

Lingual reduction 1.0 - 1.5mm

Mesiolingual

A: Finish and Margin

Located supragingival 0 - 1.0mm

Mesiobuccal
Distolinguinal
## Results

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of 1st Try Participants</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>336</td>
</tr>
<tr>
<td>No. of 2nd Try Participants</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>180</td>
</tr>
<tr>
<td>No. of 3rd Try Participants</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>43</td>
</tr>
</tbody>
</table>

### Requirement

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Infection Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+ / A</td>
<td>87%</td>
<td>87%</td>
<td>92%</td>
<td>92%</td>
</tr>
<tr>
<td>D</td>
<td>11%</td>
<td>9%</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>E</td>
<td>3%</td>
<td>4%</td>
<td>1%</td>
<td>4%</td>
</tr>
<tr>
<td>Full Metal Crown Preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+ / A</td>
<td>57%</td>
<td>49%</td>
<td>60%</td>
<td>44%</td>
</tr>
<tr>
<td>D</td>
<td>22%</td>
<td>21%</td>
<td>27%</td>
<td>25%</td>
</tr>
<tr>
<td>E</td>
<td>21%</td>
<td>30%</td>
<td>14%</td>
<td>32%</td>
</tr>
<tr>
<td>Provisional Crown Restoration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+ / A</td>
<td>63%</td>
<td>60%</td>
<td>59%</td>
<td>67%</td>
</tr>
<tr>
<td>D</td>
<td>19%</td>
<td>19%</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>E</td>
<td>18%</td>
<td>21%</td>
<td>25%</td>
<td>15%</td>
</tr>
<tr>
<td>Endodontic Access Preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+ / A</td>
<td>67%</td>
<td>73%</td>
<td>67%</td>
<td>78%</td>
</tr>
<tr>
<td>D</td>
<td>18%</td>
<td>17%</td>
<td>21%</td>
<td>13%</td>
</tr>
<tr>
<td>E</td>
<td>15%</td>
<td>11%</td>
<td>12%</td>
<td>9%</td>
</tr>
<tr>
<td>Class II Composite Resin Restoration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+ / A</td>
<td>61%</td>
<td>65%</td>
<td>73%</td>
<td>70%</td>
</tr>
<tr>
<td>D</td>
<td>19%</td>
<td>15%</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>E</td>
<td>19%</td>
<td>20%</td>
<td>12%</td>
<td>14%</td>
</tr>
<tr>
<td>Record Of Procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+ / A</td>
<td>80%</td>
<td>75%</td>
<td>86%</td>
<td>91%</td>
</tr>
<tr>
<td>D</td>
<td>17%</td>
<td>18%</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>E</td>
<td>3%</td>
<td>7%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Rubber Dam Application</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+ / A</td>
<td>84%</td>
<td>78%</td>
<td>62%</td>
<td>55%</td>
</tr>
<tr>
<td>D</td>
<td>12%</td>
<td>14%</td>
<td>31%</td>
<td>29%</td>
</tr>
<tr>
<td>E</td>
<td>4%</td>
<td>8%</td>
<td>7%</td>
<td>15%</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-----------</td>
<td>----------</td>
<td>-----------</td>
<td>----------</td>
</tr>
<tr>
<td><strong>Class IV Composite Resin Restoration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+ / A</td>
<td>46%</td>
<td>36%</td>
<td>52%</td>
<td>51%</td>
</tr>
<tr>
<td>D</td>
<td>24%</td>
<td>22%</td>
<td>21%</td>
<td>22%</td>
</tr>
<tr>
<td>E</td>
<td>30%</td>
<td>42%</td>
<td>27%</td>
<td>27%</td>
</tr>
<tr>
<td><strong>Class III Composite Resin Preparation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+ / A</td>
<td>89%</td>
<td>77%</td>
<td>79%</td>
<td>77%</td>
</tr>
<tr>
<td>D</td>
<td>4%</td>
<td>11%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>E</td>
<td>7%</td>
<td>12%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Class II Amalgam Preparation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+ / A</td>
<td>46%</td>
<td>22%</td>
<td>31%</td>
<td>61%</td>
</tr>
<tr>
<td>D</td>
<td>24%</td>
<td>24%</td>
<td>30%</td>
<td>23%</td>
</tr>
<tr>
<td>E</td>
<td>31%</td>
<td>55%</td>
<td>39%</td>
<td>16%</td>
</tr>
<tr>
<td><strong>Ceramometal Crown Preparation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+ / A</td>
<td>41%</td>
<td>22%</td>
<td>31%</td>
<td>28%</td>
</tr>
<tr>
<td>D</td>
<td>28%</td>
<td>36%</td>
<td>40%</td>
<td>38%</td>
</tr>
<tr>
<td>E</td>
<td>32%</td>
<td>42%</td>
<td>29%</td>
<td>34%</td>
</tr>
<tr>
<td><strong>Class II Amalgam Restoration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+ / A</td>
<td>38%</td>
<td>39%</td>
<td>28%</td>
<td>28%</td>
</tr>
<tr>
<td>D</td>
<td>20%</td>
<td>18%</td>
<td>28%</td>
<td>27%</td>
</tr>
<tr>
<td>E</td>
<td>42%</td>
<td>43%</td>
<td>44%</td>
<td>45%</td>
</tr>
</tbody>
</table>

**Appeals**

Participants may review their typodonts by making an appointment at the NDEB office in Ottawa.

The Appeals By-laws process is described in the NDEB By-laws as found on the web site at http://www.ndeb.ca/
Attachment 1 - Summary of Act

A Summary of the Act relating to The National Dental Examining Board of Canada originally established in 1952 and revised in 1973.

Preamble to 1952 Act

Whereas the persons hereinafter named have by their petition prayed that it be enacted as hereinafter set forth and it is expedient to grant the prayer of the petition: Therefore Her Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:

Preamble to 1973 Revision

Whereas The National Dental Examining Board of Canada, hereinafter called "the Board", has by its petition prayed that it be enacted as hereinafter set forth, and it is expedient to grant the prayer of the petition: Therefore Her Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:

1973 Section 1: Name in French

The Board may use, in the transaction of its business, either the name The National Dental Examining Board of Canada or the name Le Bureau national d'examen dentaire du Canada, or both of such names as and when it so elects. It may sue or be sued in either or both of such names, and any transaction, contract or obligation entered into or incurred by the Board in either or both of the said names shall be valid and binding on the Board.

1973 Section 2: Existing rights saved

Nothing contained in section 1 shall in any way alter or affect the rights or liabilities of the Board, except as therein expressly provided, or in any way affect any proceeding or judgment now pending, either by or in favour of or against the Board, which, notwithstanding the provisions of section 1, may be prosecuted, continued, completed and enforced as if this Act had not been passed.
Incorporation and Composition (in the 1952 Act)

1. Harold M. Cline, doctor of dental surgery, of the city of Vancouver in the province of British Columbia, Gustave Ratte, doctor of dental surgery, of the city of Quebec in the province of Quebec, and Don W. Gullett, doctor of dental surgery, of the city of Toronto, in the province of Ontario, together with such persons as may hereafter become members of the Board as hereinafter provided, are incorporated under the name of "The National Dental Examining Board of Canada", hereinafter called "the Board".

2. The persons named in section one of this Act shall be provisional members of the Board with power to organize the Board as in this Act provided.

3. The head office of the Board shall be at the city of Toronto, in the province of Ontario, or at such other place as the Board may determine by by-law from time to time.

4. (1) The Board shall be composed of
(a) one member appointed as its representative by the appropriate licensing body of each province in Canada;

and

(b) two members appointed by the Council on Dental Education of the Canadian Dental Association.

(2) The term of office for each member of the Board shall be three years, except in respect of the members appointed to constitute the first Board.

(3) The term of office for one-half of the members of the first Board shall be two years and for the other one-half shall be four years; the members constituting each such one-half shall be chosen by lot in such manner as the Board may determine.

(4) A member of the Board on the expiration of his term of office, if properly qualified, shall be eligible for reappointment.

(5) If the appropriate licensing body of any province fails to appoint a member of the Board within a reasonable time a vacancy occurs, the Secretary of the Board shall notify such licensing body and require such licensing body to make such appointment and certify the result to the Board within one month of the date of service of the notice.

(6) All members of the Board shall continue in office until their successors are appointed or until expiration of their term of office if their successors are appointed before the expiration of such term of office.

5. (1) The appropriate licensing body of any province may at any time upon twelve month's notice to the Board, withdraw from participation in and recognition of the activities of the Board, and such licensing body shall not thereafter, so long as such withdrawal continues, be entitled to appoint any representative to the Board.

(2) The Board may upon the application of any licensing body which has so withdrawn, restore the participation and representation of such licensing body.
Purposes of the Board (revised by 1973 Act)

6. The purposes of the Board shall be

   (a) to establish qualifying conditions for a single national standard certificate of qualification for general practitioner dentists;

   (b) to establish qualifying conditions for national standard certificates of qualification for dental specialists subject to the approval of The Royal College of Dentists of Canada;

   (c) to ensure that the rules and regulations governing examinations will be acceptable to all participating licensing bodies and provide for the conducting of examinations in a manner fair and equitable for all concerned; and

   (d) to promote enactment, with the consent and at the instance of the provincial licensing bodies, of provincial legislation necessary or desirable to supplement the provisions of this Act."

Powers of the Board (revised by 1973 Act)

7. The Board shall have power to

   (a) establish qualifications for general practitioner dentists to ensure that the qualifications may be recognized by the appropriate licensing bodies in all provinces of Canada;

   (b) establish, subject to the approval of the Royal College of Dentists of Canada, qualifications for dental specialists, to ensure that, in each case the qualifications may be recognized by the appropriate licensing bodies in all provinces of Canada;

   (c) establish the conditions under which a general practitioner dentist may obtain and hold a certificate of qualification;

   (d) establish subject to the approval of The Royal College of Dentists of Canada, the conditions under which a dental specialist may obtain and hold a certificate of qualification;

   (e) prescribe compulsory examinations as evidence of qualifications for registration, subject to the rights of The Royal College of Dentists of Canada as hereinafter set forth;

   (f) establish and maintain a body of examiners to hold examinations and to recommend the granting of certificates of qualification to general practitioner dentists;

   (g) establish and maintain a body of examiners appointed by The Royal College of Dentists of Canada to hold examinations and make recommendations concerning the granting of certificates of qualification of properly trained dental specialists;

   (h) issue certificates of qualification to general practitioner dentists and dental specialists in accordance with the recommendation of the examiners;

   (i) establish a register for Canada of general practitioner dentists and dental specialists who have been granted certificates of qualification by the Board;
(j) delete from the register the name of any person whose provincial registration has been cancelled or suspended and to restore such name to the register if and when such cancellation or suspension is reversed, or the period of suspension is terminated; and (k) publish and revise the register from time to time."

Bylaws (1952 Act)

8. (1) The Board may make such by-laws and regulations, not contrary to law or the provisions of this Act, as it may deem necessary or advisable for

(a) the government and management of its business and affairs;
(b) the selection and election or appointment and remuneration of officers and employees and prescription of their respective powers and duties;
(c) the imposition and collection of dues or fees; and
(d) the carrying into effect of the purposes of the Board and its powers under this Act.

(2) The Board may, from time to time alter or repeal all or any of such by-laws or regulations as it may see fit.

(3) No such by-law or regulation shall be enacted, altered or repealed except with the concurrence of two-thirds of the representatives on the Board of the provincial licensing bodies then represented on the Board.

Property (1952 Act)

9. The Board may acquire, own, hold, deal with and dispose of, subject to the provisions of applicable provincial laws, any real and personal estate and property rights and privileges necessary or expedient for the purposes of the Board.

Ability to borrow money (1952 Act)

10. The Board shall have power to

(a) borrow money on the credit of the Board when required for the purposes of the Board and to give security for any sum or sums of money so borrowed;

and

(b) draw, make, accept and endorse all bills of exchange and promissory notes necessary for the purposes of the Board under the hands of such officers as may be designated by the by-laws and in no case shall it be necessary that the seal of the Board be affixed thereto nor shall the signing officers be individually responsible therefore, provided that nothing herein shall be
construed to authorize the Board to issue notes or bills of exchange payable to bearer or intended to be circulated as money or as notes or bills of a bank.

Certificate of Qualification for Specialists (revised 1973 Act)

11. (1) The Board shall issue its certificate of qualification to all Fellows of The Royal College of Dentists of Canada who are dental specialists, and whose specialties are recognized by the Canadian Dental Association and who make application for such a certificate within five years from the date on which this Act comes into force.

(2) In the event of the dissolution of The Royal College of Dentists of Canada, all powers conferred upon it herein shall become vested in The National Dental Examining Board. Any reference in this Act to The Royal College of Dentists of Canada or The National Dental Examining Board shall include their successors or assigns."
Attachment 2 – Competencies for a Beginning Dental Practitioner in Canada

A competent beginning dental practitioner in Canada must be able to provide oral health care for the benefit of individual patients and communities in a culturally sensitive manner.

Competency assumes that all behaviours are supported by foundation knowledge and skills in biomedical, behavioural and clinical dental science and by professional behaviour. Beginning dental practitioners in Canada must be able to apply foundation knowledge and skills to justify their decisions and actions and to evaluate outcomes. Therefore, foundation knowledge, skills and professional behaviour are understood to be a part of every competency.

Competency also assumes that all behaviours are performed to an acceptable level and that the practitioner can evaluate their quality and effectiveness. Competency cannot be achieved without the ability to self-evaluate. Moreover, there are no degrees of competence: a dentist is either competent or not competent. The competencies below refer to general dental practice and include the management of patients of all ages including those with special needs. It is assumed that all oral health care is provided in an ethical manner, in accordance with legal requirements at the national and provincial level.

A beginning dental practitioner in Canada must be competent to:

1. recognize the determinants of oral health in individuals and populations and the role of dentists in health promotion, including the disadvantaged.
2. recognize the relationship between general health and oral health.
3. evaluate the scientific literature and justify management recommendations based on the level of evidence available.
4. communicate effectively with patients, parents or guardians, staff, peers, other health professionals and the public.
5. identify the patient’s chief complaint/concern and obtain the associated history.
6. obtain and interpret a medical, dental and psychosocial history, including a review of systems as necessary, and evaluate physical or psychosocial conditions that may affect dental management.
7. maintain accurate and complete patient records in a confidential manner.
8. prevent the transmission of infectious diseases by following current infection control guidelines.
9. perform a clinical examination.
10. differentiate between normal and abnormal hard and soft tissues of the maxillofacial complex.
11. prescribe and obtain the required diagnostic tests, considering their risks and benefits.
12. perform a radiographic examination.
13. interpret the findings from a patient’s history, clinical examination, radiographic examination and from other diagnostic tests and procedures.
14. recognize and manage the anxious or fearful dental patient.
15. recognize signs of abuse and/or neglect and make appropriate reports.
16. assess patient risk (including, but not limited to, diet and tobacco use) for oral disease or injuries.
17. develop a problem list and establish diagnoses.

18. determine the level of expertise required for treatment and formulate a written request for consultation and/or referral when appropriate.

19. develop treatment options based on the evaluation of all relevant data.

20. discuss the findings, diagnoses, etiology, risks, benefits and prognoses of the treatment options, with a view to patient participation in oral health management.

21. develop an appropriate comprehensive, prioritized and sequenced treatment plan.

22. present and discuss the sequence of treatment, estimated fees, payment arrangements, time requirements and the patient’s responsibilities for treatment.

23. obtain informed consent including the patient’s written acceptance of the treatment plan and any modifications.

24. modify the treatment plan as required during the course of treatment.

25. provide education regarding the risks and prevention of oral disease and injury to encourage the adoption of healthy behaviors.

26. provide therapies for the prevention of oral disease and injury.

27. recognize and institute procedures to minimize occupational hazards related to the practice of dentistry.

28. achieve local anesthesia for dental procedures and manage related complications.

29. determine the indications and contraindications for the use of drugs used in dental practice, their dosages and routes of administration and write prescriptions for drugs used in dentistry.

30. manage dental emergencies.

31. recognize and manage systemic emergencies which may occur in dental practice.

32. manage conditions and diseases of the periodontium, provide periodontal treatment when indicated and monitor treatment outcomes.

33. assess the risk, extent and activity of caries and recommend appropriate non-surgical and surgical therapy.

34. manage dental caries, tooth defects and esthetic problems and, when restoration is warranted, use techniques that conserve tooth structure and preserve pulp vitality to restore form and function.

35. manage patients with orofacial pain and/or dysfunction.

36. manage surgical procedures related to oral soft and hard tissues and their complications

37. manage trauma to the orofacial complex.

38. manage conditions and pathology of the pulp and provide endodontic treatment when indicated.

39. manage abnormalities of orofacial growth and development and treat minor orthodontic problems.

40. recognize and manage functional and non-functional occlusion.

41. select and, where indicated, prescribe appropriate biomaterials for patient treatment.

42. manage partially and completely edentulous patients with prosthodontic needs including the provision of fixed, removable and implant prostheses.

43. make records required for use in the laboratory fabrication of dental prostheses and appliances.
44. design a dental prosthesis or appliance, write a laboratory prescription and evaluate laboratory products.

45. apply accepted principles of ethics and jurisprudence to maintain standards and advance knowledge and skills.

46. apply basic principles of practice administration, financial and personnel management to a dental practice.

47. demonstrate professional behaviour that is ethical, supercedes self-interest, strives for excellence, is committed to continued professional development and is accountable to individual patients, society and the profession.

Definition

To “manage” the oral health care needs of a patient is assumed to include all actions performed by a health care provider that are designed to alter the course of a patient’s condition. Such actions may include providing education, advice, treatment by the dentist, treatment by the dentist after consultation with another health care professional, referral of a patient to another health care professional, monitoring treatment provided, but also may include providing no treatment or observation. “Manage” assumes the use of the least invasive therapy necessary to gain a successful outcome in accordance with patient wishes.
Attachment 3 – External Evaluation Procedures

A Report by the Commissioner of Examinations. Malcolm G. Taylor, Ph.D.-1966

A Study of the Accreditation Mechanism - 1983

Workshop on Preclinical and Clinical Examinations - 1985

1989/90 Certification Review Committee (CRC) to explore whether the granting of a certificate on the basis of accreditation alone continues to be acceptable

A Report of NDEB by-laws and policies by the Honourable W.D. Parker - 1990

A psychometric analysis of examination evaluation methods by Dr. A. Rothman - 1991

Symposium - 1992

A Workshop on Clinical Competencies - 1993

A Consensus Conference on Certification of Graduates of Dental Programs accredited by the ADA Commission of Dental Accreditation - 1995

Conference on Competency in Oral Health Care, Education & Practice – 2000

NDEB Program Evaluation – André Boulais – 2001

Strategic Plan for 2006 – 2010

Review and Validation of Statistical Procedures – Mr. Thomas Maguire – 2004

CDA/DCF Teaching Conference: Review of Competencies for a Beginning Dental Practitioner in Canada - 2004

Written Examination Standard Setting Study - Chad W. Buckendahl – July 2007

OSCE Examination Standard Setting Study - Chad W. Buckendahl – February 2008
Attachment 4 – Publications


Gerrow JD, Murphy HJ Boyd MA, Scott D. An Analysis of the Contribution of a Patient-Based Component to a Clinical Licensure Examination. JADA 137:1434, October 2006.
