General Chairside Assisting (GC)

Exam Outline and Suggested References

The GC exam is a component of the Certified Dental Assistant™ (CDA®) certification program.

CDA component exams
Radiation Health and Safety (RHS®)
Infection Control (ICE®)
General Chairside Assisting (GC)

Effective 01/01/2020
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Exam Outline Overview

GC Exam Weighting by Domain

I. Patient Preparation and Documentation (17%)
II. Patient Management and Administrative Duties (17%)
III. Four-Handed Chairside Dentistry (50%)
IV. Diagnostic/Laboratory Procedures and Dental Materials (16%)

GC Exam Administration Methods

<table>
<thead>
<tr>
<th>Exam Characteristics</th>
<th>In-Person Testing</th>
<th>Remote Online Proctoring</th>
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<tr>
<td>Number of Multiple-Choice Questions</td>
<td>120</td>
<td>105</td>
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<tr>
<td>Time for Exam (minutes)</td>
<td>90</td>
<td>80</td>
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<tr>
<td>Tutorial Time (minutes)</td>
<td>5</td>
<td>5</td>
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<td>Comment Time (minutes)</td>
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<td>5</td>
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<tr>
<td>Total Exam Appointment Time (minutes)</td>
<td>100</td>
<td>90</td>
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</table>

The GC exam is now administered in-person and through remote online proctoring. The candidate may choose the method they prefer. Remote proctoring allows candidates to take exams using their own computer while being monitored by webcam and microphone. The exams have the same number of scored exam items, but the remote proctored exams have fewer pretest (non-scored) exam items to accommodate remote proctored appointment time constraints. Candidates will not receive an advantage based on their administration mode. That is, the remotely administered exam is not easier (or harder) than the in-person version of the exam.

DANB uses computer adaptive testing (CAT). Candidates are scored based on the level of difficulty of the questions they answer correctly. This method can more accurately pinpoint a candidate’s ability level. Each candidate is presented with the same percentage of questions from each domain. The average candidate will get around 50% of the questions correct.
GC Exam Outline

DANB exams are created using the exam outline, which is reviewed annually by subject matter experts (e.g., Certified Dental Assistant™ [CDA®] certificants and dentists). The outline is developed using a content validation study, which includes a job analysis survey where practicing CDA certificants are surveyed about how often tasks are performed and how important competent performance is to the health and safety of the public. This study is conducted every five to seven years to ensure the outline is consistent with current clinical practices. DANB’s Board of Directors approves all updates to DANB exam outlines. The GC exam measures a candidate’s knowledge of national practices for general chairside assisting.

I: Patient Preparation and Documentation (17%)

A. Demonstrate understanding of preliminary physical examination.
   1. Record the purpose of patient’s visit and/or chief complaint.
   2. Assess patient’s general physical condition and evidence of abnormal characteristics.
   3. Take, record, observe, and measure vital signs.
   4. Recognize and notate any abnormal findings in the head and neck region, including but not limited to:
      a. oral manifestations of systemic diseases.
      b. oral pathologic conditions.
      c. periodontal diseases and conditions of mucosa.
   5. Review and update health/dental history.

B. Identify basic oral and dental anatomy, physiology, and development, including but not limited to:
   1. blood vessels.
   2. bones.
   3. glands/lymphatics.
   4. muscles.
   5. nerves.
   6. oral cavity.
   7. teeth.

C. Demonstrate understanding of charting.
   1. Identify permanent and primary teeth using the Universal numbering system.
   2. Identify the surfaces of the tooth.
   3. Chart and transcribe conditions of the oral cavity into the record.
D. **Demonstrate understanding of diagnostic aids.**
   1. Prepare for and assist with the collection of diagnostic data (e.g., photographs).
   2. Use diagnostic data for presentation of treatment plan, including but not limited to:
      a. bite registrations.
      b. diagnostic casts.
      c. photographs (intraoral and extraoral).

E. **Demonstrate understanding of treatment documentation.**
   1. Record treatment and prescriptions (e.g., medication, instructions) on chart.
   2. Record recommended treatment and patient’s acceptance or refusal of the treatment.
   3. Record patient compliance or failure to comply with treatment plan.

F. **Identify medical conditions that can cause medical emergencies or cause complications during dental care, including but not limited to:**
   1. alcohol/substance abuse.
   2. allergies.
   3. asthma/emphysema/COPD.
   4. blood dyscrasias.
   5. cancer.
   6. cardiovascular disease.
   7. diabetes mellitus and/or hypoglycemia.
   8. epilepsy.
   9. hypertension and/or hypotension.
   10. kidney and/or liver problems.
   11. pregnancy.
   12. prosthetic replacements.
   13. respiratory infection.
   14. rheumatic fever.

G. **Describe how to respond to and/or assist in management of medical conditions/emergencies, including but not limited to:**
   1. airway obstruction.
   2. allergic reactions.
   3. blood loss.
   4. cardiovascular and/or cerebrovascular irregularities.
   5. contagious diseases.
   6. diabetes-related incidents.
   7. epilepsy-related incidents.
   8. fainting/syncope.
9. metabolic and/or neurologic disease.
10. respiratory irregularities (e.g., hypo- or hyperventilation, asthma).
11. shock.

**H. Describe preventive measures used to avoid drug-induced and/or drug interaction emergencies.**

**II: Patient Management and Administrative Duties (17%)**

**A. Patient Management and Communication**

1. Demonstrate understanding of patient management.
   a. Calm and reassure apprehensive patients.
   b. Manage patients, including patients with special needs, during routine clinical procedures.

2. Describe oral health information to be provided to the patient, including but not limited to:
   a. basic nutritional needs as they relate to dental health.
   b. causes of dental diseases.
   c. classifications and importance of occlusion.
   d. effects of types of fluoride, advantages of administration methods, and dangers of overdosage.
   e. evaluate oral healthcare status and habits.
   f. evaluate response to home-care therapy.
   g. functions of saliva.
   h. functions of primary and permanent teeth and relationship of the supporting structures.
   i. personal oral habits that can compromise general health.
   j. personalized oral hygiene instructions for plaque control and oral health (e.g., brushing and flossing techniques).
   k. plaque disclosing aids.
   l. oral hygiene devices (e.g., toothbrush, floss, interdental aid, oral rinse, irrigating aid).
   m. relationship of diet to the development of caries.
   n. stages of the eruption and exfoliation of the teeth.
   o. special dental health needs (e.g., due to physical status or age).

3. Demonstrate understanding of how to provide education regarding dental treatment, including but not limited to:
   a. advantages and disadvantages of various restorative materials or procedures.
   b. effect of systemic disease on the healing process.
   c. instructions on care for removable and non-removable appliances and prostheses.
   d. oral and written pre- and post-treatment instructions (e.g., prescribed medications).
   e. procedures and services being delivered.
B. Administrative Duties

1. Demonstrate understanding of patient reception, communication, and accounting, including but not limited to:
   a. appointment control process.
   b. basic concepts of third-party payment (e.g., insurance).
   c. explain basic fees charged to a patient.
   d. initiate referral procedures for the patient, as directed by the dentist.

2. Demonstrate understanding of legal records, including but not limited to:
   a. how to protect patient data (e.g., personal information).
   b. how to record patient communications and dental and medical consultations.
   c. how to maintain security records for control substances.
   d. how to store items in patient records (e.g., radiographic images, histories, correspondence).
   e. items included as part of a legally documented patient record.
   f. legal significance of medical and dental histories.
   g. precautions in lending records to another dental office.

3. Describe legal responsibilities and regulations, including but not limited to:
   a. compliance with Occupational Safety and Health Administration (OSHA) and Centers for Disease Control and Prevention (CDC) guidelines.
   b. consent for routine and emergency office dental care.
   c. legal responsibilities of the dental assistant in relation to the state dental practice act.
   d. patient refusal of recommended routine, surgical and emergency treatment.
   e. patient’s right to privacy according to Health Insurance Portability and Accountability Act (HIPAA) regulations.
   f. responsibilities and/or obligations of the dentist and patients in the dentist-patient relationship.
   g. Responsibilities of the dental assistant to prevent/respond to legal actions (e.g., lawsuits).

4. Describe how to maintain and control supplies, including but not limited to:
   a. manage backorders according to the inventory control system.
   b. order supplies, instruments, and equipment to maintain specified levels.
   c. record and inventory items used.
   d. rotate expendable supplies according to the expiration date.
   e. rotate nonexpendable supplies according to the inventory control system.
   f. store supplies (e.g., sterile disposable products).
5. Describe how to maintain equipment/instruments, including but not limited to:
   a. nitrous oxide and oxygen tanks.
   b. rotary instruments.
   c. traps and suction lines.
6. Demonstrate understanding of emergency protocols including maintenance of emergency equipment and kit for the dental office (e.g., AED).

III: Four-Handed Chairside Dentistry (50%)

A. Demonstrate understanding of four-handed dentistry techniques.
   1. Prepare the treatment room.
   2. Prepare treatment trays with armamentarium in sequence of use and delivery position.
   3. Seat and prepare a patient, position and adjust equipment.
   4. Use four-handed dentistry concepts in all treatment procedures, including but not limited to:
      a. access and visibility during treatment procedures.
      b. instrument transfers.
      c. positioning during dental treatment.
   5. Maintain field of operation (e.g., retraction, suction, irrigation, drying) during procedure, including but not limited to:
      a. assist with and/or apply and remove the dental dam.
      b. assist with and/or control minor bleeding.
      c. place and remove moisture control devices.

B. Demonstrate understanding of how to select and prepare armamentarium for chairside dental and/or emergency dental procedures, including but not limited to:
   1. amalgam restorations.
   2. bleaching/whitening.
   3. composite restorations.
   4. crown and bridge preparation/cementation.
   5. dental dam application.
   6. dentures (partial, full, and/or immediate).
   7. desensitization of the teeth.
   8. endodontic therapy.
   9. extractions.
  10. fluoride application.
  11. implants.
  12. incision and drainage.
  13. occlusal equilibration/adjustment.
  14. oral examination.
  15. oral prophylaxis.
  16. periodontal procedures.
17. sealant application.
18. suture placement/removal.
19. temporary cementation.
20. temporary restoration (e.g., provisional, IRM, sedative/palliative filling).
21. treatment of dry socket.

C. **Demonstrate understanding of how to assist with and/or perform intraoral procedures, including but not limited to:**
1. bleaching/whitening.
2. cavity preparation and restoration.
3. control bleeding after surgical procedure.
4. crown and bridge restoration, preparation, temporization and cementation.
5. desensitization of teeth.
6. endodontic therapy.
7. fabrication of dentures (partial, full and/or immediate).
8. final impressions.
9. occlusal equilibration/adjustment.
10. occlusal registration.
11. oral examination and data collection.
12. oral prophylaxis.
13. oral surgery.
14. periodontal procedures.
15. place and/or remove temporary and/or permanent cement from coronal surfaces of teeth, restorations and appliances.
16. placement of sealants.
17. placement of stainless steel crowns.
18. polish teeth.
19. post-operative treatment and complications.
20. prepare, and/or apply and remove matrix bands.
21. restore implants.
22. suture placement and removal.
23. topical fluoride application.
D. Pain Management for Dental Procedures
1. Demonstrate understanding of how to select and prepare armamentarium used for pain management, including:
   a. application of topical anesthetic.
   b. local anesthetic administration.
2. Demonstrate understanding of how to assist with administration of and/or apply:
   a. local anesthetics.
   b. topical anesthetic to site of injection.
3. Demonstrate understanding of how to assist with and/or monitor the administration of nitrous oxide/oxygen analgesia.

E. Dental Conditions/Emergencies
1. Identify signs and symptoms of dental conditions/emergencies, including but not limited to:
   a. dental trauma.
   b. hard tissue of the oral cavity.
   c. oral contagious diseases.
   d. soft tissue inflammations of the oral cavity.
2. Describe how to assist with the management of dental emergencies.
3. Describe how to assist with and/or perform a vitality test.

IV: Diagnostic/Laboratory Procedures and Dental Materials (16%)

A. Impression Materials and Procedures
1. Describe how to prepare, mix, deliver and store impression materials.
2. Assist with impression procedures and armamentarium setups, including but not limited to:
   a. alginate (e.g., irreversible hydrocolloid).
   b. elastomerics.
   c. waxes.

B. Restorative/Dental Materials and Procedures
1. Describe how to prepare, mix, deliver, and store restorative materials.
2. Consider material characteristics and properties for restorative and dental procedures and armamentarium setups, including but not limited to:
   a. amalgam.
   b. bleaching/whitening agents.
   c. cements.
   d. composites.
   e. endodontic materials.
   f. etchants.
   g. dentin bonding agents.
3. Describe how to select and manipulate finishing, polishing and cleaning agents.

C. Laboratory Materials and Procedures
1. Describe how to select, manipulate and store materials, including but not limited to:
   a. acrylic products and/or acrylic substitutes.
   b. dental waxes.
   c. gypsum products.
2. Describe laboratory procedures and armamentarium setup trays, including but not limited to:
   a. clean and polish fixed/removable appliances and prostheses.
   b. customize and/or assist with stainless steel crown placement/removal.
   c. fabricate and/or seat temporary crowns.
   d. fabricate custom impression trays.
   e. fabricate custom occlusal appliances and bleaching/whitening trays.
   f. take impressions and pour models to fabricate diagnostic study casts, including trimming and finishing.
3. Describe how to communicate with the laboratory regarding cases, including but not limited to:
   a. how to send, monitor and receive cases.
   b. laboratory prescriptions.
GC Exam Suggested References

DANB exam committees use the following textbooks and reference materials to develop this exam. This list does not include all the available textbooks and materials for studying for this exam; these are simply the resources that exam committee subject matter experts have determined provide the most up-to-date information needed to meet or surpass a determined level of competence for this exam. Any one reference will likely not include all the material required to study to take and pass the exam. Please note that previous editions of the resources below may be used for study purposes if the previous version was published within the past 7 years, unless noted otherwise.

This list is intended to help prepare for this exam. It is not intended to be an endorsement of any of the publications listed. You should prepare for DANB certification and component exams using as many different study materials as possible.

Suggested References


Additional/Optional Study Resources

1. American Dental Assistants Association (ADAA). www.dentalassistant.org
   - General Chairside Assisting: A Review for a National Chairside Exam (Course #613).
   - DANB GC Review Part I
   - DANB GC Review Part II
   - DANB GC Practice Test
   - Glossary of Dental Terms
State Regulations

Each state’s dental board implements regulations and establishes rules for delegating legally allowable duties to dental assistants. Passing one or more of the DANB component exams or earning DANB certification only conveys authority to perform these duties in those states that recognize these exams or this certification as meeting state dental assisting requirements. This information is available at www.danb.org.