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Redefining neurology care at outpatient services of tertiary hospitals: Case for paradigm shift from tertiary to peripheral centers

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India is in an epidemiological transition, with the persistence of some communicable diseases, newly emerging infections, a remarkable increase in the incidence of non-communicable disorders, and the effect of climatic change on the prevalence and pattern of diseases.[1,2] The burden of neurological disorders, apart from the vast number of disorders of the central and peripheral nervous system, would obviously also include the consequences of nervous system invasion by infections as well as traumatic injuries. The challenges to the neurologist in a busy public or private hospital or in specialty clinics are thus multifold. Population based house-to-house surveys of urban and rural population in different regions of the country have revealed the prevalence rate of spectrum of neurological disorders varying from 967 to 4070, with a mean of 2394 per 100000 population.[3-10] These were 'two stage' surveys. In the first stage, the non-medical field workers administered the questionnaire; and in the second stage, the screened-positive subjects were examined by the neurologist.[11,12] It is quite evident that the prevalence rates of neurological disorders through community surveys mentioned above represent only a fraction of the magnitude of burden of neurological diseases since the vast number of neurological infections and traumatic injuries were not included due to feasibility issues.

The authors of the paper "Outpatient burden of neurological disorders: A prospective evaluation of 1500 patients" published in the current issue, have made some significant and pertinent observations.[13] The prevalence rates of common neurological disorders in the descending order of frequency were headache, epilepsy, cerebrovascular disorders and neuropathy, the first two disorders accounting for 40% of all neurological disorders seen in the outpatient department of a tertiary hospital during a period of 2 months. It is noteworthy that in community based surveys also, headache and epilepsy had a high prevalence rate and together accounted for 40 to 75% of all neurological disorders.[3-10] Having defined the burden of two common neurological disorders at the community level and at the outpatient level of a tertiary hospital, pathways of care need to be developed to reduce the burden on tertiary hospitals, to enable the latter to concentrate on complex disorders. Models of neurological care with multisectoral involvement is the need of the hour. Similar to other diseases, either a '*top-down approach*' (centre to periphery), a '*bottom-up*' approach (periphery to centre), or a '*co-ordinated approach*' may be considered.[14,15] Training of health professionals at the periphery by imparting knowledge and skills by experts, an inbuilt system of monitoring, feedback from the periphery to the centre, and introducing midcourse remedial measures, are some of the essential components of these strategies for delivery of health care. These issues were also addressed in the development of '*district model of epilepsy care*' by the author and colleagues, and was found to be successful in the diagnosis and management of epilepsy.[16] It would be quite feasible to include headache, stroke and peripheral neuropathies in this model. The alternate model is to establish '*satellite clinics*' attached to the tertiary centers, which will facilitate the decentralisation and development of resources at the peripheral levels of neurology care.[14] A multipronged approach, hopefully, in a reasonable time frame may transform the scenario of neurology care in the country.

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