

## **European Paediatric Neurology Training Advisory Board**

### **Report nr 4:**

## **EVALUATION OF THE PAEDIATRIC NEUROLOGY TRAINING IN POLAND**

**Approved by the Board 29 October 2009**

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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 Polish Paediatric Neurologists through their representation in the Committee of National Advisors volunteered to have the Polish training evaluated in accordance with this aim. The time point for the visit was unique in that Poland is in the phase of changing her paediatric neurology training system radically and to establish paediatric neurology as an independent specialty.

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

## ***Demographics and medical care***

Poland has c 38.5 million inhabitants (2008), around 61.5% in urban areas. About 15.2%, 5.9 million, are children and adolescents between 0 and 15 years of age. Warsaw is the biggest city and capital with 1.7 million inhabitants (2006). Poland entered the European Union 1<sup>st</sup> May 2004. The birth rate is 10.01 births/1,000 population (2007 est.) and infant mortality rate 6.93 deaths/1,000 live births (2005 est.) (Wikipedia 2009, Demographics of Poland). Medical care is state governed. The country administration is organized in 16 regions (vojevodships) each of which has regional consultants for all medical specialties including paediatric neurology. Also there is a national consultant covering paediatric neurology for the whole country. These consultants are connected to

the Ministry of Health. They have the task to supervise the situation of the specialty as to resources, manpower training and development.

Four classes of hospitals exist: State institutes like the Children's Memorial Health Institute in Warsaw, university hospitals, regional hospitals (more than 1 per region because of changed administrative organisation) and city hospitals. There are 12 state medical universities. The medical care is state governed. The dominating financial basis is a social insurance system. It is noteworthy that patients admitted to the hospital give an income into the system much higher than that of out-patient visits without admission.

### ***Evaluation visit***

A visit to Poland was made 3-7 March 2009 by Paul Casaer, Florian Heinen and Lars Palm. The host was Professor Sergiusz Józwiak, Department of Neurology and Epileptology of the Children's Memorial Health Institute in Warsaw. Professor Józwiak, being also a member of the Training Advisory Board, has not been participating in the negotiations of the board regarding this report.

Four different units were visited for discussions, interviews and demonstration of the various facilities:

*The first unit* was the Department of Neurology and Epileptology of the Children's Memorial Health Institute in Warsaw. This is a comprehensive paediatric hospital which is also an independent state institute with research facilities and high level research examination. It is a national referral hospital for complicated patients including neurological cases. It is not connected to a university and does not have basic medical training. Also, it is not connected to any hospital for adult patients, neither to a delivery and maternity ward. This latter situation was the same with all the visited units. The Department of Neurology and Epileptology is staffed by 15 child neurologists. Discussions were held with the host and the medical staff, medical colleagues on specialist and training level as well as with the vice director of the institute, Dr Girdwayn.

*The second unit* was the Centre for Paediatrics and Oncology in Chorzow. It is a city hospital for children with subspecialty departments and general paediatric service. The department for paediatric neurology is run by 3 specialised paediatric neurologists with

the participation of trainees in general paediatric (2 months' periods) as well as in adult neurology (1 month periods). The centre is not accredited for paediatric neurology specialist training. Discussions were held with director Gregorz Szyrka, leading child neurologist Dr Magdalena Dudzinska and the whole medical staff.

*Third*, a visit to the Upper Silesian Child Health Centre in Katowice was hosted by the director and regional paediatric neurology consultant Dr Ewa Emich-Widera. This is a university centre with all levels of medical training and with research facilities. The department has 9 specialists and 24 hour neurological inpatient and consultant service is maintained. Discussions were held with parts of the medical staff and one colleague in paediatric neurology training was interviewed.

*The fourth* visit was to the Samodzielny Osrodek Rehabilitation Centre for children in Katowice, hosted by its founder and former director Dr Aleksandra Katuzna and the present director Leszek Peca. The Centre provides multidisciplinary habilitation/rehabilitation service to children both on out-patient visit basis and in a day-care form. About 150 children are seen daily, 50 of these in day-care.

During the visit regional consultants in paediatric neurology and colleagues from university paediatric neurology departments were gathered for informal discussions in connection with a scientific meeting on paediatric multiple sclerosis.

*Finally* a discussion was held at the Ministry of Health with Vice Director Hanna Markowska and Dr Zbigniew Wegrzyn, Medical Centre of Postgraduate Education.

### ***Paediatric Neurology in Poland***

In-patient care is organized as departments for paediatric neurology at paediatric hospitals from the city hospital level and up. The major departments provide a 24 h service for emergency neurology and for consultations to other specialties. Doctors in specialty training for paediatric neurology are employed in the departments of regional and higher level. Doctors training in general paediatrics or adult neurology participate in the work of paediatric neurology departments on all levels of hospitals. Out-patient clinics are connected to the paediatric neurology departments, but also independent out-patient service is available at health centres. Private clinics are scarce in Poland.

The Polish Paediatric Neurology Society meets regularly 3-4 times a year for educational discussion and lectures.

Facilities for neurophysiologic examinations are available. EEG recordings were performed on the wards as well as on out-patient departments of all visited departments. EEG-technicians were employed. The EEG unit of Children's memorial health institute has a staff of 3 doctors (paediatric neurology specialists), 6 technicians and 4 special nurses. The estimated annual number of investigations in this unit is about 3.500. Examinations can be extended over 1-4 h. To some extent EEG is available for night-time recordings or for emergencies. For particular purposes 24-hour recording is available but long-term monitoring for epilepsy surgery is not available. EEG examinations are also performed in a separate unit at the department of paediatric neurosurgery where invasive recordings can be performed. Ictal and interictal SPECT and functional MRI is available. EMG:s were performed in a separate location of this department or by a dedicated paediatric neurology specialist in the ward. Evoked potentials were recorded by this same unit.

Imaging methods like MRI, CT and ultrasound are available in specialised departments and investigations in full anaesthesia can be performed by trained anaesthesiologists.

Habilitation/neurodisability/rehabilitation care is available at different levels. For initial habilitation/rehabilitation physiotherapists, speech therapists and psychologists with equipped rooms are available at the paediatric neurology departments. For long-term habilitation and rehabilitation special out-patient units separate from the hospitals exist with varying standard and organisation. These are mostly lead by specialists in rehabilitation medicine, not specialised in paediatrics, paediatric neurology or neurodisability. (Rehabilitation medicine is a separate specialty that comprises adults as well as children.)

The visited Samodzielny Osrodek Rehabilitation Centre is an example of a specialised multidisciplinary unit for children which includes paediatric neurology competence. Still some of the methods used by the paramedical staff, like Vojta or electrotherapy are of doubtful or without confirmed developmental value.

### ***Paediatric Neurology Training***

In the present training system specialist training in paediatrics runs over 5 years to be followed by a 4 years paediatric neurology subspecialty training. The paediatric neurology part of this programme is outlined in a syllabus for trainees with a basic paediatric training (2002) and in another for neurology based trainees (2006). The programme contains 2½ years of paediatric neurology, 7 months of habilitation, 6 months of neurology and 2 months of child psychiatry. The trainees interviewed had the background of full paediatric training through 2 levels, both with an end-of-training examination.

Up to quite recently trainees have been recruited by examination results and degrees in combination with interviews, but recently the possibility for interview of future trainees has been withdrawn. Seemingly the future procedure will be a strictly document-based one if no change takes place.

The total number of paediatric neurology trainees in Poland at present is 5-6. Given the size of the country and the appreciated number of active neurologists – 240-250 – a severe lack of specialists can be foreseen in the near future.

The training programme is in a phase of change during spring 2009. Paediatric neurology will be turned into an independent specialty based on 6 years of training after medical school. The definite syllabus for this training programme was not available. A new training programme is in preparation with the participation of the national consultant in child neurology.

The present syllabus in use is in Polish and detailed examination of the document has not been possible since no English translation was available. The syllabus is very carefully detailed, with a clear specification of the expected outcome knowledge and also of the planned time used for various moments. As far as could be evaluated the content of the Polish programme including the various training modules is well in level with the European Training Programme. Some differences exist; particularly the time in habilitation/neurodisability training is shorter than stipulated in the European syllabus. The stipulated time in habilitation/neurodisability is 7 months, as compared to 1-2 years in the European syllabus.

More important than the stipulated time period is what can be learnt during the training. It is difficult to get a clear picture of the level of neurodisability training in Poland. One visited institute has a well developed multidisciplinary team in which the child neurologist has a defined role. It was our impression that the presence and knowledge of paediatric neurology is more variable in other centres. The medical quality of neurodisability care as well as the therapeutic medical and paramedical methods should be an important field of study under supervision of the regional or national consultants.

The trainees interviewed confirm having a main tutor as well as tutors during different modules. Working in the ward and out-patient service is supervised by the specialised elder colleagues. We felt that it took long before the trainees were allowed responsible work including taking decisions on their competence level and making an opinion on special examinations like EEG. To make a final EEG interpretation the examiner has to have a special license on top of a paediatric neurology specialty. For this licence a defined number of about 4000 EEG interpretations has to be performed. However, the medical staff tends to see the EEG:s early during investigation and form a preliminary opinion.

During the later part of paediatric neurology training the trainee took part in the 24-hour paediatric neurology service being on-call in the hospital, but with a specialised colleague available on the telephone. In early training and in a small hospital trainees took part in general paediatric emergency service.

It is noteworthy that trainees in neurology, not aiming for paediatric neurology have a one-month training module of paediatric neurology as a part of their specialist training.

### ***Scientific training***

In the Child Memorial Health Institute and in the university hospitals research training was available for PhD level and for the higher Habitat level, a degree that opens the position as “Privatdozent” which corresponds closest to the western title of associate professor. Dedicated, paid time set aside for PhD research was rarely available. As noted above the highly developed Child Memorial Health Institute lacks direct connection with the university and the basic medical training.

### ***Conclusions and comments***

Paediatric neurology as well as paediatric neurology training in Poland reaches a high quality level, fully comparable with the European level expected. The present training programme is very detailed and as far as can be judged comparable to the European one with minor exceptions discussed above. The modules for training in neighbouring specialties follow the general European lay-out. Specialties like clinical genetics, neuroradiology or neuropathology will be important fields for in-depth-studies.

The training programme for the new specialty of paediatric neurology is not yet available. It is important that the training maintains a component of general paediatrics at the level of paediatric common trunk, and that comprehensive training in adult neurology, neurodisability and neurophysiology is included as stated in the syllabus of paediatric neurology.

A fast and effective increase of paediatric neurology training nation-wide is necessary. Given the long time in training and early specialist development a need for one trainee per 3 consultant level specialists can be estimated. There is an immediate need to recruit 10 trainees just to keep the present level of staff; a foreseeable expansion of the field will draw more trainees. A “business development plan” for future numbers and locations of child neurologists in Poland would be an important tool.

Recruiting trainees into a small and in the same time complex specialty like paediatric neurology is a very critical task. It is difficult for trainees graduating from medical school, even after internship to have any idea of what this specialty is about and what it takes to become a skilled paediatric neurologist. Thus it is important to develop a flexible recruiting system in which interviews and possibly trial periods can be a part. Also the possibility for the trainee to change direction after the basic paediatric training should be maintained.

It is important for several reasons to keep a good connection between clinical institutes and basic medical science and teaching. In the long run institutes working in isolation from broad medical research and teaching risk to fall behind in their clinical scientific development. Another aspect is that researchers from theoretical fields with a scientific academic training who want to go into clinical work are an indispensable source of



developmental potential when they are specialised further into paediatric neurology or clinical neurophysiology.

Time spent in research as well as time spent in clinical training abroad should be counted as a part of the specialty training. Time for research should be provided so that night-time and week-ends are not the only way-out for clinical research.

The resources and thereby the training facilities of EEG, EMG, cerebral blood flow and specialised neurophysiologic techniques are spread into several smaller units with separate leadership and it is doubtful whether this gives the best quality of clinical neurophysiology investigations and development of knowledge and technique. For the paediatric neurologist working clinically it is difficult in the long run to keep up a good ability of EEG-pattern recognition and it is difficult to give trainees the opportunity to develop independent skills to take responsibility for investigations.

If the resources for clinical neurophysiology could be brought into close connection and cooperation, an exchange of experience, techniques and scientific view of the neuromuscular systems could develop. The skill of the technical staff would improve as compared to the present situation where one single room of EEG recordings is run by one or two technicians in a paediatric neurology ward. A comprehensive specialty for clinical neurophysiology is available only in few European countries, but the experience from these makes it worth discussing the development in this direction.

Neurodisability care for children and adolescents should be organised with active participation by paediatric neurologists in order to provide adequate neurologic service and care to children with chronic cerebral and neuromuscular impairments. The trainee shall learn to take responsibility for the medical activities of habilitation and rehabilitation of young people. During training a trainee who wants to go deeper in this field should be given the opportunity to spend longer time than is now stipulated, and to count this time in the total training period.

This spring a new specialist training system is being established. This can be a golden opportunity to reform and find new directions for the clinical and scientific future of our specialty. The present organisation with regional and national consultants in paediatric neurology is unique. Their insights in the specialty as well as their professional skills

and close connection to the Ministry of Health could be a very powerful tool for the development of the specialty and the specialty training.

### ***Recommendations***

- Paediatric neurology as well as paediatric neurology training in Poland reaches a high quality level.
- The present organisation with regional and national consultants in paediatric neurology is unique.
- The training programme for the new specialty of paediatric neurology should maintain a comprehensive training in general paediatrics, neurology, neurodisability and neurophysiology.
- A significant number of paediatric neurology trainees must be recruited.
- A flexible recruiting system should be developed in which interviews and possibly trial periods can be a part. The possibility for the trainee to change direction during training should be maintained.
- It is important to build and maintain a good connection between clinical institutes and basic medical science and teaching.
- Time spent in research or in clinical training abroad should be counted as a part of the specialty training. Time for research should be provided.
- The resources for clinical neurophysiology should be brought into close connection and cooperation.
- The trainees shall learn to take responsibility for the medical activities of habilitation and rehabilitation of young people.

### ***Feedback***

A feedback-report to the Training Advisory Board is expected from the Polish Paediatric Neurologists within the year 2010. We suggest that the following topics are touched upon:

- Status (increase/decrease) of the number of Paediatric Neurologists in Poland
- “Business development plan” for future numbers and locations of child neurologists in Poland.
- Comment on structural changes with respect to “connection instead of isolation” for the hospitals/institutions where child neurology is done and trained.
- List of scientific programs, where basic science as well as clinical research/translational research are done.
- Status of dialogue/concept to habilitation/rehabilitation/developmental medicine.
- Reflection about the medical education: How the most appropriate candidate for paediatric neurology can be attracted.

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