

## POSTGRADUATE MEDICAL EDUCATION AND TRAINING IN SINGAPORE

C.C.H. Chew, Honorary Postgraduate Advisor, Graduate School of Medical Studies, National University of Singapore, Singapore

### INTRODUCTION

Singapore is an independent island city-state situated just one degree north of the equator. It has a land area of only 682 km<sup>2</sup> and a population of four million. Singapore has a remarkable health record and freedom from many major infectious diseases. More than 85% of the population live in high-rise public housing apartments. The infant mortality rate of less than 2.2 per 1,000 live births and an average life expectancy of over 78 years compares favourably with the so-called advanced countries.

Medical education commenced formally in 1905 with the founding, by the British, of the King Edward VII College of Medicine, the predecessor of the Faculty of Medicine of the National University of Singapore. This was indeed a historical milestone.

The medical course today, as in the past, corresponds closely to those of the UK and the traditional Commonwealth medical schools, including those in Australia. The requirements for admission are stringent. To practice medicine in Singapore, each graduate must complete a year of supervised training as an intern in hospitals recognised for this purpose.

### POSTGRADUATE MEDICAL EDUCATION AND TRAINING

It was inevitable that when Singaporean doctors pursued further postgraduate studies, they would also follow the British and Western pattern. Postgraduate medical education became organised with the founding of the Academy of Medicine (AM) in 1957 and the establishment of the Committee of Postgraduate Medical Studies in 1961, the predecessor of the Graduate School of Medical Studies (GSMS), which coincided with the period in which Singapore became politically independent.

Most new graduates following their internship now work in the medical service of the Government or University for three to five years. After the first year of service, they are eligible to embark on formal training either as a specialist or in general (family) practice. The first period of training is three years. After being successful in higher professional examinations, candidates are given further opportunities for structured training in their respective disciplines for three to four more years. Thereafter assessment and/or examinations are conducted by the respective Specialist Training Committees of the Specialist

Accreditation Board. Successful candidates may then apply for registration as specialists with the Singapore Medical Council. Thirty-five disciplines are included in this certification process.

Specialist certification is the responsibility of the Specialist Accreditation Board (Table 1) mainly through the AM and the GSMS.

**TABLE 1**  
**Specialist Accreditation Board**  
**(Medical Registration Act 1997).**

Chorh Chuan Tan	Director of Medical Services*
Walter Tan	Master, AM*
Eng Hin Lee	Director, GSMS*
Raj Nambiar	SMC Representative*
Yam Cheng Chee	
Chin Hin Chew	
Maurice Choo	
Abu Rauff	
Clarence Tan	
Ser Kiat Tan	
Hoon Cheow Teoh	
Simon Shoryon	
John Wong	
* Ex-officio	

The AM is the professional corporate body with responsibility for medical and dental specialists in Singapore. Based on the Royal Colleges in the UK and Australasia but embracing all specialties, the AM includes all specialists and consultants in Singapore – in active employment in the Government, the University and the private sector. Its main objectives are advancing the art and science of medicine, maintaining the highest standards of professional and ethical practice and promoting postgraduate education and training.

The GSMS is administered by a board comprising representatives from the Faculty of Medicine, the AM and the Ministry of Health (Table 2). The School conducts the Master of Medicine examinations, which correspond to membership or fellowship examinations of the UK Royal Colleges; to ensure that high and corresponding standards of examinations are maintained, external examiners from the Royal Colleges are appointed.

In addition, the College of Family Physicians founded in 1971 as the professional corporate body for practitioners

**TABLE 2**  
Board of Graduate School of Medical Studies.

SC Fong (Vice Chancellor)	Chairman
EH Lee	Director
YC Chee	Deputy Director
KG Yeoh	Deputy Director
EH Lee	Dean, Faculty of Medicine*
W Tan	Master, Academy of Medicine*
B Ong	} Representing the Faculty of Medicine, National University of Singapore
PS Low	
EH Lee	
KG Yeoh	
CH Chew	} Representing the Academy of Medicine
CH Chan	
YC Chee	
R Nambiar	
A Wan	Representing the Ministry of Health
*Ex-officio	

of family medicine works closely with the Ministry, the GSMS and the Department of Community, Occupational and Family Medicine with regard to the training and certification of family physicians.

From the beginning, it was recognised that having undergone the required basic training and having passed the Mastership of Medicine (M. Med) or equivalent higher qualification examinations does not make of the postgraduate a specialist. A further period of three to five years is necessary. With this in mind, the GSMS and the AM, in collaboration with the Ministry of Health, started the Advanced Specialists Training programme leading to specialist certification. Thus a Joint Committee on Advanced Specialist Training (JCAST) comprising representatives of the three bodies was formed in 1991 to coordinate the training requirements and assessment. This was the predecessor of the Specialist Accreditation Board following the revision of the Medical Registration Act in 1997.

**SPECIALIST TRAINING AND CERTIFICATION**

Medical education is regarded as a lifelong process, i.e. a continuum from undergraduate through postgraduate education and beyond.

In Singapore, 35 specialties have been identified. Specialist training is broadly divided into two stages: basic and advanced. In general terms, basic training commences a year after full medical registration and lasts for three years. The M. Med degrees are available for a variety of disciplines (Table 3). For many, these are the equivalent to the Membership and Fellowship of the Royal Colleges.

**TABLE 3**  
Examinations of GSMS.

Mastership of Medicine	
Internal Medicine	Psychiatry
Paediatric Medicine	Ophthalmology
General Surgery	Diagnostic Surgery
Obstetrics & Gynaecology	Public Health
Anaesthesia	Family Medicine
Occupational Medicine	
Joint Examinations	
General Surgery	MRCS(Ed)/M.MED
Ophthalmology	MRCS(Ed).M.MED
Internal Medicine	MRCP(UK)/M.MED
Paediatric Medicine	MRCPCH/M.MED
Obstetrics & Gynaecology	MRANZCOG/M.MED

In addition, joint examinations are held with the Royal College of Surgeons, Edinburgh, the Royal Australian and New Zealand College of Obstetricians and Gynaecologists and the UK Royal Colleges of Physicians, Paediatrics and Child Health for surgery, ophthalmology, obstetrics and gynaecology, internal medicine and paediatrics respectively. Thus, successful candidates obtain the FRCS, MRANZCOG and MRCP(UK)/MRCPCH as well as our M.Med. For conferment of the M. Med, candidates must also fulfil the training requirements. Following completion of the basic medical training and success in the professional examination, candidates are given further opportunities in structured advanced training programmes in the specialty of their choice for a further three to four years.

At the conclusion of the 36 months of the programme in accredited departments, the advanced postgraduate specialist trainee would have met stated aims of the programme and also be aware of the multi-racial and cultural issues in Singapore, be conversant with the economic health issues of the day, and above all be in a better position to uphold the highest ethical and professional standards of the practice.

During the programme the trainee will be assessed and evaluated every six months by their appointed supervisor on their performance and management of cases and also through records of the trainee's log book. Trainee records are sent for study by the respective Specialists Training Committees of the Specialist Accreditation Board, and also for final assessment by a Board of Assessors. External assessors may be appointed for the purpose. Successful candidates are eligible for election as Fellows of the Academy of Medicine (FAMS).