

## Global Training in ORL-HNS

### The training of otorhinolaryngologists in Asia

WILLIAM I. WEI, M.S., D.L.O., F.R.C.S., F.R.C.S.(ED.), F.A.C.S., F.H.K.A.M. (ORL),  
W. K. HO, D.L.O., F.R.C.S.(ED.), F.H.K.A.M.(ORL)

#### Abstract

Asian nations differ from one another in population, cultural background, ethnic tradition and economic situation. The training of otorhinolaryngologists in Asia is not in any way uniform. A questionnaire survey of 26 leading institutions in 12 countries/regions was carried out. The emphasis of investigation is towards the training programme for specialists in Otorhinolaryngology and continuous medical education (CME). The response rate of the survey was 100 per cent. The duration of training for otorhinolaryngologists ranges from three to seven years and an exit assessment is held in seven countries/regions. The training programmes are modifications of either the British or the American pattern depending on tradition. Documentation of CME is available in eight countries/regions while a defined cycle has been established in only three. Medical/health authorities or professional societies in each country contribute towards its monitoring. Better communication and sharing of experience will improve the training of otorhinolaryngologists in Asia.

**Key words:** Education, graduate; Education, medical, continuing; Otolaryngology; Asia

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#### Introduction

The discipline of otorhinolaryngology is relatively young when compared with surgery or medicine. Although the earliest written record of treatment of the nose was found in an Egyptian tomb dating back to 3500 BC, otorhinolaryngology has only been recognized as a single and distinct specialty since approximately 1920.<sup>1</sup> The contemporary practice of otorhinolaryngology encompasses the management of both benign and malignant diseases related to the ear, nose and throat as well as the general head and neck region. The fields of management include pathologies related to the skull base, facial plastic, maxillofacial and intraoral region, trachea and bronchus, upper oesophagus and thyroid. Otorhinolaryngology also involves the care of patients with problems related to equilibration, sleep, rehabilitation of hearing and swallowing, and allergic problems of the head and neck region. Neonates and elderly patients with problems related to otorhinolaryngology offer further challenges. The spectrum of disease management has increased and it is essential that young otorhinolaryngologists be given sufficient training to maintain high standards

of practice. It is equally important to update the knowledge of practicing otorhinolaryngologists. The fastest growing segment of the world's population is the over 75 years age group<sup>2</sup> and there is now a worldwide trend to adjust the goals of training and education to reflect this change.<sup>3</sup>

In Asia, there is wide variation in population distribution and ethnicity, traditional beliefs and practices, social economical development and moreover, the understanding of the concept of education. It would therefore be impossible to conceive of a medical education training programme that is appropriate for the entire region. It is also difficult to present an overview of the state of training programmes and continuing medical education in otorhinolaryngology for the whole of Asia. However, by gathering information we may get some indication of what further developments in otorhinolaryngology training are needed for individual regions, countries or Asia as a whole, to ensure high quality care in this rapidly expanding specialty.

#### Materials and methods

In 1996 a survey of the training of otorhinolaryngol-

From the Division of Otorhinolaryngology, Department of Surgery, University of Hong Kong Medical Centre, Queen Mary Hospital, Hong Kong.

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TABLE I  
TRAINING PROGRAM FOR OTORHINOLARYNGOLOGISTS IN 12 COUNTRIES/REGIONS IN ASIA

Country/region	Population (millions)	ENT doctors	Ratio ENT doctors per million	Entrance assessment	Training period (years)	Exit assessment
China	1,200	30,000	25	No	6-7	No
Hong Kong	6	80	13	Yes	6	Yes
India	1,000	3,000	3	Yes	3	Yes
Indonesia	200	400	2	Yes	4	Yes
Malaysia	18	100	6	No	4	Yes
Japan	130	7,600	59	No	5	Yes
Korea	50	1,600	32	Yes	4	Yes
Nepal	20	28	2	Yes	4	Yes
Philippines	70	209	3	Yes	4	Yes
Singapore	3	48	16	Yes	3	Yes
Taiwan	20	980	49	No	4	Yes
Thailand	60	60	1	No	3	Yes

ogists in Asia was conducted by sending questionnaires to major institutes in the region. These questionnaires were designed to explore two aspects of education: the first section concentrated on the training of junior otorhinolaryngologists and the second part, continuing medical education for practicing otorhinolaryngologists. These questionnaires were sent to 26 Institutes in 12 countries or regions in Asia: China, Hong Kong, India, Indonesia, Japan, South Korea, Malaysia, Nepal, Philippines, Singapore, Taiwan and Thailand.

In those countries which stretch across large geographic distances, the questionnaires were sent to a few large cities, otherwise institutes in the capital city were investigated e.g. in China, questionnaires were sent to Institutes in Beijing, Shanghai, Guangzhou, Chengdu and Jinan while in Japan, institutes in Tokyo, Fukuoka and Kagoshima were enrolled into the survey. In Indonesia, information was gathered from institutes in Jakarta and Surabaya. The author chose institutes solely on the basis of where his personal contacts were employed although, all the Institutes selected had good records in providing training and education to otorhinolaryngologists.

## Results

With the kind cooperation of the otorhinolaryngologists in the various institutes, the survey achieved a 100 per cent response rate, all questionnaires were returned promptly and contained adequate information for subsequent analysis. The population of the countries/regions surveyed in Asia ranged from 2.8

to 1200 million and the number of registered otorhinolaryngologists, from 28 to 8,000.

In all the countries/regions surveyed, the training of otorhinolaryngologists starts after internship and the duration of training ranges from three to seven years. The number of training posts in most countries is fixed and this relates to the number of patients treated and the number of senior otorhinolaryngologists available to supervise training in individual centres.

In seven countries/regions, doctors who wish to specialize in otorhinolaryngology after graduation are required to undergo an assessment before entering the training programme. In countries/regions that have an historical association with the British Empire, such as Malaysia, Hong Kong and Singapore, the structure of training programmes follows that of the United Kingdom. In other countries such as Japan and the Philippines, training programmes follow those of the United States of America. Training programmes in most countries/regions include evaluations or examinations at regular intervals and there is usually an assessment in the form of either a written or oral examination at the end of the training period (Table I).

Although all respondents regarded continuing medical education (CME) as important, CME programmes were available in only eight countries/regions (Table II). In these countries CME had been implemented for one to 20 years at the time of the study. No compulsory examination was included as part of a CME programme in any surveyed institute. Attending educational activities such as lectures and conferences formed the main basis of CME programmes. In a few countries/regions in recent years, a structured CME program has been established. The number of hours of CME activities are recorded and assessed at a predetermined time (Table II).

There was no independent organization governing the CME programme in most countries/regions in Asia, however the training of otorhinolaryngologists was supervised by some authority, either the Health/Medical Ministry or the otorhinolaryngological society or similar organization.

## Discussion

The collection of precise information on postgraduate medical training in Asia is not easy. In different

TABLE II  
CONTINUING MEDICAL EDUCATION PROGRAM FOR OTORHINOLARYNGOLOGISTS IN ASIA

Country/region	CME programme	Years since establishment	Duration of each cycle
China	No		
Hong Kong	Yes	1 year	3 years
India	No		
Indonesia	Yes	20 years	nil
Malaysia	Yes	10 years	nil
Japan	Yes	5 years	7 years
South Korea	Yes	1 years	nil
Nepal	No		
Philippines	Yes	20 years	nil
Singapore	Yes	12 years	nil
Taiwan	Yes	12 years	3 years
Thailand	No		

countries, medical training and registration is unique for that region. The problem is compounded when specialist registry is considered – the definition of a specialist also varies between countries. This investigation attempted to collect information from institutes in those countries/regions that frequently participate in international otorhinolaryngological meetings or activities.

The list of surveyed institutes is not exhaustive and many institutes in different countries/regions could not be included because of the difficulty in establishing contact. Administrative and communication difficulties also limited the survey to 12 countries/regions. Questionnaires were sent to major institutes in large cities or capitals of each country or region. Most of these institutes provide training for otorhinolaryngologists and agreed to provide statistical information. The response rate, which was 100 per cent, reflects the desire of leading otorhinolaryngologists in every country to work together to provide the best training opportunities for the next generation of ENT doctors.

#### *Training to become a specialist*

The populations of the countries surveyed ranged from 2.8 to 1 200 million and the number of recognized otorhinolaryngologists in each ranged from 28 to 30 000. The ratio of ENT doctors to population also varied widely, from one per million, to 59 per million population. These data do not indicate the distribution of ENT doctors between rural and urban areas but do reflect the gross disparity in relative access to otorhinolaryngology health care across the region. The range also, indirectly, reflects the differences in provision of training and planning of specialist medical manpower between countries. It has been estimated that there will be an excess of specialists in Western countries in the next decade.<sup>4</sup> Our survey data does not indicate any shortage or excess of ENT doctors in Asia because the distribution of otorhinolaryngologists within the regions was not taken into consideration. The extent to which different medical and health authorities consider the provision of adequate care in the field of otorhinolaryngology a priority also accounts for the differences between countries.

The training of otorhinolaryngologists hopes to achieve the attainment of clinical competence, the establishment of ability to conduct research in the field and the aptitude to pass knowledge on to the next generation of ENT doctors. Clinical competency, as in other specialities, is reflected by the ability to take an adequate medical history, carry out a proper physical examination and to arrive at a diagnosis following appropriate investigations. Proper surgical treatment should be administered and suitable post-operative rehabilitation provided. The adequacy of an individual training programme is best determined by questioning trainees.<sup>5</sup> In seven of the 12 countries or regions in Asia, an assessment of potential trainees is carried out to select suitable candidates. This is considered essential as training in

otorhinolaryngology is demanding and requires devoted students with an adequate basic medical knowledge.

Clinical competency can only be achieved through appropriate coaching and adequate practice. The period of otorhinolaryngology training in the 12 countries/regions studied ranged from three to seven years. This reflects variation in available training facilities/personnel and perception of what adequate training entails. The duration and components of training varies according to the need of the community.<sup>6</sup> In some countries, the goal of training is to produce general ENT doctors while others aim to develop experts in the various subspecialties of otorhinolaryngology. This variation is appropriate in Asia, as there is wide variation in access to health care in different countries depending on the financial situation, geography and traditions/culture. Some countries have the resources to develop subspecialty care while others are still trying hard to provide basic ENT specialists. Unfortunately a few countries are producing an excessive number of unregulated and substandard otorhinolaryngologists.<sup>7</sup> In all the training programmes surveyed, the clinical demand and number of senior otorhinolaryngologists available for teaching regulated the number of training posts. ENT surgical training is in the form of an apprenticeship and it is important to maintain an appropriate trainer to trainee ratio.

All training programmes surveyed included continuous assessment in the form of tests or evaluation by trainers. Most included a formal assessment at completion of training. For Malaysia, Singapore and Hong Kong where the training programme is similar to that of the UK, the final assessment is similar to the UK's Royal College examination. For Taiwan and the Philippines, where the training programme follows that of the United States of America, an assessment similar to that of the American Board of Otolaryngology is carried out on completion of training. For other countries, final assessment usually comprises of a written examination followed by an oral test. In Hong Kong, final assessment has been changed in recent years to parallel the intercollegiate examination of the United Kingdom. A practical test involving hands-on cadaver dissection and temporal bone drilling has been included in the final assessment.

No matter what form final assessment takes, all trainers recognize the importance of ensuring the quality of graduates the training programme produces. Although the level of assessment may be different between Asian countries, the consensus is that all graduating candidates must be competent in providing adequate otorhinolaryngological care to patients. Some form of recognition should be given to those who pass through the training programme.<sup>8</sup>

#### *Continuing medical education*

Continuing medical education (CME) has always been an integral part of the medical profession. Following graduation, physicians voluntarily continued their professional education as their interests became established and their available educational

opportunities became clear.<sup>9</sup> In recent years, semi-compulsory CME activities have been introduced in many medical disciplines. This is particularly important in the field of otorhinolaryngology. Our specialty manages pathologies located at the skull base extending downwards to the upper thorax while the nature of the practice encompasses infection and allergy, to benign and malignant tumours. Our patients include neonates, adolescents, adults and the elderly. CME activities are mandatory in order to keep abreast of the new knowledge and technology in the field.<sup>10</sup>

The importance of CME is recognized in all countries and some form of CME activity was reported to be functioning in each. Possible CME activities included: attending lectures, conferences, seminars and self-study. Eight countries have set up CME programmes and some of these have been in place for 20 years. In three countries a defined cycle of CME that lasted either three or seven years was audited and evaluated (Table II). Medical/health authorities or the otorhinolaryngological societies helped in monitoring the CME activities. There was no formal assessment or re-certification in any country. In Hong Kong, the Hong Kong College of Otorhinolaryngologists established a CME programme in April 1996. ENT surgeons must complete 30 hours of CME activities each year if they are to remain on the specialist registry. Besides didactic lectures, clinical seminars and forums were organized to provide an opportunity for active learning. Attending practice courses and workshops allowed otorhinolaryngologists to get acquainted with new surgical techniques and technological developments. We all recognize that CME is important, not because it ensures that those who are out of date will catch up, they may not, but it does provide opportunities for those who want to stay up-to-date. To the public, documentation of participation in a CME programme is taken as a sign that the physician has maintained contact with the development of the specialty and is a measure of continued competence.

The development of a specialty is not a passive consequence of medical practice. Its emergence is associated with a polarization of opinion not only between lay and medical circles but also within the specialty itself. One essential question that must be asked is whether a self-proclaimed specialist knows enough about the specialty that he professes to practice. It is only through properly designed training programmes, that appropriate education can be given to the best medical graduates and thus further development in otorhinolaryngology be made possible. The implementation of continuing medical education shows commitment to delivering the optimal medical care to patients. In Asia, these criteria are now being fulfilled. We believe that through communication and cooperation between specialists in different countries/regions, the training of the next generation of otorhinolaryngologists in Asia can be improved even further.

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Address for correspondence:  
Professor William I. Wei,  
Department of Surgery,  
The University of Hong Kong,  
Queen Mary Hospital,  
Hong Kong.

Fax: (852) 2855 1897