



**THE AMERICAN BOARD OF ORTHODONTICS  
SCENARIO-BASED CLINICAL EXAMINATION  
STUDY GUIDE  
2020**

The American Board of Orthodontics  
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## **ABOUT THE AMERICAN BOARD OF ORTHODONTICS**

Founded in 1929 as the first specialty board in dentistry, The American Board of Orthodontics (ABO) is the only orthodontic specialty board recognized by the American Dental Association and in affiliation with the American Association of Orthodontists.

The ABO sets the standard for the highest level of patient care and promotes excellence in orthodontics for all of its certified orthodontists. As a specialty board, we serve to protect the orthodontic specialty and encourage orthodontists to achieve certification, demonstrating their commitment to lifelong learning and excellent care.

As advocates for the orthodontic specialty, the ABO is a resource for orthodontists, orthodontic residents, as well as anyone looking for the best in orthodontic care.

## **MISSION**

The mission of The American Board of Orthodontics is to elevate the quality of orthodontic care for the public by promoting excellence through certification, education and professional collaboration.

## **CERTIFICATION PROCESS OVERVIEW**

An orthodontist may become board certified by the American Board of Orthodontics by successfully completing a written examination and a clinical examination. Once this has been completed, the orthodontist will be awarded a time-limited certificate. By the end of the time-limited certificate, a Board Certified orthodontist must have taken the appropriate renewal examination to remain board certified.

## **ELIGIBILITY REQUIREMENTS**

Examinees are eligible to take the ABO Written Examination once they have completed at least 18 months of a CODA-accredited orthodontic program.

All examinees that have graduated from a CODA accredited orthodontic program and have successfully completed the ABO Written Examination are then eligible for the ABO Scenario-based Clinical Examination. Once successfully completed, the Written Exam does not expire.

Examinees participating in extended programs will be required to complete their program prior to being eligible to take the Clinical Examination.

All examinations are provided in English.

## **CONFIDENTIALITY AGREEMENT**

All examinees are required to agree to the following Confidentiality Agreement as part of the registration process for both the Written Examination and the Scenario-based Clinical Examination:

I understand that the content of all ABO Examinations, and each of the items contained therein, is proprietary and strictly confidential, and that the unauthorized retention, possession, copying, distribution, disclosure, discussions, or receipt of any examination question, in whole or in part, by written, electronic, oral or other form of communication, including but not limited to texting, e-mailing, social media outlets, copying or printing of electronic files, and reconstruction through memorization and/or dictation, before, during, or after an examination, is strictly prohibited. I further understand that, in addition to constituting irregular behavior subject to disciplinary action such as revocation of certification, revocation of eligibility for future certification, and disciplinary fines, such activities violate the rules and regulations governing ABO certification.

## **SPECIAL ACCOMMODATIONS**

In accordance with Title III of the Americans with Disabilities Act (ADA), the American Board of Orthodontics (ABO) will provide reasonable accommodations to examinees with disabilities, and will ensure that its examinations are administered in facilities that are accessible to individuals with disabilities or that alternative accessible arrangements are made. At least four (4) weeks in advance of the examination date, an examinee must provide ABO with acceptable medical or other documentation of the disability and recommended accommodations (which may include evidence of past modifications, accommodations, or auxiliary aids or services received in similar testing situations). Requests that require fundamental alteration of the purpose and nature of the examination will not be accommodated. See ABO's Policy on Testing Individuals with Disabilities, which is available on the ABO's website ([www.americanboardortho.com/](http://www.americanboardortho.com/)).

## **NONDISCRIMINATION STATEMENT**

ABO certification decisions do not discriminate against applicants on the basis of age, gender, disability, race, ethnicity, national origin, religion, sexual orientation, linguistic background, or other personal characteristics. See ABO's Policy on Fairness in Examining and Exam Use, which is available on the ABO's website ([www.americanboardortho.com/](http://www.americanboardortho.com/)).

## **REQUEST FOR EXAMINATION PROCESS REVIEW**

An examinee may request an Examination Process Review based on an irregularity in administering or conducting the examination within 72 hours from the time the examinee completes the examination. A request for Examination Process Review must be in writing, directed to the ABO's Chief Executive Officer and sent by email (Info@americanboardortho.com) or by facsimile (314-432-8170). See ABO's Policy on Examination Process Review, which is available on the ABO's website ([www.americanboardortho.com/](http://www.americanboardortho.com/)).

## **RE-EXAMINATION**

Examinees that do not successfully pass the Clinical Examination will have the opportunity to retake the examination during the next testing window that has availability. If an examinee fails the examination 3 times and wishes to take the examination again, the examinee must petition the Board before registration will be accepted.

## **EXAMINATION SCHEDULE**

Online registration and the current fee schedule for all future examinations may be found on the ABO website:

<https://americanboardortho.com/orthodontic-professionals/about-board-certification/exam-dates-fees-and-registration/>

The scenario-based clinical examinations are held in Scantron testing centers worldwide. For more information on test center locations see Scantron's test site cities, which are available on Scantron's website (<https://www.scantron.com/test-site-cities/>).

Approximately 45 days prior to the exam, examinees will be contacted via email by Scantron letting them know it is time to schedule their testing appointment. Examinees will be able to schedule the date (for either day of the exam based on availability) and time for their examination at their chosen Scantron testing center at that time. Examinees must schedule their exam within the timeframe that Scantron outlines in their emailed correspondence, failure to do so will result in the forfeiture of the exam seat and registration fees.

All exam correspondence is sent via email; therefore, examinees are responsible for ensuring that their email address in their ABO profile is current and allows for correspondence from The American Board of Orthodontics and Scantron. The ABO and Scantron will not be held responsible for misdirected (sent to spam or trash) communications regarding the Clinical Examination.

## SCENARIO-BASED CLINICAL EXAMINATION

### **Purpose of Examination**

The Scenario-based Clinical Examination is designed to evaluate an orthodontist's knowledge, abilities, and critical thinking skills so that certification decisions can be made for examinees based on proficiency and clinical expertise. This format allows for testing a large amount of material in a relatively short period of time, and allows for questions to be graded based on pre-determined desired responses.

The purpose of the clinical examination is to assess candidates' knowledge, critical thinking, and clinical competence relative to the ABO-approved practice domains and content outline as validated in the practice analysis study conducted by the ABO in 2017. Specifically, the case-based problems provided by the ABO in the examination address skills that newly certified orthodontists must possess in order to perform the 13 tasks that characterize the practice of orthodontics. The tasks are organized in four domains:

1. Data Gathering and Diagnosis
2. Treatment Objectives and Planning
3. Treatment Implementation and Management
4. Critical Analysis and Outcomes Assessment

The practice analysis study provides evidence of validity for the domains and tasks, and the ABO employs appropriate criterion-referenced standard setting procedures and equating methodology.

### **Exam Development Process**

Scenarios, questions, and model responses are developed in collaboration with program directors/chairs, examiners, leaders in the industry, and the ABO Board of Directors. During this item writing process, the ABO works closely with Scantron, a global company with expertise in certification examinations.

Scenario cases, questions and model responses are sent through a comprehensive process to be reviewed, edited, refined, and validated prior to being used in an examination.

### **Examination Administration**

The Scenario-based Clinical Examination is presented on a testing center computer and examinee responses to exam questions will be entered using the keyboard. Responses should be in bullet point format. Whiteboards will be available for note taking during the exam.

Candidates will have 3 hours (180 minutes) to complete the question set for at least 6 different scenario cases (but no more than 10) in the Scantron system. Each scenario case is comprised of 2 – 6 questions. Each question will have case documents that will be available in Portable Document Format (PDF) for the questions they pertain to. Before the examination begins all candidates will be informed of how many total questions they will be required to answer during the exam. The examinee is responsible for managing their own time during the exam. A countdown clock will be visible at all times on the computer monitor but the examinee has the option to hide/unhide this tool at any time. Examinees must review their answers prior to clicking the next button as they will not be permitted to return to any previous question in the exam to edit or review answers once submitted. If an examinee chooses to excuse themselves in the middle of their exam, the exam time will continue. If the examinee exits the main testing area, they may be asked to show their photo ID and go through the scanning protocol by the Scantron proctor upon reentry.

Each case scenario set will have a different pair of examiners who score responses independently. Exam questions will measure proficiency related to the tasks and skills required in each of the four domains that the scenario is intended to evaluate. Responses will be typed out, and the examiners will assess the responses virtually at a later date. Examinees should provide evidence-based answers and cite references when stated as a requirement in the question to support answers as appropriate. Once an exam question has been answered and submitted in the system, the examinee will not be permitted to go back.

For more information regarding Scantron testing instructions please see:  
<https://www.scantron.com/testing-instructions/>

*Please note that certain functions shown in this instructional link may not be available to ABO examinees (e.g., prev. button, question flagging, etc.).*

### **Clinical Examination Rules**

Personal items and electronic devices must be stored in the provided lockers at the testing center and will not be permitted in the examination area. The ABO and Scantron will not be held liable for any examinee's personal items that are stored at the test site. Examinees are required to present a government issued photo ID to the exam proctor at the testing site. If your name is different than the name on your identification please contact the ABO and email the government issued documentation (e.g., marriage license) of your name change to [Info@americanboardortho.com](mailto:Info@americanboardortho.com) at least four (4) weeks in advance of the examination date.

Examinees will be monitored at all times during their exam by a trained Scantron proctor. Scantron testing center staff may respond to examinee questions about the test administration process and the equipment provided by Scantron, but they will not respond to questions related to content of the test.

## Preparation Resources

- Review [AAO Clinical Guidelines for Orthodontics and Dentofacial Orthopedics](#)
- Keep current through contemporary textbooks, journals including [AJODO](#), and CE courses
- Utilize [CMF, CRE](#) scoring methodologies with patient cases
  - [ABO videos](#)
  - [Calibration kits](#) are available for purchase and contain three sets of pre-measured casts with scoring keys, the grading system instructional manual, and a measuring gauge.
- [ABO superimposition videos and tracing guidelines](#)
- Buschang PH, Roldan SI, Tadlock LP: Guidelines for assessing the growth and development of orthodontic patients. [Seminars in Orthodontics 23\(4\): 321-335, December 2017.](#)
- Fishman LS: [Radiographic evaluation of skeletal maturation. A clinically oriented method based on hand-wrist films. The Angle Orthodontist 52\(2\): 88-112, April 1982.](#)
- Park, JH (2020). Temporary Anchorage Devices in Clinical Orthodontics, John Wiley & Sons, Inc. DOI: 10.1002/9781119513636.
- Oral examination role-play with colleagues and mentors
  - Presenting own cases in ABO format
  - Asking critical thinking clinical questions about unfamiliar cases
- Continue to complete cases using ABO format for consistency and familiarity

As part of preparation for the Scenario-based Oral Clinical Examination, the ABO highly recommends that examinees gain as much experience as possible working through patient cases completing an objective analysis of the facts to form their own judgment. These critical thinking exercises will strengthen an examinee's skills as he or she prepares for the scenario-based examination. This process also promotes the opportunity for self-evaluation and reflection on case outcomes.

Tools previously created by the ABO to assess case outcomes will be utilized within the scenario-based examination process. These tools include the cast-radiograph evaluation, case management form (CMF), and cephalometric superimposition technique and interpretation.

- Examinees should be fluent in the CRE measurement technique
- The CMF treatment objectives should be thought of in three planes of space
- Set objectives should be determined by what is best for the patient, not by what the patient/family wants to hear
- Examinees should be able to determine correct landmark placement for cephalograms
- Examinees should be able to identify appropriate regional anatomy for cranial base, maxillary, and mandibular superimpositions
- Examinees should be able to interpret superimpositions and know how to differentiate changes due to growth vs. treatment mechanics

- Examinees should be able to detect tracing and superimposition errors

### **Examination Model Responses, Number of Questions, and Possible Question Topics**

The number of scored scenario cases an examinee is being tested on will remain the same for each candidate. As a quality assurance step, field test questions have been added to some cases. The field test items, which will not be counted in scoring or identified to examinees, are on the test for trial purposes. The statistics generated for the field test items will be used to ensure the quality of future forms of the test.

Some scenario cases will include a full set of records and associated questions. Some scenario cases will include partial records and associated questions. Finally, some scenario cases may include single unrelated records that require individual analysis. However, the examinee will have access to the necessary records to answer that specific question.

The following list includes some examples of case records and information that may be provided for cases presented:

- Patient history
- Chief complaint
- Patient records
- Tracings and superimpositions
- Cast-radiograph Evaluation (CRE)
- Case Management Form (CMF)
- Hypothetical patient situations

### **Examination Components**

The examination will be composed of four domains for assessment, equally weighted:

<b>Domain</b>	<b>Weighted % of Exam</b>
1. Data Gathering and Diagnosis	25%
2. Treatment Objectives and Planning	25%
3. Treatment Implementation and	25%
4. Critical Analysis and Outcomes	25%

The cases and questions presented will represent situations that may be dealt with within residency programs or orthodontic practice. Examinees will be expected to demonstrate an understanding of the tasks performed by an orthodontist and the related decision-making skills that may be assessed in the examination. Some of these may include:



## **Domain 1 - Data Gathering and Diagnosis**

### **Task 1**

Perform a screening examination using established guidelines to determine if and when treatment is indicated.

Cognitive skills:

- Interviewing patients and guardians
- Interpreting medical and dental histories
- Determining the need for radiographs
- Interpreting radiographs
- Identifying pathology and deviations from normal
- Determining if and when treatment is indicated

Psychomotor skills:

- Performing intra- and extra-oral examinations

### **Task 2**

Gather pertinent records using established guidelines to diagnose the nature of orthodontic and dentofacial problems and determine their etiologies.

Cognitive skills:

- Deciding which data are needed for a thorough diagnosis
- Interviewing patients and guardians
- Evaluating data gathered from the intra- and extra-oral examinations and all other records to differentiate normal occlusion from malocclusion
- Obtaining and analyzing serial records
- Selecting and using indicated diagnostic technology

Psychomotor skills:

- Taking essential radiographs
- Extracting 2-D images from cone-beam computerized tomography
- Tracing radiographs for cephalometric analysis
- Taking impressions for study casts
- Intra-oral scanning
- Recording inter-occlusal registration
- Taking intra- and extra-oral photographs
- Documenting periodontal status

### **Task 3**

Develop a comprehensive diagnosis based on the patient's chief concerns, medical and dental history, dentofacial condition, growth and neuromuscular status, and psychosocial concerns to serve as the basis for treatment planning.

Cognitive skills:

- Analyzing records in the sagittal, vertical, and transverse dimensions for facial, dental, and skeletal diagnostic considerations
- Establishing a comprehensive and differential diagnosis

### **Domain 1 Sample Questions**

1. What is the etiology of this patient's malocclusion?
2. What additional information is needed from the patient or parent during the initial examination?
3. What additional information is needed prior to the start of orthodontic treatment?
4. What additional records are needed to assist in this patient's diagnosis?
5. What diagnostic tools could be used to assess this patients....?
6. What is the facial / soft tissue diagnosis?
7. Describe the skeletal diagnosis in detail.
8. List all of the dental problems.
9. What is the growth assessment for this patient?
10. What is the rationale for the growth assessment?
11. What is the rationale for treating this patient at this time?
12. What additional records / referrals are required for interdisciplinary treatment planning?

### **Domain 2 - Treatment Objectives and Planning**

#### **Task 1**

Develop evidence-based facial, skeletal, and dental treatment objectives based on the patient and guardian's chief concerns and diagnosis to optimize dentofacial health, neuromuscular function, esthetics, and post-treatment stability.

Cognitive skills:

- Determining deviation from normal and its extent
- Establishing treatment objectives based on knowledge of dentofacial growth and development
- Determining achievable outcomes based on the most relevant evidence
- Evaluating research literature and other information critically
- Developing and documenting treatment plans based on sound principles of appliance design and biomechanics and on patient concerns

Psychomotor skills:

- Creating a visualized treatment objective, dental diagnostic setup, and surgical treatment objectives when applicable.

## Task 2

Develop evidenced-based treatment plan(s) by selecting the most appropriate options in consultation with and in the best interests of the patient to address the identified concerns and achieve specific objectives.

Cognitive skills:

- Assessing the necessity and efficacy of dentofacial orthopedics and orthognathic surgery
- Identifying treatment options
- Differentiating the efficacy and efficiency of appliance options
- Selecting the most appropriate treatment plan
- Planning all phases of orthodontic treatment, including initiation, completion and retention
- Planning appropriate biomechanical techniques
- Working effectively in an interdisciplinary treatment environment
- Educating patients and guardians effectively on treatment options and recommendations
- Documenting treatment plans

## Task 3

Obtain informed consent in accordance with established documentation procedures in order to enhance the patient and guardian's understanding of treatment options, recommendations, benefits, limitations, and risks.

Cognitive skills:

- Communicating with and educating patients and guardians

## Domain 2 Sample Questions

1. What are the skeletal treatment objectives?
2. What are the skeletal treatment objectives for the maxilla?
3. What are the skeletal treatment objectives for the mandible?
4. What are the specific treatment objectives for the maxillary dentition?
5. Assuming an ideal treatment plan, what are the specific treatment objectives for the mandibular dentition?
6. What are the facial treatment objectives?
7. Assuming a non-surgical treatment option, what are the objectives \_\_\_\_\_?
8. What is the primary treatment plan for this patient?
9. What treatment should be provided for this patient at this time?
10. What treatment options will you consider for this patient?
11. What skeletal and dental changes are necessary to correct this patient's Class II malocclusion?
12. What dental changes are necessary to correct this patient's Class II malocclusion?
13. Assuming a \_\_\_\_\_ treatment plan, what is the plan for retention?
14. What are the limitations with a \_\_\_\_\_ treatment plan? (non-extraction/extraction) (non-surgical/surgical)

15. What compromised results would you expect from an extraction or non-extraction approach?

### **Domain 3 - Treatment Implementation and Management**

#### **Task 1**

Manage dentofacial problems in accordance with the treatment plan using orthodontic appliances and technology to achieve treatment objectives efficiently.

Cognitive skills:

- Using appliances effectively and efficiently in the treatment of all types of malocclusions
- Identifying and interpreting the cause of problems

Psychomotor skills:

- Taking impressions and scans for appliances
- Placing fixed and/or removable appliances
- Activating fixed and/or removable appliances
- Fabricating appliances
- Maintaining fixed and/or removable appliances
- Removing fixed appliances
- Performing enameloplasty

#### **Task 2**

Evaluate the progress of treatment and its relationship to the objectives and timeline based on appropriate records to maximize treatment efficiency and outcomes.

Cognitive skills:

- Comparing pre-treatment and progress conditions
- Analyzing treatment progress with appropriate imaging, accepted periodontal diagnostic protocols, and neuromuscular examination
- Assessing treatment progress with dental casts, imaging, and cephalometric analysis
- Interpreting treatment progress occlusion and treatment efficacy
- Comparing patient progress with treatment objectives
- Communicating with and educating patients and guardians

Psychomotor skills:

- Tracing and superimposing calibrated radiographs for cephalometric analysis
- Taking intra- and extra-oral photographs
- Taking essential radiographs
- Documenting neuromuscular function
- Extracting 2-D images from cone-beam computerized tomography
- Taking impressions for study casts
- Intra-oral scanning

- Recording inter-occlusal registration
- Documenting dental, periodontal, skeletal, and facial status
- Recording and resolving deviations from expected treatment

### **Task 3**

Collaborate in providing interdisciplinary treatment using effective communication and documentation procedures to enhance treatment outcomes.

Cognitive skills:

- Communicating with patients, guardians, and professional colleagues
- Consulting and coordinating treatment with professional colleagues

### **Domain 3 Sample Questions**

1. What is the treatment sequence?
2. Identify all of the significant problems occurring in the mechanics for this patient?
3. Identify the treatment mechanics that caused the dental changes observed in this case.
4. List the concerns for the progress of this patient's treatment.
5. What steps are appropriate to regain control of this patient's treatment?
6. What are the anticipated effects of class II / class III mechanics on this patient?
7. What specific treatment changes / mechanics are necessary to achieve an ideal occlusion?
8. How did growth influence this patient's treatment at this time?
9. How could anchorage be effectively utilized to support this patient's outcome?
10. What are the steps to recover from the adverse effects on facial aesthetics due to treatment?
11. What are the anticipated benefits of surgical treatment at this point?
12. How would you modify your treatment based on existing periodontal condition?
13. How would you modify your treatment based on existing enamel condition?
14. Analyze the progress superimposition.
15. How would you alter treatment based on the progress superimposition?
16. What additional diagnostic information is needed to reassess this case?
17. Based on the current diagnostic information, how would you alter your treatment plan?

### **Domain 4 - Critical Analysis and Outcomes Assessment**

#### **Task 1**

Assess post-treatment facial esthetics using appropriate guidelines to evaluate form, symmetry, and soft tissue harmony.

Cognitive skills:

- Analyzing treatment outcomes with appropriate imaging and accepted normal values
- Comparing pre- and post-treatment conditions

Psychomotor skills:

- Tracing and superimposing calibrated radiographs for cephalometric analysis

- Taking intra- and extra-oral photographs

### **Task 2**

Assess dental, periodontal, and neuromuscular health using appropriate guidelines to identify post-treatment complications.

Cognitive skills:

- Interpreting post-treatment dental, periodontal, and neuromuscular treatment outcomes
- Analyzing treatment outcomes with appropriate imaging, accepted periodontal diagnostic protocols, and neuromuscular examination

Psychomotor skills:

- Taking essential radiographs
- Documenting dental, periodontal, and neuromuscular status

### **Task 3**

Evaluate post-treatment occlusion using accepted standards to enhance stability and dental health and assess the overall efficacy of treatment.

Cognitive skills:

- Interpreting post-treatment occlusion and treatment efficacy
- Analyzing treatment outcomes with dental casts and appropriate imaging

Psychomotor skills:

- Taking essential radiographs
- Extracting 2-D images from cone-beam computerized tomography
- Tracing and superimposing calibrated radiographs for cephalometric analysis
- Taking impressions for study casts
- Intra-oral scanning
- Recording inter-occlusal registration
- Taking intra- and extra-oral photographs
- Documenting dental, periodontal, and neuromuscular status
- Performing post-treatment cast and radiograph evaluations

### **Task 4**

Evaluate treatment outcomes comparing pre-treatment and post-treatment records to assess dental and skeletal changes.

Cognitive skills:

- Comparing the treatment outcomes to the treatment objectives
- Analyzing serial treatment records for understanding and planning treatment and retention procedures

- Interpreting treatment outcomes with appropriate imaging, dental casts, and cephalometric analysis
- Communicating outcomes with patients and guardians

Psychomotor skills:

- Taking essential radiographs
- Extracting 2-D images from cone-beam computerized tomography
- Tracing and superimposing calibrated radiographs for cephalometric analysis
- Taking impressions for study casts
- Intra-oral scanning
- Recording inter-occlusal registration
- Taking intra- and extra-oral photographs
- Documenting dental, periodontal, and skeletal status
- Performing post-treatment cast and radiograph evaluations including tracings that an examinee is asked to superimpose

#### **Domain 4 Sample Questions**

1. Critique the superimposition.
2. What dental changes occurred as a result of treatment?
3. What dental changes occurred as a result of growth?
4. What skeletal changes occurred as a result of treatment?
5. What skeletal changes occurred as a result of growth?
6. Give the rationale for the observed skeletal changes.
7. Give the rationale for the observed dental changes.
8. Critique the final occlusion.
9. What is the score for root angulation?
10. What are the consequences of accepting a compromised treatment result?
11. Critique the final facial aesthetic outcome.
12. Critique the final smile aesthetic outcome.
13. Critique the final dental aesthetic outcome.
14. Describe an appropriate retention protocol for this patient?
15. Give your rationale for the management of third molars.
16. How would future growth affect treatment results?
17. What would you advise a patient to do concerning an adverse final outcome (e.g., periodontal/demineralization/root resorption, etc.)?
18. Give your rationale for the management of an adverse final outcome.
19. What could have been done differently to improve the final outcome?

## **Cast-Radiograph Evaluation (CRE)**

For the CRE, examinees will be shown images of models and panoramic radiographs and will be asked to answer questions based on the information provided.

## **Rating Scales and Examiner Training**

After the examination, keyboarded responses are independently scored by a total of 12 trained examiners who use an anchored rating scale to ensure consistency in scoring. The scales to be used in a case address the function of the case (e.g., diagnosis, implementation, critical analysis) and are standardized for all cases serving the specified function. Each unit of the scale is anchored with language that helps to ensure that the ABO's standards are applied by all examiners.

The ABO's examiner training program educates examiners in the intended application of the scales to candidate responses. The examiner training program provides practice opportunities as well as a required assessment of agreement with criterion ratings for a selection of responses.

## **Results**

The rating scales for the clinical examination are weighted to achieve approximately 25% allocations to each of the four domains covered in the examination. Points awarded to candidates are determined as a function of the ratings assigned and the weight of the question. Psychometric analyses are performed after each testing cycle.

Exam results are presented in a pass/fail format. If an examinee is unsuccessful on the examination, he or she will be provided with feedback outlining their level of success on the four main domains of the examination. Examinees must re-take the entire examination in order to pass, and will not have the ability to be re-tested on individual sections. Examinees are allowed to take the Scenario-Based Clinical exam a total of 3 times. After an unsuccessful third attempt, the candidate must petition the board for permission to retake the examination. Reliability, validity, and objectivity are assessed by an independent psychometric examination consulting company.

## **Release of Clinical Examination Results**

Clinical Examination results will be emailed to all examinees within two months of the testing window. Official results letters including Diplomate certificates and pins for passing examinees and will be mailed within a three-month period.