### PEDIATRIC RESIDENT TRAINING IN MALAYSIA

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In Malaysia, medical students graduate from university at the age of 24 after going through 5 years of medical training. Given the most rapid career pathway, the first opportunity to enter the Pediatric Residency Program is at the age of 27, as graduates are required to do three years of compulsory training in the Ministry of Health (MoH).

Pediatric Residency Training in Malaysia is a four year structured course leading to qualification as a General Pediatrician at the age of 31. Generally, graduates are then required to spend three years working as a General Pediatrician before entering a subspecialist program, which is for another three years (Fig 1).

Prior to 1989, Malaysian doctors would normally go to the United Kingdom for attainment of membership to the Royal College of Physicians, and later on, to the Royal College of Paediatrics and Child Health. Funding for this training was variable: some were self-funded and some government funded. Following attainment of the MRCP, some returned to Malaysia, but others stayed in the UK. After 1989, Malaysia started its own pediatric training program. Initially the Universiti Malaya, the oldest university in Malaysia, established this as a four-year structured program. Three universities-Universiti Kebangsaan Malaysia, Universiti Sains Malaysia, and then lastly Universiti Putra Malaysia-sub-

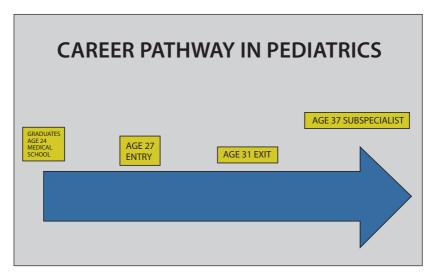


Fig 1-Career pathway in pediatrics, Malaysia.

sequently followed.

Requirements to enter the residency-training program are applicants must have completed two years internship training and possess full registration with the Malaysian Medical Council. Following these two years, trainees spend two further compulsory years of post-internship jobs serving the manpower needs of MoH hospitals as medical officers.

Following this, the candidate is eligible for residency training, but is required to sit a qualifying examination for entrance. This assesses basic theoretical competency in general medicine and pediatrics. The National Conjoined Board (formed by all four medical universities and the Ministry of Health) controls this process. The examination is followed by an interview, and from the interview it is decided where the applicant will be placed for residency training.

Training placements are in accredited training centers in MoH and university hospitals. Generally the four years of training consist of two years in MoH hospitals and two years in university hospitals. Ideally, university hospitals prefer trainees to be in their own facilities for ease of monitoring and regulation. This would, however, cause MoH hospitals to have problems with their manpower, therefore, the MoH insists that the program is split between university and MoH hospitals.

In the first year, residents study the basic sciences and the pathophysiology of common pediatric conditions. At the end of this year, they complete an end-of-year examination that consists of MCQs (multiple choice questions), SAQs (short-answer questions) and a viva. As by this stage of

their training many residents would have already left medical school for three to four years, this assessment has caused problems. There are currently efforts to rectify this problem in an upcoming program next year, whereby there will be nationwide preparatory programs prior to entry to Masters of Medicine and Pediatrics programs.

During Years 2 and 3, residents pass through specialty rotations that are divided into three-month slots. Residents are also expected to identify a research topic during their second year that they will complete during Years 2 and 3, to be ready for submission in Year 4.

Throughout the years, the level of the research performed has become increasingly complex, such as randomized control trials, because of more experienced supervisors. At the end of Year 3, residents complete an exit clinical examination, which has components of both theory and clinical knowledge. The clinical aspect is very similar to the membership exam, which consists of a long case, short case, and a viva. There is potential for ASEAN countries to collaborate in the research and main exit examination stages through appointment of external examiner participation, as many in the region will already be familiar with the format of these assessments.

In the final year, residents enter the 'Consultant-in-Training' program where they supervise juniors, complete their research and submit their dissertation, and are assessed at the end of the year by an exit viva based on their dissertation. Prior to official certification as a specialist in General Pediatrics, residents are supervised for another six months in their respective hospitals, a 'gazettement' period.

Subsequently, a further three years of training is required if the doctor chooses a subspecialty.

An alternative pathway towards becoming a pediatrician in Malaysia is known as the Membership of the Royal College of Physicians of Child Health (MRCPCH) pathway. There are annual MRCPCH centers in Malaysia and Singapore at which candidates can take these examinations. If successful, they are then eligible for a further 18-month period of gazettement before receiving official certification. This pathway is seen as a less intensive and involves less research. Many candidates choose to take this path rather than the structured four-year training program. Currently it is felt that it would be desirable to have a common training pathway, such that in the year 2014 there will be implementation of similar examination and supervision systems for all trainees.

There is potential for regional collaboration in many areas of pediatric training, including specialty based rotations, following the end of Year 3 clinical examinations, during the consultant-in-training period, at the subspecialty training stage, and also for research, particularly on diseases specific to this region.

#### Q&A

# What is the difference between University and MoH hospitals, and how do their training systems vary?

The main backbone of Malaysia's healthcare system is provided by the Ministry of Health hospitals. They are hospitals of a high standard. Periodically, the national conjoined board initiates accreditation exercises at MoH hospitals and

recognizes them as training centers when they have the suitable case mix, appropriate number of patients, appropriate number of subspecialties, and so on. Some of the many hundred MoH hospitals that exist in Malaysia are certified as training centers, and so are able to undertake some of the training required for pediatric residents.

In Malaysia, there are only three university hospitals, which are under the Ministry of Higher Education. There are plans to build a few more, but at the moment the number of university hospitals are very limited. It therefore is logical to expand training venues by accrediting tertiary centers within the Ministry of Health, which then become a training center for pediatric residents.

## How many years is medical school training in Malaysia?

Medical school training is five years undergraduate study.

## Are there age restrictions on the recruitment of civil servants in Malaysia?

The Malaysian government funds 80% of medical students in Malaysia. Government scholarships are generally given to those without a prior degree and less than 35 years of age.

### Do you have the system of credits?

There was an attempt some five years ago to get all medical schools in Malaysia to conform to the credit unit system. This ran for a few years, but ultimately was not successful as the typical credit unit system that is used by other courses such as Arts and Engineering was difficult to translate into the medical course. The flexibility of credits used in the typical credit unit system was not found to be particularly applicable in the medical course. This system was

therefore abandoned, and we reverted back to the 'weeks of training' system.

Does the choice of training institution for the one-year subspecialty trainees spend abroad depend on the Malaysian government? (As they sponsor this?)

For those in government service, their salary will continue during their subspecialist training year. They are also given additional allowances for training overseas. The center the trainee goes to must be recommended by trainers in the country.

Increasingly, Malaysian trainees are being sent to India as it is recognized they have some very strong training programs, particularly in the surgical-based fields. Generally, the Malaysian government recognizes these centers.

Does the Malaysian trainee have to pay back the government in terms of service on completion of training?

Normally trainees are expected to work for 5-7 years to pay back the training contract.