College of Diplomates Manual
For Candidates for Certification as a Diplomate of the American Board of Endodontics And Their Mentors

Disclaimer

The opinions expressed in this Guide are solely those of the members of the College of Diplomates, and do not represent, in any way, the official voice of the American Board of Endodontics. Remember that the final word rests with the American Board of Endodontics. Remember to read, understand and follow all current instructions and guidance published by the American Board of Endodontics (http://www.aae.org/certBoard/).

DEDICATION

This edition of the College of Diplomates Mentoring Manual is dedicated to the Diplomates who actively serve as Mentors to ABE candidates. May the selfless donation of their time and knowledge be continued by new Diplomates.

ACKNOWLEDGEMENTS

We acknowledge with thanks the following members of the College of Diplomates for their significant contributions to the development of the first edition of the mentoring manual namely:

Dr. M. Lamar Hicks, Editor
Dr. Leif K Bakland
Dr. Gerald N. Glickman
Dr. John W. Harrison
Dr. Charles Jerome
Dr. Keith V. Krell
Dr. Edward J. Strittmatter, Jr.

The current Board of Directors of the College of Diplomates (COD) wishes to acknowledge The American Board of Endodontics for its efforts in advancing our specialty and for the use of its Certification Information available directly from the ABE website.

We additionally acknowledge all of the past Directors of the COD who have so graciously given of their time and talents to ensure that the mission of the COD is effectively carried out. They include:

Leif K. Bakland
Stuart Fountain
Lamar Hicks
John Lundgren
Thomas Mork
Carl Newton
Martha Proctor
Cindy Rauschenberger,
Eric Rivera
James Simon
A. Eddy Skidmore
Edward J. Strittmatter, Jr.

The 2007-08 Board of Directors of the College of Diplomates

George Goodis, President
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Debra Meadows, Pinnacle Editor
André Mickel, Director of Mentoring

Sandra Madison, Charles Cunningham & Marc Balson: Directors

Lastly, the Board of Directors gratefully acknowledges the contributions and talents of Susan Hawkinson. Her dedication and efforts on behalf of the College of Diplomates are greatly appreciated.

Promoting Board Certification
Board certification is a privilege and carries with it a responsibility to maintain the specialty of endodontics as a highly respected discipline and one that encourages each specialist member to adhere to the highest standards of practice. The College of Diplomates would hope that one day all endodontists would take advantage of the opportunity to earn the distinction of being a DIPLOMATE OF THE AMERICAN BOARD OF ENDODONTICS. To that end, the following plan has been proposed.

Introduction to Board Certification Begins in the Endodontics Program
Endodontic program directors must imbue to each resident the value of becoming a Diplomate. Program directors can accomplish this by a number of means. The first is by inspiring their residents to be life-long students and realize that their education in the specialty of endodontics is never completed. Board certification is just the beginning of this life-long process. By taking the written exam in June of their final year of endodontic training, the resident probably has the best chance of recalling the information that they have learned in their program. Directors should strongly encourage that residents take the written exam while still in their endodontic program. Additionally, immediately upon graduation, new graduates should be "strongly urged" to complete the preliminary application to the ABE in a timely manner. The newest change (April, 2007) in the Boarding process has eliminated the minimum time requirements for association with the specialty of endodontics. This now means that a well prepared resident could complete (pass) the written exam in June and submit their case portfolio in the fall of the same year. If the case portfolio passes, then the candidate could sit for the Oral examination in the spring of the following year of graduation.

This most recent change gives the program directors a new challenge, namely helping the residents get Board quality cases identified, treated, recalled and written-up. It is important that program directors assure that all residents receive the information on Board certification procedures that is sent to each resident by the American Board of Endodontics. The most recent revisions concerning Board certification changes can be found at the www.aae.org and the ABE link. CDs are also available which contain all the forms and materials used by the ABE. Each director should make a copy for themselves and be thoroughly knowledgeable about the process, as there are periodic revisions.

Program directors should also promote the pursuit of Board certification by all past residents. It is incumbent that each candidate has sufficient knowledge of all three phases of the Board certification process. The program directors should provide comprehensive literature/book reviews to help solidify residents' knowledge of evidence-based endodontics; ensure that each resident has sufficient knowledge experience of what is expected in preparation of an ABE case portfolio; and prepare each resident for the ABE oral exam, by giving frequent oral exams. If these objectives are met, the candidate should be well-prepared to pursue Diplomate status.

Every endodontic program should have a "Board Certification Ambassador" (a program director, a specific faculty member, or an alumnus of the program), whose job would be to ensure that the "flame of the Board Certification fire" is initially lit and remains ablaze." The Board Certification Ambassador would be similar in purpose to the AAE Foundation Ambassador.

On-line Mentors

Some Board candidates may not need a full time mentor but may have a few questions or would like some feedback on a particular topic. The College of Diplomates uses the COD website (**collegeofdiplomates.org**) to allow candidates to post questions that can be viewed by all. These questions can then

be answered by either members of the COD Board or any mentor who may have experience in the particular area being questioned.

Mentoring the Mentors

The COD Board encourages candidates and mentors to attend the Boardwalk given by the ABE at each AAE Annual Session Meeting. This is an opportunity to hear, directly from the ABE, about any revisions in the Board certification process. Additionally, valuable advice is offered by the participating Board members on preparing and sitting for the different portions of the examination.

Geographical Mentors/Board Certification Ambassadors

The COD maintains a listing of mentors through the Board Certification Ambassador Program. These are Diplomates who are affiliated with endodontic programs across the country who are willing to serve as mentors to candidates who would like to have someone in their geographical area provide one-on-one guidance through the Board process. Any COD member who volunteers to be a Board Certification Ambassador / mentor must be thoroughly knowledgeable of the Board certification process so that they can accurately advise the prospective Diplomate.

The College of Diplomates offers to each new Diplomate a free one year membership to the COD. In return, the COD Directors encourages the new Diplomate to volunteer to serve as mentor to a candidate for Board certification. To volunteer, please contact one of the Directors of the COD or send an email to codabe96@comcast.net.

The Mission of Mentoring

Diplomate status is a realistic goal for well-prepared candidates who remain zealous in their pursuit of knowledge and clinical skill as they practice and teach the specialty of endodontics.

Board certification in endodontics and the purposes for which it exists transcend educational background and national considerations. An endodontist pursues Board certification because being a Diplomate of the American Board of Endodontic (ABE) makes a very clear and strong statement of the value the Diplomate places on attaining mastery in the specialty of endodontics, receiving a most significant acknowledgement of professional achievement, and being accountable to the public by adhering to the highest standards of practice that peer review can set. It represents a philosophy of professional conduct, practice, and sustained achievement that places great worth on being the best one can be and provides the finest and most comprehensive endodontic care to a deserving public.

As a mentor of a candidate for Board certification in endodontics, one has an extraordinary opportunity to emphasize the meaning and value of attaining Diplomate status. The mentor also has the opportunity to describe in their own unique way the enormous satisfaction that is felt on having achieved a singularly commendable and exceedingly challenging goal after years of preparation, commitment, and sacrifice.

Once attained, Board certification cannot be cheapened or tarnished, but continues to shine brightly and have clear meaning and unmistakable value for those who succeed in the process. The mentors are entrusted with the responsibility of perpetuation and improving the specialty of endodontics through the noblest of pursuits. This manual is written with the express purpose of enabling the mentor to better carry out this responsibility by being more effective as a mentor.

“A Mentor’s Guide to Board Certification in Endodontics” contains four main sections plus pertinent instructions and forms published by the American Board of Endodontics. The first main section is devoted to the general topic of mentorship and a discussion of the role and responsibilities of a mentor. The second section focuses on the Written Examination and contains many suggestions for finding resources, organizing materials, and developing strategies for studying for this examination.

The longest section of the manual is devoted to the development of an acceptable Case Histories Portfolio. This section includes interpretation of the ABE’s detailed instructions, identification of areas critical for success, and recommendations and suggestions for the mentor to use when working with a candidate on a case report documentation and narrative.

The fourth section covers preparation for the Oral Examination. It contains valuable information on what candidates can expect in the oral examination environment, examples of oral questions, and information on how the exam is conducted. This section also has some excellent tips, and recommendations from several Diplomates who have recently completed ABE certification pertaining to methods that were successful for them in preparing for the oral exam.

Because the policies, procedures, and philosophy of the ABE are continually updated, the content of this manual will change over time. Hence, the manual will be a dynamic

document constantly under review and periodically revised. It is important to realize that what is current today may not be current tomorrow. The ABE conducts a one and one-half hour information seminar entitled “The Boardwalk” at the annual session of the American Association of Endodontists. This seminar covers all aspects of the Board certification process and provides a forum where the changes in Board policy and procedures are announced. As a mentor of Board candidates, you and your prospective Diplomate are encouraged to attend this highly informative session.

The officers and directors of the College of Diplomates welcome and encourage your input at any time on how the College can better facilitate the journey of Board candidates through the certifying examination of the ABE. Together we can strengthen the specialty of endodontics, enhance the attractiveness of pursuing Board certification, and heighten the esteem and recognition of an increasing number of endodontists who successfully navigate the long but highly rewarding process that leads to the title Diplomate**.**

The Board of Directors of the College of Diplomates

THE CONCEPT OF MENTORING

The word “mentor is a term that is difficult to define precisely. Despite that, the term is commonly used today in the educational, professional, and business communities. Historically the term was personified by Homer in the person (Mentor) entrusted with the education and life counseling of Odysseus’s son during his father’s long absence during the Trojan Wars. In the Greek language, the word mentor came to mean “trusted friend and counselor.” In the Latin, it referred to “one who thinks.” Although an easy transition from antiquity to a modern definition may be wanting, the characteristics, functions, and supporting framework of mentoring have been described and widely discussed by numerous authors. What follows is a brief attempt to capture the essence of the terms “mentor” and “mentoring.” Where possible it is done in the context of the pursuit of Board certification in endodontics.

A successful mentor of Board candidates possesses three important characteristics: *competence, confidence, and commitment.* The competence arises from having the appropriate knowledge, the experience of having successfully traveled the road to Board certification and the ability to command (earn) respect from others. A mentor is competent in the skills associated with assist functions. These include coaching, counseling, communicating, instructing, and establishing good interpersonal relations. The more frequently these skills are used and the more up-to date the knowledge base, applications and philosophies are in exercising these skills, the more valuable they become to the mentor and the mentored. A successful mentor is competent to build on the mentoree’s strengths, to offer constructive criticism and feedback, and to provide a reliable source of information and resources. Finally, the mentor is able to promote good judgment.

A mentor has the confidence to be imaginative, to demonstrate initiative, and to lead and offer clear direction. The mentor also can deal successfully with another’s foibles and biases. He/she can set aside self-recognition for the inner satisfaction and great pride in the achievement of the mentoree.

The best mentors are the ones who are committed to the investment of time, energy, and effort in a distinctly different type of working relationship. They are also committed to sharing personal experiences, knowledge, and skills. They have a pronounced desire to pass on to a succeeding generation of professionals the fruits of their own experiences and labors. They are people-oriented and have a keen interest in seeing others develop their work and succeed in a long, challenging process.

That which we do in the mentoring relationship carries out the *functions* of mentoring. Dr. B.G. Bibby, a former Director of the Eastman Dental Center, succinctly summarized these functions a half century ago in a speech at a general meeting of the International Association of Dental Research. Table 1 outlines these functions.

Table 1. Functions of Mentoring

Teach	Sponsor	Encourage	Counsel	Befriend
model	protect	inspire	listen	accept
inform	support	challenge	probe	relate
confirm	promote	affirm	clarify	
prescribe			advise	
question				

To successfully carry out the mentoring process, we must fulfill each of the mentoring functions. These functions are accomplished within a support framework comprised of three categories of factors: Personal, Functional and Relational. The objectives within the structural framework of Personal Factors include the need for the mentor to promote confidence building, creativity, fulfillment of potential, self-development, and a certain amount of risk-taking. In the Functional category, the mentor must teach, coach, counsel, support, advise, sponsor, guide and provide resources. Finally, in the Relational category, the mentor must facilitate mutual trust and sharing.

The rewards reaped by the mentor for the substantial time and effort that go into the mentoring process are highlighted by the thrill and pride resulting from seeing one's protégé succeed. Of great significance is the opportunity that mentoring provides in repaying a past debt to his or her mentor for having been competently mentored at an earlier time. The enjoyment and excitement that one will experience for nurturing a fellow endodontist through the Board certification process are sufficient paybacks for the many hours devoted to the effort.

STEPS IN MENTORING A CANDIDATE

1. Find out which part of the certification process the candidate is preparing for:
    - Written Examination
    - Case History Portfolio
    - Oral Examination
2. Prepare yourself to help your candidate by thoroughly reviewing the material that is provided in this mentoring guide.
3. Go over the details of this particular examination phase with the candidate: what is expected?
4. Recall and share your own successful experience in pursuing Board certification-what did you do to prepare?
5. For the written exam, share the multitude of resources provided in the "Mentor's Guide," including the comprehensive list of websites and selected references.

6. For the case histories portfolio, first be sure that the requirements, in terms of proper cases and categories, are met. Then go over each case critically: Using the ABE Case History Portfolio Guidelines is essential. The guidelines are available in a PDF format on the ABE's website. Both the mentor and the candidate must use the submission checklist contained in the guidelines for each and every case. Are the films/prints/images acceptable? Do dates on images match entries in the text? .Is the treatment of high quality? Are the cases consistent with the level expected of a specialist or could a general dentist have done it? **Never tell a candidate that his/her portfolio is going to pass!** Only the ABE examiners can make that decision.

7. For the oral examination, giving the candidate an opportunity to experience a "mock Board" with you as the examiner is critical to their success.

8. Enjoy the experience of helping an endodontic colleague.

American Board of Endodontics

The ABE

On July 10, 1956, the American Board of Endodontics was incorporated in the state of Illinois. The American Board of Endodontics is the only certifying Board for the specialty of endodontics.

The American Board of Endodontics is one of the nine specialty Boards recognized by the American Dental Association. The activities of the ABE conform to the "Requirements for Recognition of Dental Specialties and National Certifying Boards for Dental Specialists" of the American Dental Association Council on Dental Education applicable to specialty Boards in dentistry.

The purpose of the ABE is to assure the public that the endodontists it certifies have demonstrated exceptional knowledge, skill, and expertise in the specialty of endodontics and to progressively raise the quality of patient care.

Value of Board Certification

To achieve Diplomate status, an endodontist has shown great inner motivation and exceptional commitment to continuing professional growth. A Board Certified endodontist understands the importance of:

- Achieving the highest level of knowledge and skill possible
- Continually pursuing new knowledge and experience
- Fully understanding and applying new research and advances in the practice of endodontics, and
- Ensuring the highest possible quality of care for the patient.

Definitions

Prospective Board Candidate*:*
A student enrolled in their final year of an advanced education program in endodontics accredited by the Commission of Dental Accreditation of the ADA whose application and payment of the written examination fee have been accepted and approved by the Board.

Educationally Qualified Endodontist:
An endodontist who has successfully completed an advanced education program in endodontics accredited by the Commission on Dental Accreditation of the ADA.

Board Eligible Endodontist:
An Educationally Qualified Endodontist whose application and credentials have the approval of the Board.

Board Certified Endodontist:
An endodontist who has satisfied all requirements of the certification process of the ABE, has been declared Board Certified by the Directors of the ABE, and maintains Board Certification. This individual is a Diplomate of the ABE.

Procedures for Certification

The ABE offers two "Tracks" for completing the Board certification requirements. Track One is the "traditional" track, which has the candidate take the written exam, submit the case portfolio and then finish the process by sitting for the Oral exam. Track Two has the candidate submit their case portfolio first, then take the written and finally sit for the Oral exam.

Changes in the certification process effective April 22, 2007

- **The four-year identification requirement with the specialty of endodontics is eliminated.**
- **The Final Application is due after Part II, not Part I.**

Existing Time Line

Preliminary Application Submitted Before 2006	
Step	**Maximum Time**
Part I	3 years
Final Application	1 year
Part II	3 years
Part III	2 years
Completion Range	***3-10 years***

New Time Line

Preliminary Application Submitted 2006 or After	
Step	**Maximum Time**
Part I	3 years
Part II	6 years
Final Application	1 year
Part III	2 years
Completion Range	***1-10 years***

Submitting an Application as a Student
A student enrolled in their final year of an ADA accredited endodontic program may submit a Prospective Board Candidate Application and examination fee to the ABE. Upon completion of the application, the student will be designated as a Prospective Board Candidate and be eligible to start the Board Certification process by taking the Written Examination (Track One).

Prospective Board Candidates have the remaining year following the date of the Written Examination to submit a Preliminary Application along with a notarized copy of their endodontic certificate and be declared Board Eligible.

Submitting an Application as a Educationally Qualified Endodontist
An Educationally Qualified Endodontist may submit a Preliminary Application along with verification of their educational qualifications to the ABE upon completion of his/her advanced endodontic program.

The Credentials Committee of the ABE will review the Preliminary Application of the applicant. If it is acceptable, the applicant will be declared Board Eligible and will be notified by the Secretary of the Board.

Final Application Requirements
Letters of recommendation from five dentists (at least two must be Board Certified endodontists) attesting to an applicant's acceptable ethical and moral standing in the profession and community is required for approval of the Final Application.

Recertification:
Applicants making Preliminary Application on or after January 1, 1997, will be required to recertify every ten years from the date they are declared Diplomates by the American Board of Endodontics. The purpose of recertification is to ensure that Diplomates are current in the science and clinical practice of the specialty of endodontics.

The ABE Certificate:
A Certificate bearing the seal of the ABE and signatures of the Directors of the Board shall be awarded to each successful Candidate**.**

The Directors of the ABE shall have the power to suspend temporarily, or to revoke permanently, any certificate issued by the Board on presentation of sufficient evidence that the person in whose name the certificate is issued has not fulfilled the requirements of the Board, or has ceased to conduct an ethical practice according to the *American Dental Association Principles of Ethics and Code of Professional Conduct*. The certificate remains the property of the ABE and must be surrendered upon revocation. The Diplomate has the right to appeal the suspension/revocation of certification

The Title – Diplomate, American Board of Endodontics:
Diplomates are permitted to use the following designation, "Diplomate, American Board of Endodontics" on stationery, business cards, patient literature, directories and announcements. In all references to Board Certification, the ABE requires Diplomates to adhere to the *Code of Ethics and Standards of Professional Conduct adopted by the American Dental Association***.**

Examinations

Board Certification requires successful completion of three examinations:

- **Written Examination:** A four hour examination that tests a broad range of fields, including anatomy, biochemistry, pathology, immunology, microbiology, pharmacology, radiology, statistics clinical endodontics, and related disciplines. The focus of the examination is on the biomedical sciences and their relationship to the specialty of endodontics. In preparation the candidate has the opportunity to review the biologic basis pulp and periradicular pathosis and as well as systemic disease, diagnosis, and treatment. This permits a *consolidation and correlation* of knowledge in the biologic and clinical sciences provided during their residency program. Often during a training program students are focused on a discipline based educational process. Board preparation results in the integration of knowledge from varied disciplines and often removes the myopic view of patient care.

- **Case History Examination:** Presentation of a broad range of treatments from the applicant's own practice that demonstrate exceptional knowledge, skills, and expertise in the full scope of the field of endodontics. The development of a case history portfolio provides the candidate with an opportunity to demonstrate exceptional skill and expertise in endodontics. The required clinical procedures requires the individual to diagnose, treatment plan, and treat wide variety of complex patients. It increases their confidence level and helps them organize data, interpret the results, and execute a treatment plan. The required recall re-enforces the need to confirm the inflammatory process of pulp and periradicular disease and assess the outcome of treatment.

- **Oral Examination:** A team of experts question the applicant about a variety of endodontic diagnosis and treatment situations. Throughout the extensive interviews, a high level of skill in problem solving, decision-making, analysis, creativity, and evaluation are required. The oral examination is designed to evaluate the candidate's critical thinking and problem solving abilities. In preparation the candidate often reviews the dental and endodontic literature. This results in critical evaluation of treatment procedures and provides justification for procedures. *It is basis for evidence based endodontics*. The candidate also moves beyond the role of student and develops skills permitting them to be independent life-long learners and decision makers, free of a formalized educational process involving a mentor.

Upon completion of all three examinations, the endodontist earns the Certificate of the Board and the title "Diplomate of The American Board of Endodontics". Certification as a Diplomate signifies a unique achievement.

Resources for Candidates

Review Courses

Academic Review of Endodontology
(BENDER, SELTZER, GROSSMAN)

When: September (2-1/2 days)

Sponsor: Albert Einstein Medical Center, University of Pennsylvania
Temple University

Location: Philadelphia, PA
Lectures given by internationally known educators/researchers/clinicians

Topics Covered: Endodontic microbiology and immunology, management of medically compromised patients, pain, pulp and periradicular pathology, fascial space infections, trauma, pharmacology, bone biology, information on the certification process. Recent courses have included a session sponsored by the College of Diplomates on "Tips for Preparing for the Certifying Examinations of the American Board of Endodontics."

Further Information: 215-456-6620

Review of the Biologic and Clinical Aspects of Endodontology

When: March (3 days)

Sponsor: Division of Endodontics, University of Michigan
School of Dentistry

Location: Ann Arbor, Michigan
Lectures given by internationally known educators/researchers/clinicians

Topics Covered: clinical aspects of endodontic procedures, management of the medically compromised patient, pharmacology, oral pathology, histology and physiology of the dentin-pulp complex, local anesthesia, surgical endodontics. Recent courses have included a session sponsored by the College of Diplomates on "Tips for Preparing for the Certifying Examinations of the American Board of Endodontics."

Further Information: 313-763-5021

Endodontic Board Review and Scientific Update

When: Mid September

Sponsor: University of Maryland
Lectures are given by internationally known educators/researchers/clinicians

Topics Covered: Endodontic microbiology and immunology, management of medically compromised patients, pain, pulp and periradicular pathology, fascial space infections, trauma, pharmacology, bone biology, information on the certification process. Recent courses have included a session sponsored by the College of Diplomates on "Tips for Preparing for the Certifying Examinations of the American Board of Endodontics."

Further Information: 410-706-7047

Review Manuals and Other Aids

The Endodontic Topical Guide:
The Endodontic Topical Guide is an index of the Journal of Endodontics with over 2500 topics and keywords. For example, a topic such as root canal obturation has a list of over 80 references. The updated versions have abstracts of JOE articles from volumes 15 through 20. Volumes 21, 22, and 23 updates are also complete with abstracts. For further information, contact Applied Research Institute, 150 East 200 North, Suite G, Logan, UT 84231 (801-753-3861).

Online Services:
A wide variety of information can be obtained from online services, including oral pathology tutorials and other study guides. For example, Grateful Med® allows access to the National Library of Medicine's collection of medical and health science information.

Check Websites for the following groups:

College of Diplomates of the ABE
American Association of Endodontists
American Dental Association
American Medical Association
Dental Education Resources on the Web
Dental Library
Dentistry On-Line
Grateful Med
Healthfinder
HIVDent
Internet Healthcare Directory
Medscape
Quintessence Publishers
Helpful Hints on the ABE Website lists study sources that new Diplomates found useful.

Texts, Journals and Suggested Review Articles

Attention should be directed to contemporary literature. Key topical areas should be included such as guided tissue regeneration, wound healing, antibiotic prophylaxis coverage, management of traumatized teeth and medically compromised patients. For examples of contemporary literature, please see our literature guide. Additionally, the following ***latest editions*** of these texts may prove as invaluable resources.

Trowbridge HO, Emling RC. Inflammation: a review of the process. Quintessence Publishing Company.

Ingle JI, Bakland LK. Endodontics. Baltimore: Williams and Wilkins.

Malamed SF. Handbook of local anesthesia. St.Louis: Mosby.

Malamed SF. Medical emergencies in the dental office. St.Louis: Mosby.

Gutmann JL, Dumsha T, Lovdahl P, Hovland E. Problem-solving in endodontics. St. Louis: Mosby.

Seltzer and Bender's The Dental Pulp, Hargreaves and Goodis

Arens DE, Torabinejad M, Chivian N, Rubinstein R. Practical lessons in endodontic surgery. Carol Stream (IL): Quintessence Publishing Company, 1998.

Cohen S, Burns RC. Pathways of the pulp. St. Louis: Mosby.

Gutmann JL, Harrison JW. Surgical endodontics. St. Louis: Ishiyaku EuroAmerica 1991.

Little JW, Falace DA, Miller CS, Rhodus NL. Dental management of the medically compromised patient. St. Louis: Mosby.

Andreasen JO, Andreasen FM. Textbook and color atlas of traumatic injuries to the teeth. St. Louis: Mosby.

Neidle EA, Yagiela JA. Pharmacology and therapeutics for dentistry. St. Louis: Mosby.

Essential Endodontology, Orstavik and Pitt Ford

- The mentor should advise the candidate to keep current on the literature with special attention to the following journals: Journal of Endodontics; Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontics; International Endodontic Journal; Dental Traumatology.

Helpful Hints from the Spring 2007 Diplomate Newsletter

Eager to share their success and excitement, every new group of Diplomates offers their tips and insights to help those who have yet to get through the difficult yet rewarding Board Certification process. New Diplomates routinely referred to the various examinations as "fair" and "rewarding." Their specific observations and helpful hints are below.

Reading Materials New Diplomates Recommended

- *Inflammation: A Review of the Process* by Henry O. Trowbridge and Robert C. Emling
- *Pathways of the Pulp* by Stephen Cohen and Kenneth M. Hargreaves
- *Seltzer and Bender's Dental Pulp* by Kenneth M. Hargreaves, Harold E. Goodis and Samuel Seltzer
- *Dental Management of the Medically Compromised Patient* by Donald A. Falace and James W. Little
- *Journal of Endodontics*, especially the last two to three years
- *Medically Compromised Patient by* J.O. and F.M. Andreasen
- *Essentials of the Traumatic Injuries to the Teeth by* J.O. and F.M. Andreasen
- *Endodontic Topics* at http://www.blackwell-synergy.com/loi/etp
- ABE web site
- College of Diplomates web site, particularly the abstracts
- AAE web site

Suggested Study Methods

- Flashcards
- In a quiet and secluded study location
- Review courses
- Utilize a mentor and/or study partner
- Set aside time for study and reflection on a regular basis
- Listen to CD-ROM's of CE courses while commuting

Suggested Study Resources

- ABE web site
- Abstracts published on the College of Diplomates web site
- PubMed search
- ABE Boardwalk held annually at the AAE's annual session
- Local study groups – organize or join one

Mentors

- A common thread among the Candidates is the importance of having at least one mentor.
- *I encourage all Candidates to seek out mentors, a most valuable tool that is available to you. If you do not know anyone that can help you, place a quick call to Dr. Andre Mickel from the College of Diplomates who is ready and available to assist you.* Dr. Bobby Caruso
- *I cannot emphasize enough how much help it was to study with another person.* – Dr. Stephen Tsoucaris
- *It is strongly advised to seek out one or more mentors for each phase of the process. Different opinions will develop insight into topics and expose areas needing more investigation*. – Dr. Marc Levitan

- *It was extremely beneficial for me to utilize that experiences of current Diplomates to guide, suggest and motivate*. *They served as role models, sounding boards and examples through the process*. – Dr. James Jostes

Review Courses

- The value of attending review courses throughout the Board Certification process is mentioned over and over.
- *Take all the endodontic review programs that you can.* – Dr. Joseph Morelli
- *The Board review courses are great for the Written and Oral Examination.* – Dr. Jaime Silberman
- *A Board review course is indispensable in helping to put it all together.* – Dr. Timothy Kirkpatrick

Residency Program

- *Remember that preparation for the Board Certification process starts in your residency program. Make the most of you literature review and case analysis sessions. – Dr. Nooshin Katebzadeh*
- *Take the Written Exam while in your residency program or shortly afterward while the biological principles are still fresh in your mind. This test is a natural extension of material learned in residency.* – Dr. John P. Smith IV.
- *Start early during your residency to gather all the cases that fit each one of the categories in your Portfolio.* – Dr. Francisco Banchs
- *Keep all the notes from your residency, they will be very useful.* – Dr. Francisco Banchs
- *There will never be a better time to take the exam. You have spent the last two – three years reading, discussing and practicing endodontics, you have all the information you need.* – Dr. Randolph Todd
- *Begin preparation at the start of your program; prepare and maintain records in the Case Portfolio format; look for potential cases throughout your program*. – Dr. Khalid Al Fouzan

<u>General Suggestions</u>

- **READ!**
  - The most common suggestion? Read all major texts and current literature – recommendations ranged from 2-5 years of recent articles.
- **Establish Milestones**
  - *Develop and adhere to a timeline that includes progress 'milestones' for all three parts of the exam. Your planning should be tailored to allow for 'retakes,' if needed, to avoid starting all over again.* – Dr. Robert A. Caruso
- **Manage Your Time**
  - *Organization/time management is the most difficult part of the process.* – Dr. Derik P. DeConinck
  - *The entire process can, and ideally should, be completed within five years of graduation. 'Older' endodontists can start and complete the entire process in one year, thus only studying once for the Boards.* – Dr. Lester J. Quan
  - *As in everything that we do, preparation is the key to success.* – Dr. David Rosenbaum
  - *Make sure that you review and understand your deadline set by the ABE for each section. Your planning should be tailored to allow for "retakes" if needed, to avoid starting all over again. For any part of the exam, do not, repeat do not wait until the last minute to prepare*. – Dr. Bobby Caruso

- **Get Organized**
  - *Organize all your academic materials beginning while in residency. Keep good, organized files of all endodontically related articles and update constantly.* – Dr. Joseph M. Morelli
  - *Organize clinical cases according to ABE's categories for case presentations.* – Dr. Joseph M. Morelli
- **Stay Focused**
  - *Try to stay focused on the specific tasks. It is easy to look at all three parts of the exam and become overwhelmed*. – Dr. Mickey Zuroff
- **Find Support**
  - *Don't travel the road alone. Any or all of the following – significant other, mentor, fellow candidate – will help move you along.* – Dr. David M. Kenee
- **Utilize the Helpful Hints**
  - *I read and tried to remember all the hints from prior examinees. The best one "Have a conscientious, explicit and judicious reasoning for everything you do clinically."* – Dr. Lester Quan

Written Examination

- **DO IT ASAP!**
  - The most universal piece of advice was to take the exam as soon as possible.
  - *Basic science is very easy to forget in private practice!* – Dr. Jaime Silberman
  - *Twenty years after my residency, I felt like I was starting from the very beginning of dental school.* – Dr. Lester J. Quan
- **Know Your Literature**
  - *If possible, allow enough time to go back to the basics and integrate with classic and current literature.* – Dr. Claudia I. Holt

Case History Examination

- **FOLLOW DIRECTIONS!**
  - The key suggestion for this examination was to follow instructions *very* carefully.
  - *Details, Details, Details – Life and the success of your case submissions are all in the details*. – Dr. Randolph Todd
  - *Keep an eye on your write-ups; they are as important as the quality of the cases.* – Dr. Francisco Banchs
  - *The instructions are very specific and should be closely followed*. – Dr. Steven Card
  - *Take advantage of the ABE's detailed information about each case*. *Follow their instructions.* – Dr. Leandro Britto
  - *Follow the directions given to a "T"*. – Dr. Bart Rizzuto
  - *Follow the guidelines, be brief and do anything you can do make it easier for the Directors to read the cases quickly*! – Dr. Jay Jacobson
- **Search for Potential Cases**
  - *Amass 25+ cases and then wean.* – Dr. David M. Kenee
  - *Look for cases that are not easy to come by first.* – Dr. Helmut Walsch
  - *It is important as you go through your day-to-day practice that you treat each patient as though they could be a part of your Portfolio.* – Dr. David Rosenbaum
  - *Start to identify cases in residency and create a "follow*-up" *log complete with all the necessary contact data for the patient (including the contact information for a relative of the patient who might be able to help you locate your patient at a future time). – Dr. Bobby Caruso*

- *Keep a log on a notebook or computer file of potential Board cases. Anytime you come across a potential Board case, write the patient's name, tooth number and reason why you feel it is a Board case.* – Dr. Ariel Diaz
- *Try to accumulate about two – three as many cases as needed per category and pick the best for submission.* – Dr. Mark Dinkins
- *Keep track of which categories you already have a sufficient number of cases for submission, so that your energy is spent towards finding those that are more difficult to complete (diagnosis, medically compromised patient and the molar surgery)*. – Dr. Francisco Banchs
- *Treat every case as a potential Board case with appropriate documentation and quality radiographs.* – Dr. Timothy Kirkpatrick

- **Radiographs**
  - *Take all the intra-oral radiographs and pictures you can. I don't know how many successful cases I examined when preparing for this portion of the Board only to find that I didn't have the adequate radiographic representation.* – Dr. Timothy Bodey
  - *During a patient treatment, if you ever ask yourself the question, Should I expose an x-*ray? *-you should! That radiograph will be the one that you need to support your case*. – Dr. Colleen Shull
  - *Take at least two (preferably three) pre-op and post-op films. Take working films even if you don't routinely do so, it strengthens your cases.* – Dr. Ariel A. Diaz
  - *Always take high quality radiographs from multiple angles; you never know if that case may be needed as part of your Portfolio.* – Dr. Manish Garala
- **Get an Early Start**
  - *Start early, it's easier on the family relationships*. – Dr. David Koelliker
  - *Be systematic. It takes time to organize all the information.* – Dr. Jaime J. Silberman
  - *When you have cases that qualify, start writing them up because they take more time than you think to write and edit them.* – Dr. Katherine Kuntz Jakuc
  - *Start case selection early. Every patient is a possible Board case.* – Dr. Geoffrey Okada
  - *Keep a folder on your PC desktop that keeps reminding you everyday to enter interesting cases to follow-up on!* – Dr. Jay Jacobson
  - *This portion of the Certification process takes a lot of time, maybe more than you can imagine. Set aside time to write up your cases, scan your images, etc.* – Dr. Anne Williamson
- **Contact Patients**
  - *I found the majority of my patients could be found for follow-up and were quite receptive*. – Dr. Bobby. Caruso
  - *Keep track of potential Board cases in each category and recall as soon as possible.* – Dr. Claudia I. Holt
  - *Make certain your office staff realizes the importance of the Boards and works hard with you in getting patients back into the office for necessary recalls.* – Dr. David Rosenbaum
  - *I found that if I explained to my patients what I was trying to achieve and made them a part of the process, they were more than happy to help me by following through with permanent restorations and coming back for recall appointments.* – Dr. Samuel Mesaros
- **Get a Second Opinion**
  - *Have colleagues and a mentor help review your cases.* – Dr. Joseph M. Morelli

- *Have a mentor review your cases for complexity and content.* – Dr. Geoffrey Okada
- *Having other review my Portfolio was an extremely valuable experience. Their suggestions and advice were priceless*. – Dr. Anne Williamson

- **Be Careful**
  - *The ABE template does not have grammar and spell check, so you must type and do all editing in Word, correct, then past into the ABE template. I learned this the hard way!* – Dr. Lester J. Quan
  - *The worst is a beautiful case with insufficient documentation.* – Dr. Helmut Walsch
  - *Make certain that all radiographs are of excellent quality and are archivable.* – Dr. David Rosenbaum
  - *When preparing your cases, it's important to be obsessive about checking dates; spelling, and your write-up for organization. Your goal is for the cases to be black and white. Don't leave any question marks*. – Dr. Lauren Mitchell
- **Proof Read**
  - *Have dental, but also non-dental proofreaders.* – Dr. Margot Kusienski
  - *Evaluate and grade each case yourself by following the scoring criteria used by the Directors.* – Dr. Tarathorn Sundharagiati
  - *Proofread your cases. Have your mentor proofread your cases. Proofread your cases again*. – Dr. Ariel Diaz

Oral Examination

- **RELAX!**
  - Despite initial fears, Candidates found the Oral Examination to be a fair and relaxed conversation with peers.
  - *I found this to be the most rewarding part of the exam.* – Dr. Bobby. Caruso
  - *Stay calm, feel relaxed and be confident of yourself at the time of examination.* – Dr. Iejaz Shahid
  - *There is no substitute for a good night's sleep.* – Dr. David Rosenbaum
  - *There were no trick questions or unanticipated strategies.* – Dr. Lester J. Quan
  - *Examiners are very fair (and comprehensive) in their questioning.* – Dr. Derik DeConinck.
- **Be Prepared**
  - *During the week, while I was treating patients, I would cite the literature that supports what and why I am doing a particular treatment procedure.* Dr. Bobby Caruso
  - *Keep updated with current literature throughout.* – Dr. Helmut Walsch
  - *Know all you can about medically compromised patients.* – Dr. Claudia I. Holt
  - *Start organizing early – at least six months before the examination. Whether you study alone, with a partner or through a mentor, create a schedule that gradually increases as you near the exam. Starting three months out, I got up an hour early to study*. – Dr. David Kenee
  - *The Oral Exam is a clinical exam and as such it requires evidence-based knowledge to support every procedure you do when you treat a patient. While treating patients in your practice review every single one of the steps you are taking and support them with literature*. – Dr. Francisco Banchs
  - *Pay attention to the 10 areas in which you are tested*. *Know the literature and justify your clinical decisions with the literature. When you are seeing patients review in your mind what you are doing and why*. – Dr. Ariel Diaz

- *Follow the instructions/tips given at the review courses, diagnosis, and prognosis*. *Know the literature to substantiate your answers*. Dr. Kimberly Kochis
- *During a workday in private practice use each patient case as if it were a Board case*. *Do this from early diagnosis to final recall. This will be a great experience in tying together your clinical knowledge and literature reference. Demonstrate evidence-based treatment.* – Dr. Joseph Quevedo
- *We all know where each of our weaknesses and strengths are*. *Define your weaknesses early and challenge them before you sit for the Oral Exam.* – Dr. Shahrokh Shabahang
- *When preparing for the Oral Examination, remember that the exam can and will encompass more that clinical endodontics*. *Special patient management should be as important in your preparation as is endodontic literature.* – Dr. Jay K. Taylor

- **Practice**
  - *Have a study partner…hold mock exams…be both examiner and examinee.* – Dr. Helmut Walsch
  - *My mentor gave me mock orals. This was probably the most helpful single thing in preparing for the Orals.* – Dr. Joseph M. Morelli
  - *Having a mentor provided different opinions and developed insight into topics and exposed areas needing more investigation.* – Dr. Marc Levitan
  - *Practice orally with a recent Diplomate. Knowing this info is one thing…..putting it to words is another. Like anything else in life, PRACTICE!!* – Dr. Jason Bergman
  - *Have conscientious, explicit and judicious reasoning for everything you perform in your practice, and provide the research(s) to support those principles. Practice, practice, practice. Verbalizing your thoughts is paramount to succeeding, and mock boards are the best way to do that.* Dr. Anita Aminoshariae
  - *Have a colleague or mentors quiz you, this forces you to verbalize your answers and allows for feedback*. Lt. Col. Brian Bergeron
  - *Not only is studying important, but you need to be able to eloquently verbalize that knowledge*. *Utilize your mentor to do the mock Oral Exams through the preparation process*. – Dr. Margot Kusienski
  - *The Orals require that you organize your thoughts and responses rapidly in front of some very big names. Practice with someone who makes you feel slightly intimidated. You will get flustered; the trick is to recover rapidly and move on to the next question.* – Dr. Vincent R. Jones
  - *You have to be 200% familiar with the literature because you do not have much time to organize your thoughts during the examination. Basically, make the literature pop into your head like a reflex.* – Dr. Ming-LI Emily Kuo
  - *As you treat your patients throughout your day ask yourself and write down questions such as, why do I use this material, procedure or what options exist? What evidence is there to support or dispute certain options or alternatives? Why is this patient on this or that drug? What could go wrong and how would I handle it?* – Dr. Patrick W. White
  - *The Oral is a case-based question and answer period. The cases are meant to reflect clinical practice. They have some amount of complexity but are not impossible. After a day at the office, write down the medical history or case complications encountered. Review that topic; make note cards, list cures (medications) and complications. Repetition of disease processes, case types will develop. Repeated review will prepare you and over time, a breadth of information will be reviewed.* – Dr. James Stich

- **Strategies for Taking the Exam**
    - *When taking the exam it is important to have an organized way to gather all initial information when the test starts. It should be practiced in a way to consistently not leave out any critical information, i.e. medial history, blood pressure, etc. Do not forget to ask for more information from the examiners as necessary, whether it is a radiograph(s), or even a clinical picture, if indicated. Try to get the first part of the exam off to as smooth a start as possible. This will help you to stay calm and recall information as the exam progresses. Try to find a study partner and or ask someone qualified to conduct a mock exam. The right strategy in taking the Oral Exam is as important as what you know.* Dr. John M. Lies
    - *Try not to get flustered if you don't know every answer – you are not supposed to! They are trying to quickly determine the depth and breadth of your knowledge, so they keep asking questions until you run out of answers.* – Dr. Lester J. Quan
    - *My suggestions are: 1) Think through the questions before answering, 2) Answer only the information asked in the questions, 3) Be succinct but thorough when answering, 4) Cite literature to correlate with responses whenever possible, and 5) Candidates will not be able to answer every question. Don't linger or focus on questions you cannot answer. Instead, pass on the question and concentrate on answering the next one!* - Dr. Marc Levitan
    - *The approach I had taken for the Oral Exam was to know and justify everything I do clinically. Be able to support your statements with the literature. Quiz yourself with a mentor. You don't want to be flustered under stress. You need to know things inside and out.* – Dr. Lauren Mitchell
    - *Use literature citations to answer every question* – Dr. Rory Mortman

Mentoring a Candidate for the Written, Case and or Oral Examinations and Incorporating the approved Diagnostic Terminology

New American Board of Endodontics Pulpal & Periapical Diagnostic Terminology

On April 22, 2007, the ABE voted to accept and strongly encourage all candidates to use the following clinical diagnostic terms and definitions for all examination phases.

PULPAL:

Normal pulp – A clinical diagnostic category in which the pulp is symptom free and normally responsive to vitality testing.

Reversible pulpitis – A clinical diagnosis based upon subjective and objective findings indicating that the inflammation should resolve and the pulp return to normal.

Irreversible pulpitis – A clinical diagnosis based on subjective and objective findings indicating that the vital inflamed pulp is incapable of healing.

Additional descriptions:
Symptomatic – Lingering thermal pain, spontaneous pain, referred pain
Asymptomatic – No clinical symptoms but inflammation produced by caries, caries, excavation, trauma, etc.

Pulp necrosis – A clinical diagnostic category indicating death of the dental pulp. The pulp is non-responsive to vitality testing.

Previously Treated – A clinical diagnostic category indicating that the tooth has been endodontically treated and the canals are obturated with various filling materials, other that intracanal medicaments.

Previously Initiated Therapy – A clinical diagnostic category indicating that the tooth has been previously treated by partial endodontic therapy (e.g. pulpotomy, pulpectomy).

APICAL (PERIAPICAL):

Normal apical tissues – Teeth with normal periradicular tissues that will not be abnormally sensitive to percussion or palpation testing. The lamina dura surrounding the root is intact and the periodontal ligament space is uniform.

Symptomatic apical periodontitis – Inflammation, usually of the apical periodontium, producing clinical symptoms including painful response to biting and percussion. It may or may not be associated with an apical radiolucent area.

Asymptomatic apical periodontitis – Inflammation and destruction of apical periodontium that is of pulpal origin, appears as an apical radiolucent area and does not produce clinical symptoms.

Acute apical abscess – An inflammatory reaction to pulpal infection and necrosis characterized by rapid onset, spontaneous pain, tenderness of the tooth to pressure, pus formation and swelling of associated tissues.

Chronic apical abscess – An inflammatory reaction to pulpal infection and necrosis characterized by gradual onset, little or no discomfort and the intermittent discharge of pus through an associated sinus tract.

PREPARING FOR THE WRITTEN EXAMINATION

The Written Examination

The Written Examination consists of 200 multiple choice questions. It is administered as a computer-generated exam and candidates can choose from a four-hour morning or afternoon session on any of the dates during the week the exam is offered. The questions are designed to test recall, the application of knowledge, interpretation, and problem solving skills. Subject areas include anatomy, biochemistry, embryology, general and oral pathology, microanatomy, immunology, inflammation, microbiology, pharmacology, vascular and neurophysiology, pulpal and periradicular pathobiology, radiology, oral medicine, biostatistics, clinical endodontics, dental materials related to endodontics, related dental disciplines, and classic and current literature. Included in the examination are clinical case histories, clinical photographs, and radiographs. Questions on the clinical material require interpretation by the Candidate. Given specific clinical information, Candidates must determine appropriate diagnostic procedures, establish a differential diagnosis and definitive diagnosis, determine appropriate methods for management of the patient, outline methods for prevention of treatment of a particular condition, outline the sequencing of procedures, and assess the outcomes of treatment. There is no one single text or review course that can totally prepare one for the Written Examination. Because of the contemporary and constantly developing nature of a number of critical areas, particular study should be directed towards basic concepts of cellular and molecular biology; inflammation, immunology and virology; management of medically compromised patients; pharmacology of antibiotics, analgesics, and local anesthetics to include drug interactions; microbiology to include anaerobic bacteria and current genus and species identification; differential diagnosis of radiolucent and radiopaque lesions; pulpal and periradicular pathosis; wound healing; bone regeneration; and the literature.

HOW TO SUCCEED WITH THE CASE HISTORIES PORTFOLIO

The **path** to **successful completion** of the case histories portfolio requirement is straightforward but rigorous. The cases must be the clinician's **finest effort**. In addition to being high quality, they should demonstrate the broadest scope possible of diagnosis and treatment in the specialty practice of endodontics. They should convey the message that a Diplomate of the American Board of Endodontics (ABE) is someone special and worthy of the recognition that only Board certification can confer. Approval of the case histories portfolio by the Board will give you, the mentor, and the candidate a lasting sense of shared accomplishment and pride.

Read, understand and follow all current instructions and guidance published by the American Board of Endodontists on preparing a case histories portfolio. The Case History Portfolio Submission Guidelines can be downloaded as a PDF document on the ABE's website. Using these guidelines is essential in preparation of the Case History Portfolio.

GUIDELINES FOR DEVELOPING AN ACCEPTABLE CASE HISTORIES PORTFOLIO

1. Demonstrate mastery in a wide variety of complex nonsurgical and surgical cases.

2. Ensure all documentation is complete and dates are accurate. Have a non-endodontist review the radiograph dates and clinical entry dates for accuracy. Technical errors tend to detract from the portfolio because it suggests inattention to detail expected of a Diplomate.

3. Have at least a one-year recall examination and documentation, longer if possible

4. Use only original high quality radiographs, or direct digital radiographs. Mixtures of film and digital images are acceptable.

5. Clearly label supporting documentation.

6. Justify treatment selection and annual treatment approaches.

7. Provide definitive clinical diagnosis and use consistent, approved terminology.

8. Be precise, clear, thorough and concise.

9. Keep abbreviations to a minimum.

10. Use acceptable grammar and correct spelling. All entries should be spell checked outside of the document and then pasted into the final template. The spell-checker feature of Microsoft does not function in the Case History Report template.

11. Duplicate the entire portfolio.

12. Submit the case histories portfolio early in the eligibility period.

SELECTION OF CASES

When compiling cases for the notebook the candidate should file or store them alphabetically. It is helpful to arrange them by case type. For example, you can suggest that the candidate put all potential surgical cases together in one category. Place hemisections, root amputations, anterior root end resections with and without root-end fillings, posterior root-end resections with and without root end fillings, and exploratory surgeries in one section. This will allow a review of similar cases. Then a decision can be made to select the best cases.

After the candidate writes a case report, suggest that it be put away for a few days and then reviewed again. Make any deletions or additions at that time. This approach will provide a more objective point of view. This can be repeated two or three times, if necessary.

The Board specifies the case types and sequencing of the cases in the portfolio. The order, procedure categories, and the number of cases **REQUIRED** in **EACH** category are listed below (also see Tab 6, Case Histories Portfolio Instructions):

DIAG (1 Case)
Diagnostic evaluation of the patient (dental or systemic) is the most significant feature of this case. One year evaluation is required with appropriate images and/or radiographs.

EMERG (1Case)
These cases must show emergency treatment procedures in addition to endodontic procedures. For example, an incision and drainage, trephination, and prescription of medications with the rationale for their usage fit into this case type.

MED COMP (1 Case)
These cases must show endodontic management of a medically compromised patient. This requires **MODIFICATION** of treatment timing or procedures. Simply recognizing and/or documenting a medical problem *does not* meet the criteria, nor does prescribing prophylactic antibiotic coverage or treating patients with common medical conditions. Patients on anticoagulant therapy or those receiving chemotherapy or radiation treatments may fulfill this category if your treatment has to be modified in some way.

NS RCT (5 Cases)
These cases must demonstrate **difficult** nonsurgical root canal therapy. This includes teeth with calcified canals, curved and/or long canal systems, unusual anatomy, etc. These **FIVE** nonsurgical cases **MUST include at least one maxillary molar and one mandibular molar.**

RETX (2 Cases)
These cases must include nonsurgical retreatment of previously endodontically treated teeth. At least one case **MUST** be a molar.

S RCT (2 Cases)
These cases must demonstrate surgical root canal treatment. A posterior (molar) surgery with root-end resection and root-end fillings **MUST** be included.

OTHER (3 Cases)

The cases presented in this category are cases that do not qualify for the previous 12 cases. The three *Other* cases **must be different from each other** and may include, but are not limited to the following*:* trauma (management of traumatic injuries and their sequelae, such as crown/root fractures, luxations, avulsions, open apices, resorptions, etc.); perforations, hemisections, root amputations, endodontic endosseous implants, replants, transplants, endo-perio, endo-pedo, endo-ortho, removal of separated instrument, decompression and vital pulp therapy (including apexogenesis). Osseointegrated implants are not acceptable. No more than one case from each category is permissible.

As the candidate prepares the case histories portfolio, remind him/her that the goal is to present the highest quality endodontic care possible. The portfolio is the only means by which the candidate can communicate to the examiners the excellence of his or her abilities as an endodontic clinician. In preparing the cases for submission to the Board, strict attention to detail will give the candidate the best chance to successfully complete this phase of the Board certification process.

SUGGESTIONS FOR THE PREPARATION OF A CASE HISTORIES PORTFOLIO

The case histories portfolio is a direct reflection of the candidate's skills as a practitioner. Only the highest quality cases should be submitted to the Board for review. Preparation of the case history reports is time consuming and possibly the most demanding of the Board requirements. All case histories need to have complete documentation, proper diagnosis and treatment, and recall documentation. Without exception, excellent quality radiographs should be the standard. Selected photographic 2x3 slides are highly recommended to document unusual or complex procedures. The portfolio should portray the abilities of the clinician and clearly communicate to the Board that the quality of the candidates work is the reason why Diplomate status should be awarded. It is the exclamation point that sets this specialist practitioner apart and justifies Board certification. The case histories portfolio MUST demonstrate the broad range of the candidate's endodontic abilities and MUST be their best!!!

Although reasons for failure of the case portfolios are varied, the more common problems are poor case selection, poor documentation and poor quality radiographs.

The Board provides the candidate with a Case History Evaluation Form that serves as a table of contents to identify and classify the cases in the portfolio. The fifteen cases must be placed in the proper order and include all of the required categories. The Board requires that each case be reported as one category only and focus only on one tooth, even if multiple procedures were performed and multiple teeth were involved. Furthermore, even though a case is complex (multiple categories, multiple teeth), it cannot be used more than once in the portfolio. You can assist the candidate in determining the predominant category for each case and tooth to be reported.

Example: (from the case history evaluation form)

A	B	C
Patient No.	**Tooth No.**	**Operation Performed**
1	23	DIAG
2	15	EMERG
3	2	MED COMP
4	3	NS RCT
5	32	NS RCT
6	31	NS RCT
7	17	NS RCT
8	8	NS RCT
9	19	RETX
10	7	RETX
11	19	SCRT
12	13	SCRT
13	15	OTHER
14	19	OTHER
15	30	OTHER

If the candidate decides to use abbreviations in the portfolio in addition to the ones required by the Board, they should be listed on a separate sheet of paper and placed at the front of the portfolio. It is best to remember that many abbreviations have been used for so long or are so commonplace in endodontics and dentistry that they can be categorized as boilerplate. Abbreviations such as MB, ML, PDL, PRM, BP, $Ca(OH)_2$, IRM and those specified by the Board such as NS RCT and S RCT fall into this category. These abbreviations should *not* be included on a front-page listing. Abbreviations such as NKDA (no known drug allergies) or RAS (right arm sitting) that are not universal in the use or are outside common usage in Endodontics *should* be included in the front-page list. In general, abbreviations should be kept to a minimum because the examiners have to refer the list several times when they review the cases.

To avoid confusion, recommend to the candidate that he/she should be as brief as possible in their write-ups without compromising thoroughness. If the candidate deviates from standard diagnostic terminology (not a good idea), especially in pulpal and periradicular diagnosis, the terms and a brief definition should be included on the page with the list of abbreviations. Stress to the candidate the importance of using the approved ABE Terminology. The terminology or nomenclature should be consistent throughout the portfolio.

Avoid phrases such as “within normal limits.” Explain what normal is, e.g., “The probing depths were 1-2 mm with no bleeding on probing” rather than “WNL.”

As the candidate prepares the cases, remind him/her that a thorough and accurate representation of the way the cases were treated is the goal. Make every effort to limit the narrative to the spaces provided on the form. The examiners have many cases to review, so verbosity is verboten. Be **PRECISE** and **CONCISE.**

The case history report form used for case submission may be downloaded from the ABE website at www.aae.org/certBoard.com

Instructions for the Case History Report Form and Addendum Page

To Create the Case History Report Template

1. Open the Case History Report Form Template
   Click on *File* then click on *Save As*
   Save in *Desktop* – leaving the filename as is – click *Save*
   Click *File* then *Close* – then close out of *Word*

2. On your desktop screen you will have an icon for the *Case History Report Template*. This template is now ready to be used to create your fifteen Case History Report Forms.

To Create Case History Report Forms

1. Double-click on the *Case History Template* Icon
   Click *yes* to open as *read only*
   Click *File* – click on *Save As*
   If you receive the *Before you Save* prompt, click on *Don't Save As Suggested Format*. Change the file name appropriate to the case report you are making (you will use this template to create each Case History Report Form Case 1 through Case 15). Save as a *Word Document*.
   Use this procedure to create your 15 Case History Report Forms.

General Instructions

Tool Bar
Be sure the Form Toolbar is locked. When the Form Toolbar is locked, the other symbols (abl – the check box – etc., are grayed out). The form will not work properly if the Form Toolbar is not locked. If the Form Tool Bar is not visible – click on *View* – then *Toolbars* - then *Forms*.

Tab Button
Use the Tab button to navigate from one section to another.

Select Buttons –
Please note the following information regarding the Procedure Category
In the Patient Sex and Procedure Category click on select pull-down menu box – then click on the appropriate response. Use the pull-down menu for all Procedure Categories. In addition, the OTHER category has a text box below the Select pull-down box to describe the type of OTHER treatment (i.e., Apexification, Root Amputation, and Intentional Replantation).

B. Procedure Category: OTHER
_____ Type the subcategory in this text box
(tab through it for the remaining cases)

Spell Check
The Case History Evaluation Form does not provide the functionality of "spell check." A work-a-round solution is to type your report in a Word document and then copy the text and paste it into the appropriate section in the form. Please remember that "spell check" is a great tool, but it is the responsibility of the writer to present an error free report. Please proof read your report for content and then re-proof your report strictly for spelling errors.

Allowed Space
While typing a report on this form, you will be restricted to the allowed space for each section of the form. If you exceed the limits of the space, what you type will not appear on the form. The form has been created to allow you to enter information up to the end of each section. However, due to capital letters, lower case letters and spaces being different sizes, you may find that you are stopped before reaching the end of the last line. Do not try to change this or the font to squeeze the typing into the form. The lines will not accommodate any font other than Arial, regular, size 10. Continue your report on the Addendum Page.

Changes
Creating each Case History Report from the template will allow you to make changes and additions to the form as needed. When you need to make a change to your created Case Form – open the form and click ***no*** when asked if you want to open as *Read Only* and then enter your changes and save before closing the document.

Addendum Page
The two pages of the form should accommodate most case reports. However, for an occasional case, you may need more room. Use the Addendum page for this. When you have exceeded the limits of the current section you are working on, you will no longer be able to enter information. Use the backspace to allow enough room to enter "See Addendum Page" at the end of that particular section. Scroll down to the Addendum page; indicate the area you are continuing, i.e. "C. Medical History continued:" then continue with your narrative of that area. All areas continued for a case can be on the same Addendum page. Using an Addendum page for every case, or using more than 2 Addendum pages for any case, probably indicates a need to edit your narrative to make it brief and concise.

Backup Copies
As an additional safeguard, make backup copies of this file and of any reports you write.

Printing
The margins have been made wide enough on this form to accommodate any inkjet or laser printer.

Assembling the Case History Report Notebook
Place your completed Case History Report form in a plastic protector front to back. The Addendum page should be placed in a plastic sheet protector and be placed behind the appropriate Case History Report form in the notebook.

Be certain the candidate removes or blacks out the names of schools, institutions, laboratories, oral pathologists and any other identifying features to ensure anonymity.

Case History Report Form

The following information relates directly to the preparation of the case history form. As a mentor you can offer the candidate many reminders and suggestions for each section of the Case History Report Form that will enhance the quality of the report and the portfolio.

A. Tooth #: Use the 1-32 system. One tooth number only must be used per case.

B. Procedures:

Use the dropdown list in the form to select the procedure category. For "Other" cases explain the type of case in the Other Subcategory area of the form.

Chief Complaint: This is self-explanatory. It should be in the patient's own words.

C. Medical History: If "the patient is in good health," state it that way. In addition, it is very important to report the blood pressure for each patient. If the blood pressure was abnormal, the candidate should describe how the patient was managed. For example, "BP 188/110. Pressure monitored for three successive days with no change. Patient referred to his physician for evaluation and treatment.

If the patient was on a medication, be sure to list the drug, dosage, frequency and duration of administration. Describe what this medication does for the patient. For example, "Sandimmune is a cyclosporine and a cyclic polypeptide immunosuppressant agent."

If the medication impacted upon the management of the patient, report how. If it didn't have an impact, state that it didn't.

If a medical condition required any alteration of the treatment plan, state what the modification was. Explain how any treatment was altered to accommodate a medical condition.

Did the patient require pre-op or post op antibiotics. Which antibiotics were selected and why? Was it an American Heart Association recommendation or a physician recommendation? Remember to include the dosage and number. Have lab reports, radiation reports; and MRI, CAT scan, or bone scan results available. Include these as attachments to the case report if they influenced diagnosis or treatment. All vital signs must be recorded.

D. Dental History: This should tell the story behind the referral. State who the referral came from: general practitioner, specialist, and physician. Report the treatment that was provided before the specialist saw the patient, such as non-surgical root canal therapy or pulpotomy, and the time since the last treatment. Report the signs and symptoms at the time of the referral and then at the time the specialist first saw the patient. Have the candidate include such things as a history of trauma, caries, carious exposure, mechanical exposure, restorations and pulp capping procedures. If the referring practitioner obtained a microbiological culture, include this in the report.

E. Clinical Evaluation: (Diagnostic Procedures)

Exam: Describe the condition of the tissues. For probing depths, list the measurements, e.g., 1-2 mm. Report any sinus tracts, their location and how they were traced, e.g., gutta-percha point, silver point, wire. Report the results of the overall exam including cancer screening, soft, and hard tissue exam, e.g. mandibular tori. If photographs were taken at this time, indicate this and include a 2x3 photographic slide or digital photo.

Tests: Identify the teeth involved (by number and the results of endodontic diagnostic tests such as percussion, palpation,

electric pulp test (record the scale), cold or heat. Report the results of any traced sinus tracts. It is important to indicate whether the sensation from the heat or cold lingers or disappears rapidly. This differentiates a reversible pulpitis from an irreversible pulpitis. Also indicate whether the response was delayed or immediate. A table can be used to arrange the results of diagnostic tests for easy review by the examiners. The meaning of symbols used in the table of test results can be explained on the cover sheet.

Example:

TESTS

Tooth #	**6**	**7**	**8**	**9**	**10**	**11**
Percussion	-	-	+	-	-	-
Palpation	-	-	+	-	-	-
Mobility	0	0	1+	0	0	0
Cold	+	+	-	+	+	+
EPT	28/80	24/80	80/80	26/80	25/80	27/80
Heat	+	+	+	+	+	+
Transil.	n/a	n/a	n/a	n/a	n/a	n/a
Biting	-	-	-	-	-	-
Sinus Tract	-	-	-	-	-	-

Radiographic Interpretation: Describe the appearance of the periodontal ligament, lamina dura and surrounding bone. Report any abnormalities within the bone or in the periradicular area. If the radicular portion of the tooth is altered, for instance an immature apex or dilacerated root, state this. Besides interpreting the radiograph, be certain to examine the quality of the radiograph. This is critical. **The quality of the radiograph must be excellent.** It should be as parallel to the occlusal plane as possible, properly exposed and processed, and have no fixer stains, cone cuts, elongation or foreshortening. Besides a straight-on exposure, there should be an altered angle or shift shot exposure of pre-op, working and post-op films, especially for posterior teeth. The same guidelines for excellent quality apply to xeroradiographs and radiovisiography films. Remember, the quality of the radiograph is critical. It is a main source of information for the examiners.

F. **Pretreatment Diagnosis:** There must be a pulpal diagnosis and a periradicular diagnosis. Terminology must be consistent throughout the portfolio and acceptable to the American Board of Endodontics. If it varies from the terminology published in the Glossary of Endodontics Terms, or in the Case History Portfolio Instructions provided by the Board, or those found in a standard endodontic text, identify the source and enter the diagnostic terms along with their definitions on the same sheets as the list of abbreviations. Again, be certain that the candidate uses these terms consistently throughout the case histories portfolio.

G. Treatment Plan:

Emergency: If there was an emergency procedure, explain what was done, e.g., pulp cap, pulpotomy, and trephination.

Definitive: Include the primary treatment, e.g. NS RCT

Alternative: The next best treatment: e.g., S RCT, intentional replantation, extraction

Restorative: Although this part of the treatment plan is just a recommendation to the referring dentist, it is best to put down what the best treatment would be, not necessarily the most affordable.

Prognosis: Ensure the candidate uses favorable, questionable, and unfavorable for the prognosis. This is the system the Board requires. Explain briefly why the prognosis is appropriate based on what factors are present or absent.

H. Clinical Procedures: (Treatment Record)

The treatment record should be very comprehensive, yet PRECISE and CONCISE. It is a chronological record of all treatment rendered. It begins with the initial referral and any emergency treatment rendered. The blood pressure should be recorded at the initial appointment. State that the medical history was reviewed and note any abnormalities. Explain how abnormalities were handled. If any other consultations were required, state this, e.g., referring dentist, prosthodontist, periodontist. Include a copy of the consult, if appropriate.

Give a brief description of the proposed treatment and any complications that might be encountered. Be explicit that informed consent was obtained. For example: “Treatment options were reviewed. The plan included calcium hydroxide to promote apexification. It was explained that this procedure may take a year or longer. If an adequate apical seal could not be accomplished, SRCT would be an alternative. The treatment plan was accepted and potential complications acknowledged.” If a candidate is treating a patient under the age of 18, he/she must be certain to have written consent, from a parent or a guardian, to treat the patient. The adult must fully understand the treatment and potential complications.

Include dosages and amounts of local anesthetic administered, e.g., local anesthesia (LA) (36 mg. of 2% lidocaine HCL with .018 mg. of 1:100.000 epinephrine).
It is preferable to use milligram dosages of anesthetic in addition to a concentration notation such as 1:100,000 epinephrine. Consultation with physician colleagues requires amounts of a drug, including local anesthetics, to be communicated in metric terms. In addition, maximum dosages for individual patients are calculated on the basis of a patient’s weight in metric units (mgs/kgs).

Record any untoward reactions to treatment procedures, e.g., “After injection the pulse rate increased and the patient became faint. The patient was placed in a supine position and O_2 administered at 6 liters per minute until she returned to normal.” If a patient has a reaction to an antibiotic or any other drug, it should be reported along with the treatment rendered.

Be sure to record the type and concentration of irrigant, working lengths, type and method of instrumentation, canal obturation materials and any other medicaments used. Be specific. Make sure all the data is arranged in an orderly, neat, clear and precise manner. Remember, the candidate’s goal is to present a detailed report of the case. Make any appropriate comments on clinical appearance as well as radiographic changes. Include appropriate 2x3 photographic color slides or digital photographs, especially with surgical cases.

Be certain all conventional and/or digital radiographs, photographic slides and /or digital photographs and other pertinent materials are clearly labeled and dated, and that the dates of all materials correspond to the dates in the narrative.

If biopsies were obtained or bacteriological cultures taken, include a copy of the results with the case report form. The Board does not require original copies of the pathology or microbiology reports. A copy of the original will suffice.

The candidate should have emphasized the importance of the recall to the patient at the end of the treatment. Be sure to include this in the procedure section. Have the candidate indicate whether a six month recall was recommended. If there was a need for more frequent recalls, state why this was appropriate.

I. Post Operative Evaluations (1 year minimum)

For recalls, report any radiographic or clinical changes. If the recall was performed by someone else, state this fact. If there have been restorative changes since the endodontic treatment was completed, describe what they were. Although a one year follow-up is the minimum requirement, the longer a case is followed the better. Recall radiographs need to be of the highest quality. Appropriate 2x3 photographic slides or digital clinical photos can be included to demonstrate any clinical observations.

Remember, the recall examination is not a cursory exam. It is a thorough radiographic and clinical examination that elucidates as completely as possible the current state or condition of the tooth and the patient. The recall report should convey to the examiner the results of the thorough clinical exam and the interpretation of those results.

AMERICAN BOARD OF ENDODONTICS
CASE HISTORY EVALUATION FORM

Candidate Number: _____ Prefix #: _____ Date Received: _____

Examiner: _____ Date Mailed: _____

CANDIDATE USE ONLY:
TYPE the Following:

Enter your Candidate Number above

Type the Tooth Number opposite the Required Procedure in column three

EXAMINER'S USE ONLY:
Enter evaluation scores as indicated for each of the three categories.

Excellent	3
Acceptable	2
Deficient	1
Unacceptable	0

Case No.	Required Procedures	Tooth No.	Clinical Evaluation, Diagnosis, Treatment Plan	Treatment, Post Treatment Evaluation	Complexity
1.	**DIAG**				
2.	**EMERG**				
3.	**MED COMP**				
4.	**NS RCT**				
5.	**NS RCT**				
6.	**NS RCT**				
7.	**NS RCT**				
8.	**NS RCT**				
9.	**RETX**				
10.	**RETX**				
11.	**S RCT**				
12.	**S RCT**				
13.	**OTHER**				
14.	**OTHER**				

Case Submission Dates

May 1
October 1

Portfolios are accepted for review twice a year – May 1st and October 1st (portfolios must be received in the Central Office on or before the current submission date (listed above) to be included in that examination review cycle). Notebooks received after the current submission date will not be reviewed until the next submission date provided the candidate's eligibility has not expired.

Portfolio Preparation

Detailed instructions and materials for the Case History Portfolio are sent from the headquarters office. Candidates are required to submit documentation of fifteen specific cases (as outlined in the Case History Evaluation Form) from their specialty practice of endodontics that demonstrate a broad spectrum of diagnostic, treatment, and evaluative procedures, and the ability to manage **complex** clinical problems at a specialist's level. The diversity and complexity of the cases must thoroughly document exceptional knowledge, skill, and expertise in the specialty of endodontics. Each case should contribute added dimension to the portfolio. The portfolio should also demonstrate that the Candidate is practicing the full scope of the specialty of endodontics.

Narrative

The narrative documentation must computer-generated.

It is essential that the narrative include proper and consistent diagnostic terms, acceptable grammar, and correct spelling. Data should be arranged in a neat and orderly fashion in proper alphabetical or numerical sequence. The narrative reports must be complete and prepared according to instructions. Failure to follow instructions is a frequent reason for failure. A cover sheet describing routine policies and procedures and defining abbreviations is permitted. The use of abbreviations is acceptable but should be limited, especially when sufficient space is available on the Case History Report Form.

Medical histories for all cases should document previous and present illnesses, allergies, and medications the patient is taking. Alterations in your normal treatment regimen should be explained and justified. Biopsy reports of surgically excised tissue *must* be included.

It is also recommended that Candidates be specific in providing clinical diagnoses. Most cases require a pulpal and a periapical/periradicular diagnosis and both must be provided. Signs and symptoms are not acceptable as clinical diagnoses. The ABE approved terminology should be used.

All supportive or supplemental materials must be masked to prevent identification of the candidate, institution(s), geographic location, and patient's name (e.g., pathology reports, medical lab reports, kodachromes, and photos).

Radiographs

Radiographs/images must be placed in the order of sequence they were taken. Radiographic/image documentation must be original and of high quality. Copies of radiographs/images are not permitted. The case number, Candidate number and all X-ray dates need to be indicated on the X-ray mount form. Patient names cannot be listed.

It is strongly suggested that a sufficient number of diagnostic quality radiographs/images be presented for each case. Proper film/sensor placement, use of altered angulations to permit visualization of superimposed structures such as canals or roots, and adequate processing are essential. Xeroradiographs/digital images are acceptable as long as the above criteria are met. Interim treatment radiographs/images are suggested but not required. All treated canals must be visible on at least one postoperative radiograph/image.

Digital Images

Guidelines for Submission of Digital Images

Quality and image clarity of digital images are dependent upon three primary factors:

- **Quality and type of paper,**
- **Quality and type of printer,**
- **And overall resolution.**

Digital images submitted **must be of high diagnostic value**, and therefore, must follow the same guidelines used for evaluation of standard radiographs.

A high-grade paper such as document quality paper or photo-quality paper (glossy type) provides exceptional resolution and **is required**. **Thermal paper, thermal printers, and normal copy paper are not acceptable**.

High quality ink jet printers in conjunction with document or photo quality paper have proven to be excellent choices for digital images

The individual size of a digital image should be minimally equivalent to a 2x3 size film but no larger than 5” by 7”. Images larger than 5” by 7” tend to lose their clarity and detail. Images can be printed onto 8 ½” x 11” document or photo quality paper or individually mounted on standard copy paper so long as the mounting medium does not interfere with the respective image. All digital images must be void of any identifying information and must be properly dated and coded by case number and protected with a transparent plastic cover.

Laboratory and Biopsy Reports

Photocopies of laboratory and biopsy reports are acceptable. All supplemental reports must be masked to prevent identification of the Candidate, institution(s), geographic location, and patient's name. All information must be in English, if the original document is not in English, a notarized translation as well as a copy of the original document must be included.

Recall

Clinical evaluations and recall radiographs (one year minimum from the date treatment is completed) are required for *each* case. The required one-year recall must be from the time definitive endodontics was completed. Cases requiring calcium hydroxide therapy require a one-year radiograph recall examination following completion (obturation) of root canal treatment. Cases in the diagnostic category must have an one-year follow-up evaluation regardless of whether endodontic treatment was instituted. The recall evaluation must include a comprehensive narrative including comments on any change in the original condition.

Is the Case Complex Enough for Submission

The following requirements are the basis for scoring

Excellent
Required the highest level of knowledge and technical skill.
Required the highest level of patient management.
Treatment consultations were required.
The treatment sequence was a critical component.

Acceptable
High technical skill required.
Adequate patient management.
Treatment sequence important but not critical.

Deficient
Routine diagnostic and technical difficulty requiring average skills.

Unacceptable
The knowledge and technical skills required were within the scope of the general dentist.

Reviewing the Case History Portfolio before submission

It is strongly suggested that prior to submission a thorough review is completed. Common errors are inconsistent dates. Compare the dates on the front and back of the Case History Report form, biopsy reports, radiographs and/or digital images for consistency with each case.

Guidelines for Submission of the Case History Portfolio

Before submitting your notebook, try using the following guide to thoroughly review your notebook, case by case. This can also be performed by someone that is not a dentist !

Check List

Tooth Identification:

Are the teeth properly identified?

Procedure(s):

Is the procedure properly recorded?
Is the subcategory completed for the three “Other” cases?

Chief Complaint:

Is the patient’s chief complaint noted prior to treatment?

Medical History

Was the patient’s history or medication record considered?
Is the medical history adequate?
Is it documented that appropriate medical consultations were obtained?
Were dental procedures appropriately modified to meet medical problems?
Are all medications documented (include dosages, frequency of dosing and the condition for which the drug is being given)?
Are vital signs recorded?

Dental History

Is the dental history comprehensive – does it provide a thorough synopsis of the patient’s dental history, including symptoms pertinent to the endodontic treatment

Clinical Evaluation (Diagnostic Procedures):

Were the patient’s chief complaint, clinical signs and symptoms, and general dental condition recorded?
Were reasonable and proper diagnostic tests and examinations performed?
Were pre-treatment radiographs adequate?
Were radiographic interpretations consistent with films presented?

Pre-treatment:

Were pulpal and periapical diagnoses consistent with medical, dental histories and results of diagnostic tests?
Were all essential diagnostic procedures properly interpreted?
Has the ABE Pulpal & Periapical Diagnostic Terminology approved April, 2007 been used?
If other terminology was used, is it listed on a cover sheet and were the definitions given?
Have all terms been used consistently throughout the documentation?

Treatment Plan:

Was appropriate emergency and definitive treatment recommended? Was it performed?
Were alternative treatment plans acceptable?
Were appropriate recommendations for post endodontic treatment made?
Was the prognosis consistent with the plan?
Have the following terms been used for the prognosis – **Favorable, Questionable, or Unfavorable?**

Clinical Procedures:

- Was sequencing of appointments and timing of operations reasonable?
- Has it been recorded that informed consent was obtained
- Are dates listed in sequential order?
- Were clinical procedures performed at the highest level of skill?
- Were all essential procedures performed in the appropriate sequence?
- Was emergency care, (if any), appropriate?
- Have the clinical procedures performed been described and justified (where necessary)?
- Does the report indicate if treatment was modified in accordance with the medical and dental history?
- Has the emergency care rendered (if any) been described?
- Have complications encountered (if any and how managed) been described?
- Are the radiographs/images adequate and do they demonstrate quality treatment?
- Does the report contain quality radiographs/images? Films that are too dark, too light, not clear, digitals that are too small should not be used.
- Are their sufficient radiographs? Included should be angled views, working length measurements, cone fits, etc.).
- Does the notebook include radiographs that show, the entire periradicular lesion, what is described in the narrative and all of the canals and their apical terminations.
- Have anesthetic(s) administered and amounts in milligrams been recorded?
- If anesthetic was not used, is it clear why?
- Was the pharmacological management appropriate and justified?
- Was treatment modified in accordance with the medical and dental history
- Have the medications prescribed (including dosages, time intervals, method of administration, and rationale) been included?
- Does the report include the following?
    - Instrumentation techniques
    - Length and size of intracanal instrumentation at each visit
    - Intra-canal irrigants and medicaments,
    - Microbiologic findings (if any),
    - Obturating materials (including sealers) and techniques used,
- Do the reports of biopsy findings and immediate post-treatment history provide a summary of signs, symptoms and radiographic findings?
- Is the application of biologic principles demonstrated?
- Have the canal, working length, master apical file, filling core, sealer, and obturation technique been recorded in the table provided?
- Was overall case management and treatment adequate and justifiable?

Post-Operative Evaluation(s):

- Are recalls one or more years in duration following completion of treatment?
- Are reported results consistent with recall data provided?
- Is long-term prognosis consistent with data provided?
- Are the criteria for healing clear?
- Biopsy was obtained when tissue was removed

General Documentation:

- Is written documentation clear and precise?
- Is data arranged in a neat orderly fashion using correct spelling and proper grammar

Have you recorded dates consistently and accurately?
Does your completed Case History Report form exactly duplicate the enclosed form.
Are each Case History Report forms inserted front to back in page protectors?
If an Addendum page was used is it inserted into a page protector?
Are the radiographs mounted in sequential order, identified with a label maker or white label and inserted into a page protector?
Are all patient, doctor names and identifying locations completely masked at the top, bottom and in the body of the report?
Is the diagnostic quality of the radiographs/images sufficient to derive the information reported?

Complexity

Did this case require the highest level of technical skill?
Did this case require the highest level of patient management?
Did this case require the highest level of expertise in endodontic treatment?

Submission of the Portfolio

Policy requires that the Case History Portfolio is sent to the Central Office of the American Board of Endodontics via certified mail with a return receipt, FedEx, UPS, or other similar services that provide tracking information. Candidates are strongly advised to duplicate and retain a copy of their Case History Portfolio before mailing. While portfolios are circulated by FedEx to Directors of the Board for evaluation, we cannot be responsible for Case History Portfolios lost in transit.

Examination Scoring

The Board has modified the evaluation method for the Case History Portfolios to give equal weight to the components that make up the presentation of a case. Three categories are evaluated for each case presented. The Candidate's clinical evaluation, diagnosis and treatment plan make up the first score. Treatment procedures and post treatment evaluation (recall of at least twelve months) form the basis for the second category. The overall complexity of the case is the third category. This process is completed on each of the fifteen cases. During the portfolio evaluation by three Board Directors, the Candidate's identity is always strictly protected. Evaluation of the fifteen prescribed cases gives the Directors knowledge and insight into the level of the Candidate's diagnostic and clinical skills. The ABE uses a multi-facet analysis performed by an independent testing service. The impact of all facets of the examination is accounted for, including rater severity, case difficulty, and skill difficulty. This provides examination results that are reliable, as well as valid.

Candidate Notification

The Secretary of the Board will notify the Candidate by letter whether the Case History Portfolio is acceptable or unacceptable. The Case History Portfolio will be returned to the Candidate after evaluation. A Candidate has three (3) years to successfully complete the Case History Examination. Candidates who exceed the three (3) year time limit for the Case History Examination, or who fail to pass the examination within two tries, are required to re-apply by submitting another Preliminary Application and are required to repeat the entire certification process. An endodontist can be declared Board Eligible

only two times during his/her career. Candidates are required to pay an annual registration fee to retain their “active” status.

Appeal Process for an Adverse Decision

A candidate who has received an adverse decision on the Case History Examination has the right to seek reconsideration of the adverse decision by filing a timely written request for reconsideration with the Secretary of the Board.

To be valid, the Secretary of the Board must receive the request for reconsideration within 30 calendar days after receipt by the Candidate of notice of the adverse decision. The request must contain a statement of why the Candidate believes that the adverse decision was improper and must include any supporting documentation that the Candidate wishes to have considered as part of the reconsideration. The request must be accompanied by a check or money order made payable to the American Board of Endodontics in the amount of $100 to cover administrative costs associated with the appeal process. This fee shall not be refunded, regardless of the outcome of the appeal.

American Board of Endodontics
211 East Chicago Ave, Ste 1100 Chicago, IL 60611-2691
Phone: 312/266-7310 Fax: 312/266-9982
E-Mail: abe@aae.org

Candidate Pledge

I,_____, certify that the cases submitted in
Please print full name
this portfolio are those that I have treated/managed during my practice of endodontics. No case submitted herein is that of another dentist or endodontist.

_____
*Signature*___

_____
Date

Categories	Pretreatment	Diagnosis and Treatment Plan	Treatment	Post-treatment	Documentation	Complexity
Excellent	Thorough medical and dental history was obtained There was an appropriate review of systems Appropriate medical consultations were obtained and documented Vital signs were recorded Medications were documented (including rationale for prescribing, dosages, and frequency of dosing	Complete and thorough clinical findings were recorded Appropriate diagnostic tests were performed and the results recorded Appropriate radiographs/images and interpretation The pulpal and periapical (periradicular) diagnosis was correct The treatment plan was appropriate Alternative treatment plans was appropriate Possible complications were considered Informed consent was obtained	Clinical procedures were performed at the highest level of skill All essential procedures were performed and in the appropriate sequence Pharmacological management was appropriate and justified Treatment was modified in accordance with the medical and dental history Radiographs/images were adequate and demonstrate quality treatment Application of biologic principles was demonstrated	Appropriate recall intervals were prescribed The clinical examination was complete and appropriate tests performed Results were consistent with the treatment Radiographs/images were appropriate and diagnostic The tooth was adequately restored	The narrative was complete, thorough, and readable with correct spelling and proper grammar The terminology used was consistent with the Glossary of Endodontic Terms and abbreviations were adequately explained The radiographic documentation was complete and of the highest quality Procedures were justified and explained Clinical photographs were of high quality and appropriate The dates and treatment sequencing were accurate	Required highest level of knowledge and technical skill Required the highest level of patient management Treatment consultations were required The treatment sequence was a critical component
Acceptable	Lacking details Minor information omitted that does not significantly affect the treatment and prognosis	The pulpal and periapical (periradicular) diagnosis was correct despite the fact limited diagnostic tests were performed The radiographic examination was inadequate There is missing diagnostic information that does not affect the diagnosis, treatment plan, or prognosis The alternative treatment plans were incomplete	Procedures were performed at a satisfactory level The treatment sequence was not appropriate but this did not affect the treatment outcome Minor procedural deficiencies were evident that do not compromise the outcome Procedures were not sufficiently documented or demonstrated	The clinical examination and data provided was adequate but not complete Results reported were consistent with the data provided The tooth was inadequately restored but noted in the narrative	Minor errors not affecting the interpretation or understanding of the case	High technical skill required Adequate patient management Treatment sequence important but not critical

Categories	Pretreatment	Diagnosis and Treatment Plan	Treatment	Post-treatment	Documentation	Complexity
Deficient	Incomplete medical and dental history Insufficient information that influences the prognosis Insufficient information that influences and/or affects the diagnosis, treatment, or prognosis	The clinical examination was incomplete Appropriate diagnostic tests were not performed Interpretation of the data/radiographs (images) was incorrect Alternative treatment plans were not appropriate or missing The prognosis was inaccurate	Procedural errors were evident that may have affected the outcome Treatment performed was not consistent with the diagnosis and treatment plan as outlined Radiographs/images lack detail and proper interpretation	Misinterpretation of radiographs/images Poor quality of radiographs/images Incomplete clinical examination Failure to recognize the lack of a permanent restoration	Frequent narrative errors Poor grammar and spelling errors Poor radiographs/images Processing errors Lack of medical consultation reports when indicated The lack of biopsy reports when indicated	Routine diagnostic and technical difficulty requiring average skills
Unacceptable	The medical and dental history was not provided Incorrect information was provided Appropriate consultations were not obtained Vital signs were not recorded	No data to justify the pulpal and (periradicular) diagnosis The pulpal and/or (periradicular) diagnosis was incorrect Radiographs/images were improper or of poor quality The treatment plan was incorrect	Major procedural errors Inappropriate treatment Inappropriate pharmacological management Sequence of treatment adversely affects the prognosis Radiographs/images are of poor quality or do not demonstrate adequate treatment Inappropriate application of biologic principles	An appropriate clinical examination was not performed The radiographs/images were inadequate The radiographic interpretation was not correct Appropriate treatment/recall recommendations were not provided There was no recall at least one year following completion of treatment	Incomplete information Information was presented that could not be interpreted The narrative and/or radiographic documentation was not representative of the case	The knowledge and technical skills required were within the scope of the general dentist

Pet Peeves – Case History Examination - ABE *Diplomate* Newsletter

The following list is in order of the most frequently listed peeves by the Directors, the most frequent to the least frequent. Some members of the Board felt compelled to list more than three.

- Poor quality radiographs. Films that are too dark, too light, not clear, digitals that are too small are just a few deficiencies.
- Insufficient radiographs (no angled views, working length measurements, cone fits, etc.).
- Radiographs that don't show: 1) the entire periradicular lesion, 2) what is described in the narrative, or 3) all of the canals and their apical terminations.
- Incorrect diagnostic terminology. You should use only the terms found in the AAE glossary.
- Too much unnecessary information. The Board is not interested in what clamp you used to retain the rubber dam (just that a dam was used) or what bur was used to open an access.
- Not enough necessary information; follow-ups, medication dosages and uses, how calcium hydroxide (if used) is prepared, just to name a few.
- In the medical history, vital signs, pulse pressure, pulse respiration (and temperature if a patient has an infection) are required.
- Pages and pages of introductory material. Keep the introduction short. Keep technique description short. List important abbreviations. Do not write War and Peace!
- Spelling errors! The Case History Evaluation Form does not provide "spell check". An alternative solution is to type your report in a word document and then copy the text and paste into the appropriate section in form. Please remember that "spell check" is a great tool, but it is the responsibility of the writer to present an error free report. Please proof read your report for content and then reproof your report strictly for spelling errors.
- Failing to include in the narrative that a follow-up was done that night or the next day on your emergency patient or the patient that had pain on their initial visit.
- Several complaints about the case category called "OTHER": 1) make sure the case in this category is specialist caliber and 2) explain what the "other" is, i.e. "OTHER-APEXOGENESIS", or "OTHER-PERF REPAIR". Reviewers don't like to guess what the case is all about.
- Radiographs placed in the wrong order in the radiographic mounts.
- Dates on the radiographic mounts that are illegible or hard to see on the mounts. Entries written with a pencil are not legible; therefore please use a white label. Using a label maker or printing out the information on a label (and then trimming to fit the space) makes the radiographic presentation legible.
- Reading extensive pulp testing and diagnostic narrative when a simple chart would do.
- Recall appointments that fall on a Sunday or Holiday. Check those dates!
- The Directors spend considerable time evaluating each portfolio. The candidates put in a great deal of time putting them together. Rushing to meet a deadline will often lead to technical errors, such as failure to date radiographs or using the

incorrect tooth number for a case. These technical errors reduce the score of the portfolio and are easy to avoid simply by using the check list that is supplied. One of the Directors said it best, “My biggest pet-peeve? I really don’t like to give unacceptable scores!” A sentiment shared by all of the Directors!

The most recent circulation of the Case History Portfolios (October 2006) yielded some unexpected results. After enjoying 88% - 95% pass rates, we were disappointed that the October 2006 circulation resulted in a pass rate of 81%. It is time for another Pet Peeves column to help those of you that are in the process of preparing your portfolio for resubmission and for all of you that are preparing your notebook for the first time. Our goals are exactly the same, you want to submit a passing Portfolio and we want to review a passing Portfolio.

Submitting a successful Portfolio requires no additional time in preparation, it simply requires understanding and following the instructions contained in *Case History Portfolio Submission Guidelines.* Additional copies of the guidelines are available on the ABE CD-ROM, the ABE Web-site or can be emailed as a PDF document by request at abe@aae.org.

As was done in the first Pet Peeves article in 2004 (available on the 2007 CD-ROM and ABE Web-site), the directors who evaluate portfolios were asked to send me a list of items that they considered detrimental to a passing evaluation of the portfolio. What follows is a general list comprised of the contributions of each director. There is a disturbing similarity between this list and the one published in *The Diplomate* in 2004 indicating that Candidates are not utilizing the full scope of help that is available to them.

Back by popular demand is this Peeve; not enough radiographic documentation. As Dr. Schindler points out, “Even though the requirements do not absolutely require more than a pre-, post- and recall radiograph, some working radiographs would really strengthen the case, especially in multiple canals in a single root….” Taking multiple views for preoperative films is text book stuff. If you took them, include them. Post-obturation and recalls radiographs must clearly show the apical termination of each canal. Here are some bulleted points from the previous article:

- Poor quality radiographs. Films that are too dark, too light, not clear, digitals that are too small are just a few examples.
- Lack of enough radiographs (no angled views, wire measurements, cone fits etc.).
- Radiographs that don’t show: 1) the entire periradicular lesion if present, 2) what is described in the narrative, or 3) all of the canals and their apical terminations.

Another returnee from the 2004 Pet Peeves article concerns diagnostic terminology. The Board, for consistency sake, would prefer that Candidates use the accepted terminology found the AAE’s 2003 publication of the *Glossary of Endodontic Terms*. As Dr. Fouad states, “There also seemed to be significant confusion with the use of some diagnostic categories such as chronic periradicular abscess, or using older terms like suppurative apical periodontitis or Phoenix abscess.” Wrong or inappropriate terminology gives the impression that the Candidate may have misdiagnosed the case. Make sure your diagnosis fits the facts of the case! A wrong diagnosis is a fatal error.

A troubling trend in the latest portfolio circulation was seen in diagnostic procedures. You must include diagnostic data on all teeth in the affected quadrant or side, where appropriate. Pulp testing only the tooth to be treated is not acceptable. The same is true of radiographic evaluation. When describing the radiograph, include what is seen in the

entire radiograph, not just the tooth in question. And don't forget to mention the extra-oral exam.

The medical history is a must, along with vital signs. Vital signs should include blood pressure, pulse, heart rate and temperature if swelling is present. This omission is another fatal error. A review of systems should be included. The medical history must be thorough. Make sure medications are listed, their dosages, and why the patient in taking them.

Here is a laundry list of other portfolio conditions, omissions and errors that the Board finds disturbing:

- Too much unnecessary information. The board is not interested in what clamp you used to retain the rubber dam (just that a dam was used) or what burr was used to open an access, files used to cleans and shape, etc.
- Not enough necessary information; biopsy reports, how calcium hydroxide (if used) is prepared, just to name a few.
- Prescribing antibiotics when there is no indication for administration.
- Pages and pages of introductory material. Keep the introduction short. Keep technique description short. List important abbreviations. Do not write War and Peace!
- Spelling errors! Please, use the spell check before cutting and pasting into the Case History Portfolio forms!
- Failing to include in the narrative that a follow-up was done that night or the next day on your emergency patient or the patient that had pain on their initial visit.
- Several complaints about the case category called "OTHER": 1) make sure the cases in this category are of *specialist* caliber, 2) make sure all three are different, and 3) explain what the "other" is, i.e. "OTHER-APEXGENESIS", or "OTHER-PERF REPAIR". Reviewers don't like to guess what the case is all about. (Please contact Margie at 312/266-7310 or abe@aae.org for the updated Case History Report form that includes the section **OTHER subcategory** _____ within the form.
- Radiographs in the wrong slots in the radiographic mounts (radiographs must be placed in the order of sequence they were taken).
- Dates on the radiographic mounts that are illegible or hard to see on the mounts. Pencil does not show up, therefore don't use it!
- Writing an extensive pulp testing and diagnostic narrative when a simple chart would do.
- Recall appointments that fell on a Sunday or Holiday. Check those dates! If the appointment was held on a Sunday or Holiday explain that in the narrative.
- Inappropriate dosages of anesthetics

The secretary of the Board, Dr. Carl Newton, does the scheduling of the Portfolio circulation and has this advice about the timelines of submitting your portfolios: "Firstly - waiting until the last minute to meet the deadline results in very avoidable errors... Don't wait until the last minute to prepare it or send it in.

The old adage, "There is only one chance to make an initial impression", is very true when it comes to your Portfolios. Make sure the first two or three case histories in your portfolio are perfect. Set the example for the rest of the Portfolio. All of the requirements for the Case History Portfolios are in the packets of information that Margie Hannen sends out to all Candidates. But keep in mind that for the most part they are MINIMUM

requirements. To paraphrase Harvey C. Fruehauf, go the extra mile with your preparations and they will pay off in the end.

HOW TO GET READY FOR THE ORAL EXAMINATION

No part of the ABE certification process strikes fear in Board candidates to the extent that the oral examination does! Loss of sleep, worrying about forgetting data and facts, fear of total memory loss, concern about saying the wrong thing appearing dumb in front of "important" members of the specialty are all experiences candidates have shared over the years. On the flip side of the coin, when candidates who had just completed the last room during the oral examination were asked what effect preparing and studying for this event had had on them, the answers were uniformly positive: it often changed their philosophy of endodontic practice, improved their treatment skills, made them more confident in their practices, and promoted continued self-improvement.

Getting ready for the oral examination can be enhanced by providing the candidate with good recommendations, dispelling misconceptions, and developing error avoidance strategies. Let us look first at what recommendations you can give the candidate.

1. Be aware of what is expected of an oral examination candidate.

When a candidate knows what is expected, it is easier to prepare. The oral Questions are designed primarily to test the candidate's skills in solving endodontic problems. The majority of problems are clinical in nature, but may also include questions That would require fundamental knowledge about biological principles, research, and research design. Don't worry; these last questions don't require Nobel Prize insight into complex research areas. The intent is to see if the candidate can apply the scientific method to common problems.

The clinical questions pertain to solving the types of situations that are seen in endodontic practice and require the candidate to have factual information to support his/her approach to diagnosing and treating a particular dental problem. The factual information must be evidence based from journal and textbook literature. It helps to cite Specific references, including authors, but a candidate will probably not fail a question because a name is momentarily forgotten. It is also impressive to be able to cite opposing views and indicate which view makes the most sense.

Examination questions cover the scope of endodontics as described in the *American Dental Association Accreditation Standards for Dental Education Programs*. Questions are developed from a clinical case history that is presented to the Candidate. The questions are standardized, weighted and based on competencies that define the level of knowledge expected of Board Certified endodontists. A broad foundation of literature is essential for successful completion of the Oral Examination.

The Examination

- There are three sessions in the examination.
- During each session, the Candidate spends thirty minutes with two Directors/Examiners.
- Each Examiner independently completes a confidential evaluation immediately after every examination session.
- Sessions are audiotape recorded for documentation.

The Process

The Oral Examination requires the Candidate to demonstrate his/her ability to:

- Apply basic and dental sciences to diagnostic and treatment decisions.
- Justify diagnostic and treatment decisions.
- Formulate primary and secondary treatment plans.
- Assess short and long term outcomes.
- Alter patient management because of local or systemic pathologic conditions, psychological status and ethical considerations.

Examples of oral questions:

A. The candidate may be shown a radiograph of a central incisor with a root fracture, given pertinent information, and then asked to make a diagnosis, how to treat, why such treatment is recommended, who has promoted such a treatment approach, and what the expected outcome is.

B. Another question may involve a radiograph of tooth #7 with a large carious lesion that appears to expose the pulp and a large periradicular lesion. Clinically, the patient presents with a canine fossa cellulites and moderate-to-severe pain. The medical history indicates penicillin allergy. The candidate is asked to describe the diagnostic work-up and treatment options. A question such as described above could also include additional questions about alternative antibiotic regimens, potential problems with spread of infection, and management of emergencies. The candidate needs to be familiar with antibiotics, analgesics, pathways of infection, and systemic implications of infections.

C. Surgical Endodontics is obviously an important oral examination topic and may include a question such as this: “This is a radiograph of a mandibular incisor with a large periradicular lesion. The root canal therapy appears acceptable. Describe your treatment options.”

D. Pediatric dentistry also is included occasionally. A sample question: A 40 pound child presents with an acute irreversible pulpitis. Your treatment plan is to perform root canal therapy. The patient is an asthmatic who is hypersensitive to sulfites. How would you manage this patient in regard to the use and maximal dosage of local anesthetic?

E. The oral questions are for the most part case-based. Basic science is applied as appropriate as in the following question: Compare the healing response of a patient with a vitamin D deficiency with one who has no vitamin D deficiency. Assume each patient is undergoing nonsurgical root canal therapy on a tooth that has a large periapical rarefaction.

Case Based Format

- Questions are designed to assess the Candidate’s higher level cognitive skills including problem solving, decision-making, and the abilities to analyze, create and evaluate.
- The questions are based on competencies that define the knowledge base of a Diplomate of the American Board of Endodontics.

Topics

A Candidate will be expected to quote literature references to support his/her statements on the following topics during the examination:

- Radiographic Examination
- Subjective and Objective Examination
- Diagnosis
- Etiology
- Pathogenesis
- Application of Biological Principles
- Treatment
- Complications of Treatment
- Medical History
- Prognosis

Examination Confidentiality

Candidates sign the following confidentiality statement and examination policy on transcribing examination data prior to the examination:

"I understand that the content of the certification examination is proprietary and strictly confidential information. I hereby agree that I will not disclose, either directly or indirectly, any questions or any part of any questions from the examination to any person or entity. I understand that the unauthorized receipt, retention, possession, copying or disclosure of any examination materials, including but not limited to the content of any examination questions, before, during, or after the examination, may subject me to legal action. Such legal action may result in monetary damages and/or disciplinary action including denial or revocation of certification."

Examination Scoring

The results of the Oral Examination are presented to the Directors of the Board by the Oral Examination Committee with a recommendation that those Candidates passing the Oral Examination be certified as Diplomates of the Board. The Secretary of the Board will notify the Candidates by letter whether they passed or failed the examination. A Candidate (who submitted their Preliminary Application on or after January 1, 1997) has two (2) years to successfully complete the Oral Examination. Candidates who exceed the two (2) year time limit for the Oral Examination or who fail to pass the examination within two tries, are required to re-apply by submitting a Preliminary Application and are required to repeat the entire certification process. An endodontist can be declared Board Eligible only two times during his/her career.

Caution: Advise the candidate: If you don't know the answer to a question – say so! There is usually no problem saying, "I don't know," because the examiner can go on to another question. But if the candidate chooses to answer anyway and gives not only the wrong answer, but an answer that if it were to be applied clinically, could be harmful to the patient, then that question would be marked very low by the examiner.

2. Know that questions relate to clinical endodontics, not lists of facts.

The questions for the most part are case-based and related to clinical Endodontics. Factual information about the clinical practice of Endodontics is important, such as anatomical pathways for the spread of infection, drug interactions between medications that may be prescribed and drugs a patient may already be taking, and why

the pulp may need to be extirpated in one trauma case but not in another. The candidate must be able to make a diagnosis based on a variety of facts including radiographs and histological slides. Advise the candidate to develop logical, sound treatment plans for a variety of situations including trauma, orofacial pain and medically compromised patients.

3. Understand how the oral examination is conducted.

The candidate will be examined in three rooms, 30 minutes in each room, by two examiners who more or less divide the ½ hour for questioning. The exam questions are constructed to be objective and are discussed by the entire group of examiners prior to being used. Often a silent observer will be present in the exam room. He/she may be another examiner who is not scheduled for another room, or may be an individual who is slated to join the examination group as an incoming director of the Board. The exam is tape recorded for documentation.

Answers are graded as 3,2,1, or 0 by each examiner. Individual Examiners do not make a pass or fail decision for any single candidate. At the end of the session, the candidates overall performance is evaluated. It is not expected that a candidate will get all 3's during the examination, though occasionally a well prepared candidate may "ace" a room. Candidates should not get upset if they think they failed to answer a question or two correctly – nobody fails an oral exam by missing one or two questions.

4. Mentors: Go through a practice session with your candidate.

It is always a good idea to practice for an oral examination. A mentor who has gone through the process should be able to give a practice examination. The process of answering questions given verbally can be stressful, particularly if the candidate has had little or no experience in taking such an exam. Going through a practice session with a mentor will help to prepare the candidate to be mentally ready for the real thing.

5. Have the candidate practice being relaxed during the stress of the exam process.

During practice sessions, suggest that the candidate take deep breaths before answering questions, force himself/herself to think about the question, and formulate the answer in his/her mind before speaking. The candidate should tell himself/herself to relax, relax, relax. The mentor should paint a positive picture of the oral exam process so the candidate can visualize it in their mind.

6. ADVICE FOR PREPARATION FOR THE ORAL EXAMINATION

A. Don't believe that just because you get good results in your clinical practice that you don't need to prepare for the exam – you do! You need to have a scientific, evidence- based basis for your treatment decisions.

B. Don't wait until a few weeks before the examination to begin preparations; it is better to study a little bit for months before the exam. Don't keep putting it off. . . Just Do It!

C. It is not necessary to memorize formulas and facts that were part of the written exam. It is necessary, however, to know the anatomical and physiological basis for the diagnosis and treatment of endodontic conditions.

D. Remember the examiners aren't waiting to pounce on a candidate for making a mistake; they really do want everyone to pass!

E. Don't try to impress an examiner by citing research or papers published by him/her. Stick to the best sources for evidence regardless of where it comes from.

The following are excerpts of recommendations made by some Diplomates who recently completed the process of certification.

Diplomate #1

I began studying in earnest four months before the exam date. The following regimen worked well for me:

- Start by reviewing your notes, seminars, lectures, and other resource material from your residency to refresh you memory, depending on how long it has been since your residency program or how rusty your are!

- Endodontic textbooks are a good resource:
  Endodontology, Selzer
  Endodontic Therapy, Weine
  Pathways of the Pulp, Cohen & Burns
  Endodontics, Ingle & Bakland
  Surgical Endodontic, Gutmann & Harrison
  Principles and Practice of Endodontics. Walton & Torabinejad

- Past issues of the JOURNAL OF ENDODONTICS are very important. Go back about two years and just read the abstract at the beginning of each article and pay close attention to the discussion and conclusions. You should also backtrack articles from the references given. *Dental Clinics of North America and Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontics* are also excellent sources. If available, go through *Endodontics and Dental Traumatology and the International Journal of Endodontics.*

- Additional books for review or updating that may be helpful include:
  Dental Management Of the Medically Compromised Patient, Little
  Clinical Pharmacology in Dental Practice, Holroyd

- Highly recommend attending annual review courses:
  1. Academic Review of Endodontology, Albert Einstein Medical Center, Philadelphia, PA
  2. Review of the Biologic and Clinical Aspects of Endodontology, University of Michigan, School of Dentistry, Ann Arbor, MI

  Both courses were helpful, but do not rely on them as a solo study guide. Use them as a source to clear up questions you may have.

- Following is a list of topics that I felt most questions were based upon:
    - Inflammation and immunology as applied to clinical cases
    - Pharmacology of the drugs you use routinely
    - Treatment plans and options for medically compromised patients
    - Current literature (not too detailed)
    - Be able to support all clinical treatment with research based data.

- Have someone ask you questions so that you can respond out loud and duplicate the format of the oral exam. Practice your oration and become comfortable with your responses. Have someone quiz you. Index/flash cards/palm pilots are excellent tools. Try to study a few hours a week with someone else who is taking the Board.

- Tape-recording is helpful for some people. Tape yourself and critique your performance while you are on the way to work, driving, etc.

- Talk with someone who has recently completed the Board exam and get their advice

Diplomate #2

- Get in contact with a recent Diplomate and ask for help with organization, study materials, old questions, and plan for a practice oral exam.

- Start 3 months prior to the orals and study a few hours every night.

- Use 3x5 cards and separate the cards by subject

- End every study session by answering a clinical question relating your response to the literature.

- Get a study partner

- Meet once a month on weekends to study with your partner

- Go to the orals 4-7 days early, this allows good concentrated study time.

- Day before the exam – spend the day having fun.

- Remember that you've really never failed anything and you won't fail the orals if you're prepared.

Diplomate #3

- Embrace technology – utilize digital resources to gather, collect, and organize study material.

- Set aside 4 months to study. Take the first month to organize material. 2-3 hrs/day.

- Review your clinical practice and then organize your study material around the techniques and clinical strategies you employ. I.e. Justify your techniques and clinical practice with 2-3 authors.

Use of CO2 snow - 2-3 authors
Crown down technique - primary author
Lateral condensation – 2-3 authors
Use of EDTA – 2-3 authors
Smear layer Vs Non smear layer – authors on both sides of the debate
One shot endo Vs multiple appointments
Interim Ca (OH)2 placement for retreatment cases
Success/failure rates
ETC.

- Study pharmacology and the medically compromised patient.
- Know Trowbridge's Inflammation: A review of the process . . cold.
- Have confidence. . you have what it takes. It's not rocket science; it's much bigger than that.
- Go to Ditka's for dinner the night before, you may meet him. (Chicago in Nov)
- Follow the 5 P's and you WILL pass. (Proper preparation prevents poor performance)

Diplomate #4

- Solicit study materials from recently successful candidates.
- Solicit prior orals questions from previous candidates.
- Read the latest edition of Trowbridge
- Read Pulpal Biology chapter in Walton & Torabinejad (it is condensed)
- Read numerous other chapters in most recent Ingle & Bakland and Cohen & Burns text. I selected chapters on topics in which I felt particularly weak.
- Starting 3 months before the orals, I did the following:
    - Took Fridays off to study
    - Studied Saturday nights and Sundays
    - Quit practice at 4:00 pm daily to study for several hours
- One week before the orals, I:
    - Went to Chicago to adjust to time zone and weather (Chicago is very cold in November
    - Ate very badly
    - Slept very little, especially the night before the exam
- After the orals:
    - Sought immediate appointment with cardiologist to ensure I would live at least until the Board results were received. THEN, PLANNED BIG VACATION WITH WONDERFUL SUPPORTIVE WIFE.

Appeal Process for an Adverse Decision

A candidate who has received an adverse decision on the Oral Examination has the right to seek reconsideration of the adverse decision by filing a timely written request for reconsideration with the Secretary of the Board.

To be valid, the Secretary of the Board must receive the request for reconsideration within 30 calendar days after receipt by the Candidate of notice of the adverse decision. The request must contain a statement of why the Candidate believes that the adverse decision was improper and must include any supporting documentation that the Candidate wishes to have considered as part of the reconsideration. The request must be accompanied by a check or money order made payable to the American Board of Endodontics in the amount of $100 to cover administrative costs associated with the appeal process. This fee shall not be refunded, regardless of the outcome of the appeal.

Pet Peeves – Oral Examination – ABE *Diplomate* Newsletter

As before, the entire Board was surveyed. Each director was asked to list at least three of their most egregious peeves during the orals. It is one thing to list all the "do's" when answering questions, but what about the little things that could be done better to negotiate your way through your three thirty minute sessions without raising the eyebrows of the directors. Hence, the pet peeves. These are not fatal errors, but enough of them and the interviewing Director(s) will have a tendency to view your oral examination less favorably.

The two greatest areas of peevishness deal with literature citations and the pace of the examination process, mentioned by no less than four Directors. The remaining peeves were mentioned by only one or two. So please read on and consider the comments from the Directors.

- References! Use references when indicated or asked for. References are to be used to justify your comments. Unlike the written exam, during the orals there are almost no instances where we ask for a specific author. Failure to use any literature citations to support an answer or uses too many references from the 60's and 70's when more relevant and current literature is available. A candidate should be able to quote the classic literature from our specialty, at a minimum, to support a position. Don't quote "sponsored" speakers as a justification on clinical issues and treatment procedures. Especially if those issues are controversial and not backed up by the literature.

- The second most popular peeve; the candidate that tries to control the pace of the questions. Keep in mind that the Directors must complete all ten sections of their scripted scenario. A candidate that can't completely answer a question should say so and move on. It is not good for a candidate to dwell on the question and then try and answer the question later on. Let it go. On the other hand, do not filibuster. Be concise with your answers. Brevity is a virtue.

- Radiographs…when asked to describe what is seen on the radiograph, leave nothing out! Do not fall prey to tunnel vision and describe only the tooth involved.

- Candidates which have a limited or outdated knowledge of pharmacology. Be prepared to discuss current pharmacology as it relates to patient care.

- The candidate who uses outdated or wrong diagnostic terminology. Use the current diagnostic terminology when asked to make a diagnosis.

- A candidate who fails to ask for the medical history.

- Overall, not having a biologic basis for what they purport to do with a similar case in their office.

A few Directors felt compelled to throw in a few words of advice along with their favorite peeve. This advice includes such hints as: don't be nervous, the Board is there to test

you knowledge and help you through the examination process. Have a positive attitude. Demonstrate confidence that you are well prepared for the exam.

One of the Directors expressed the thoughts of all of us on the Board when he said, “I wish they weren’t so nervous. I have great admiration and respect for their effort.”

We look forward to congratulating each and every successful candidate and awarding them their pin at the Louis Grossman luncheon every year at the AAE Annual Session.

Members of the College of Diplomates would like to echo the above statement. While the journey to Board certification is a rigorous process, the College of Diplomates wishes a successful conclusion to each candidate’s journey. The major purpose of the College of Diplomates is to promote Board certification and assist candidates as they negotiate the process. We hope that this manual has been helpful to both the mentor and the candidate in this quest.