Organization of Otolaryngology in the United States*

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The 24 November issue of the *New England Journal of Medicine* contains a letter from Dr. John Lister, entitled "By the London Post". In it he notes that the internes and residents, the young doctors upon whom the future of medicine in England depends, have reached a new low of serious discontent with the National Health Service. As a result increasing numbers are considering emigrating to the United States, Canada, Australia or New Zealand, countries where medical practice is not yet so thoroughly under the thumb of the government. At the same time the politicians in the United States are leading a reluctant medical profession, and a somewhat dazed public, down the same garden path of socialized medicine under the tricky label of "medicare".

The 21 November issue of the *Journal of the American Medical Association*, entitled the *Medical Education Number*, contains a great mass of statistics on undergraduate and graduate medical education. It likewise includes six separate committee reports concerning medical education and practice. Because of these reports, this year has been called by Dr. John Talbott, editor of the *J.A.M.A.*, the Year of the Big Look at medical education.

I can think of no subject more opportune than the topic of this meeting, in view of the ferment going on today in the training and practice of physicians.

To understand the organization of Otolaryngology today in the United States we should comprehend the organization of the medical profession as a whole. In 1817 there was born in a log house in upper New York State an individual of remarkable vigour, imagination and stern moral fibre, Nathan Smith Davis. Young Nathan's formal education was as brief as today's miniskirts. After attending the village school he spent only 6 months in a seminary equivalent to High School in my country, and then at once began an apprenticeship with practising physicians. While assisting them he attended three courses of lectures at the College of Physicians and Surgeons of Western New York, one of the earliest medical schools in America, destined to close its doors a few years later.

Young Dr. N. S. Davis soon became active in the New York State Medical Society where he worked especially to improve the standards of medical education. In 1844 he offered to the meeting of the State Society a series of resolutions calling for a national convention of delegates from all of the state societies in the union, to take concerted action to elevate the standards of medical education. The convention was held in 1846 and the American Medical Association was born. It is still run by a House of Delegates from the medical societies of each state, with a Board of Trustees who supervise its many activities, departments and committees.

In 1849, Dr. Davis came to Chicago to join the faculty of Rush Medical College. Ten years later, dissatisfied with the teaching methods at Rush, he

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formed a new medical school which, in 1869, became the medical department of my medical school, Northwestern University, with N. S. Davis as its first Dean. In 1882, not content with having founded the American Medical Association and Northwestern University Medical School, this extraordinarily energetic individual founded and became the first Editor of the *Journal of the American Medical Association*, perhaps the most widely read medical journal in the world today.

From its beginning, the American Medical Association has been much concerned with medical education. By setting standards and elevating requirements a large number of small proprietary medical schools, many of them organized and conducted primarily for profit, were put out of business, leaving only University affiliated medical schools of which there are now 88. These require 8 years of grammar or grade school, 4 years of high school, 4 years of college, 4 years of medical school, and 1 or 2 years of interneship. In my country the majority of doctors until recent years were general practitioners who delivered babies, took care of infants, children and adults for every ailment, set bones and performed surgery. The American Medical Association was oriented toward the general practitioner, and up to now the medical school curriculum followed by the rotating interneship has been designed to educate general practitioners.

Meanwhile the need, nay the absolute necessity for specialization in medical practice, became increasingly imperative by the middle of the last century as the accelerating expansion of medical knowledge exceeded the ability of one individual to master all of it. Added to the mounting avalanche of new scientific knowledge has been the invention of diagnostic and therapeutic instruments requiring specialized training and skills. The cystoscope helped to develop a specialty of urology, Helmholtz's ophthalmoscope gave impetus to the specialty of ophthalmology, while the operating microscope today is tending to develop a specialty of microsurgery of the ear. Added to these factors has been the growth of rapid transportation and large cities so that patients could choose a doctor who had attained special skills and reputation in a particular area. Such a doctor soon became inundated by patients with that disease, so that he became a specialist by public acclaim, whether or not he wished it. Could Sir Harold Gillies have avoided becoming known as a plastic surgeon, or Sir Terence Cawthorne an otologic surgeon?

Remember that specialization in medical and surgical practice was strongly opposed for a long time by the medical profession as a whole, so well expressed by John Abernethy when invited to become honorary president of the London Eye and Ear Infirmary: "I can see no good that can come of this to the public . . . I candidly tell you I consider it quackery; every surgeon should be acquainted with the diseases of the organs of sight and hearing; and to detach them from general surgery would not be less injurious to the science than to the public." One of the first to have the courage to stand up against this strong prejudice was Benjamin Travers. In his Synopsis of the Diseases of the Eye, he wrote: "In this country I believe no one before myself who designed to practise general surgery ventured to give more than cursory attention to the eye. A fear of being disqualified in public opinion . . . was . . . sufficient to deter surgeons

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from the cultivation of a large and legitimate field of practice. It was with a public avowal of the sentiments . . . that I accepted the situation of Surgeon to the (London) Eye Infirmary in the year 1810 . . ." As all of you know, Travers was *not* disqualified in public opinion, but twice was made President of the Royal College of Surgeons, and was invited to deliver the Hunterian Oration.

Fifteen years after the founding in 1805 of the London Eye and Ear Infirmary, the New York Eye Infirmary was established, the ear being added 2 years later; the Philadelphia Institution for Diseases of the Eye and Ear was started in 1822, the Massachusetts Eye and Ear Infirmary in 1824, the Baltimore Eye and Ear Institute in 1840, and the Chicago, now the Illinois Eye and Ear Infirmary, in 1858.

When the American Ophthalmological Society was organized in 1864, and the American Otological Society in 1868, these specialties came of age. At first Laryngology, in my country as in yours, was a separate specialty and the American Laryngological Association was founded shortly after the American Otological. Eventually otology and laryngology became joined in Universities into Departments of Otolaryngology, and a third national society was formed, the Triological Society. For a good many years in America Eye and Ear, Nose and Throat were often practised together. The American Academy of Ophthalmology and Otolaryngology is our largest specialty society, and its annual meeting in Chicago each October is a very busy and a very educational event, although the ophthalmologists and otolaryngologists now have their separate scientific sessions, only the first morning being a joint meeting.

The final step, and a very vital one, in organizing and defining specialties in the United States, began in 1917 when a Chicago Professor of Ophthalmology, Dr. William Wilder, formed the American Board of Ophthalmology to pass on the qualifications and to examine and certify physicians who wished to enter the specialty. In 1924, Dr. George Shambaugh, Sr., a close friend and colleague of Dr. Wilder, prompted the formation of an American Board of Otolaryngology. Within the next two decades boards were established for all major medical specialties including General Surgery and Internal Medicine.

The American Board of Otolaryngology has been a powerful and influential factor in defining the scope and quality of otolaryngologic training in the United States. It is a self-perpetuating group, independent of the national societies and the A.M.A., although its members are leaders in the national societies. Before a candidate can apply for its examination he must have completed 4 years of residency training in an *approved* residency, the 1st year in general surgery the last 3 in otolaryngology. Approval of a residency rests with a Residency Review Committee with members appointed by the American Medical Association, the American College of Surgeons and the American Board of Otolaryngology. This committee makes site visits to institutions where it inspects the laboratory facilities and clinical material and interviews residents. A residency is not approved that cannot provide a sufficient number and diversity of surgical procedures performed by each resident in the major areas of the specialty as defined by the American Board. These areas are temporal bone surgery, nasal and sinus surgery, reconstructive and plastic

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surgery of the head and neck, endoscopy and laryngeal surgery and head and neck surgery exclusive of the eye, thyroid gland and brain.

A recent survey of the present status of Otolaryngologic training in the United States, conducted by the American Board of Otolaryngology is extremely interesting. This was prompted by a U.S. Public Health Service survey that indicated that twice as many otolaryngologists are needed as are now being trained. The survey was conducted under a Public Health Service Grant. Eighty-two medical schools were studied, their otolaryngologic departments and resident training facilities being classed as A, B, C or D. A Group A department teaches the entire field of otolaryngology including broncho-oesophagology, maxillofacial surgery, head and neck surgery and allergy, has adequate physical facilities and clinical material, a programme for research, teaching programmes to undergraduates, internes and physicians, and effective inter-departmental relationships with general surgery, plastic surgery, oral surgery and allergy, where there are overlapping fields of interest. A Group D department is absent, or has no programme for training otolaryngologists.

Of the eighty-two schools studied twenty-two had first-rate teaching departments in otolaryngology and were classed as Group A, nineteen had practically non-existent departments with no teaching of otolaryngology, while twenty-seven were Group B, and fourteen Group C, midway between Group A and D. Of the eighty-two departments thirty-one are autonomous, fifty-one a division of general surgery. It is highly significant that 87 per cent. of the first-rate Group A departments enjoy autonomy, 55 per cent. of the Group B departments are autonomous, while none of Group C and D are autonomous. This clearly demonstrates that when otolaryngology is under general surgery the quality of scientific work and training is likely to be inferior.

The mediaeval prejudice of some general surgeons against Otolaryngologists reminds me of the prejudice some of us have against our in-laws. Two cannibals were dining on the beach of an island in the South Seas. One said to the other, "I don't like your brother-in-law." The other replied, "Never mind, just eat the noodles." Unfortunately, eating the otolaryngologist will not solve the problem, for specialization in medical practice is inevitable and is here to stay.

In the United States the chiefs of surgery in some universities outwardly express their prejudice against specialization by their desire to have all surgical specialties under general surgery in hospitals and universities. One such chief of surgery permitted the otolaryngologist to diagnose laryngeal cancer but not to remove it. The general plastic surgeon now casts covetous eyes upon the currently popular operation of nose-bobbing, and would like to rule that otolaryngologists can no longer do this operation, perhaps forgetting that some of the founders of plastic surgery were otolaryngologists!

The steady lengthening of time necessary to become a finished doctor now that the great majority of doctors specialize, means that today life is half-gone by the time formal education and preparation is completed. Not only is the most productive, imaginative and vigorous third of one's adult life consumed by formal education, but the doctor who finally reaches the pinnacle of board certification soon finds that much of the knowledge so laboriously and expensively acquired is not used in his daily work, while the rest, like fruit, is perishable. The well-trained board certified otolaryngologist of today is very soon out of

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date tomorrow, unless he makes a sustained effort to keep up. To assist him to keep up we have in America three major otolaryngologic journals. I am afraid too often they pile up unread. We have many postgraduate courses, seminars and work shops which are well attended and for the most part quite educational. Finally, we have medical meetings and conventions of all of our major national, as well as local, societies, but too often the same group of people attend and participate at these meetings.

This Year of the Big Look at medical education and practice recognizes that general practitioners, the jacks-of-all-trade in medical practice, will soon be a thing of the past. No longer should medical schools be designed to produce general practitioners, while at the same time the long years now spent in preparation to be a doctor must be reduced. Northwestern University has begun to do this by means of an Honours Programme for selected High School graduates who will complete college and medical school in 6 years instead of 8. The rotating interneship followed by residency will probably be eliminated by including the interneship in the medical school curriculum, or in the residency. The medical school curriculum is being made less rigid with less time in such standard courses as anatomy. The student at Northwestern University now gains only a superficial knowledge of functional anatomy sufficient to understand disease, and only later in his specialty years will he learn detailed anatomy of his specialized area. Actually today's dental student at Northwestern University receives more hours of gross anatomy than the medical student, while the student nurses receive nearly the same lectures in otolaryngology as the medical student! The curricula for nurses and dental students seem as much in need of rethinking as that of medical students.

I would like to conclude by peering a bit into the murky future—murky not in the quality of scientific otolaryngology in my country, for this is continuing to improve at a steady rate, but murky as far as medical practice is concerned. Many of us wonder whether the A.M.A. has been wise in keeping aloof from the political scene. We see how the labour unions have become a powerful factor in influencing legislation and we wonder whether doctors should not be using similar tactics to preserve the quality of medical practice for the public good. As of today, medical practice has changed but little under medicare, but the camel has its head in the tent and we are fearful lest an all-powerful federal government will gradually circumscribe the work of the doctor so as to impair the effectiveness of his battle against disease. We can even see how the advance of medical science may be retarded. Could a Lempert or a Rosen accomplish their epoch-making breakthroughs under government controlled medicine? Could a Semmelweiss have discovered the cause of puerperal sepsis had there been strong centralized government control of medical practice? We distrust monopoly, and we in America look at nationalized or socialized medicine as a monopoly. I hope that our colleagues in England can give us some wise advice and perhaps some reassuring words from their own experience.

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