

# NEUROLOGY TRAINING IN PAKISTAN

Neurology has made tremendous advances in the last two decades especially in our understanding of neurophysiological basis of diseases, neuro-pharmacology, medical physics, neuro-pathology and genetics which in turn has led to novel and exciting developments in our ability to diagnose and treat neurological diseases better than ever before.

Neurology as a specialty is about 45 year old in Pakistan. During the first 30 years (1965-1995) only foreign trained (mainly British trained) neurologists served the country. Neurology training program was started by the College of Physicians & Surgeons Pakistan in 1989-90. The first FCPS in neurology qualified in 1995. In 1990s we saw an influx of foreign trained neurologists returning to Pakistan and with this the Neurology training program of CPSP also gained increasing momentum. In a parallel training scheme the University of Karachi started a diploma program (Diploma in Clinical Neurology) in collaboration with Jinnah Postgraduate Medical Centre, Karachi with a very rich enrolment as well as a Master's Program: MD (Neurology). As a result, by 2011 we have over 90 neurologists practicing in Pakistan and about 20 to 25 are working abroad in different grades, mainly in the Middle East.

In the US there are 17,220 neurologists for a population of 310 million (1: 18,000)<sup>1</sup> and in UK there are 256 neurologists for a population of 60 million (1: 233,600).<sup>2</sup> In Pakistan we have around 120 neurologists for a population of 190 million (1: 1.5 million).

The College of Physicians & Surgeons Pakistan offers Fellowship programs in 64 specialties, which includes neurology.<sup>3</sup> The requirements for entry into the FCPS (Neurology) training program are:

- MB BS or equivalent basic medical degree from an institution recognized by the Pakistan Medical & Dental Council
- One year house job from a recognized training center
- FCPS part I in medicine & allied field
- 2 years training in internal medicine in an accredited training center

The structured training program in neurology comprises of 3 years' training in clinical neurology with mandatory rotations in clinical neuro-physiology, neuro-surgery, neuro-radiology and psychiatry. Candidate has to maintain a logbook and attend mandatory workshops on communication skills, introduction to computer & internet, computer & internet proficiency test and research methodology, biostatistics & dissertation writing. In the third year of training, submission of an approved research work in the form of dissertation (or two original articles in an approved medical journal) is also compulsory. This structured training is supervised by a consultant who is approved by the College of Physicians & Surgeons Pakistan. There are 14 training institutions approved by the College for training and the total number of approved supervisors is 213. The College now keeps a close eye on the training of each candidate through its Research and Training Cell. It is mandatory that the supervisor regularly reports the progress of his/her candidates online quarterly.

After completion of training the candidate has to pass an exit exam which is called FCPS (Neurology) Part II exam conducted by the College. The exam consists of two theory papers followed by a clinical component. The panel of examiners is appointed by the College and the exam is conducted twice a year.

One important issue which is often the topic of discussion at neurology dinners, Pakistan Society of Neurology Conferences and faculty meetings is the difference in training standards amongst the approved institutions. It has been quite a while when the last inspection of these centers was carried out by the College. It is now time that these "previously approved" centers are re-visited and re-inspected so that provision of mandatory clinical training facilities like patients volume, supervisor: trainee: bed ratio, neuro-physiology lab, neuro-radiology and neuro-rehabilitation

facilities are ensured. The parallel training program of Diploma in Neurology offered by the University of Karachi is loosely supervised by the University. It is up to the individual supervisor to keep an eye on the trainees. Likewise the MD (Neurology) Program is somewhat similar to FCPS but is also loosely supervised.

After FCPS or MD one can now choose to train further in a sub-specialty of neurology. Only The Aga Khan University offers Fellowship programs in Neurovascular Medicine (Stroke) and in Clinical Neurophysiology. Candidates who have completed their General Neurology training are eligible to apply. However, these programs are not recognized by the College of Physicians & Surgeons Pakistan or by the Pakistan Medical and Dental Council yet.

Making neurology a career in Pakistan has now become quite attractive. This is partially due to improved training facilities and career prospects as well as due to increasing demand for a neurologist in the local market. The prospect of working abroad with better financial gain is another major driving force. Having said that, still majority of hospitals, private as well as public, do not have a trained neurologist on their staff list. There are only 14 training institutions approved for neurology training in the whole country, some of them without any registered trainee for several years! The majority of trained neurologists are concentrated in big cities like Karachi, Lahore and Islamabad. In fact these three cities have more than 70% of all neurologists in the whole country. Although even small cities and towns like Chakwal, Gilgit, Swat and Sukkur now have CT scanners, they do not have trained neurologists. However, with about half a dozen neurologists completing their training and qualifying FCPS exam each year the future looks much brighter than before.

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