Some Milestones: Specialist Education, Training and Assessment in Singapore*
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Abstract
Singapore had its most significant milestone in 1905 when the Singapore Medical School was founded. The Academy of Medicine, founded in 1957, celebrates its Golden Anniversary in 2007. Thus, the events that influenced the development of postgraduate medicine, specialist education, training and examinations commenced rightly from 1957. These are presented chronologically. The significant roles played by the Academy, the University’s Medical School and the Ministry of Health are highlighted, bearing in mind the ongoing developments in Singapore and globally over the years. To keep pace with the further developments and advances, the high gold standards in specialist training and assessment need to be refined with time. This can only be to the benefit of our patients and the community in Singapore and beyond.

Key words: Academy, Division of Postgraduate Medical Studies, Specialist Accreditation Board, Specialist Register

Prologue
First, let me thank the Master and Council, Academy of Medicine, for inviting me to speak at this celebration of the Academy’s 50th Anniversary. It is indeed an incredible privilege and honour, even more so to be associated with the oration that bears the name of our founding Master – Sir Gordon Arthur Ransome.

Professor Ransome was my first Chief of Medicine when I joined his Department (Medical Unit I) at the Singapore General Hospital (or SGH) 51 years ago in July 1956. Besides his clinical prowess, he is fondly remembered for another attribute – his frequent lapses of memory, I suspect sometimes for convenience. In the course of a ward round, “Chew”, he quipped: “May I have your stethoscope, I left mine in the office” while his was dangling around his neck! I believe he wanted the use of my diaphragmatic chest piece for an aortic murmur – those were the days when the bell was the only norm for routine use. Ten years on, he asked me to join him in consultation to see his royal patient across the Causeway. On the way to Bukit Serene, “Chin Hin” he addressed me by my first name this time: “I’m sure you know we do not send medical bills to royalty!” I trust I had not contravened any Civil Service general orders.

A central role of the Academy has always included the advancement of postgraduate medical education and conduct of higher professional examinations. This mission has been held dearly by Academicians since the foundation of the Academy.1 A review of some significant milestones would I hope also meet with the approval of our founder Master if he were here today.

The Early Years
Singapore had its most significant medical milestone in 1905 when the Singapore Medical School was established by the British Colonial Government. The School’s standards were consistently high and by 1916, its graduates were fully recognised by the General Medical Council (GMC) of Britain for full registration.2

While the School’s undergraduate curriculum followed well-established and traditional Commonwealth patterns, there were no formal postgraduate training programmes. Indeed specialist training was unheard of and the Colonial Government discouraged further postgraduate training. Dr G Haridas, the first local graduate to obtain an MRCP, was given a scholarship on the condition that he would not sit for any higher examination. Nevertheless, sit he did and passed on his first attempt in London.3,4 While it was the Government’s policy to discourage local doctors from pursuing postgraduate studies and qualifications, our doctors from the outset felt the need to update themselves

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professionally. Clinical meetings were organised mainly at
SGH and Tan Tock Seng Hospital (TTSH) and later at the
Kandang Kerbau Hospital (KKH).\textsuperscript{2} The forte of the Medical
School had always been bedside teaching of clinical
medicine and surgery. This was conducted in the course of
daily rounds and the teaching of medical students. There
were a good number of teachers who, although colonial,
were truly committed and dedicated to the profession and
teaching. The late Dr Wong Heck Sing, a former President
of the College of Family Physicians (CFPS) and Fellow of
our Academy highlighted 2 such teachers, namely, Gordon
Ransome and Eric Mekie, Professors of Medicine and
Surgery respectively. He described them as complete
doctors, imparting knowledge and skills to their local
colleagues who not only succeeded them but in turn
produced many more local professors and teachers for our
country.\textsuperscript{5}

The War Years

Formal medical education practically ceased during the
Japanese Occupation from 1942 to 1945. With all expatriate
doctors away in internment, the Occupation brought local
doctors and staff in the hospitals, especially TTSH and
KKH, much closer to each other, sharing the common
experience of death, dreadful diseases and scarce resources.
These were the only general hospitals serving the local
population, administered and manned entirely by local
doctors and nurses. They became centres where doctors not
only discussed their patients, teaching and learning daily
by the bedside but also practical policies which they felt
deeply about well before and during the War, e.g., the
imperative need for a unified service with the equal treatment
of local and colonial doctors. The three and a half years of
Japanese Occupation gave the local health team tremendous
opportunities to assume full responsibility for the medical
services under the most trying conditions.\textsuperscript{6} Dr Benjamin
Sheares, our second President, founding member and Patron
of our Academy, wrote, “The Japanese invasion caused a
general awakening of the people of Malaya. In no small
measure, the local graduates contributed to this awakening
despite having been deliberately excluded from the higher
echelons of the medical service”.\textsuperscript{2}

I still remember some names of our local medical leaders.
From KKH we had Dr Sheares himself; BR Sreenivasan, K
Vellasamy and Tay Teck Eng; from TTSH were W
Ballhatchet, Clarence Smith, Benjamin Chew and ATS
Chong; and from Middleton, Ernest Monteiro.\textsuperscript{2} They were
all colleagues and friends of Professor Ransome.

Early Post-war Years

The War ended with the formal Japanese surrender on 2
September 1945 and Singapore came under the British
Military Administration of Lord Mountbatten, Supreme
Allied Commander, Southeast Asia shortly thereafter. In
April 1946, Singapore became a British Crown Colony
following the dissolution of the Straits Settlements. Even
with the establishment of a unified service, the pace of
sending our doctors for formal specialist training was slow.
A new scheme in the early post-war years was to send a
limited number of doctors to Britain on scholarship for a
period of 1 to 2 years to attend courses and sit for
examinations but offered little or no training. Most were
successful but the programme was nonetheless wasteful in
some measure. They were absent from work in Singapore
for months or more and were focused mainly in passing the
membership or fellowship examinations of the Royal
Colleges rather than acquiring new skills.\textsuperscript{4,7}

The Establishment of Postgraduate Institutions

It was inevitable that when our doctors pursued further
studies, they would follow the British and Commonwealth
pattern. Formal postgraduate education became organised
only with the founding of the Academy of Medicine in
1957 and the establishment of the Committee of
Postgraduate Medical Studies in 1961. Shortly after the
foundation of the Academy, this Committee was formed as
a result of a carefully prepared Memorandum sent to the
Government and the University. The Committee was the
predecessor of the School of Postgraduate Medical Studies,
now known as the Division of Graduate Medical Studies
(DGMS). Patterned on the Royal Colleges of Britain and
Commonwealth but unlike these Colleges, which are
responsible only for individual disciplines, the Academy
embraces all specialties. These were indeed significant
milestones in postgraduate education and the beginning of
specialist training programmes. This was also the period
when Singapore became more politically independent.\textsuperscript{4,8}

In the early years of the Academy and the School, regular
courses were organised for candidates preparing for
qualifications awarded by the various Royal Colleges in
Australasia and Britain. The Academy had always felt that
Singapore should have its own professional examinations
and qualifications of internationally recognised standards.
Many memoranda on this matter had been sent to the
Ministry of Health and the University but progress had
been painfully slow.

On 8 October 1967, Deputy Prime Minister Toh Chin
Chye delivered a speech in which he censured the Faculty
of Medicine for not making any progress in the field of
higher professional education and examinations. This was
prominently reported in the Straits Times of 9 October
1967. The response by the Academy was almost immediate.
I recall receiving phone calls from the Master, Dr K
Shanmugaratnam, and the Assistant Master, Dr Seah Cheng
Siang, proposing for an emergency Council meeting to
respond to Dr Toh’s speech. This was held on 11 October

\textsuperscript{8}

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and a letter was soon despatched by hand to him indicating that the Academy existed for the advancement of medical specialisation and establishment of higher professional qualifications. We also requested an opportunity for the Council to meet him. He promptly agreed and I remember vividly the morning coffee we had with him in the Conference Room at the City Hall on 4 November 1967. At this meeting Dr Toh suggested that the Academy, the Faculty and the Singapore Medical Association form a Committee under chairmanship of the Master, and jointly send a Memorandum to the Minister for Health. The Committee recommended, “that higher professional qualifications in various clinical specialties be awarded by the University and that the School of Postgraduate Medical Studies be reconstituted to enable the Academy to participate as equal partners in the training programmes and examinations”.7,9

In April 1968, Dr Toh was appointed Vice Chancellor. A new statute for the School provided for it to function independently of the Faculty under a Board comprising the Vice Chancellor as Chairman, the Director and Deputy Director, 4 teachers of the Faculty, 4 members of the Academy and the Director of Medical Services. At its first meeting, Dr Toh placed on record his appreciation of the services rendered by the Committee under the chairmanship of the Academy’s Master.7,10 Thus, the meeting on 4 November 1967 was historically significant and the Academy will always be grateful to Drs Toh and Shanmugaratnam for their role in establishing and placing postgraduate education and examinations in Singapore on a firm and formal foundation.

In addition to taking on the functions of the former Committee, higher professional examinations commenced in 1970 leading to the degree of Master of Medicine (or MMed) in Internal Medicine, Paediatrics, Surgery and Obstetrics & Gynaecology. Examinations in other disciplines were later added. To ensure that standards obtained would be equal to those of the Royal Colleges, external examiners from these bodies were appointed. Reciprocity was often granted and since 1986, joint examinations were also established in several disciplines (Table 1).4 Of equal importance, were we without these courses and examinations, doctors seeking higher professional qualifications would have to take leave to proceed abroad, sometimes for many months or even years. Now there is no wastage of time, manpower and money for the candidate and for the country.

Specialist Training, Certification and Assessment

In keeping with its major responsibility to maintain the highest standards of specialist practice, Fellowship of the Academy of Medicine, Singapore (FAMS) had always been based on stringent standards. This principle continues unchanged. Apart from the possession of a higher qualification, a minimum period of accredited training of at least 5 years in a specialty and evidence of sound professional standing, character and conduct are mandatory criteria.8

With the rapid development of specialisation, it was recognised that our local MMed and its overseas equivalent qualification did not denote the completion but the beginning of advanced specialist training of a further 3 to 4 years. Thus, in 1975, a Standing Committee on Specialist Certification was formed which led to the institution of the Roll of Specialists. The committee and its specialist boards also laid criteria for basic and advanced training in accredited units in our hospitals.11 This was the precursor of the present Specialist Register.

1991 was another milestone when the Joint Committee of Advanced Specialist Training (JCAST) was set up to replace the Academy’s Standing Committee, again as a tripartite partnership comprising representatives from the Academy, the Postgraduate School and the Ministry of Health. The objectives included the provision of advanced specialist training and certification and of accreditation of training posts, all of which comprised the mission of the Academy. It was further recognised the need to conduct formal exit certification and assessment by teams of both local and external assessors (Table 2).4,12

### Table 1. Higher Professional Examinations of Singapore

<table>
<thead>
<tr>
<th>Master of Medicine</th>
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<tr>
<td>Internal Medicine</td>
<td>Psychiatry</td>
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<td>Paediatric Medicine</td>
<td>Ophthalmology</td>
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<tr>
<td>General Surgery</td>
<td>Diagnostic Radiology</td>
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<tr>
<td>Obstetrics &amp; Gynaecology</td>
<td>Public Health</td>
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<tr>
<td>Anaesthesia</td>
<td>Occupational Medicine</td>
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<tr>
<td>Orthopaedic Surgery</td>
<td>Otorhinolaryngology</td>
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<td>Family Medicine</td>
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<td>Emergency Medicine</td>
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### Joint Examinations

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<tbody>
<tr>
<td>General Surgery</td>
<td>MRCS (Edin)/MMed</td>
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<tr>
<td>Ophthalmology</td>
<td>MRCS (Edin)/MMed</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>MRCP (UK)/MMed</td>
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<tr>
<td>Paediatric Medicine</td>
<td>MRCPCH/MMed</td>
</tr>
<tr>
<td>Obstetrics &amp; Gynaecology</td>
<td>MRCOG/MMed</td>
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<tr>
<td>Emergency Medicine</td>
<td>MRCS (Edin)/MMed</td>
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### Table 2. Specialists Accreditation Board (Medical Registration Act 1997)

<table>
<thead>
<tr>
<th>Basic Qualification</th>
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<tbody>
<tr>
<td>M Med</td>
<td>National University of Singapore</td>
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<tr>
<td>Or Equivalent</td>
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<th>&quot;Exit&quot; Qualification</th>
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<tbody>
<tr>
<td>FAMS</td>
<td>Academy of Medicine</td>
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<tr>
<td>Or Equivalent</td>
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</table>
During the last decade, even more fast moving developments in medical specialisation have taken place in Singapore and globally. To keep pace with these immense developments, the Medical Registration Act was revised in 1997. This provided for the establishment of the Specialist Accreditation Board and the Specialist Register. The chairman is the Director of Medical Services and the 3 ex-officio members are the Master, the Director, DGMS; and the President, Singapore Medical Council. Other members include senior specialists who are appointed by the Minister for Health. The Academy can take heart that no less than 5 Past Masters are members, including the Director of Medical Services (Fig. 1). The Board is assisted by the Joint Committee of Specialist Training (JCST) comprising the Master of the Academy and the Director of DGMS as co-chairmen and by specialist training committees (STCs) of the 35 recognised disciplines. In 1999, the Academy passed a resolution granting its Fellowship to trainees on the successful completion of their training programmes, and having their names placed on the Specialist Register of the Singapore Medical Council. Thus again, this Board, the JCST and the STCs continue to be responsible in this tripartite partnership which is so important in this relatively small community of our small island-nation.

Epilogue
The Academy has from the early years formed 10 Chapters to represent the various disciplines. Moving onwards in 2004, 6 of these Chapters were transformed into Colleges. In the last 3 years, they have no doubt enhanced their more independent role in the professional development of their respective specialty.

In his keynote address in 2005 at our Medical School’s Centenary Celebrations at the 39th Singapore-Malaysia Congress of Medicine, Professor K Shanmugaratnam propounded, “the DGMS may well need to evolve further in terms of its status and structure, to meet these developments. The University is empowered to award postgraduate degrees and diplomas... However, it is the Academy of Medicine, which has a membership of more than 1800 specialists and corporate Colleges in 6 major medical specialties, which has the full professional capacity to conduct training courses and examinations in these specialties, and it is the Ministry of Health which provides the training facilities, sets the standards of specialist practice and controls the accreditation of medical specialists. Any change that may affect the conduct or regulation of postgraduate medical education and qualifications should therefore be undertaken jointly by the University, the Ministry of Health and the Academy of Medicine.”

I am pleased to report that indeed a Committee on Postgraduate Specialist Training and Examinations was formed this year comprising the 3 established stakeholder parties (Table 3). A clear consensus has emerged and the Academy with its constituent Colleges will be substantially involved in the conduct of higher professional examinations and FAMS will be the statutory yardstick for the successful completion of specialist training.

The high gold standards of specialist training in keeping with the Academy’s mission will continue to be refined. These standards cannot be compromised with ongoing needs and developments. I am convinced that this generation of Academicians and of those to come will continue to lead the Academy to greater heights, keeping faith with the aspirations of our Founders. The Academy can only go forth from strength to strength, continuing to flourish for the next 50 years and beyond. Mr Master, Happy Golden Anniversary and Congratulations.

Table 3. Committee on Postgraduate Specialist Training and Examinations

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation</th>
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<tbody>
<tr>
<td>Chew Chin Hin</td>
<td>Chairman</td>
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<tr>
<td>Chee Yam Cheng</td>
<td>Deputy Chairman</td>
</tr>
<tr>
<td>Raj Nambiar</td>
<td>Member</td>
</tr>
<tr>
<td>Lee Eng Hin</td>
<td>Member</td>
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<tr>
<td>Lau Hong Choon</td>
<td>Member</td>
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<td>Ho Lai Yun</td>
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<td>Fock Kwong Ming</td>
<td>Member</td>
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<tr>
<td>Lim Shih Hui</td>
<td>Member</td>
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<tr>
<td>Chan Yew Weng</td>
<td>Member</td>
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Ms Yong Bee Choon and Ms Kirat Kaur for secretarial assistance and access to the Academy’s archives and annual reports.
REFERENCES
10. School of Postgraduate Medical Studies Board Minutes 31 March 1969.