Academic general neurology: any future? Yes!

Claudio L. Bassetti, Richard Hughes

General neurology was the backbone of clinical care and teaching in Switzerland and the UK (and most countries in Europe) when we started our specialty training in the 1970’s and 1980’s. The largest outpatient consultation was devoted to general neurology and on the wards, patients were cared for by general neurologists. Subspeciality training was mainly centred on the acquisition of knowledge and skills of specific neurophysiological techniques (EEG, EMG, Doppler). In most centres other specialised areas (e.g. stroke, movement disorders, multiple sclerosis, behavioural neurology, headache, sleep, neuro-rehabilitation) had just begun to be created, usually triggered by the research interests of individual neurologists. The chairs of the departments in Switzerland or consultants in the UK made long visits to the wards, which were typically attended by most members of the staff. Neurology was studied with textbooks covering the entire field of the discipline.

Today, 30–40 years later, most outpatient’ consultations are those run by subspecialists. In some centres, patients in the inpatient wards are managed by different subspecialty teams according to their diagnosis. Dedicated areas of the inpatient wards have often become created for the care-of-stroke patients, sometimes also for patients with epilepsy, movement disorders, etc. Some of these units even moved out of the neurology departments to be run independently. Visits to the wards have often become shorter, are done in small groups, and are run more and more without the chairman. The most popular books are those covering specific subspecialties.

In view of this evolution, the future of academic general neurology and also, by consequence, of societies such as the Swiss Society of Neurology, the European Neurological Society, the European Federation of Neurological Societies, and soon the European Academy of Neurology devoted to the entire field, can be questioned. Why, in fact, should we care?

For different reasons we believe that general neurology will survive and that we should care.

First, the management of patients requires it. Diagnosis is often not obvious when patients first present. The lead, at least in the initial phases of the diagnostic process, by a (well trained) general neurologist is faster and cheaper than the sequential consultation of different specialists. Also, in more remote and/or less populated areas not all specialists may be available. In 2004 even in the US, a country with the most important development of subspecialties (over 20 recognised by the American Academy of Neurology), the majority of neurologists in private practice reported „general neurology“ as their main focus of activity [1].

Second, teaching of medical students and neurology residents requires the necessary and careful use of the art of simplification. General neurologists master this art often better than the super-specialist. Eventually they may better appreciate what the nonspecialist should know about a specific area of neurology.

Third, diseases of the nervous system do not respect classifications of us, the neurologists. Recent fundamental new insights (e.g. frontotemporal dementia and motor neuron disease, paroxysmal dyskinesias and epilepsy, nonmotor manifestations of Parkinsonian syndromes, REM sleep behaviour and neurodegeneration, autoimmune processes and epilepsy, vascular changes and cognitive decline) have proven to be an unsuspected (relevant and fascinating) overlap between subspecialties.

Finally, general neurology probably represents the best chance we have to keep the entire discipline together and to keep a holistic approach in the care of our patients. Its disappearance, on the other hand, would accelerate the ongoing process of fragmentation of neurology and lead to the same losses (in clinical care, teaching, and research) we observed over the last few decades in the field of internal medicine, for example.

Eventually, the key question may be not so much „why“ but „how“ general neurology should survive and best contribute to the further development of our discipline.

Obviously, this depends upon factors related to specific local characteristics including the size of hospital, the academic orientation, the overall organisation of the health system. Nevertheless, the following points probably apply for many academic centres in most European countries:

1. Teaching

Neurology teaching should emphasise a specific (particular) but also a general (holistic) view of patients and their neurological problem(s). The latter is often better achieved by „generalists“, for whom reasoning based upon clinical principles is more important than the knowledge about of many aetiological and pathophysiological details. Furthermore, lectures based on the study of single, real clinical cases with an emphasis on differential diagnostic thinking is of increasing relevance in undergraduate training.

1 This is a slightly modified version of a contribution prepared for the „Neurope-News“ http://www.neuropenews.org/?p=3457
2. Training

Residency program should include enough training in general neurology. In Switzerland, for example, the planned revision of the programme foresees the separation of a first part devoted to general neurology (so-called common trunk) from a second part, during which residents can choose among several options (electives) according to their preference and career’s plans. This „common trunk“ includes rotations on the inpatient wards, outpatient clinics, and emergency room. The increasing tendency observed in few European countries to ask young (and cheap) residents at the beginning of their career to be in charge of patients with specific disorders (e.g. multiple sclerosis, movement disorders, …) and related pharmacological trials for longer periods of time (not infrequently exceeding 1–2 years) should be avoided.

3. Departments’ organisation

The staff members of a teaching hospital should keep regular experience and responsibility in general neurology. This can be achieved through different means.

– Subspecialists are asked in several centres to be in charge of the general neurology inpatient beds on a regular base (attending system), typically several weeks per year. Since many departments, however, trust the care of patients with specific disorders (such as stroke, multiple sclerosis, epilepsy, and movement disorders) to specialised units (and superspecialised teams), the care of the remaining patients may be less formative (and interesting).

– Alternatively, the responsibility of the care of hospitalised patients may at first be given to general neurologists, who are then expected to involve the subspecialists on a regular basis / when needed. Mixed teams composed of general neurologists and subspecialists working together „under the same roof“ may represent the best model and was indeed already introduced with success in some departments.

– Staff members should be asked to guarantee on a regular basis the supervision of neurological emergencies. This activity has the additional advantage of updating the staff not only on changes in the medical but also organisational management of the patients.

– Finally, subspecialists may be asked to attend and actively contribute to the discussion of clinical cases even outside their field of expertise (during so-called „grand rounds“).

4. Academic career opportunities

General neurologists should be active not only in teaching but also in research and, accordingly, be given academic opportunities. Scientific writing is helpful to keep up with a regular reading of the literature and to maintain an interested but also critical attitude towards all „novelties“ in our discipline. Quite often general neurologists in academic centres develop and entertain activities also in subspecialised areas. Clinical and scientific activities in such transversal subspecialties such as emergency neurology, neuropharmacology, neurogenetics, neuroepidemiology, sleep may be of particular interest when trying to support „general neurology“. Several topics of general interest such as diagnostic and treatment algorithms in the emergency room, outcome measures on the wards, analysis of the validity of clinical approaches (including the neurological examination, ….), ethical and palliative issue could additionally be addressed and further justify the academic need of an academic general neurology. In some centres the establishment of chairs for general neurology is currently discussed.

We believe and hope that our society, together with other societies devoted to general neurology (such as the European Academy of Neurology), should do their best to maintain and further develop academic general neurology.

References