Patient safety

Part I. Patient safety and the dermatologist

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Congress is grappling with ways to fund health care in the future. Much of the focus rests on paying physicians for their patients' outcomes, rather than the current system of payment for services provided during each visit. The years ahead will be years of change for American health care, with an increasing emphasis on the comparison of patient outcomes and measures of quality. Patient safety initiatives will be an integral part of the overall strategy to improve American health care. Part one of this two-part series on patient safety examines what we know about patient safety in dermatology, including data from medicolegal claims and published data on patient safety in the setting of office-based surgery. The article also focuses on how medical societies, payers, the US government, and the Board of Medical Specialties are responding to calls for accountability and improvements in patient safety. (J Am Acad Dermatol 2009;61:179-90.)

Learning objectives: After completing this learning activity, participants should be able to identify risks to patient safety based on an understanding of the major causes of legal claims against dermatologists, use published patient safety data to improve the practice of office surgery, and be able to improve patient safety through an understanding of requirements for maintenance of certification.

Key words: patient safety; quality; certification; surgery.

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Funding sources: None.

Conflicts of interest: The authors, editors, and peer reviewers have no relevant financial relationships.

Reprints not available from the authors.

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0190-9622/$36.00

doi:10.1016/j.jaad.2009.04.056

The American Academy of Dermatology (AAD) patient safety initiative began in New York on August 4, 2007, with an "Issues in Dermatology" Summit Conference on Patient Safety. The summit brought together a group of dermatologists and others who had an interest in patient safety and quality. The keynote speakers were Jeffrey B. Cooper, PhD, of the Anesthesia Patient Safety Foundation, William H. Beeson, MD, of the Indiana Medical Board and National Patient Safety Foundation, and James N. Thompson, MD, of the Federation of State Medical Boards. The proceedings of the summit led to the appointment of an AAD Ad Hoc Task Force (AHTF) on Patient Safety and Quality (PS&Q) in March 2008. The charge for the AHTF was to define the current state of patient safety in dermatology, evaluate existing AAD activities, identify gaps and priorities, and recommend changes in the existing portfolio.

The work of the AHTF resulted in the development of a Strategic Plan for Patient Safety and Quality

that was approved by the AAD Board of Directors on November 1, 2008. A standing AAD Committee on PS&Q replaced the AHTF in March 2009.

Patient safety issues outlined in this manuscript are currently under discussion by the Committee on PS&Q and include the following issues: medical liability/risk management, the safety of office-based surgery, the safe delivery of dermatology care, PS&Q initiatives in the House of Medicine, PS&Q data collection, and board certification and maintenance of certification (MOC). These are issues that will be critical for dermatologists and their patients in the years ahead. Part one of this two-part continuing medical education article provides background information on national patient safety trends and how they affect the dermatologist. Part two focuses on strategies that can be used by individual physicians to promote patient safety in their offices.

CAPSULE SUMMARY

- In the years ahead, we will witness major changes in American health care.
- There will be an increasing emphasis on comparison of patient outcomes and measures of quality.
- Patient safety initiatives will be an integral part of the overall strategy to improve American healthcare.
- The American Academy of Dermatology, the most recognized and respected organization representing dermatology and the patients we serve, will play an active role in developing a strategy to improve patient safety and gather data on clinical effectiveness and patient outcomes.

MALPRACTICE LIABILITY RISK MANAGEMENT, PATIENT SAFETY, AND THE DERMATOLOGIST

Key points

- **Understanding malpractice risk and risk management protects both the patient and the physician**
- **Malpractice data can be used to focus safety efforts on the most common medical errors**
- **Data regarding malpractice claims against dermatologists are available from The Physicians Insurance Association of America**
- **The number of closed claims against dermatologists is few and has remained relatively constant for the past 21 years**
- **The most common diagnosis cited in claims against dermatologists is "no medical misadventure"**
- **The second most common diagnosis cited in claims against dermatologists is improper performance of an operative procedure**

The public's concern for patient safety was thrust onto the public stage with the release of the Institute of Medicine's 2000 report on medical error, *To err is human: Building a safer health system*.[1] This report made headlines, citing high numbers of people accidentally injured in hospitals. Both the public and the medical profession took notice.

It should be noted that malpractice claims do not always relate to medical errors, and those that do reflect only a subset of the errors that occur. Nonetheless, these claims remain an important source of information about procedures and conditions that put patients at risk. Understanding malpractice risk not only protects patients, but also protects physicians from claims.

Data regarding malpractice claims against dermatologists covering 21 years of insurance claims against our specialty are available from the Physicians Insurance Association of America (PIAA). There are more than 20 member companies in the PIAA representing more than 30 major medical and dental specialties. Procedures and patient conditions reported are coded using the *International Classification of Diseases, Ninth Revision* (ICD-9). Limitations inherent in claims data analysis include the voluntary nature of claims reporting, classified information regarding no fault settlements, and the sealing of court records. It should also be noted that reported claims often reflect more unusual or egregious medical errors and may not be representative of more common medical errors.

There is both good news and bad news in the number and type of claims against dermatologists. The good news is that the number of closed claims against dermatologists has remained low and relatively stable, ranging from 86 to 123 per year. Approximately 70% of claims result in no indemnity payments, although nearly all attach expenses. The amount of indemnity payments, however, shows an escalating trend.[2,3]

The most common "procedure" which generated claims was "no medical misadventure" (Table I). This category refers to a situation where there is an absence of an allegation of any inappropriate medical conduct on the part of the insured. Examples include cases where a claim is filed and the doctor is named inappropriately, or there is legal misconduct (abandonment or breach of confidentiality), or a corporation or professional association is named

Table I. The most common procedural errors cited in malpractice claims against dermatologists*

No medical misadventure
Improper performance
Error in diagnosis
Medication errors
Failure to supervise or monitor
Performed when not indicated
Failure to instruct or communicate with patient
Failure to recognize a complication of treatment
Improper supervision of residents or staff

*These categories are defined by the Physicians Insurance Association of America and are shown in descending order of frequency.

rather than an individual. Improper performance of operative procedures on the skin was the category of procedures performed that resulted in the second highest number of claims against dermatologists. Errors in diagnosis were most commonly related to melanoma and neoplasms of the skin, followed by contact dermatitis and other eczemas.[2]

The most common patient conditions for which claims were filed against dermatologists were malignant neoplasms of the skin, followed by acne. This is understandable when considering the high prevalence of these conditions. Melanoma is the fifth most common condition cited in claims (Table II).

Medicolegal claims data are often used by medical societies to identify important patient safety topics or areas for intervention.[4] The above dermatology-specific data should help us focus our risk management and patient safety efforts, with the most robust programs using multiple patient safety indicators and evidence-based approaches to reduce risk.

HOW SAFE IS OFFICE SURGERY?

Key points

- **The complication rate for office procedures performed under local anesthesia is <1%, and for procedures commonly performed by a dermatologist, it is <0.5%**
- **In 1999, several state medical boards held hearings to promulgate rules for office surgery**
- **The impetus for the hearings was an article reporting five deaths with liposuction under tumescent anesthesia**
- **An analysis of the report indicates that at least four of the five procedures resulting in death were associated with general anesthesia, intravenous sedation, or parenteral narcotics rather than tumescent anesthesia alone**

Table II. The most common diagnoses in malpractice claims against dermatologists, 1985-2006*

Malignant neoplasms
Acne dyschromia
Psoriasis
Malignant melanoma
Contact dermatitis and eczema
Benign neoplasm
Viral warts
Disorder of the skin and subcutaneous tissue (not otherwise specified)
Diseases of the nails

*Data are from the Physicians Insurance Association of America and are shown in descending order of frequency.

- **Data from Florida indicate that dermatologic surgery and liposuction performed with tumescent anesthesia alone are associated with a very low incidence of adverse events**
- **Dermatologists should embrace reporting and data collection, because reporting will allow us to identify practices associated with a higher risk, provide the safest environment possible for our patients, and create a robust body of current data to counter inappropriate attempts to restrict office-based surgery**
- **Although no one can deny the importance of data regarding deaths, more common complications, such as infection, dehiscence, and tumor recurrence, are also important, and data collection can help reduce the risk for all complications**

In 1999, the State Medical Board of Ohio, along with others across the country, held hearings to promulgate rules for office surgery. The impetus for this was an article by Rao et al[5] in which five deaths from liposuction under tumescent anesthesia were reported. The State Medical Board of Ohio had been petitioned by groups representing anesthesiologists and plastic surgeons to develop rules in the interest of patient safety. The proposed rules would have had a dramatic effect on dermatologists and others who perform office-based surgery.

At the time, there were few sources of data regarding the safety of office-based surgery, but data from Florida (available at www.theskincancercenter.net) proved pivotal in determining the outcome of the Board's deliberations. In short, the data suggest that dermatologic surgery and liposuction under dilute local (tumescent) anesthesia were associated with a very low incidence of adverse events.[6-11] Specifically, prospective data from 7 years

of mandatory reporting in Florida indicated that dermatologists had not been responsible for a single death. In addition, there were no deaths or hospital transfers associated with liposuction under dilute local anesthesia. Data from the paper by Rao et al[5] indicate that at least four of the five deaths were performed under general anesthesia, intravenous sedation, or with parenteral narcotics. It is unclear what anesthesia was used in the fifth case. Dilute lidocaine and epinephrine was used for control of bleeding, as a wetting agent, or postoperative analgesia, but not as the sole anesthetic agent.[12,13]

The Florida data indicate that deaths and injuries associated with office-based surgery are uncommon and are generally isolated events. The major exceptions were the deaths from liposuction performed under general anesthesia, along with deaths from liposuction performed at the same time as abdominoplasty. These deaths resulted in the banning of this combination of procedures in office settings by the Florida Board of Medicine. These deaths were generally delayed, indicating that further surveillance for delayed deaths after liposuction is warranted.[7]

The Florida data suggest that stringent requirements for physicians performing office-based surgery, such as board certification, maintenance of hospital privileges, and office accreditation would have had little effect on the incidence of severe adverse events, because most of the physicians involved were board certified and had hospital privileges, and about 46% of the surgeries resulting in death occurred in accredited offices.[7]

In one study of 400,000 procedures, the adverse event rate was 0.47%, with a mortality rate of one per 57000 procedures.[14] In another study of 4778 consecutive patients under intravenous sedation, there were no deaths and only 12 anesthesia incidents.[9] A retrospective study including 5316 plastic surgery patients cited a complication rate of 0.7%.[15] In another study of 23,000 consecutive procedures under general anesthesia, there were no deaths and no significant complications.[16] A smaller prospective study among older patients noted a complication rate of 1.5 %.[17]

The oral surgery literature includes a large retrospective study of 34,391 surgical procedures with a complication rate of 1.3%. Complication rates were 0.4% with local anesthesia, 0.9% with intravenous sedation, and 1.5% with general anesthesia.[18] None of these studies reported delayed deaths, in contrast to the Florida data, in which all eight of the deaths after liposuction occurred from several hours to 9 days after the surgery, usually from fat or pulmonary emboli.

In recent years, other states have instituted mandatory reporting of office surgery deaths and injuries, although none have as much transparency as the Florida data. There has not been a parallel trend in reporting requirements for delayed deaths, including those related to procedures performed in hospitals or ambulatory surgery centers.

Taken together, the data suggest that office-based surgery is safe in comparison with surgery performed in other settings if the procedure is performed under local anesthesia. The risk increases with deeper intravenous sedation and general anesthesia. How safe is office surgery in comparison with procedures performed in an ambulatory surgery center? The answer is not completely clear, because these venues are not required to report delayed deaths. However, if one only considers immediate deaths, the office safety of the two settings appears to be similar.[19]

Existing data demonstrate the safety of office-based surgery.[20] Dermatologists should embrace reporting and data collection, because a robust and current body of information may help to counter attempts to restrict office-based surgery that are not supported by evidence. Additional data may also allow us to identify practices that are associated with higher morbidity or mortality, so that we can continue to provide the safest environment possible for our patients.

WHO IS DELIVERING PATIENT CARE?

Key points

- **The demand for dermatologic care exceeds the number of dermatologists**
- **A large proportion of dermatologic care is delivered by nondermatologists and nonphysicians**
- **Patients are often not aware of the credentials of the individual providing care**

Less than one-third of the care provided for skin disease is provided by board certified dermatologists or clinicians they supervise.[21] There are many reasons for this. Some conditions can be appropriately cared for by motivated primary care physicians. There is a shortage of dermatologists in much of the country, resulting in an inability to meet the growing demand for care. This situation is exacerbated by a lack of growth in residency positions, the retirement of cohorts of senior physicians, frequent choices by younger dermatologists to work part time, and practices increasingly divided between medical, surgical, and cosmetic dermatology. The coming deluge of aging Baby Boomers, the increasing prevalence of some skin diseases, and the possible broadening of access to currently uninsured

patients all hold the potential to further stress the existing workforce.

Our ultimate mission as physicians is to deliver dermatologic care at the highest possible level. Society cannot benefit from knowledge gained though research and academic excellence if there is an inadequate work force of expert and dedicated clinicians to apply this knowledge in the clinical milieu. When there is an inadequate supply of well trained, committed dermatologists to meet society's needs, others will fill the void.

Nonphysician clinicians (NPCs) include nurse practitioners, physician assistants, and a variety of other personnel with varying levels of training. Roughly 30% of dermatologists currently have NPCs working in their offices under varying levels of supervision.[22] Some dermatologists have also hired family practitioners or other nondermatologist physicians to deliver care in offices that they own. These are licensed physicians who, by law, require no supervision in order to practice. When patients see alternative clinicians in the setting of a dermatologist's office, it is unclear how often they are aware of the specific credentials of the person treating them.

Although many physicians and NPCs receive education about skin disease, changes in who delivers care raise issues of transparency and patient safety. Patients should know who is delivering their health care, including at least the broad outline of the credentials of the caregiver. They should also know whether or not the supervising physician will have any role in diagnosis or management. Blind trust in a white coat or scrub suit is not a substitute for transparency. Some states have regulations requiring nurse practitioners and physician assistants to identify themselves as such when caring for a patient. There is no current requirement for physicians to disclose the details of their specialty certification. In some states, legislation has been introduced requiring all caregivers, whether in a private office, hospital, pharmacy, or any other setting to wear a standard identification badge during any face to face encounter with a patient. In addition to listing the clinician's name, these badges would clearly state his/her role as a physician, nurse, physician assistant, or other clinician.[23,24]

QUALITY, SAFETY, AND THE HOUSE OF MEDICINE

Key points

- **Physicians are under increasing pressure from purchasers of insurance, government, the media, and patients to measure the quality of care being delivered and develop systems to reduce errors and improve quality**
- **The American Medical Association (AMA) Physician Consortium for Performance Improvement (PCPI) helps develop quality measures for voluntary reporting**
- **PCPI is made up of more than 100 state and specialty medical societies, the American Board of Medical Specialties, and four federal agencies, including the Agency for Healthcare Research and Quality (AHRQ)**
- **Each PCPI measure is developed through multispecialty work groups to ensure that measures are based on consensus and supported by current evidence-based guidelines of care**
- **PCPI measures must address a disease state that causes considerable morbidity or mortality and that has published evidence of a gap in care**
- **Measures must take case mix information into account to avoid penalizing physicians who take care of sicker patients**
- **To achieve greatest national acceptance, measures must be endorsed by the Ambulatory Care Quality Alliance (AQA)—a coalition with representation from health plans, purchasers, federal agencies, consumers, and physician societies—and the National Quality Forum (NQF)**

As evidence of medical errors, underuse of preventive care, overuse of certain surgical procedures, and dramatic regional variation in care mounted,[1,25-28] physicians and their representative organizations found themselves under increasing pressure from purchasers of insurance, government, the media, and patients to measure the quality of care being delivered and to develop systems to reduce errors and improve quality.

In the 1980s, the *Journal of the American Medical Association* began publishing selected issues devoted completely to quality measurement and management. In 1997, the AMA, which had long been criticized for invoking physician independence over proposed safety reforms, surprised detractors and led the formation of an independent National Patient Safety Foundation (NPSF) dedicated to the study and elimination of medical errors.[29]

A few specialty societies, recognizing that their ongoing promulgation of guidelines alone was having limited impact[30] and sensing that individual specialties were best equipped to decide what constitutes good care in clinically distinct areas,

began to move ahead as early adopters of performance measurement.[31] Cardiac surgeons, for example, began collecting (and even sometimes publicly reporting) their bypass survival rates more than 20 years ago.[32] Most individual specialty societies, however, found themselves constrained by insufficient numbers of existing evidence-based guidelines, the high cost of measure development, limited technical expertise as they tried to recruit staff capable of developing measures, and concerns from members who feared the inappropriate use of developed measures by managed care organizations.[10] Those specialty societies with early successes were able to devote significant resources to creating organized infrastructures that engaged membership and simultaneously developed guidelines and linked them to measures with well defined methods for data collection.[10]

To assist specialty societies in overcoming barriers and developing physician-level performance measures, the AMA formed the PCPI in 2000. The consortium, comprised of more than 100 state and specialty medical societies, the American Board of Medical Specialties, four federal agencies (including the Agency for Healthcare Research and Quality [AHRQ]), and several other organizations, has developed and approved 261 measures covering 42 clinical areas. Each measure is developed through cross-specialty work groups that ensure that measures are supported by current evidence-based guidelines, address a disease state that causes considerable morbidity or mortality and has evidence of a gap in care, and take case mix information into account.[33]

While the PCPI has taken a lead role in measuring development, other organizations have assumed responsibility for selecting and endorsing specific measures and setting measurement priorities. The Ambulatory Care Quality Alliance (AQA) was formed by large primary care physician societies in 2004 as a coalition with health plans and AHRQ, and the National Quality Forum (NQF) was formed in 1999 with more substantial roles played by consumer and purchaser representatives. Given the somewhat different perspectives of these groups, there remain some PCPI measures that have not been selected or endorsed by one of these organizations, and several measures endorsed by NQF that did not originate from the PCPI or other physician organizations. Nevertheless, Medicare has moved ahead with implementation of its pay for performance program (primarily using PCPI measures), and a majority of health maintenance organizations have initiated their own such programs[34] (with far less consistency of measure selection).[35,36] Some private payers have even begun the controversial practice of "tiering" copayments for office visits based on measures of physician quality (or more often cost efficiency) in an effort to steer patients to certain providers.[37]

As measures continue to be developed, physicians and physician organizations have raised concerns about implementation. Early outcome studies of pay for performance programs using physician-level measures in the United States have shown somewhat limited benefit,[13,38,39] and occasionally only improvement in documentation—that is, without much change in the actual quality of care.[40] The medical community, accustomed to scrutinizing evidence before accepting new patient therapies, has shown some skepticism about the rapid pace at which quality measures continue to be used in the absence of proven benefit.[13] Nevertheless, organized medicine has largely recognized that measures will be implemented with or without its input, and has therefore moved ahead while concurrently voicing concerns.

In a series of reports and resolutions passed by the AMA House of Delegates beginning in 2005, the organization has supported pay for performance programs but limited its support to those programs that meet a series of principles and guidelines. Broadly, the AMA principles argue for "evidence-based quality of care measures, created by physicians across appropriate specialties" and "incentives that are intended to promote health care quality and patient safety, and are not primarily intended to contain costs."[41] The specific concerns outlined in the AMA principles and guidelines, and those raised by other medical organizations, cluster in two areas: difficulties collecting valid physician-level data, and undesirable or unintended consequences of measures (Table III).

Despite all of these concerns about the use of performance measures, there is growing acceptance that the quality movement has reached a tipping point.[13] The AMA and most medical specialty societies have recognized the building momentum and have taken a vigorous role in developing measures that they feel are valid, fair, and likely to make a positive difference. Dermatology has been an active member of PCPI since its inception, and continues to work on the development of high quality measures.[12] The specialty determined that it simply cannot afford to be seen as dragging its feet when so many other specialties have made substantially more progress. Dermatology faces significant challenges, however, because the development of meaningful measures requires evidence-based clinical guidelines that

Table III. Areas of concern raised by physician groups regarding pay for performance initiatives

Data collection and validity

1. Measures should be evidence-based, developed by physicians and relevant specialty societies, and pilot tested before widespread implementation. While cost savings might sometimes result from quality improvement, measures should be primarily designed to promote quality and safety.
2. These data must be accurately collected and analyzed with transparency of methodology. Before implementation, physicians should understand the measures which will be used. Before the release of any data, physicians should have the opportunity to review their ratings and appeal any perceived errors.
3. Physicians in solo or small-group settings who are less likely to have implemented electronic health records may face substantial burdens in collecting and reporting data, and will need tools and resources to facilitate their participation.
4. For several diseases, the sample size for an individual doctor may be too low to permit valid individual measures. For other diseases, the evidence-base may be too weak to permit the development of valid measures.

Undesirable consequences

1. Despite some progress, case mix and risk adjustment techniques may still be unable to account for physicians with more challenging cases or populations, raising concerns that programs might lead to adverse selection, disadvantaging patients from certain ethnic, cultural, and socioeconomic groups and those with specific medical conditions, comorbidities, or disease severity.
2. If financial incentives are not large enough to offset the cost of implementation and incentivize change, they may fail to accomplish their goals.
3. Ongoing research must demonstrate that the benefit of individual measures (quantifiable improvements in safety or quality) outweigh the costs or risks (such as administrative burdens and adverse selection).
4. Additional undesirable consequences may result if payers use invalid data, select measures based primarily on cost savings, or punish physicians experiencing barriers to participation.

have been somewhat difficult to produce for skin diseases.

THE AMERICAN ACADEMY OF DERMATOLOGY'S INITIATIVE IN PATIENT SAFETY AND QUALITY

Key points

- **The American Academy of Dermatology Association (AADA) is taking a proactive role in advancing patient safety**
- **The AADA strategic plan on patient safety and quality addresses member needs in the areas of education, practice support, advocacy, and research**

As the focus on patient safety grows throughout medicine, the American Academy of Dermatology Association (AADA) is taking a proactive role in advancing research, education, and support in improving patient safety and quality of care in dermatology patients. Current activities are an outgrowth of a patient safety initiative initially proposed by AADA 2007 President-elect C. William Hanke, MD; are significantly influenced by state and federal legislative and regulatory policies; and are consistent with recommendations by the Institute of Medicine that "professional societies should make a visible commitment to patient safety."[42] Causes of health care errors include human factors, medical complexity, and system failures (Table IV). The remedies include fixing the system (rather than blaming individuals) through root cause analysis of medical errors and human factors engineering (Table V).

Table IV. Major patent safety issues in dermatology*

Misdiagnosis and delayed diagnosis
Medication errors
Pathology specimen processing
Timely and accurate communication of biopsy and laboratory results
Wrong-site procedures
Patient identification
Supervision and competency assessment of ancillary staff

*These issues were established by the American Academy of Dermatology Association Ad Hoc Task Force.

THE AMERICAN BOARD OF DERMATOLOGY'S ROLE IN MAINTAINING THE QUALITY OF DERMATOLOGY PRACTICE

Key points

- **Fundamental principles of specialty certification include patient safety, public trust, and physician accountability**
- **The mission of the American Board of Medical Specialties (ABMS) is to maintain and improve the quality of medical care by assisting member boards in their efforts to develop professional and educational**

Table V. Selected goals for the American Academy of Dermatology Association strategic plan on patient safety and quality adopted by the Board of Directors

1. Education and communication:
   a. for our members about efforts to visibly promote patient safety and quality in all aspects of medicine
      i. Developing an overall curriculum and self-assessment questions for live programs for Maintenance of Certification credit
   b. for patients and the public about the role dermatologists play in ensuring that dermatologic diagnoses and treatment are of high quality
2. Practice support to assist members in engaging in the process of shaping and implementing necessary changes in practice:
   a. Create patient safety self-assessment tools for practices
   b. Help build information technology infrastructure to collect and exchange data in dermatology practices
   c. Continue active involvement in relevant national forums:
      American Medical Association Physician Consortium for Performance Improvement, Ambulatory Quality Alliance, and the National Quality Forum
3. Advocacy to influence public and private policies intended to facilitate the safe and effective delivery of quality dermatologic care
   a. Scope of practice challenges in the states and the growing popularity of cosmetic services raise important patient safety concerns which the American Academy of Dermatology and the American Academy of Dermatology Association are working to address through better guidelines, education, and practice support
4. Research
   a. Continue the development of evidence-based practice guidelines that enhance patient care, safety, and quality
   b. Define the realm of dermatologic adverse events, develop a risk-adjusted methodology, and collect relevant data, adverse event reports, or both

standards for the evaluation and certification of physician specialists

- **The intent of certification is to provide assurance to the public that a diplomate has successfully completed an approved educational program and evaluation process that assesses the knowledge, skills, and experience required to provide quality patient care in that specialty**

The American Board of Dermatology has a long-standing and important position in the Board movement in the United States. Before 1916, specialization in American medicine was largely self-declared. In the early 20th century, leaders in the field of ophthalmology began discussing the question of adequate training and testing of the qualifications of specialists in their field. This resulted in the establishment of the American Board for Ophthalmologic Examinations, which later changed its name to the American Board of Ophthalmology. This was the first American Specialty Board to be established, to be followed by the American Board of Otolaryngology (1924), the American Board of Obstetrics and Gynecology (1930), and the American Board of Dermatology and Syphilology (ABDS; 1932). The American Dermatological Association and the AMA Section of Dermatology and Syphilology were the original sponsors of the ABDS; the American Academy of Dermatology and Syphilology became its third sponsor in 1939.

These four founding Boards, together with the American Hospital Association, the Association of American Medical Colleges, the Federation of State Medical Boards, and the National Board of Medical Examiners, formed the Advisory Board for Medical Specialties. This umbrella organization coordinated and facilitated the common purposes and activities of the boards. In 1970, the Advisory Board was reorganized and incorporated as the ABMS with the stated mission to assist and facilitate the activities of member boards. At this time, the ABMS consists of 24 member boards.

The importance of the role played by dermatology in this collaborative effort cannot be overemphasized. Dermatology is a relatively small specialty, and because dermatology is basically an outpatient specialty, it is in increasingly insular, with little opportunity to interact with our medical colleagues. Being a part of the ABMS ensures dermatology a place at the table of medicine and a voice in discussions and deliberations that may determine the destiny of our diplomates and our specialty.

In 1932, the purposes of the board were stated as follows: (1) to determine the competence of physicians who specialize in dermatology and syphilology; (2) to publish lists of physicians who have been certified for the benefit of hospitals, medical schools, other physicians, and the lay public; and (3) to improve the standards of the practice of dermatology and syphilology.

Seventy-six years later, the mission and purposes are simply stated as follows: the mission of the American Board of Dermatology (ABD) is to serve the public interest by promoting excellence in the practice of dermatology through lifelong certification. The objective of all of its activities of the ABD is to provide assurance that a diplomate of the Board possesses and maintains the knowledge and skills essential for the provision of superior, specialized care to patients with cutaneous diseases.

HOW DOES THE ABD ACCOMPLISH ITS GOALS?

The Board basically has three avenues for accomplishing its missions: (1) working with the Residency Review Committee to ensure appropriate standards of resident education and assessment; (2) administering primary and subspecialty certification examinations; and (3) establishing and monitoring the process of Maintenance of Certification, which will be discussed later in this article.

Central to all of these functions is the increasing responsibility of patient safety, public trust, and physician accountability. These functions are fundamental principles that are both in the initial certification and MOC. The ABD serves dermatology by setting and maintaining high standards of competency and professionalism.

The initial step in this process is certification, which provides the public verification that a diplomate certified by a member board has successfully completed an approved educational program and has the knowledge, skills, and experience required to provide quality patient care in the specialty. More than 85% of licensed physicians in the United States are certified by at least one ABMS member board, which speaks for itself. Nonetheless, one might question whether certification matters. Its significance is supported by a growing body of literature indicating that certification and recertification does matter, both in terms of clinical outcomes[43-47] and in patient awareness.[48]

Maintenance of Certification is a continuum of certification and recertification that ensures continuous evidence of professional competency. Beginning in 2006, all ABD certificates were issued contingent upon diplomates fulfilling the requirements for the 4-part Maintenance of Certification—Dermatology (MOC-D) program.

MAINTENANCE OF CERTIFICATION

Key points

Maintenance of certification for dermatology requires the following elements:

- **Documentation of an American Board of Dermatology Certificate and a full, valid, and unrestricted license to practice medicine or osteopathy in the United States or Canada**
- **Documentation of lifelong learning and periodic self-assessment to identify areas in which the physician has gaps in knowledge pertinent to the practice of dermatology**
- **A cognitive examination to demonstrate competence in general dermatology and in one of four areas: procedural dermatology, dermatopathology, pediatric dermatology, or medical dermatology**
- **The physician to develop a quality improvement plan, and then reassess his or her performance to demonstrate improvement**

While often perceived as a singular event, certification by a member board of the ABMS is a process that begins when a resident enters training in an Accreditation Council for Graduate Medicine Education—accredited residency program, continues through successful completion of a monitored residency program, and culminates in passing the initial certification examination of the board.[49] Since the institution of time-limited certification in dermatology in 1991, a process has been put in place to assure that board diplomates continue to possess requisite skills deemed consistent with the expertise expected of a specialist. The overall goal of initial specialty certification and of recertification is to improve patient care. Subsequently, the process of MOC has evolved in an effort to better and more comprehensively assure specialist competence. A recent study has shown that MOC examination scores do correlate with a higher quality of patient care.[50] The current program, developed by the ABD, is termed the MOC-D program. This program is to be completed by all dermatologists who do not have lifetime certification who want to voluntarily maintain their certification.

The current MOC-D is a program of education and professional development that involves four components to be completed in a 10-year cycle.

The first component consists of evidence of professional standing. This includes documentation of an ABD certificate and a full, valid, and unrestricted license to practice medicine or osteopathy in the United States or Canada. The second component is documentation of lifelong learning and periodic self-assessment. This aspect of MOC-D will be completed by taking knowledge-based self-assessment tests meant not for pass/fail, but rather to identify areas in which the physician has gaps in knowledge pertinent to the practice of dermatology. Self-assessment will likely also include the completion of a designated number of category 1 continuing medical education credits per year, because other specialty board certification organizations have required this, but as of yet it is not an ABD requirement. Organizations such as the AAD and other dermatology subspecialty organizations provide high-quality continuing education and are also helping to develop self-assessment programs that will serve to assist dermatologists in completing this component.

The third component is a cognitive examination. Whereas dermatologists thus far have been able to complete this cognitive examination as a "take-home" open book examination, beginning in 2010, the open book examination format is no longer an option because the ABMS requires absolute validation of the identity of the person taking the examination. A proctored, in-person examination will be given and is currently scheduled to occur in conjunction with the AAD Annual Meetings in 2010 and 2011. The test taken to meet the requirement for component three will result in a pass or fail grade, differentiating it from component two self-assessment tests that are intended to identify areas in which a dermatologist might need improvement. For component three, all dermatologists will be expected by the ABD to possess basic general dermatology knowledge. In addition, dermatologists will be expected to demonstrate competence in one of four areas: procedural dermatology, dermatopathology, pediatric dermatology, or medical dermatology. Therefore, in addition to testing in general dermatology, each physician enrolled in MOC-D will test in one of these four areas as his or her principal areas of expertise. The ABD currently plans to make a bank of questions available to diplomates in advance of the examination. The examination will be compiled from this bank of questions.

While all components of the MOC-D are important, perhaps the fourth component is the most important. This component measures performance within a dermatologist's practice. In essence, each dermatologist will be asked to confidentially assess his or her practice in some manner and identify whether deficiencies exist, develop a quality improvement plan, and then reassess his or her performance to demonstrate improvement. Although new, the potential to use one's own practice data to stimulate improvement of patient care is powerful.

This practice assessment component is quite novel but is consistent with the quality movement sweeping through all of medicine. Because this component may be the most foreign component to dermatologists, the AAD has been spending considerable effort to develop a tool, the Clinical Performance Assessment Tool, to lessen the burden of this component for its members. This tool will allow dermatologists to pick from a list of quality improvement topics based on diagnoses experienced regularly in their practice.

The development of MOC-D heralds a new era in dermatology. It is likely that significant angst will be experienced as occurs with all change. Efforts of the AAD and other organizations are aimed at lessening this angst. In any case, it is hoped that MOC throughout medicine will result in improvement in patient care. Other opportunities for improvement in patient safety will be discussed in part II of this series.

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