

**Appendix 1 – Justification of the accreditation of Paediatric Neurology as a new Subspecialty in Hong Kong**

**Introduction**

(extracted from the Proposal of a Program on Subspecialty Training in Paediatric neurology in Hong Kong)

Paediatric neurology has been practiced in Hong Kong for more than 30 years. It is recognized as a well established paediatric subspecialty in Hong Kong that is practiced by clinicians in public hospitals and in the private sector.

Paediatric neurologists look after children with conditions that have an origin in the nervous system. The scope of diseases that they see includes attention deficit – hyperactivity disorder, autism, cerebral palsy, developmental delay, epilepsy, neurobehavioral and neurodevelopmental disorders, neurometabolic diseases, neuromuscular diseases, learning disabilities, neoplasms of the nervous system and various inheritable nervous system disorders. Their service is necessarily overlapping and intertwined with subspecialists of other areas e.g. adult neurology, metabolic diseases, child development, ophthalmology, psychiatry and so on. Such is the case because of the multifaceted nature of these children’s illnesses.

In the field of paediatric neurology a subspecialist is required to have a specific range of knowledge and skills. These include the performance and interpretation of specialized electrophysiological tests, use of specific assessment tools in neurological and developmental conditions, employment of specific therapeutic techniques and also the skill to work in a multidisciplinary setting with other clinical, para-clinical and community based professionals to provide holistic care for the children.

The nature of the neurological and developmental conditions is often chronic. These conditions require long term follow up and chronic therapies or drug treatment. Since the management involves high costs, the majority of neurological and developmental conditions are looked after by the government sponsored agency, namely the Hospital Authority and, to a lesser extent, the Department of Health. The training program is therefore designed to include a significant period of hospital-based training to allow maximum opportunity in the hands-on management of these patients. The program is geared toward the expertise needed in the service model in Hong Kong.

This proposal is set to delineate the structure and requirement of the training program

for the accreditation of a Paediatric neurology subspecialist. It also stipulates the syllabus of knowledge a specialized paediatrician that is required in the care of children with neurological and neurologically related developmental problems.

### **Criteria for Establishing Paediatric Neurology as a Subspecialty**

*(I) The subspecialty is needed in Hong Kong*

The estimated prevalence of children suffering from some form of neurological condition is 12,000 per million. It is a sizable population that need to be served by paediatric neurologists.

*(II) The subspecialty is new and different from existing subspecialties*

Paediatric Neurology deals with diseases and disorders of the nervous system. It is a traditionally accepted definition and is unique among various other subspecialties in paediatrics.

*(III) The knowledge, skills and practice required by that subspecialty are identifiably distinct and are deemed appropriate and compatible with the practice of paediatrics*

Our proposal has listed a number of distinct areas of knowledge and skills targeted toward the paediatric population. They are unique and cannot be found in other existing subspecialties in Hong Kong.

*(IV) The subspecialty exists in other countries*

Paediatric Neurology is an established subspecialty in United States, Canada and Europe.

*(V) The subspecialty is recognized at the institutional level; with the appointment of academic staff for that subspecialty at the Associate Professor level in a university in Hong Kong or the appointment of a Consultant for that subspecialty in one of the Hospital Authority Hospitals or the Department of Health*

Currently there are one Professor at University of Hong Kong and two Paediatric Consultants employed by Hospital Authority who specialize in Paediatric Neurology. There are also 16 Associate Consultants who specialize in paediatric neurology appointed in HA hospitals.

(VI) *The subspecialty has the administrative support of one or more constituent Colleges of the Academy.*

Our current proposal has been supported by the Neurology Subspecialty Board of the Hong Kong College of Physicians to provide the necessary training in adult neurology. We are now seeking the support of the Hong Kong College of Paediatricians to endorse our training program.

### **Current Situation of Paediatric Neurology Activity in Hong Kong**

There are about 25 colleagues who are trained and working actively in the field of Paediatric Neurology. Their work is mostly part time, as most of them have to shoulder general paediatric and neonatal work at the same time. There are 16 Associate Consultants, 2 Consultants and one professor who all had more than 12 years of experience in Paediatric Neurology ready to be assessed for eligibility as future trainers.

There are two professional bodies in Paediatric Neurology, namely Paediatric Neurology Association of Hong Kong, established in 2009, and Hong Kong Society of Child Neurology and Developmental Paediatrics, established in 1994. There are regular scientific meetings and publications. The colleagues in this field are also frequent contributors to journals and periodicals, both local and overseas.

We believe that the current clinical and academic activities shall be a solid foundation to support future training in Paediatric Neurology.

### **Manpower Situation in other countries and the Need of Continuing Subspecialty Training in Paediatric Neurology**

According to a survey published in 2003, there was a total of 63 full-time-equivalent paediatric neurologist in Canada, amounting to 2.1 per million general population or 1.1 per 100 000 children. The authors opined that the ratio, which is commensurate with the recommendation of the Canadian National Institute of Health in 1971, was no longer satisfactory. They estimated the ratio of 2.5 to 3 per 100 000 children, which translated to 4.8 to 5.7 per million population <sup>1</sup>, would be more appropriate. Hence we entered the estimation that 5 paediatric neurologist were required per million population in Canada in the application.

The data of United States is harder to find. The number of active members in Child Neurology Society, the professional body of Paediatric Neurology in USA, is 1200. This would correspond to a ratio of 3.87 per million general population (current population of USA stands at 310 million).

Assuming that in Hong Kong a colleague working in Paediatric Neurology contributes about 50% of his work in the specialty, the current manpower situation will be approximately 1.78 full-time-equivalent per million general population. Judging from these figures, we believe there is a need of more Paediatric Neurology Specialists in Hong Kong.

### **Support from the Fellows interested in Paediatric Neurology**

The fact that 22 out of the 25 colleagues working in Paediatric Neurology attests to the widespread support of the application and the training program proposal.

#### Reference

1. Ronen GM, Meaney BF. Pediatric Neurology Services in Canada: Demand versus supply. *J Child Neurol*; 2003 (18): 180-184