

European Paediatric Neurology Training Advisory Board

Report nr 6:

EVALUATION OF THE PAEDIATRIC NEUROLOGY TRAINING IN GERMANY

2009 – 2010

Approved by the Training Advisory Board September 2010

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Introduction

In 2002 Child Neurology was accepted on the European level as a subspecialty of Paediatrics as well as of Neurology. In the process of the definition of the specialty a European training programme, the syllabus of Child Neurology, was compiled and accepted by the European Paediatric Neurology Society (EPNS) and by the Committee of National Advisors in Child Neurology (CNA). As a means to implement the syllabus in the training of Child Neurology specialists in the European countries, the EPNS and the CNA in 2004 agreed to activate a Training Advisory Board as a joint effort. The Training Advisory Board includes 4 delegates from the CNA, 4 from the EPNS' Education and Training Committee and the president and secretary of the EPNS. The European Academy of Childhood Disability is represented by one delegate. The Board is chaired by the chairperson of the CNA.

The intention of the Training Advisory Board is to offer to national child neurology societies the opportunity to work together with them to evaluate the national training system. The ultimate aim is that the trainees of each European country be expected to reach a quality of training that is in accordance with the European training programme as defined by the Syllabus.

The German paediatric neurologists through their representation in the Committee of National Advisors volunteered to have the German training evaluated in accordance with this aim.

The visit needs to be followed in about a year by a report from the German group.

Demographics and medical care

With 82 million inhabitants, Germany is the most populous country in the European Union. Of special importance is the merge between the Federal Republic of Germany with the former German Democratic Republic in 1989, adding former East Berlin and 5 new republics to the federation. At present the population is not growing. The number of children and adolescents < 20 years of age is about 16 millions (Wikipedia: Demographics_of_Germany)

The German health care is based on an insurance system. Citizens with a low-medium income are connected to public insurance funds while persons with an income over a defined limit can opt out of the public system for private insurance solutions. Insurance funds can be public, private non-profit or, more seldom, private.

Evaluation visit 1

A visit to Germany was made 14-17 October 2009 by Paul Casaer, José Carlos Ferreira, Lars Palm and Sergiusz Jozwiak. The hosts were professors Florian Heinen and Wolfgang Müller-Felber, Munich, professor Inge Krägeloh-Mann, Tübingen and professor Volker Mall, Freiburg.

Centres visited

The *Dr. von Hauners' Children's Hospital* is one of two paediatric university hospitals in Munich, being part of the Ludwig Maximilian University Munich. In total there are 44 different subspecialty groups. Most of the facilities are located in the main Campus Innenstadt while cardiology and one third neonatal unit are in the Campus Grosshaden unit c. 12 km away where also cardio- and neurosurgery are available. One out of three Social Pediatric Centres in Munich is an integrated part of Paediatric Neurology at the Dr. von Hauners' Children's Hospital.

Behandlungszentrum Vogtareuth (Head dr H Holtshausen), part of the Schön Kliniken which is a private organisation (Neurology, Orthopedics and Psychosomatics) that runs several hospitals over Germany, mainly in the south.

Klinikum Dritter Orden municipal hospital, Munich-Nymphenburg, head professor J. Peters

In all centres the responsible head and leaders of subspecialty groups were interviewed, including the head of the v Haunersche Krankenhaus für Kinder, professor Reinhardt.

Trainees from v Hauner's Hospital and Dritter Orden Hospital in Munich, Schön Clinics of Vogtareuth and the University Hospitals of Tübingen and Freiburg were interviewed.

The information gathered during this visit applies to the states of Bavaria and Baden-Württemberg. The hosts together with the TAB team deem that conclusions drawn can

be generalised to the major parts of Germany but that a visit to the Berlin and, more eastern areas can be recommended to get solid basis for recommendations by the TAB.

Evaluation visit nr 2

As recommended a second visit was performed 17-19 March 2010 by Lars Palm, Dana Craiu and Paul Casaer. The host was professor Florian Heinen representing the German Paediatric Neurology Society.

Centres visited:

The Children's Hospital of the DRK, host dr. Axel Panzer. Neuropaediatric unit with 3 specialists and 3 trainees. Being run by the Schwesterngesellschaft des Deutschen Roten Kreuzes it is a private hospital,

The Leipzig University Hospital for women Children's. Head of the department for children and adolescents professor Wieland Kiess and for paediatric neurology professor Andreas Merckenschlager. University department with 2 specialists and 2 trainees not yet finalising the paediatric training.

The Charité Campus Virchow department for paediatric neurology. Head professor Christoph Hübner. Medical staff of 6.5, 2-3 of these trainees, research department with head professor Markus Schülke and 2 continuous posts outside grant financed staff. Independent social paediatric centre with head dr Theo Michael and a medical staff of 12, mainly specialised in child neurology.

Heads of all departments and trainees from all except the DRK (PD dr Arpad von Moers, absent) were interviewed.

An visit was made to the Bundesärztekammer to meet referent Podner on behalf of drs Hoeft and Güntert Dezernat at 2. BÄK. The main preliminary conclusions of the two visits were reported and the implications of these and potential recommendations were discussed. The discussion was to be transferred to the head of the relevant department and the German Paediatric Neurology Society will continue discussions on the appropriate level. A revisit by representatives of the TAB can be offered at need.

Paediatric Neurology in Germany

Paediatric neurology became a subspecialty of paediatrics in 2004. The estimated total number of specialists is 450 in the whole federation. In the state of Bavaria (12 million inhabitants) the number of specialists is 75, 65-75% of these are over 55 years of age.

Neurological departments are integrated in paediatric hospitals or clinics as part of university paediatric clinics or as parts of community hospitals or as stand-alone institutions like Vogtareuth.

The fields of chronic neurologic conditions and neuro-disability, named by the terms of developmental medicine and social paediatrics including habilitation/rehabilitation are by history organised not only in hospital based departments of paediatric neurology or specialised “rehabilitation institutions” but also in different structures called “social paediatric centres”. The future organisation and focus of social paediatrics is under debate but there is a tendency to coordinate and integrate the fields under the heading of paediatric neurologists and paediatric neurology with regard to up-to-date medical contents. In the same way neurodisability including mental retardation is seen as a subject of paediatric neurology (chronic paediatric neurology).

The German Paediatric Neurology Society (www.neuropaediatric.com) runs a very ambitious educational programme including scientific congresses and annual up-date courses.

Paediatric Neurology Training

Specialist training in paediatric neurology follows after full specialisation in general paediatrics. The official training period is 5 years for general paediatrics and 3 years for paediatric neurology. One year of paediatric neurology training may be counted to the basic paediatric training, thus minimum total training time is 7 years. Most commonly the total training time is 8-9 years.

The training in medical specialties and subspecialties is regulated by the medical chamber of each republic (Landesärztekammer) with referral to the federal regulations as stated by the federal medical chamber (Bundesärztekammer). A national programme

for training centre accreditation is in force. The Landesärztekammer is responsible for final exams and also issues the specialist diplomas.

The Bavarian medical chamber states in a general way the aimed knowledge and skills of the paediatric neurology training, but does not detail the route leading to these aims.

As a further guide a syllabus in German language is available from Switzerland (at www.neuropaediatric.ch). This is a detailed description of the knowledge basis of the specialty and some recommendations for training supervision and organisation.

Abbreviated local training programmes were available in several centres. Thus there is a solid core of guidelines as to the contents of paediatric neurology proper.

The European syllabus of paediatric neurology (at www.epns.info) states modules of training in acute paediatric neurology, chronic paediatric neurology (neurodisability) as well as child and youth psychiatry and (adult) neurology. These latter modules may be integrated with paediatric neurology training and neurology may include transitional clinics for older teenage patients. The training programmes followed in the visited states recommend in- and out-patient training in acute paediatric neurology including intensive and neonatal care as well as about one year of neurodisability/social paediatrics. There is official training neither in neurology nor in child and youth psychiatry. EEG and clinical neurophysiology are taught as a part of acute paediatric neurology while clinical neurophysiology does not exist as independent specialty.

Trainees are employed by the department of paediatrics, not by the subsection of paediatric neurology. There is no special type of training employment that fits into the programme for subspecialist training. A special system of employment during training (Fachartzdienst) exists but does not cover the full training period. Trainees interviewed expressed uncertainty as to their employment status during and after maternity leave.

Paediatric employment normally means responsibility for the trainee within paediatrics in general and not a designated subspecialty focus. As in many European countries doctors in training perform routine tasks like intra-venous blood sampling and needles for intra-venous lines.

The opinion unanimously expressed by all the trainees interviewed is that there is a general lack of training structure. Thus, there is no programme for the trainees to follow but it is rather up to themselves to find the training periods essential to paediatric

neurology specialisation. Responsibilities in general paediatrics can cause the trainee to be moved to various duties within the paediatric department not related primarily to paediatric neurology. Tutoring is available to the trainees during each separate training period, but there is no systematic tutoring that covers the whole training from the entrance to the training to the final exam.

Research training

It is common for trainees in the basic specialties to start a limited scientific training and research project that leads to a thesis and the title of MD. This training is of very varying quality and scope, however, and often does not reach the level of a PhD internationally.

For the specialist a wider scientific work, the *habilitation* (die Habilitation), leads to a position of corresponding to assistant or junior professor (Privatdozent) which opens up for a further scientific career. In most centres there is no dedicated time for research training for the trainee, thus research takes place on spare time, vacations and on time paid by project money. The Charité unit stood out separately by having an own research department making it possible to arrange part-time or fulltime research periods. Several of the trainees interviewed had an advanced scientific training and research activity.

Conclusions and comments

The German population – 82 millions, 16 million children out of these - and the number of specialists in paediatric neurology – 450 – indicate a significant lack of paediatric neurologists. The relation between paediatric population and specialists in paediatric neurology gives an average of 35.600 children/specialist. If the age structure of the Bavarian specialists – 65-75% above 55 – can be generalised to the German federation as a whole more than 2/3 of the present colleagues will be retired in 10 years, given an average retirement age of 65. Thus, just to keep the present number of active specialists, 30-35 trainees need to finalise their training every year up to 2020. To increase the number of active specialists this number has to be increased much further. Brain drain and changing population structure have not been taken into consideration.

The centres visited displayed paediatric neurology on a high level clinically as well as scientifically. The potential content of training in paediatric neurology and neurodisability is fully on the level of what is depicted in the European training programme. However, centres like the one in Leipzig and the DRK in Berlin have a medical staff of so low number that it is doubtful if they can cover the local need for paediatric neurology service. Seemingly neurological problems in children must also be handled by general paediatricians or practitioners as well as staff in the numerous social paediatric centres. The level of neurological competence and up-to-date-keeping of these caregivers is unknown but probably below acceptable level in many positions.

The social paediatric centres can be resources for development of the neurological care for developmental disorders as well as habilitation/rehabilitation. It seems advantageous to link social paediatric centres to departments for paediatric neurology as is the case at the Dr von Hauner's childrens hospital. Still the facilities could be used for multidisciplinary chronic care and rehabilitation within other paediatric fields like chest and heart disorders.

There is a lack of training in the side modules of neurology and child psychiatry, not because of lacking resources but for organisational reasons. The possibility given in the European syllabus to count transitional neurology clinics for teenagers as neurology was introduced specifically after German suggestion but still it does not seem to be used to increase the adult neurology experience. The neurology module gives the trainee experience in "adult" conditions like stroke, Parkinsonism, multiple sclerosis, myasthenia gravis and several others also widening the examination technique with the clinical picture of these types of pathology. Thus it should not be omitted from training!

Clinical neurophysiologic methods like EEG and others have to be learned to expertise by paediatric neurology trainees. This system can be questioned: Is it time and cost effective as compared to having dedicated specialists in clinical neurophysiology? Does it give the best potential for clinical and scientific development of clinical neurophysiology? Is there a sufficient link to basic science within neurophysiology?

Even though the interviewed trainees were skilled and in some cases extremely highly qualified the need for better organisation and tutoring is obvious.

Scientific training on the whole would benefit if the German scientific career could be better adapted to the international career. Thus if the German MD could be directly comparable to the PhD, this would open an easier way for international post-doc studies. Maintaining own research departments like the one in the Charité would make an important contribution the development of paediatric neurology, scientifically as well as clinically and also make recruiting trainees and maintaining qualified specialists in German health care.

Recommendations

- An immediate and significant increase of paediatric neurology training is urgent to meet a present and increasing future lack of specialist. To meet this need will draw costs that have to be covered by changing priorities within the health care system as a whole or by increasing the total health care budget.
- The training structure needs to be improved for the trainees to maintain a continued focus on paediatric neurology. Specific training employment forms (“block- employments”) for trainees could be considered.
- A tutoring system in which the whole training period is covered by a main tutor supported by local tutors for various training modules is recommended.
- Training in neurology up to at least 3-6 months should be made available.
- Training in child- and adolescent psychiatry should be part of paediatric neurology or paediatrics training.

Feedback

A feedback-report to the Training Advisory Board is expected from the German Paediatric Neurology Society within the year 2011. Subjects to be brought up in the feedback, amongst other subjects, are:

Debates and considerations made after the evaluation and the reports,

Actions taken or planned as to training structure and tutoring, including the lack of sub-modules in neurology and child- and youth psychiatry,

Steps taken to enforce an increased training in paediatric neurology.

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