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Global Training in ORL-HNS

Training of otolaryngologists in the United States

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In the United States, the process of residency training and specialty certification are so closely intertwined that one could not exist without the other. It is interesting in that this is not a recent evolution, but one that has been emerging for almost a century. Graduate medical education (GME) began to be discussed in the early part of the 20th century. In fact, the term itself appeared in the *Journal of the American Medical Association* during the first half of the 20th century in reference not only to internship and residency education, but also to continuing medical education. By the 1920s, the internship had become an accepted part of preparation for general practice but specialty training was still largely unregulated. The multiple routes to specialty practice included formal training in one of the few residency programmes, 'postgraduate' study in short courses in Europe was also very popular, and there were many commercial 'diploma mills' where coursework with a certificate awarded at the end of the course was theoretically supposed to prepare individuals for specialty practice.

There had been recognition, since early in those days, that some order had to be brought to the training of those entering the specialties which were emerging since some of the individuals, who were a result of this rather informal type of training, turned out to be ill prepared for specialty practice. There had been calls for reform from early leaders in our specialty, such as Edward Jackson in 1904, George E. Shambaugh, Casey Wood and Derrick Vail in 1908, the Linn Emerson in 1912.[1] Theirs were individual pleas to organize and standardize the postgraduate educational curriculum, followed by an examination similar to medical licensure examinations prior to being allowed to list oneself as a specialist, but no concerted effort was undertaken.

The report on medical education commissioned by the American Medical Association (AMA) and performed by the Carnegie Foundation for the Advancement of Teaching by Abraham Flexner had been published in 1910 and this report, along with changing economic times, had a dramatic impact in decreasing the number of medical schools from a high of 161 in 1906 to 131 by 1910.[2] There was still no regulation of specialty training and any physician could designate himself as a specialist in any field.

It was not until 1912, at the annual meeting of the Triological Society, that the idea of standardizing post-graduate medical education began to take form.[1] A committee to consider instruction in otolaryngology in undergraduate medical schools was appointed to study education at both the undergraduate and post-graduate level. The report of this committee was published in the *Laryngoscope* in 1913[3] and resulted in the appointment by the American Academy of Ophthalmology and Otolarynology of two committees to study this issue. The goal of these committees was to induce post-graduate institutions in the United States to adopt a uniform curriculum and uniform requirements for admission to practice in ophthalmology and otolaryngology.

Standard post-graduate education proved to be complicated and was very difficult to come to grips with. Several other committees studied this issue but there was some delay, of course, because of World War I. The result of the deliberations of these committees and their suggestions culminated in the formation of the American Board of Otolaryngology (ABOto) that was formally recognized on November 10, 1924. This was the second official Board following the American Board of Ophthalmology's formalization in 1917.[4] The ABOto was charged with the responsibility of ensuring standardization of graduate medical education in otolaryngology. This included the responsibility for the accreditation of residency training programmes and after the physicians completed these programmes, a rigorous examination would be given by the ABOto and those who completed this examination successfully would be certified by the ABOto.

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The ABOto has always worked diligently to improve training standards in residency education programmes and it was not until 1953 that the Residency Review Committee (RRC) in Otolaryngology was actually formed and the responsibility for this activity was transferred from the ABOto. The sponsors of the RRC in Otolaryngology are the American Board of Otolaryngology, the American Medical Association (Section on Otolaryngology) and the American College of Surgeons. Each of these sponsoring organizations nominates three otolaryngologists to be representatives to the RRC and these individuals serve staggered three-year terms and may be elected for one additional term. The Executive Vice President of the ABOto serves as a non-voting, ex-officio of the RRC. The RRC in Otolaryngology accredits otolaryngology training programme and holds them to certain standards. The Executive Secretary, who is a member of the AMA staff and who is ex-officio without vote, serves as a central repository for information for the RRC, organizes meetings of the RRC and carries out other business which comes under the responsibility of the RRC.

In the US there has been a rapid rise in specialization since the end of World War II that resulted from increased enrolments from existing specialties and subspecialties rather than the approval of new specialties and subspecialties.[5]

There are currently 22 separate committees for review of residencies in various recognized specialties in the US. This activity comes under the general purview of the Accreditation Council for Graduate Medical Education (ACGME). The ACGME was formed in 1981 and has as its sponsors the American Board of Medical Specialties (ABMS), the American Hospital Association (AHA), the American Medical Association (AMA), the Association of American Medical Colleges (AAMC), and the Council of Medical Specialty Societies (CMSS).

The purposes of the RRC include:
(1) reviewing applications from institutions seeking approval of residency training programmes;
(2) acting on behalf of its parent organizations in approving or disapproving the training programmes.

One of the most important duties of the RRC is to recommend to the parent organization that changes in curriculum are considered and, as necessary, included in the programme requirements for approval. In this way, all of the programme requirements for residency training in otolaryngology with respect to the content of its educational programme are actually written by the members of the RRC in Otolaryngology. This provides a curriculum which is applicable to all of the currently 103 approved residency training programmes in otolaryngology in the US. As practice patterns change, new technology and new types of treatments for our patients evolve, the Programme Requirements for Residency Education in Otolaryngology are reviewed and updated in order to require the residency training programmes to include this information in their education programme. Although these recommendations are, of course, reviewed by all of the other RRCs and the parent organizations, none of this activity is subject to scrutiny by the United States government.

By providing a curriculum that is always in a state of evolution, a high quality training programme is provided for residents. These programme requirements are also the guidelines by which the residency training programmes are measured. The RRC reviews each training programme on a five-year cycle. If substantive problems are discovered by the reviewers, the residency training programme may either: receive a letter pointing out these deficiencies and recommending improvements in the programme, or if the deficiencies are severe enough, the programme may be placed on probation. Programmes on probation are closely monitored and if they do not meet the programme requirements within a specified period of time, accreditation may be withdrawn and the institution will no longer have an approved programme in otolaryngology. The dean and chief operating officer of the institutions sponsoring the programme, most of which are universities or academic medical centres, are always informed about the outcome of the review process. Often the resources to allow the programmes to meet the RRC standards, which have not been forthcoming previously, miraculously appear as a result of a negative report from the RRC to the Dean of the School of Medicine.

The current time requirements for residency training in otolaryngology consists of one year of general surgery, usually at the institution where the residency in otolaryngology will be taken, and then four years of training with progressive responsibility in otolaryngology. The requirement of one year of general surgical experience was added by the ABOto in the early 1960s and was a major step forward in otolaryngology in the United States. This experiment provided otolaryngologists with skills in handling tissues, a way of thinking surgically, and experience in managing sick surgical patients that had not been present previously in our field. This also raised the estimation of the otolaryngologist in the eyes of general surgeons and other surgical specialties. It also led to a major step forward in the participation of otolaryngologists in the management of head and neck oncological surgery and facial plastic and reconstructive surgery. The training programme is one with exposure to recognized subspecialty areas in otolaryngology that include: (1) head and neck oncological surgery; (2) otology; (3) facial plastic and reconstructive surgery; (4) allergy; (5) paediatric otolaryngology; (6) rhinology; (7) voice disorders.

Responsibility progresses through the senior year of training which must be carried out at the sponsoring institution, and this is the year that most of the major surgical experience is gained by the resident.

Once the resident has completed their training in an accredited programme, they are eligible to apply to the American Board of Otolaryngology to take the certifying examination. In order to be consid-

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ered, the resident must have been registered with the ABOto during the first year of otolaryngology training in order to apply subsequently for the certification process.

The programme director must complete annual resident registry evaluation forms noting whether the resident successfully completed the previous year. The programme director or department chairman at the end of the resident's senior year must also verify that the individual has completed his training in good standing.

The resident must also maintain a log of surgical procedures during their otolaryngology training on a computer programme downloaded from the ABOto web site. Data from individual reports is transferred to a master database for review by the ABOto Credentials Committee. This data is used to determine whether the candidate's credentials are accceptable to the Credentials Committee. The candidiates have the opportunity to take a written, computer-graded multiple-choice examination in September following completion of their residency training programme on June 30. The purpose of the examination is to determine the candidate's knowledge, skill and understanding in a variety of categories including all of the areas that make up part of the requirements composed by the RRC and listed under Programme Requirements for Residency Education in Otolaryngology.[6]

The candidate who is successful in passing this examination, may then apply to take the oral examination that is usually given in the following April. The examination is a one-day examination which tests the knowledge of the candidate in four specialty areas including head and neck oncology, otology, plastic and reconstructive surgery, and general otolaryngology. All of the examination questions, both in the written and in the oral examination, are written by the Directors of the ABOto. Most of the items on the written examination are field-tested in order to make sure that they are adequate to test the areas of recall, interpretation and problem solving. The oral examination is given by members of the Board of Directors, the senior examiner group, and guest examiners invited by the Board of Directors from all over the country. The candidate who is successful in passing the oral examination, then becomes a Diplomate of the American Board of Otolaryngology.

While it is not necessary to be certified in otolaryngology to practice otolaryngology, it is very difficult nowadays to become a member of the medical staff of most hospitals or to get onto or be continued as a member of the panel of most health maintenance organizations (HMOs) so that there is now an added motivation for individuals to become Board certified. Those who are not successful in passing the examination may reapply. There is no limit on the number of times the examination may be taken.

The interaction between the ABOto and the RRC, based upon the appointment of three members of the RRC, establishes a very strong link between these two organizations and helps to form the body of knowledge required for the practice of otolaryngology. This provides the residents with an adequate knowledge base and provides the opportunity for the ABOto to design a fair examination which will test the knowledge that they have prescribed in the residency training programme.

In recent years there has been a proliferation of fellowship training in subspecialty areas in otolaryngology. As recently as 1970, there were less than 10 fellowships available whereas there are now more than 150. It has been estimated that approximately 30 per cent of the residents take fellowships in a subspecialty area. One might wonder what the need is for subspecialty certification. We feel that the certificate that recognizes subspecialty training provides an obvious recognition of the additional training and expertise. It also recognizes the additional aspect of clinical expertise and assists in gaining clinical privileges under certain circumstances.

Subspecialization is a natural progression of increasing knowledge that we believe increases the technology and surgical techniques as well as focusing on a clinical practice that is to the benefit of our specialty and our patient. There are now fellowships available in head and neck oncological surgery, otology/neurotology, paediatric otolaryngology, rhinology and voice. Fellowship training in otology/neurotology, paediatric otolaryngology and head and neck oncological surgery have recently been lengthened to two years of training, often combining a year of clinical training with a year of research. The Residency Review Committee in Otolaryngology has taken on the responsibility for the accreditation and review of subspecialty fellowship training in the three areas which have been approved thus far which include otology/neurology, paediatric otolaryngology and plastic surgery within the head and neck.

The ABOto has suggested that they would consider subspecialty certification in those situations in which there is already a well-established subspecialty. There must also be a significant number of ACGME approved fellowships in the subspecialty area and that the organization representing the subspecialty requests subspecialty certification approval.

The approval of a Certificate of Added Qualification (CAQ) in subspecialty fields was granted by the ABOto in otology/neurotology and paediatric otolaryngology. Approval has also been given for subspecialization in facial plastic surgery in conjunction with the American Board of Plastic Surgery.

The American Board of Otolaryngology decided several years ago to develop a process for re-certification in our specialty. The re-certification process exists in one form or another in virtually every other specialty field. While no examination has been given in otolaryngology, committees comprised of members of the ABOto Board of Directors and

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senior examiners and experts in subspecialty areas are developing an examination for the purposes of re-certification.

I have tried to describe in as simple a way as possible what is the exceptionally complex, highly regulated process of residency training and specialty certification in the US. Although complex, it has worked very well for us and has evolved without any interference from the government which has been a source of great satisfaction to all of us and has provided excellent flexibility in making sure that those of us in our specialty practice the highest quality of medicine.

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