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Current Status of Clinical Neurosciences in India

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Abstract

An attempt to assess the current status of manpower availability in the field of clinical neurosciences has been done with the help of a proforma. Information obtained regarding neurosciences manpower, clinical facilities and teaching programmes are compiled. This data is hoped to assist in future planning to develop these specialities.

Key words -
Neurosciences facilities,
Neurosciences manpower

The speciality of Neurosciences was started in the country nearly four decades ago. The discipline has grown steadily in terms of the number if specialists available in the field and the different components of the speciality. A general impression about the number of specialists working in the speciality is known through the directory published by the Neurological Society of India. However, detailed information regarding the availability of manpower, the facilities for treatment as well as training programmes is not available. In an attempt to collect this necessary information the present study was conducted by the National Institute of Mental Health & Neuro Sciences, Bangalore between September-December 1985.

Methods

In order to gather necessary information, a detailed proforma was designed with three main objectives in view :

1. To assess the total number of specialists working in the field of clinical neurosciences.
2. To assess the facilities (both general and special) available for patient care.
3. To assess the number of institutions and facilities available for post-graduate training in the field of neurosciences.

In the process, the following five major components of clinical neurosciences were identified as essential for any centre to provide proper services.

1. Neurology - (N)
2. Neurosurgery (NS)
3. Neuropathology (NP)
4. Neuroradiology (NR)
5. Neuroanaesthesia (NA)

The proforma were sent to all the members of the Neurological Society of India [1] and the heads of the medical colleges, P.G. Institutions in the country [2]. The response obtained from these sources have been analysed.

Results

Five hundred and forty three proformance were sent to members of Neurological Society of India of which 330 were replied. The replies received from many centres included information about others as well. Of the 108 medical colleges who received the proformas 600 replied. Since most of the centres had more than one specialist the response obtained were grouped into 76 centres for the purpose of analysis.

The 76 centres with clinical neurosciences speciality could be grouped as follows : (Table 1).

Table 1 - Centres with clinical neurosciences facility

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According to the responses received the number of specialists available in the 76 centres named above are as follows (Table 2).

Table 2 - No. of specialists available in different specialities

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The 76 centres were then studied for the availability of different components in each of them (Table 3 and 4).

Table 3 - No. of centres with neurosciences facility

Table 3 - No. of centres with neurosciences facility

Table 4 - Facilities available

Table 4 - Facilities available

Patient care

The number of patients seen in the specialities of Neurology and Neurosurgery were analysed (Table 5)

Table 5

Table 5

The facilities available in various institutions for patient care and P.G. training are as follows : (Tables 6-10)

Table 6 - Neurology facility

Table 6 - Neurology facility

Table 7 - Neurosurgery facility

Table 7 - Neurosurgery facility

Table 8 - Neuroradiology facility

Table 8 - Neuroradiology facility

Table 9 - Neuroanaesthesia facility

Table 9 - Neuroanaesthesia facility

Table 10 - Neuropathology facility

Table 10 - Neuropathology facility

Post-graduate training

Among the 60 medical colleges who responded to the proforma 33 had neurosciences facility with them. Among those there were 28 Government Medical Colleges and five private Medical Colleges. The number of centres available for PG training were as follows :(Table 11 & 12)

Table 11 - Post-graduate training centres

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Table 12 - Post-graduate courses available

Table 12 - Post-graduate courses available

The annual student intake for Neurology and Neurosurgery, were 34 and 44 respectively while the remaining three took 2 students each for training.

Discussion

The response to the proforma though not total can be considered to be adequate to give an insight to the current status. From Table 1 it can be seen that only a small number of private practitioners have responded though we are not able to assess their total number through the NSI directory. Most of the major institutions (Government and Private) enlisted in the directory as well as in medical college list have replied to the proforma.

There are 138 neurologists and 140 neurosurgeons available in the country. For a population of nearly

800 million this number looks grossly inadequate. There are only 51 centres available for neurosciences speciality. Even these are distributed in only major cities and occasionally in district headquarters. Among these, 36 centres are government or autonomous institutions. Only a small number of private bodies/medical colleges provide neurosciences speciality. Sixty medical colleges among 108 medical colleges had responded to the proforma and only 33 of them have neuroscience facility, presumably other colleges do not have these specialities.

There are only 9 centres in the country who have got all the five components of neurosciences speciality. Twenty two centres have only neurology and neurosurgery facility utilising the services of general departments in pathology, radiology and anaesthesia. The number of centres with neuropathology, neuroradiology and/or neuroanaesthesia facility is very small (Table 3). The total number of specialists available in these areas is also extremely small.

While majority of centres had the basic investigation facilities, certain special investigation procedures were available in a small number of centers only.

For example CT scan is available only in 19 of the 48 neurology centres and 10 of the 15 neuroradiology centres. We are not clear how many centres are utilising such facilities outside these centres. Many private investigating centres are available in the country and these could cater to centres where these facilities are not available. Recent gadgets like CUSA and Laser are available in 6 of the 43 neurosurgical centres. Only eight neuropathology departments have electron microscope facility.

In the field of post-graduate training there are 15 centres in neurology and 18 centres in neurosurgery offering courses in the respective fields. There are two centres for neuropathology and one centre each for neuro anaesthesia and neuroradiology training. The total number of candidates who could be admitted to the course are 34 for neurology, 44 for neurosurgery and two each in the three remaining specialities.

This study reveals the gross deficiency in manpower, service facilities as well as training in the field of clinical neurosciences. Accordingly a recommendation has been developed to fill in the lacunae and develop strategies to increase manpower service, facilities as well as training programme for clinical neurosciences in the country [3].

1.Directory of Members, *Neurology Society of India*1984
2.*Handbook of Medical Education, Association of Indian Universities, New Delhi*1983
3.*Proceedings of the National workshop on Development of Clinical Neurosciences in India, National* Page: , 24-26 April 1986