Founded in 1934 the American Board of Orthopaedic Surgery (ABOS) serves to protect and serve the public as well as the medical profession by setting minimal educational standards and testing those individuals who seek certification at the completion of an accredited orthopaedic residency. Since 1986 ABOS certificates that have been issued are limited to 10 years. It has been the practice of the ABOS to offer recertification to its diplomates in order for them to assure the public and profession of their continued qualifications and competence.

The ABOS consists of 18 directors who are chosen from slates nominated by the American Orthopaedic Association (AOA), the American Academy of Orthopaedic Surgeons (AAOS), and the American Medical Association (AMA). Each director serves a 10 year term without salary, donating approximately four weeks per year to board activities. During its annual meeting in September, the Board selected two new directors-elect – Dr. James Kasser of Boston, MA and Dr. Dan Berry of Rochester, MN. Drs. Jeff Anglen and Harry Herkowitz became active directors and are currently participating in the Board’s committee structure. In keeping with the Board’s commitment to serve the best interest of the public, the ABOS appointed its first public member, E. Thomas Sullivan, Senior Vice President and Provost of the University of Minnesota. Mr. Sullivan, a lawyer by education, has served as Dean at the University of Arizona College of Law as well as the University of Minnesota Law School.

During my tenure on the Board I have been impressed with the willingness of my orthopaedic colleagues to volunteer for board activities. Each July more than 140 individuals spend four days in Chicago administering the oral certifying and recertifying examinations. Other volunteers, in collaboration with the National Board of Medical Examiners (NBME), participate annually in the ABOS Question Writing Task Force for the Part I certifying examination and the recertifying examinations. Clearly the work of the ABOS could not be accomplished without the volunteer work of the orthopaedic community. The Board is most grateful to those volunteers.

There is little doubt that the biggest issue facing all 24 medical specialty boards is to assure our public that the profession is providing high quality orthopaedic care. Two reports from the Institute of Medicine during the last five years have identified quality gaps in our health care system. These publications are: (1) To Err Is Human, and (2) Crossing the Quality Chasm. In addition to these reports there has been heightened public awareness regarding the fragmentation of medicine, disparity of health care delivery, and inappropriate utilization of health care in the United States. Accountability to the public is critical because our profession assumes the responsibility for ongoing education, competence, and quality of care rendered by its physicians and surgeons. Failure of the professions’ responsibilities in these ongoing efforts could result in increased governmental control of the standard setting for all caregivers.

Public awareness of the board certification process is increasing. In a recent Gallup poll commissioned by the American Board of Internal Medicine (JAMA, 295:1038-1043) 75% of those individuals surveyed preferred a board certified physician over a physician recommended by a friend or family member, and nearly three-fourths (73%) reported that it was very important that doctors be periodically re-evaluated and examined on their qualifications. To this end, the American Board of Medical Specialties (ABMS), the umbrella organization to which all 24 medical specialty boards belong, has initiated a leadership role in improving the quality of care. This process is termed “maintenance of certification (MOC)” and will be explained in detail by Drs. Luck and Ezaki in a separate article in this issue.
In response to ongoing concerns from public and private constituents, the ABMS created the Task Force on Physician Competence in 1998. This task force focused on methods to evaluate specialists after completion of initial certification. Their report was adopted by the ABMS as a program for maintenance of certification “MOC”. All member boards of the ABMS are required to develop a plan for maintenance of certification (MOC) which will replace the current recertification process. The plan for MOC must address the four components identified by the Task Force on Competence.

- **On-going evidence of professional standing**
- **Commitment to life-long learning and periodic self-assessment**
- **Cognitive expertise**
- **Evaluation of performance in practice**

In 2000 the American Board of Orthopaedic Surgery (ABOS) and the American Academy of Orthopaedic Surgeons (AAOS) formed a Task Force on MOC. This combined task force suggested a plan for the first three components of MOC which was adopted by the ABOS and submitted to the ABMS. The ABMS approved the plan without modification in the spring of 2004. The plan for the fourth and final component, Performance in Practice, was developed by the combined task force and approved by the ABOS Board of Directors in September, 2004. It will be submitted to the ABMS for approval before the deadline in December, 2004.

The first and third components, Ongoing Evidence of Professional Standing and Cognitive Expertise, are unchanged from the current recertification requirements. The second component, Life Long Learning and Self Assessment, is a minimum requirement for continuing education. The final component, Performance in Practice, has been the most challenging for all Boards. As defined by ABMS, the purpose of this component is to demonstrate to patients, the public, and the profession that physicians provide safe, effective, patient-centered, timely, efficient and equitable health care. In the following paragraphs, the current recommendation for each component is described.

**Evidence of Professional Standing**

Professional standing will be assessed utilizing the same credentialing process currently in use for certification and recertification. The diplomate must maintain a valid, full and unrestricted license to practice medicine in all jurisdictions where the diplomate is licensed to practice and must provide evidence of same to the ABOS. A diplomate also is required to report immediately any adverse action taken against his or her license. A diplomate must maintain hospital privileges at a JCAHO accredited institution.

Peer review evaluation forms will be solicited from colleagues currently working with the applicant at institutions where the diplomate has privileges including the chiefs of the surgical, anesthesia, emergency medicine, radiology, and nursing services. In addition, peer review will be solicited from at least five (5) colleagues who are diplomates of the ABOS.

A three-month consecutive patient case list (maximum 75 operative or non-operative cases) will also be part of the credentialing process for all diplomates. Only those candidates taking the oral examination in place of the computer based cognitive examination will be exempt from this initial credentialing requirement. “Best practice” criteria are being developed to assist the credentials committee in evaluation of the case list. The Credentials Committee will continue to have the authority to require a candidate to take the oral examination, or submit to a site visit of his/her practice, if problems are identified in the credentialing process.

**Self-Assessment and Lifelong Learning**

The AAOS and some of the Orthopaedic specialty societies have educational programs and self assessment tools that can be used to fulfill the component of lifelong learning. The diplomate must include ACCME approved CME courses relating to communication skills, patient safety, and professionalism during the ten year MOC cycle. The AAOS-AAOS MOC Task force is working with specialty societies to develop a core curriculum and to ensure the development of adequate courses to meet the components of that curriculum.

**Evidence of Cognitive Expertise**

As currently required for recertification, once every 10 years the diplomate must take and pass a secure examination designed to demonstrate to the profession and the public at large that the candidate is maintaining a sufficient body of knowledge for continuing certification in orthopaedic surgery. The diplomate may apply to take the cognitive examination.

(MOC Continued on page 9)
The ABOS continues to offer multiple pathways to ABOS diplomates for recertification to address issues of improved convenience, candidate examination format preferences, and practice profile specificity. The Computerized General Recertification Examination has been offered for the past 9 years, and this pathway has continued to increase in popularity, with concomitant decreasing interest in the General Written Examination as a recertification pathway. The computerized examinations, by utilizing a large number of testing sites, provide the convenience of multiple site and time options, minimizing travel and time away from practice for candidates. The wide national distribution of the Prometric testing sites ensures that essentially all candidates can take the exam within 50 miles of home. For the past 7 years, more candidates have chosen this option than any other. Other examination formats have included the General Written Recertification Examination, the Oral Recertification Examination, and the Practice Profiled Examinations, the latter being also administered in computerized form. The General Written Examination was administered for the final time at the American Academy of Orthopaedic Surgeons meeting in San Francisco in 2004, and will be replaced by the computerized General Recertification Examination. Therefore, this year and going forward, all examinations will be in computerized format except for the Oral Recertification Examination. This will enhance convenience for the candidates, while helping to control costs for the examinations.

The American Board of Orthopaedic Surgery continues to refine approaches to the Maintenance of Certification process, seeking further improvements, while trying to minimize burdens on candidates. A joint task force consisting of members from the ABOS and the American Academy of Orthopaedic Surgeons has been working together for the past 3 years to explore approaches to Maintenance of Certification. A final plan for Maintenance of Certification, ensuring evaluation of Cognitive Expertise, Professional Standing, Lifelong Learning, and Practice Performance will be presented to the American Board of Medical Specialties for approval this year.

The Practice Profiled Examinations have been offered for several years, with the last addition being the Spine Surgery Examination, available since 1999. The Practice Profiled Recertification Examinations currently offered include Adult Reconstructive Surgery, Sports Medicine, and Spine Surgery. Approximately 40% of the questions on the practice profiled recertification examinations pertain to basic general orthopaedic knowledge, with the remainder pertaining to the specified subspecialty field. It is necessary for general orthopaedic knowledge to be included, since the recertification certificate is for orthopaedic surgery. This concept has been extended to the CAQ recertification process for Hand Surgery during the past year. The Oral Recertification Examination will be given on July 18, 2005 in Chicago, and the computerized recertification examinations (General, Adult Reconstruction, Sports Medicine and Surgery of the Spine) will be available in March and April 2005 at various Prometric Testing Centers. The computerized examination for the CAQ hand recertification pathway will be...
CAQHHANDSURGERY

This was the second year that all of the examinees took a computer-based test. Examinations were administered through local Prometric Testing Centers from August 7, 2004 through September 4, 2004. This format has proven to be considerably less costly and more convenient than the old paper and pencil exam administered on a single day in Chicago.

CERTIFICATION: A total of 88 examinees took the 2004 certification examination including 65 registered by the American Board of Orthopaedic Surgery, 18 by the American Board of Plastic Surgery, and 5 by the American Board of Surgery.

There were 168 items of which 45% were new. Twelve items were deleted from the final scoring because of poor psychometric performance. Psychometric characteristics including reliability coefficient and standard error of measurement were acceptable and were similar to prior years. The average score for the entire group was 78.7% correct. Scores ranged form 53%-97% correct.

Oversight of both the Certification and Recertification Examinations is accomplished by the Joint Committee on Surgery of the Hand which consists of directors from all 3 Boards. A passing score of 66% correct was selected. This score was the same as 2003, but slightly higher than the passing score for 2001 and 2002. The overall failure rate was 4.5% compared to 6.2% in 2004, 8% in 2002, 4.2% in 2001, and 2.9% in 2000. A total of 84 examinees passed and 4 failed the examination. Since 1989, 2221 Diplomates have certified in Surgery of the Hand.

Failure rates by Board were:

- ABOS – 65 examinees – 1.5% (n = 1)
- ABPS - 18examinees – 16.7% (n = 3)
- ABS – 5 examinees - 0% (n=0)

RECERTIFICATION: A total of 91 examinees took the recertification examination; 20 from the American Board of Orthopaedic Surgery, 44 from the American Board of Plastic Surgery, and 27 from the American Board of Surgery. The average percent correct for the total group was 72% which was considerably lower than the 77.3% average for the previous 5 years. A passing score of 64% correct was chosen by the Joint Committee on Surgery of the Hand. Overall, 77 of the 91 candidates (84.6%) passed the exam.

The failure rate by Board was:

- ABOS – 20 examinees – 0% failure rate (n =0)
- ABPS – 44 examinees – 20.5% failure rate (n = 9)
- ABS – 27 examinees – 18.5% failure rate (n=5)

To date, 916 Diplomates from all three Boards have recertified in Surgery of the hand (726 from ABOS).

COMBINED HAND AND GENERAL ORTHOPAEDIC RECERTIFICATION

Please note that the number of ABOS diplomates recertifying solely in hand surgery was considerably less than in the past years. This was because 2004 was the first year that candidates with both a 10-year time limited ABOS certificate and a time limited hand surgery certificate were required to take an exam consisting of 80 General orthopaedic items and 168 hand recertification items for a total of 248 items in order to maintain both ABOS and Hand Surgery certification.

A total of 56 individuals took the computer based combined General Orthopaedic and Hand Recertification exam. As this was the first time for such an examination, standard setting was necessary. Twelve orthopaedic hand surgeons were identified as content experts. They were asked to independently judge a representative sample of 200 items to determine the percentage of borderline or minimally proficient recertification examinees that would answer a specific item correctly. Judges' ratings were averaged across items and judges and a passing score of 69.6% correct was recommended to the ABOS as a passing score.

The mean percent correct for the 80 General Orthopaedic items was 79% and the mean percent correct for the 168 hand recertification items was 80%. The standard setting data was then reviewed by conference call by the ABOS Committee on Recertification and psychometricians from the National Board of Medical Examiners. A passing level of 67.5% correct was set. This resulted in no failures for the combined exam.

SPORTS MEDICINE SUBSPECIALTY CERTIFICATION

In the spring of 2003, the American Board of Medical Specialties approved the application from the ABOS to develop the Orthopaedic Sports Medicine subspecialty examination.

(Continued on page 9)
The RRC met in Boston, Massachusetts from June 26-27, 2004 with Mark C. Gebhardt chairing the meeting. The full committee of Drs. Mark Hoffer, George Lucas, Dempsey Springfield, Richard Grant, Jason Calhoun, John Denton, Michael Goldberg, Scott Porter, our resident member, and myself.

The RRC reviewed 34 Orthopaedic residency programs. There were four proposed adverse actions (proposed probation) and three adverse actions (programs put on probation). One program received full and 20 received continued full accreditation. There were 13 requests for an increase in resident complement. Five were approved and eight were denied. There are currently 152 residency programs (3209 positions total). There are 90 more residents in training than there were at the time of the meeting in June, 2003!

Thirty-four fellowships were reviewed. There were two proposed adverse actions: a proposed probation of a hand fellowship and a withhold application of a sports fellowship. Two programs received adverse actions: one hand and one sports fellowship were placed on probation. Four programs received provisional or continued provisional accreditation. Fifteen programs received full or continued full accreditation. There were five requests for an increase in fellow complement: three were approved and two were deferred. There are 180 accredited fellowship programs (14 Adult Reconstruction, 5 Foot and Ankle, 51 Hand Surgery, 23 Pediatric Orthopaedics, 12 Spine Surgery, 60 Sports Medicine, 6 Trauma and 9 Musculoskeletal Oncology). This is an increase in six fellowship programs since the last review. There are 390 fellows in accredited positions.

The committee reviewed a report for tracking programs with duty hour violations. Six orthopaedic programs have requested duty hour extensions and they have been granted. Of 29 programs that were reviewed, three have received duty hour citations which compares favorably with other specialties. No fellowships have been cited. There is also a more detailed report on duty hours by program for each PGY year. It also includes information about days free of duty, in house call, maximum continuous hours and hours off between shifts. Residents are also completing anonymous questionnaires online relating to the educational environment, duty hours, evaluations of their program prior to site visits.

Common program requirements have been added to residency and fellowship program requirements. In addition a statement on patient safety has been added (“Residents and members of the teaching staff must also regularly evaluate changes that may be made to improve patient safety and reduce the potential for medical errors.”) It has been suggested that fellowship requirements be modified to permit the appointment of fellows who are either D.O.s or individuals who did their orthopaedic surgery training in another country.

The program information forms for fellowships are being modified to be more similar to the format for the residency PIF. Questions will be added to both to better define resident outpatient experience and determine how many patients a resident sees in a clinic or office setting, a more precise question about which conferences residents actually attend and a description of policies and procedures for the recruitment of women and minority students.

The case log system continues to be problematic, although the data are improving. This was discussed at the Program Directors meeting at the AAOS annual meeting in San Francisco and an article will be included in the newsletter. A reminder will be sent at the end of the academic year to all program directors whose residents have not entered data as required.

The specialist site visitor roster was reviewed and modified slightly. The committee continues to appreciate the time and effort that the reviewers devote to this task. As we get more funding from specialty societies, more specialists will be available for fellowship site visits.

We also reviewed submissions of 23 potential candidates for the new resident member on the committee. All were very competitive and it was an extremely difficult decision. After careful review and discussion, Jose Miranda, M.D., M.P.H. was chosen. Jose is a PGY-2 resident in the Army Orthopaedic Residency Program at the Dwight D. Eisenhower Medical Center. He will attend his first meeting in January and replace Scott Porter in the June, 2005 meeting.

The next meeting will be held from January 14-16, 2005 in Las Vegas, Nevada. That will be my last meeting of the RRC. I have also just completed my tour of duty as a Director of the ABOS. So I will bid this readership adieu. It has been a great honor and privilege to serve the ABOS and the RRC and I will miss both organizations tremendously.
Evaluating the initial competence and qualifications of orthopaedic surgeons is part of the mission of the American Board of Orthopaedic Surgery (ABOS). In serving the best interests of the public and the medical profession, the ABOS Written Examination Committee (Drs. Marcus, Anglen, Beaty, Callaghan, Ezaki, Garrett, Gebhardt, Harner, Haynes, Herkowitz, Rosier, Stern, Swiontkowski and Weinstein) is charged with producing the best possible examination to fairly and accurately evaluate candidates for certification as competent.

The 2004 Written Certification Examination was created through the work of over 70 orthopaedic surgeons practicing throughout the United States who represent all subspecialties of orthopaedic surgery. The examination’s production began over two years ago in the summer of 2002, when the Question-Writing Task Force members were given their question-writing assignments. Eight more steps followed: 1) These questions were submitted to the National Board of Medical Examiners (NBME) in December 2002 for editing and review for any technical flaws. 2) The questions were then categorized by content: adult trauma, rehab, adult disease, basic applied science, pediatric trauma and pediatric disease. 3) In April 2003, the Question-Writing Task Force met in Philadelphia to review all of the questions. 4) The NBME reedited the questions and entered them into the item library. 5) In November 2003, the Field Test Task Force met in Chicago to review all questions. 6) The NBME assembled the exam, based on the ABOS content domains and valid question psychometrics. 7) In February 2004, the ABOS Written Examination Committee met and decided on final item selections. 8) In March 2004, the Chairman of the Written Examination Committee and the Executive Director reviewed the final page proofs and gave final approval to the examination.

The Written Certification Examination was administered to 737 examinees on July 9, 2004 in Chicago. The NBME subsequently performed its key validation process and, in consultation with the ABOS Written Examination Committee, deleted any defective items from the examination scoring. In August 2004, the NBME presented the final examination scoring and test psychometrics to the American Board of Orthopaedic Surgery Written Examination Committee, who set the passing standard. This standard is based on the results of an item-by-item analysis and a compromise standard setting exercise performed in July 2004 by the surgeons who are members of the Standard Setting Task Force. The ABOS notified the candidates of the results in September.

Of the 737 examinees, 616 took the examination for the first time and 121 were repeaters. The 2004 examination consisted of 321 items, but 8 items were deleted in the key validation process, so 313 items contributed to the total score.

The passing standard for the 2004 examination was set at 1.13 logits. This is based on the Rasch bank scale which allows for variations in test difficulty as well as variations in the proficiency of examinees from year to year. This standard was equivalent to a percent correct score of 67.1%, with an overall passing rate for all examinees of 87.5%.

The passing rate for United States and Canadian medical school graduate first-time examinees was 96.3%; and, for international medical student graduates taking the exam for the first time, 50%. Of those examinees repeating the exam, the passing rate for United States and Canadian medical school graduates was 45.9%; for international medical student graduates, 20%.

Test psychometrics revealed that the mean point biserial discrimination was 0.16, which means that the questions discriminated well between those who obtained high scores and those with low scores. The KR20 internal consistency reliability coefficient, the measure of how much an examinee’s score would vary across repeated testing with different questions on the same content, was 0.89. The 2.2% standard error of measurement calculated from this KR20 coefficient means that an examinee’s true proficiency...
The ABOS was founded to serve the best interests of the public and of the medical profession by establishing educational standards for orthopaedic residents and by evaluating the initial and continuing qualifications and competence of orthopaedic surgeons. All candidates for ABOS Certification do so on a voluntary basis.

Directors of the ABOS have charged the Credentials Committee with assessing the applicants professional competence and adherence to acceptable ethical and professional standards. The credentialing process is dependent upon ABOS diplomates participating in the candidate evaluation process. The candidate has waived the right to take action for information provided in good faith. State laws also protect peer review information provided in good faith. ABOS liability insurance covers diplomates providing peer review information that is factual, accurate and given in good faith. The candidate evaluation process provides the basis for the ABOS evaluation of continued demonstration of the applicant’s professional competence and adherence to acceptable ethical and professional standards.

The credentialing process for Part I consists of the recommendation of the program director upon successful completion of 54 of the 60 months of required education. Applicants who are in practice at the time they apply for Part I and all applicants for Part II must possess a full and unrestricted license to practice medicine in the United States or Canada or be engaged in full-time practice in the United States federal government, for which licensure is not required.

The credentialing process for Part II includes demonstration of the applicant’s professional competence and adherence to acceptable ethical and professional standards. This process consists of significant peer review by past residency directors under which the applicants trained as well as up to ten diplomates who are familiar with the applicant’s work. In addition the names of the chiefs of staff, surgery anesthesiology, radiology, pediatrics and orthopaedics as well as the head of orthopaedic nursing and the O.R. nursing supervisor are provided by the applicant for all current hospitals, surgical centers and operating facility staff appointments. It is the responsibility of the applicant to ensure an adequate number of applicant evaluation forms are made available to the Credentials Committee.

Applicants with low ratings, or “yes” responses to questions about integrity, substance abuse, or license restrictions are further evaluated by the Executive Director via telephone interviews of the evaluators. The Credentials Committee Chairman and the Executive Director present a slate of candidates to the Credentials Committee for recommendation to the Board as eligible to sit for the Part II examination. The Credentials Committee reviewed 22 of the 717 applicants for the 2004 Part II examination in March 2004 and 704 were allowed to sit for the examination. Six of the applicants were deferred, 3 were denied and 2 had a site visit recommendation. Two were denied waivers of the 22 month practice requirement. Ninety-eight percent of the candidates were recommended to the Board to sit for examination.

Recertification was adopted by the ABOS in 1972 and beginning in 1986 all certificates issued by the ABOS were time limited to ten years. The recertification credentialing process is similar. Candidate evaluations are requests from five certified orthopaedic surgeons who are familiar with the work of the applicant but are not associates. The hospital administrator for each hospital where the applicant practices or has practiced must send a notarized letter verifying staff privileges and dates of practice. Continuing medical education category I documentation for the prior three years must be provided. In a manner similar to the credentialing process for Part II the Credentials Committee provides recommendations to the Board for admission to the recertification process, deferral or rejection.

During its September 2004 meeting the Credentials Committee reviewed 22 of the 1060 recertification applicants and invited 1038 applicants for the 2005 recertification process. Three were denied, 6 were deferred, a site visit was recommended for 1 applicant to determine admissibility to the exam process, and 1 applicant was given the option of a site visit or taking an oral examination. The committee has the option of recommending an oral examination as the only option and this was done in two cases. The Credentials Committee also reviewed 7 active certificate holders whose medical license had been revoked and recommended certificate revocation for 2. Ninety-eight percent of the candidates were recommended to the Board to sit for examination.

The American Board of Medical Specialties (ABMS) of which the ABOS is a member has endorsed Maintenance of Certification (MOC), which replaces the concept of recertification. The four requirements for maintenance of certification are 1) evidence of professional standing, 2) self assessment and life long learning, 3) assessment of cognitive knowledge, and 4) evaluation of general competencies. The member boards are required to evaluate each diplomate during the cycle of MOC according to the six competencies approved by the Assembly of the ABMS: 1) Medical knowledge, 2) Patient care, 3) Interpersonal & communication skills, 4) Professionalism, 5) Practice-based learning & improvement, & 6) Systems-based practice. The ABOS peer review process has already incorporated questions to address each of these six competencies. The ABOS plan for the first three components of our Maintenance of Certification Program for Orthopaedic Surgery has been approved by the ABMS. Our plan for the fourth component was submitted in December of 2004. This plan will no doubt include a case list requirement for recertification. It is quite clear that the peer review process that has been used by the ABOS and its Credentials Committee is completely consistent with the ABMS requirements for Maintenance of Certification.

The active participation of ABOS diplomates has allowed the Credentials Committee to address its charge of assessing the applicants’ professional competence and adherence to acceptable ethical and professional standards.
RESEARCH COMMITTEE REPORT
WILLIAM E. GARRETT, JR., M.D., Ph.D.

The ABOS Research Committee is awaiting the data from the 2004 case selection series for Part II candidates. These data will be delivered in February and compared to our previous data published in the reports for the first five years of computerized data collection. We can spot trends in surgical procedure numbers and rates of procedures per candidate. We can certainly see trends in the candidate data pool which reflect current areas of clinical interest and research. For example, we can see the age and gender distribution of ACL reconstructions and total joint replacements. We can also see the increasing frequency of certain arthroscopic procedures. This year we will look at frequency distribution of patients undergoing common procedures by age to identify the normal and outlying patient age at the time of surgery.

The Research Committee has a longstanding interest in an arthroscopic knee surgery virtual reality simulator. Bob Poss began the project in 1998 and we then partnered with the AAOS. We have found it very difficult to assess performance and outcomes of the candidates performing arthroscopic procedures. The variability among patients, the short period of followup, and the lack of postoperative radiographs as an indicator of performance made evaluation of basic arthroscopy skills a likely area of investigation by the Research Committee. The concept seemed futuristic, but likely to succeed with time. However, it seemed that it could never be used as a testing device unless candidates had an opportunity to train with it.

The AAOS Task Force on Virtual Reality includes several ABOS members. Touch of Life Technologies (TOLTEC) has developed a knee arthroscopy simulator with a SBIR grant from the NIH, considerable funds of their own, and extensive input from the orthopaedic community. This year it will be placed in a number of orthopaedic residency programs and tested against traditional training. The knee can be flexed and stressed and realistic arthroscopic images are obtained. The arthroscope and a probe both have haptic feedback providing a realistic “feel” to the system. What seemed to be impractical and far in the future has progressed rapidly with the Task Force on Virtual Reality.

LETTERHEADS AND YELLOW PAGES
G. PAUL DEROSA, M.D., EXECUTIVE DIRECTOR

You may think it odd that I am writing a piece on a topic such as “letterheads and yellow pages” advertisements, but these two areas cause the Board and its Credentials Committee major concerns each year.

Many years ago no self-respecting doctor would advertise his/her practice in the yellow pages. This was something done by other professions, but not medical practitioners. However, the Federal Trade Commission changed its guidelines and allowed individuals to advertise as long as what was published was true and accurate. Herein lies the problem. Many groups of orthopaedic surgeons, or for that matter any physicians group, have individuals who are board certified, individuals who are in the process of becoming certified, and individuals who are not certified. If a group’s yellow pages advertisement is constructed such that it appears that all the individuals in the practice are certified, it is misleading to the public and may be construed as false advertising. There have been numerous occasions each year where individuals applying to take the certifying exam are delayed because of such misrepresentation. The Board urges each and every orthopaedic group to carefully review its advertisements to be certain that the public is not being mislead.

The same is true when advertising “fellowship” education. The American public believes that when a subspecialty fellowship is advertised, the necessary education to achieve it has been obtained. The required subspecialty training taken during residency is not considered fellowship training by the Board or the Accreditation Council for Graduate Medical Education (ACGME) and should not be advertised as such. Only education obtained after residency to gain special knowledge in an area of orthopaedics recognized as a subspecialty is considered to be post-residency education.

Office stationery often presents a problem similar to yellow pages advertisements when there are some individuals within a practice who are certified, but others who are not. It should be clearly stated on office stationery who in the practice is Board certified, or a member of the Academy, etc., otherwise the public may misinterpret a practitioner’s credentials and believe someone to be Board certified when he/she is not.

Please remember that the purpose of the American Board of Orthopaedic Surgery is to serve the best interests of the public by establishing educational standards and by evaluating the qualifications and competence of orthopaedic surgeons.
after the sixth year following most recent certification. The diplomate will be approved to take the cognitive examination after successful completion of all of the other three MOC components: Professional Standing, Self Assessment and Lifelong Learning, and Performance in Practice. The ABOS will offer the same six alternatives for completion of the cognitive expertise that are currently offered for recertification. They are:

1. Computer administered general orthopaedic examination
2. Computer administered orthopaedic practice-profiled examination in: adult reconstruction, orthopaedic sports medicine, spinal surgery, surgery of hand, (available only to those individuals who hold a Certificate of Added Qualifications in Surgery of the Hand.)
3. Practice based oral examination, (available only for those individuals in the active operative practice of orthopaedic surgery.)

Surveys of ABOS oral examiners, the oral examinees, and the ABOS directors, consistently reveal the opinion that the oral examination is the fairest, most valid and accurate method to evaluate practice performance. A survey of 3,000 AAOS members reached the same opinion but also the belief that the oral examination pathway was the most onerous. Diplomates who choose the Oral Examination pathway are required to submit a six-month case list, and then assemble all records and images for the 10 selected cases for presentation to three pairs of examiners. Diplomates who choose this pathway will be exempt from the three-month case listing for the credentialing process.

Assessment of Performance In Practice

Practice Performance will be assessed with peer review and patient surveys. The credentialing process involves extensive peer review as described in the section on Professional Standing. Two patient survey instruments are being considered. One is a well established, nine question patient satisfaction survey developed by the American Academy of Orthopaedic Surgeons. An extensive database is available for this instrument that will allow comparisons stratified for practice type and demographics. The other instrument is under development by ABMS to assess surgeon to patient communication. The ABOS will require documentation that the patient surveys were completed but will not see the results which are for the diplomate to use in continuous quality improvement of his/her practice. Both patient surveys will be completed during the first half of the 10 year MOC cycle. It is anticipated that many diplomates will elect to repeat these surveys more frequently than every ten years to assist in assessment of their practice performance and improve patient satisfaction.

Diplomates who fail to complete the performance in practice component will be required to take the oral examination.

Those orthopaedic surgeons not engaged in the operative practice of orthopaedic surgery will be required to complete the first three components of MOC. However, those involved in direct patient care must complete all of the elements of MOC including practice performance, i.e., patient surveys and a case list. Those non-operating orthopodists who do not have direct patient contact will be required to notify the American Board of Orthopaedic Surgery should they resume patient care and will then be required to completed all of the elements of practice performance one year following their return to patient care.

The MOC program will be gradually phased in over several years beginning in 2007. The new maintenance of certification program emphasizes periodic self-assessment and practice assessment. The philosophy behind MOC is a focus on continuous quality improvement. Its goal is to advance the specialty as well as to assure the public that certified orthopaedic surgeons are keeping current and providing quality patient care.
The Part II Oral Examination of the ABOS was administered in Chicago July 13-15, 2004, to 698 candidates who had previously passed the Part I Written Examination and had been in practice for a minimum of 22 months. Overall, 594 (85%) passed the examination. 104 candidates (15%) failed the examination. This compares with a passing rate of 92% in 2003, 89% in 2002, 86% in 2001, 90% in 2000 and 1999, 91% in 1998, and 89% in 1995-1997.

The Part II Oral Examination is a practice-based examination. The candidate is asked to present up to ten cases selected from his practice based on a six month computerized case list. The total number of operative cases for the 698 candidates was over 89,000 (an approximate average of 130 surgeries per candidate over a six month period). The case list submitted to the Board is reviewed by Directors of the Board and selected oral examiners to identify twelve potential cases for the examination. The internet-based data collection system (SCRIBE) has been functioning well for three years and simplifies the collection of cases for the candidates. Starting in 2002, the candidates were instructed to use the CPT codes that they used for billing of these surgeries in their entry of cases on the SCRIBE system.

The examination is one hour and forty-five minutes in length divided into three 35-minute segments with a five-minute break in between each segment. During each segment, the candidate is examined by two examiners who are matched to the candidates for areas of stated expertise. For example, if a candidate identifies his special area of practice as spine surgery, at least one of the two examiners is a practicing orthopaedist who dedicates a significant part of his or her practice to spine surgery. The examiners are provided the complete case list as well as graphic analysis of the candidate’s practice profile and complications.

The decision on pass/fail is based on the candidate’s performance as assessed independently by the six examiners without any caucus of the examiners. For each presented case, the candidate is graded on data gathering, diagnosis and interpretive skills, treatment plan, technical skills, outcomes, and applied knowledge. At the conclusion of each segment, the examiners grade the candidate’s handling of surgical complications. Each candidate therefore receives approximately 100 to 130 grades which are averaged and adjusted based on the known severity or leniency of the examiners.

A number of changes are being introduced for the oral examinations. The Oral Examination Committee is working with a number of consultants to develop improved definition and assessment techniques for ethics and professionalism. A large number of new examiners are being recruited and educational methods are being developed to enhance the training of these oral examiners. Directors of the Board sit in on the examinations as observers and evaluate the examiners’ performance. The Committee is working on more useful ways to provide feedback to the examiners on how to improve their testing methods. In addition the Oral Examination Committee is working to assure HIPAA compliance while making the process as least onerous as possible and to incorporate the use of digital images used by many of the candidates.

Unlike the Part I Written Examination which tests exclusively orthopaedic knowledge, the Part II Oral Examination tests the application of knowledge, diagnostic acumen, surgical techniques, outcomes, and ethics and professionalism. Practice-based oral examinations thus more accurately reflect a practitioner’s competence and will remain an essential part of future certifying examinations. The Oral Examination Committee is trying to incorporate all of the six core competencies outlined by the ACGME to include communication/interpersonal skills, professionalism, ethics, patient care, knowledge, systems-based practice, and practice-based learning and improvement.

In September the Board voted to provide to the residency programs and candidates the rating definitions for the various categories by which candidates will be evaluated and graded. These will be made available in the near future from the Board office or program director.

### 2006 PART II EXAMINATION SCHEDULE

APPLICATION - Available June 1 online at www.abos.org
EXAMINATION - July, 2006, Chicago, IL
Deadline to apply: October 31, 2005

<table>
<thead>
<tr>
<th>Part II Pass/Fail Rates - Past 5 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Part II - passes</td>
</tr>
<tr>
<td>Part II - fails</td>
</tr>
<tr>
<td><strong>Total Candidates</strong></td>
</tr>
</tbody>
</table>
ATTENTION DIPLOMATES ... We need your help!!!

The following pages list candidates for Part II of the certifying examination for 2005. In an attempt to enlarge our peer review of candidates, we ask that you review this list and submit comments on persons whom you know, in regard to their competence to sit for the exam. Good faith comments, in the process of peer review, are privileged and provide a focus for the credentials committee review.

Please address your information to the attention of the Credentials Committee at ABOS, 400 Silver Cedar Court, Chapel Hill, NC 27514.
Ayers, Michael Edward
Herbst, Steven Arthur
Jerman, Joseph Gerald
Khanna, Nitin
Page, Mark C.
Retting, Lance Arthur
Sassmannshausen, Singh, Kirnjo
Stewart, Renae Lorraine

IOWA
Estes, William James
Hatfield, David Earl
Hill, Gregory Rex
O'Rourke, Michael Richard
Wolf, Brian Robert

KANSAS
Ciccarelli, John Michael
Cook, Scott Michael
Glatte, Rudolph
Kazaglis, Jeffrey Anthony
Sweeney, Todd Allen

KENTUCKY
Balkian, Philip
Djurascovic, Miaden
Hamidian, Masoud
Heilig, Michael Ronald
Mick, Timothy John
Moran, Brion Patrick
Murhead, William Rowe
Pallis, Mark Peter
Rizk, Wagdy Salib
Wilson, Timothy Chandler

LOUISIANA
Blissay, Peter Benjamin
Boucreu, Joseph Bernard
Broyles, Joseph Edison
Charlick, Daniel Alexander
Devraj, Timothy
Espinoza, Luis Manuel
LaSalle, Michael Avery
Loup, Chad Louis
Palo, Matt W.
Taibert, Timothy
Williams, George

MAINE
Matthews, Sacha

MARYLAND
Berkendilt, Scott Ira
Cashman, Justin Lauren
Ciotola, Joseph J.
Farber, Daniel Charles
House, Hugh Oggood
Kim, Emery Loren
Kuhn, Michael Alan
Lemma, Mesfin Aklilu
Mears, Simon Cavendish
Mess, Charles Francis Jr.
Osman, Saidi Goto
Scopp, Jason Matthew
Solomon, Harrison Bowles
Tassy, Leonard Fritz
Tortolani, Paul Justin
Valaik, Daniel Joseph
Winakur, Richard David
Yadav, Melissa Ann

MASSACHUSETTS
Ayers, Michael Edward
Beverley, Laurel
Bley, Louis Alexander
Burke, Thomas Francis
Chase, Joseph Edward
Choi, Richard
Christiano, Arthur
Cook, Marcus Peter
McGlowan, James Thomas
McLaughlin, Robert
Miller, Suzanne Laura
Murray, Martha Meaney
Rajan, Sivaram Gounder
Raskin, Kevin Andrew
Rauk, Darlyne Anthony
Stanwood, Walter Gales
Worman, David
Young, Serena Jade

MICHIGAN
Endres, Terrence John
Henry, Julie Lynn
Lovell, Randy FR
Meehan, Robert Edward
Mendelson, Stephen
Morren, Robert Dale
Roberts, Karl Christopher
Rowe, Bruce Arthur

MINNESOTA
Aadalen, Kirk Jerome
Anderson, Robert Otis
Coezette, Johannes
Dennon, David Gary
Harris, Dana Jon
Huddleston, Paul Manuel
Karlstad, Ryan Richard
Krus, Cyril F.
Meyer, Christopher Patrick
Meyer, Nicholas Joseph
Namakura, Shawn Jett
Switzer, Julie Ann
Weiss, Nicholas Gregory

MISSISSIPPI
Brandon, Scott Craig
Kobayashi, Ky Masami
Mithalko, Marc Jeffrey
Ragab, Ashraf Ahmad

MISSOURI
Belmont, Philip James Jr.
Burnett, R. Stephen J.
Farley, Timothy Dempsey
Frankel, Edward Scott
Garcia, John Angel
Garrison, Robert Leo II
George, Santan
Hockman, David Eugene
Irwine, David William
Lingenfelter, Erich Jurgen
Milne, Michael John
Nagamani, Kevin Karthik
Rutz, Kevin Douglas

MONTANA
DuMontier, Timothy Albert
Hassing, David E
O'Brien, Timothy

NEBRASKA
Andres, Brett Michael
Burd, Timothy Andrew
Farrell, Daniel Christopher
Inda, David John
Keiser, Darren Robert
Lawson, Keith Winston
Scheer, Bryan Eric

NEVADA
Ashman, Edward Saul
Kieckbusch, Travis David
Lee, Daniel Dong-Whon
Nevins, Russell Todd
Olson, James Heber
Raemisch, Michael Ernest
Robertson, Daniel Todd

NEW HAMPSHIRE
Brunnett, Russell
Casey, Patrick John
Guigues, Ashaf Faaka
Michael, Ronald
Wiley, Jeffrey William

NEW JERSEY
Alberta, Francis Gerard
Bernstein, Adam Douglas
Chang, Richard
DeMorat, Eugene John
Gaffney, John Thomas
Marcus, Alexander Michael
Moucha, Calin Stefan
Parks, Anthony Lesmore Sr.
Patel, Deepak Valji
Patel, Nilesh Jotaram
Pollack, Michael Edward
Rojer, David Eli
Stamos, Bruce Dumont
Tucker, Bradford Schofield
Zawadsky, Mark William

NEW MEXICO
Allen, Douglas Charles
Garard, Markus
Passarelli, Ralph William
Patton, Matt Wayne
Ray, John David
Richards, Allison
Schillen, Jack David

NEW YORK
Baker, Ronald Williams Brahmbhatt, Vikram
Daluiiski, Aaron
Elkowitz, Stuart Jay
Feldman, Hal Douglas
Fischer, David Michael
Goldblatt, John Philip
Hansen, Thomas Eric
Hofstetter, Emmanuel
Ilan, Doron
Kassapidis, Elias
Katz, Danielle Andre
Katz, Victor
Kerner, Paul Jason
Kupersmith, Lee Matthew
Kwon, Young Wan
Mason, Paul Jerome
Maurer, Stephen Greg
Mohrmann, Mark Joseph
Neuman, David Torten
Polatsch, Daniel Barrett
Puopolo, Steven Michael
Razi, Afsahn Eli
Reish, Timothy George
Roberts, Matthew Martin
Rovner, Aron David
Roye, Benjamin David
Ruotolo, Charles James
Shapiro, Michael Bennett
Shen, Wen
Shubin Stein, Beth Ellen
Singh, Krishna Anjali
Stracher, Michael Alan
Sultan, Peter Glenn
Title, Craig Ives
Wind, William Michael
Zaret, David Ian
Zmuko, Matthew George

NORTH CAROLINA
Baker, Jeffrey Alan
Barnes, Christopher John
Barrie, Kimberly Ann
Belanger, Theodore
Bradley, Raymond Jordan
Cooper, Ellis O'Neal
Deo, Gurvinder Singh
Deese, James Christian
Echols, Eddy Lewis Jr.
Flowers, George Adam
Greenlaw, Paul R.
Harris, Timothy Edward
Hickey, Derrick Gerard
Homesley, Howard David
Ledford, Cheryl Lynn
McClurig, Joel C.
McHale, Patricia Lynn
Meinberg, Eric Grant
Milam, R. Alden IV
Parikh, Jay Ramanlal
Peak, Edwin Louis
Piedrahita, Luis Alberto
Yenni, Lawrence Jon

NORTH DAKOTA
Benaisa, Rafik
Friederichs, Matthew
Lantz, Steven William
Matthys, Gary Alan
Nelsen, Matthew John

OHIO
Berend, Keith Robert
Chunduri, Jaideep
Eisler, Jesse Grant
Hellmann, Joseph
Malik, Krishna
Mandel, Irwin Michael
Pfieffer, Laura Senunas
Scheel, Michael John
Snook, Derek Lee
Westerheide, Kenneth
Zanotti, Daniel James

OKLAHOMA
Connolly, Brendon R
Edmonds, William Bentley
Ertl, William John Joseph
Jameson, Bretton Howard
Kiehn, Michael Edwin
Moses, Mark Robert
Painter, Carl F. III
Stubble, Scott Nicholas
Thomas, Richard Doyle

OREGON
Adams, Bradley Scott
Askew, Aaron Eugene
Ballard, James Covey
Bloom, Heidi Taylor
Gingold, Brett Ian

PENNYSYLVANIA
Anderson, Stuart Douglas
Armstrong, April Dawn
Banco, Stephen Patrick
Chamberlin, Eric
Chin, Kingsley Richard
Colleran, Kevin R
Daniel, Joseph Nicholas
Deitch, John Richard
Desmond, Mark
Hasselman, Carl Thomas
Hirsh, Laurie Ellen
Holden, Candice Pfeiffer
Kubiak, Nicholas Joseph III
Lebby, Eric Brian
Ogilvie, Christian McKay
Parvizi, Javad
Reinolds, Dermot Michael
Richards, Richard Stephen
Shilling, Jack Watkins
Sizensky, Joseph Albert
Sullivan, Anne Cecilia
Tyndall, William Andrew
Worries, Gerard Joseph
West, Robin Vereeke
Widmaier, James Carl Jr.
Wolfe, Raymond Michael

PUERTO RICO
Reina, Ricardo Jesus

RHODE ISLAND
Huntington, Christopher
Pavlovich, Raymond Jr.

SOUTH CAROLINA
Adams, Michael Louis
Carter, Ty William
Clark, Christian Christian
DeHoll, Paul Douglas
Hibbitts, John McCartney
James, William Cleveland
Jarosz, Todd Stephen
Kneidel, Matthew Thomas
Mazoue, Christopher
Stem, Eric Steven

SOUTH DAKOTA
Murrell, William Delany Jr.
Rieber, Gerald Michael
Sanchez, Gonzalo Henry

TENNESSEE
Babat, Lawrence Brett
Bell, Todd Douglas
Davis, Paul Allen
France, Jeffery Jay
Gladdwell, Heather Anne
Hutchison, Jason Todd
Jasko, John Joseph
Morrison, Jefferson Craig
Oros, William Robert
Stewart, Gregory L.
accomplish the goals of the American Board of Orthopaedic Surgery. Ultimately our patients and our profession will benefit from this initiative. Supportive of our efforts has been particularly helpful in the Academy (AAOS) and the American Board of Orthopaedic Surgery (ABOS) for applications for the recertification examination by any of the written examination, and the Part II oral examination as well as for recertification to the MOC process has occupied much of the Board’s time and talents. During this time the Academy (AAOS) has been most supportive of our efforts and has been particularly helpful in the areas of assessment of practice performance and life-long learning. Ultimately our patients and our profession will benefit from our dedication to the maintenance of high standards for the certified orthopaedic surgeon.

As you read on in this newsletter, you will also find reports written about the various ABOS committees that have been active this year in producing the recertification examinations, the Part I written examination, and the Part II oral examination as well as reports from the Research Committee and the Committee on Graduate Medical Education.

Finally, I would like to reiterate that the mission of the ABOS could not be accomplished without the efforts of more than 200 surgeons who unselfishly devote many hours to help accomplish the goals of the American Board of Orthopaedic Surgery. In addition I would also like to thank the staff of the ABOS office in Chapel Hill for their help in overseeing the many facets of the Board’s mission.

The total number of candidates taking recertification examinations in 2004 was 740. A total of 129 candidates took the General Written Examination, all of whom passed. Of 291 candidates who chose the computerized general written examination, 285 passed. Fifty-four candidates took the Adult Reconstructive Surgery Examination, 40 passed. Of the 71 candidates who took the Spine Surgery Examination, 70 passed. Fifty-six candidates took the CAQ hand combined recertification pathway, and all passed. Of the 71 candidates who took the Spine Surgery Examination, 70 passed. Fifty-six candidates took the CAQ hand combined recertification pathway, and all passed. Of the 45 candidates who chose the Oral Recertification Examination, 40 passed. Overall, of the 740 candidates examined in 2004 was 740. A total of 129 candidates took the General Written Examination, all of whom passed. Of 291 candidates who chose the computerized general written examination, 285 passed. Fifty-four candidates took the Adult Reconstructive Surgery Examination, 40 passed. Of the 71 candidates who took the Spine Surgery Examination, 70 passed. Fifty-six candidates took the CAQ hand combined recertification pathway, and all passed. Of the 45 candidates who chose the Oral Recertification Examination, 40 passed. Overall, of the 740 candidates examined in 2004, 728 passed, or 98.4%. Future candidates should be aware that the Oral Recertification Examination continues to have the lowest pass rate of all the examination pathways. The passing rate on the Oral Recertification Examination was 89% this year, and in recent years has ranged from approximately 85 to 95%.

Candidates for recertification should apply as soon as they are eligible to do so, to give themselves the maximum number of chances to pass the examination within the 10-year window of the certification period. It is also important to note that the deadline for applications for the recertification examination by any of the available pathways is the 1st of May the year preceding the examination.
If your ABOS Certificate expires between 2006 and 2009


Once an application for recertification is approved, it is valid for four years. (However, it does not extend the expiration date on your certificate.)

The four examination pathways for recertification are:

1. Computer Administered General Clinical Examination which emphasizes general clinical orthopaedic knowledge.
2. Computer Administered Practice-Profiled Examinations which include Adult Reconstruction, Sports Medicine, and Surgery of the Spine.
3. Practice Based Oral Examination which is based on the candidate’s practice using his/her case lists.
4. Combined-Hand Examination which is available as a recertification pathway to diplomates who have a CAQ in Hand Surgery. Candidates who wish to use this pathway must first apply for recertification as with the other pathways. More information is available online at www.abos.org.

Peer review and documented relevant continuing medical education are part of the application process.

Diplomates may obtain an application for the 2006 recertification examinations by going to the ABOS website at www.abos.org.

CME NOTIFICATION !!!

The ABOS has recognized the importance of continuing medical education by requiring it as a part of all pathways leading to recertification.

Applicants for recertification must have received 120 hours of Category I continuing medical education credit during the three-year period prior to the date of filing an application for the examination. These hours must be documented by the issuing body or agency.

Applicants for the 2006 recertification examination may submit CME hours obtained between January 1, 2002 and May 1, 2005.

ABOS Directory Goes Online

Many of you regularly purchased the American Board of Orthopaedic Surgery’s Directory of Diplomates, our annual publication listing orthopaedic surgeons currently certified by the American Board of Orthopaedic Surgery. While we have discontinued the Directory as a publication, the information is now available on-line at no charge. You can search for physicians by name or location. Just go to our website, www.abos.org and click on the Directory tab.

ABOS Staff Directory
919-929-7103

G. Paul DeRosa, M.D. Ext. 208
Executive Director

Cynthia Crummey Ext. 208
Executive Assistant

Kathy Clark Ext. 214
Accountant

Patti Scalf Ext. 213
Administrator

Patsi Furr Ext. 215
Part I & RRA

Denise Frazier Ext. 201
Part II

Robin Wells Ext. 202
Recertification & CAQ

Denise Scarboro Ext. 200
Administrative Assistant