

## **Czechoslovakia**

Olga Dlouhá, Prague

The history of Czechoslovak phoniatics began in 1922, when at the Czech Clinic for Oral, Nasal and Laryngeal Disorders headed by professor Kutwirt, an out-patient department was established for speech and voice disorders and defective hearing. It was headed by Dr. Miloslav Seeman, who had studied under the founder of European phoniatics, professor Hermann Gutzmann senior.

Prof. M. Seeman, founder of Czechoslovak phoniatics played a major part in the development of that field of medicine, at least Europe-wide. He, who in his view of disorders in inter-personal communication was far ahead of his time, succeeded in founding the first independent phoniatic hospital ward in Europe (1957), which together with the out-patient department gained the status of phoniatic clinic in October 1967. Based on its example, further such clinics were founded later at various European teaching hospitals. Professor Seeman was one of the founders of phoniatics on the European scale. He is the author of the recognised theory of the extra-pyramidal origin of stuttering and evolved a system of comprehensive treatment of that disorder. Also, he was the author of the aspiration method of oesophageal voice education, of Czech speech audiometry and other methods.

He promoted inter-disciplinary collaboration, particularly with neurology, represented at that time by professor K. Henner, the founder of Czech neurology as an autonomous field.

Seeman helped to organise the International Association for Logopedics and Phoniatics – IALP and its journal *Folia Phoniatica*. Seeman's monograph *Speech Disorders in Children* was published in several languages, the German version appeared in three editions. In Czechoslovakia, phoniatics originated as a further specialisation on the basis of otorhinolaryngology. Thanks to Seeman's work, the Phoniatic Clinic, of which he was the first Head, became a centre of modern curative and preventive treatment, as well as a centre of research and pre-graduate and graduate teaching.

The history of Czechoslovak (Czech) phoniatics is closely linked to the history of the Phoniatic Clinic. The founding of the Clinic is inseparably linked with the names of professor Miloslav Seeman, professor Karel Sedlacek and associate-professor Eva Sedlackova. In the 60's dr. Sedlackova published a number of reports dealing with problems of the neuro-vegetative system in patients with a stutter. Langova discussed EEG findings in stuttering patients, Novak published his findings on the influence of delayed acoustic feedback. A major advance presented the electro-physiological studies of Lastovka, investigating the sensorimotoric feedback system in fluency disorders. The scientific papers of the Prague phoniatic school were always highly appreciated, for her work on the acoustic composition of the neonate voice and its development ass.prof. Sedlackova received the Gold Award (1967). Dr. Sedlackova was a founding member of the Union of European Phoniaticians – UEP in 1971. All this led to the fact that in Europe the Phoniatic clinic of the General Faculty Hospital and the First Medical Faculty of Charles University is described as the Seeman's Phoniatic School of Prague. In the 60's, practically all renowned phoniaticians in the socialist countries and many physicians from Western countries were trained by professor Seeman and associate professor Sedlackova. In the Czech Republic, dr. Sedlackova was the first to introduce into the study of delayed speech development linguistic and phonological methods and created the basis for diagnosing professional voice disorders, using the latest technique of spectral

voice analysis.

Curative and preventive care and research of a high standard has not confined to the Phoniatrik Clinic and its Phoniatrik laboratory. The pupils of professor Seeman and later also of associate professor Sedlackova gradually established phoniatrik divisions at other ORL-clinics and departments in Czechoslovakia. During the last 40 years, roughly 100 phoniatrikians were trained, most of them are nowadays running their own surgeries. However, the teaching hospitals retained their phoniatrik departments, which roughly correspond to the former regional clinics. Out of the contemporary number of 85 phoniatrikians working there, only one third do so full-time in the field of phoniatriks. Their work remains focussed on treating patients with speech, voice and hearing disorders, and particularly on paedaudiology.

Great attention is paid to persons using their voice professionally and to children with disorders in speech development, to patients with stutter to aphasics and patients with impaired hearing, especially children.

The clinic always formed the centre of activities in the field of phoniatriks, domestically as well as internationally. This accounts for the organisation of the world congresses in Prague – the Congress of the IALP (International Association of Logopedics and Phoniatriks) in 1930 (president prof. Miloslav Seeman, M.D., PhD.) and in 1989 (president prof. Alexej Novak, M.D., PhD.).

Three times the congress of the UEP was held in Prague, the last in 1993.

Professor Seeman was Honorary President of the Union for life, ass.prof.

Sedlackova was president of the Union of European Phoniatrikians in 1972-1973, professor Novak (recently Head of the Phoniatrik Clinic), was board member of the IALP during the term of 1986-1992 and member of the UEP general secretary in 1982-1993. In the years 1992-1998, associate professor Frantisek Sram was a member of the IALP Board. He too was originally on the staff of the Phoniatrik Clinic, now heads a private phoniatrik centre.

Since the year 1945, the Czech Otorhinolaryngology Society had a phoniatrik committee, which in 1968 was transformed into the Phoniatrik Section of the Czech ORL Society. Since 1970 this Section holds its own annual congresses called Phoniatrik Work Days, since 1977 they bear the name of Eva Sedlackova.

At present, the Phoniatrik Clinic in Prague (headed by prof. Milan Lastovka, M.D., PhD.) the only in-patient facility in Czech Republic, provides the entire range of diagnostics and treatment on a state-of-the-art level. It has at its disposal diagnostic and curative equipment such as is not available elsewhere in the Czech Republic, it is standard in industrialised Europe. Treatment is provided to hospitalised and out-patients and at the auditory centre – the Clinic is a graduate-training centre for phoniatrikians working in public and private health facilities all over the Czech Republic.

The Clinic's research work is reflected by a number of projects funded by grants, on subjects such as fluency disorders (dr. Cerny, prof. Lastovka), mathematical modelling of vocal folds (dr. Vohradnik), problems of central processing of speech signals in developmental speech disorders (dr. Dlouha), auditory screening of neonates at risk (dr. Dlouha, dr. Jedlicka, dr. Cerny, dr. Puchmajer), EMG monitoring of paresis of the larynx (prof. Lastovka), utilising the neuron networks in assessing dysphony (ing. Vokral). Thus the Phoniatrik Clinic carries forward the tradition of the founders of Czechoslovak phoniatriks, professor Seeman and associate professor Sedlackova, in the activities of the contemporary second generation of their pupils.

### *Professional state*

independent specialty of its own standing no

official subspecialty to ENT yes

official subspecialty to others no

number of university departments 4  
(Prague, Olomouc, Hradec Kralove, Plzen)

number of doctors working in the field 80  
(but in full time only 30)

### *Education and training*

program and examination for specialization  
3 years ENT

program and examination for subspecialization  
2-3 y. phoniatics

program in the frame of ENT, program and examination  
2-3 y. phoniatics

postgraduate programs  
seminars, courses

### *Associations*

Ass. For Phoniatics and Pedaudiology of Czech Ass. For ORL, Head and Neck  
Surgery

Contact address  
Dr.Med. Olga Dlouha  
Department of Phoniatics  
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Zitna 24  
120 00 Prague 2

tel./fax.: +42 - 2 - 2494 3051  
e-mail: [fonia@LF1.cuni.cz](mailto:fonia@LF1.cuni.cz)

### *Publications of Phoniatic Clinic abroad*

Novak, A., Vokral, J.:  
Emotions in the sight of long-time averaged spectrum and three-dimensional

analysis of periodicity,  
Folia Phoniatr 1993, 45:198-203

Sram, F., Lastovka, M.:  
Elektromyographische Diagnostik bei Kehlkopflaehmungen und Stimmstoerungen  
ohne organischen Befund,  
In: H. Ganz, W. Schaaetzle (Hsg.), Springer-Verlag, Heidelberg, 1995, 57-73

Novak, A.:  
Listening to the music with hearing aids,  
33rd Czech Conference on Acoustics, Speech-Music-Hearing, Prague, September  
23-26, 1995

Novak, A.:  
The contribution of acoustic analysis to the voice quality,  
1st World Voice Symposium, Oporto, Abstract Book, 1995

Novak, A., Vokral, J.:  
Acoustic parameters for the evaluation of voice of future voice professionals,  
Folia Phoniatica Logop, 1995, 47: 279-285

Lastovka, M.:  
Tremor in stutters,  
Folia Phoniatica Logop, 1996, 47: 318-323

Dlouha, O.:  
Auditory evoked potentials in aphasia,  
Electroencephalography and clinical neurophysiology, 1997, vol. 103, no. 1, pp.  
72-72

Dlouha, O., Nevsimalova, S.:  
Die Entwicklung einer Sprachstörung bei Landau-Kleffner-Syndrom,  
Sprache Stimme Gehör, 1997, vol. 31, No. 3, pp. 144-146

Dlouha, O., Nevsimalova, S.:  
Disorders of auditory perception in children with developmental dysphasia,  
Abstract – 3rd European conference on audiology, Prague, 1997

Cerny, L., Lastovka, M., Vokral, J.:  
Tremor in stutterers at rest and by speaking,  
In: Groff M. und Eyshold U.: Aktuelle phoniatisch-paedaudiologische aspekte  
1996, 1997, pp. 133-135

Lastovka, M.:  
The treatment of reccurens nerve paresis by means of direct electrical  
stimulation of laryngeal muscles,  
In: Abstracta, XXth Congress of UEP, Budapest, 1997, p. 27

Novak, A.:  
The ear car situation in Czech Republic,  
Scandinavian Audiology, 1997, Vol. 26, Suppl. 45, pp. 57-58

Vohradnik, M., Hrivnakova, J.:

Long time results of cleft palate surgery in various age.

In: Aktuelle phoniatriisch-padaudiologische Aspekte, Berlin, 1997, Vol. 4, p. 112-114

Vokral, J.:

Hoarseness as the sign of voice disease and neural network,

In: Proceedings ECSAP-97, Prague, 1997, pp. 463-466

Dlouha, O., Nevsimalova, S.:

Developmental dysphasia. Early variant of Landau-Kleffner syndrome?

In: Proceedings of IALP congress, Amsterdam, August 1998

Lastovka, M., Cerny, L., Vokral, J.:

Tremor in stutterers by speaking,

In: Proceedings of IALP congress, Amsterdam, August 1998

Vohradnik, M., Dedouch, K., Vokral, J.:

Mathematical modelling of vocal cord,

In: Abstract of III. Neurolaryngological congress, New Castle, 1998

Vohradnik, M., Pesak, J., Honova, J., Vokral, J.:

The correlation between fundamental frequency F0 and lung volumes in stuttering children and adolescent,

In: Proceedings of IALP congress, Amsterdam, August 1998

Vokral, J.:

Objective classification of the degree of voice disorder,

In: 2nd International Student Conference on Electrical Engineering, Poster 98, Prague, 1998

Dlouha, O.: Developmental dysphasia –central auditory processing disorder,

Abstracts, XXIst Congress of the Union of European Phoniatrians, September 9-12, 1999

Dlouha, O., Nevsimalova, S.: EEG changes and epilepsy in developmental dysphasia,

Clin. Neurophysiol., Vol. 110, Suppl. 1, 1999

*Projekt "European Centre for Communication Disorders"*

### *Introduction*

Roughly 540 million people the world over (in Europe 64 million) suffer from serious communicative disorders and difficulties. In all cases, they affect the economic and social status of the patient and his/her family. Delayed treatment unnecessarily increases medical as well as social welfare costs.

On a global scale, it is the International Association of Logopedics and Phoniatrians (IALP), in Europe it is the Union of European Phoniatrians which strives to improve the present situation.

The historical development and economic situation in individual continents and countries is reflected in the significant differences in the concepts, development

and provision of care to patients with communication disorders.

In this complex activity we are lacking the opportunity to compare out-patient practices relating to individual concepts in different countries. Therefore we recommend to establish Centres for Communication Disorders in different continents or in other specified regions, which would be helpful in this respect. The Centres would allow the targeted choice and modeling of therapeutic and prophylactic procedures and methods and selection of the most suitable program for a given area.

The present organizational structure of providing out-patient curative and preventative care to patients with communication disorders clearly demonstrates the requirements for further development. To make it more effective and efficient, it has to be oriented systematically towards achieving comprehensive screening programs, early diagnostics and treatment by teams of specialists of various professions - phoniatics, logopedics, speech language therapists, psychologists and engineers - based on well-equipped and well-staffed diagnostic and therapeutical centres. Such centres - either public, attached to teaching hospitals or privately run, should provide diagnostic and therapeutic expert services to patients and their families and advise specialists throughout the country. They should develop in close collaboration between health, educational and social authorities and establish conditions for pre-graduate and graduate training of specialists. In view of the nature of communication disorders and hearing defects and their different nature from other disorders, treatment in day-care centres or boarding-hostels appears more suitable than a hospital environment.

### *Purpose and Object of Project*

Purpose of the Project is to establish European Centre for Communication Disorders to compare out-patient practices in Europe related to individual concepts in different continents and regions, the assessment of professional and economic results.

The Centre should be a model for procedures in the professional, organizational and economic sphere and for initiating out-patient treatment prior to its application in general practice: 1) experts, organizational and economic activities, 2) cooperation of experts with patients and their families, 3) providing combined medical, nonmedical, social and educational care, 4) compiling statistical data, 5) setting up information systems. The Centre will participate in the pre-graduate and graduate training of experts, also from other countries (underserved areas) and in research especially in clinical areas related for example, to improved out-patient management of communication disorders. The objective of the Project is to improve treatment of patients with communication disorders whilst minimizing the costs of such treatment on a world- scale. The European Centre will have to be well equipped with contemporary technology and to be well staffed and housed in premises warranting its development. The centre is to be an independent, autonomous, non-profit health facility, funded from multiple sources.

### *Main Tasks of European Centre*

I. model:

a) activities:

- curative and preventive,

- organizational
- economic - linked to the given health service

- b) collaboration of specialists with patient and his/her family
- c) ensuring comprehensive care
  - medical, non-medical, social, educational
- d) other.

II. Collect statistical data and build up information systems

III. help train its own specialists and experts from abroad

IV. develop research in clinical practice

*Specific Tasks in the host country:*

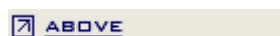
All activities shall be targeted to develop care for interpersonal communication in Europe, coordinated with international professional organizations, primarily with the Union of European Phoniaticians.

*Significance of Project, expected effect:*

It is a Project for the future, because it is based on screening the population, early diagnosis and therapy of communication disorders carried out by specialists in related fields in cooperation with patients and their families. It would form a basis for the development of preventive, diagnostic and therapeutic care for the younger generation and for adults on Europe-wide scale. It will improve health care for the citizens, giving them access to the latest diagnostic and curative procedures carried out according to up-to-date principles. National and foreign specialists will be involved in the Project. The practical application of the results of the Project is safeguarded by the participation of the Union of European Phoniaticians.

*Funding of the Project:*

- health insurance fees for curative and preventive treatment provided by Centre
- government subsidies
- contributions from international organizations and funds (exx. PHARE, Czech-German Future Fund etc.)
- private donations via the Foundation Fund for Developing the Care for Voice, Speech and Hearing
- contributions from the municipality
- contributions from the graduate training of specialists
- research grants



*Proposal:*

Currently there is a suitable opportunity to establish the European Centre for Communication Disorders in Czech Republic. Therefore we recommend to set the

Centre in Prague. The cooperation with a similar Centre in USA could be allowing a comparison of the American concept with that European of the Berlin - Prague - Vienna phoniatic school which has been applied in a number of European countries.

In the Czech Republic, more than 750.000 persons, among them 350.000 children, suffer from communication disorders.

Phoniatrics and logopedics have a long tradition in the Czech Republic thanks to their founders Professor Seeman and Professor Sovák. Phoniatrics was established in the Czech Republic in 1922. The Prague school of phoniatrics taught, and still teaches, that the care for patients with disorders of voice, speech and hearing defects forms an inseparable unit. It is based on preventive care (health screening), early diagnosis and the treatment of children and adults. It is carried out by a team of medical and non-medical experts in related fields, in co-operation with the patient and his family. The care is provided in close collaboration with health service, social and educational authorities.

Patients are for the most part treated on an out-patient basis (approx. 90%) and this should be undertaken in local phoniatic, logopedic (speech therapy) and psychology out - patient surgery, as close as possible to the home of the patient. On January 1, 2000, the Czech Republic had 79 phoniatricians and 289 clinical logopedists (speech language therapists). Early diagnoses and treatment require, apart from the team-work of specialists, also high-quality, up-to-date technology. Such facilities, however, are unevenly distributed.

#### *Specific Tasks of the Europe Centre in Prague:*

- to develop prevention, early diagnostics and treatment of communication disorders in collaboration with the patients family, with health, social and educational authorities and the media,
- to develop cooperation with specialists in regions and offer them the use of its special diagnostic, curative rehabilitative, prosthetic, consulting, expert, information and other services.
- to develop novel diagnostic and therapeutic methods for out-patient care
- to address special problems of auditory prosthetics and comprehensive rehabilitation for paediatric patients living outside Prague,
- to provide barrier-free access,
- to develop care for voice professionals and musicians playing wind instruments,
- to develop care for patients of ethnic minorities in their mother-tongue,
- to set up an information centre, that will provide professional and organizational information to general practitioners, specialists, patients and their families,
- to set up a central register of children with hearing defects (in future also of children with other communication disorders), in connection also with similar projects developed in countries of the EU),
- to create a model institution for this field, facilitating the verification of new diagnostic and curative methods, as well as organizational and economic approaches prior to their nationwide application in practice,
- to provide a framework for applied research funded by grants and carried out in cooperation with the relevant institutions, clinics, institutes, universities and professional societies in the Czech Republic and abroad, facilitating the participation of young specialists including foreign nationals,
- to participate in the pregraduate and graduate training of specialists with a view to developing out-patient care,
- to cooperate with social and educational authorities,



- to promote international professional collaboration in order to apply proven international procedures in the Czech Republic,
- to establish organizational, economic and working conditions ensuring continued development of the Centre and its economic autonomy.

*Organization Responsible for Project Implementation:*

Name and nature of organization: MEDICAL HEALTHCOM Ltd., Centre for Communication Disorders

Address: Resovská 10/491, Prague 8 Postal Code: 181 00

Telephone: 00420-2-854 33 85 Fax: 00420-2-855 03 39

Director: Associate professor Frantisek Sram, M.D.

Address: Resovská 10/491, Prague 8 Postal Code: 181 00

*Description of Organization*

The European Centre should be established by reconstructing the pavilions of the existing Centre for Communication Disorders, Medical Healthcom, Ltd., Cecharovská 10/ 491, 181 00 PRAGUE 8. Its built-over area comprises 1.109 sq.metres, the entire lot has 5.215 sq.metres and is located in a quiet part of the Bohnice Housing Estate on the outskirts of Prague. The Centre is easily accessible by city bus from the final subway stop "Holesovice".

The Centre for Communication Disorders, Medical Healthcom, Ltd was founded in 1991 with the assistance of the Good Will Committee of Mrs. Olga Havlová, as seat of the Sub-Chair of Phoniatics and Audiology of the Postgraduate Medical Institute (providing training for phoniaticians, clinical logopedists, speech and language therapists in the Czech Republic) as well as providing the Phoniatics Department of the Municipal Health Clinic of Prague 8, with day-care for children with hearing defects and voice and speech disorders. Since 1995, it has been run as a private health facility (Co.Ltd.). Establishing the centre enabled the full implementation of the Prague phoniatic schools philosophy on the out-patient care - i.e. comprehensive early screening; early diagnosis and treatment by multidisciplinary teams of specialists from related fields of expertise; development of the pregraduate and graduate training of specialists, as well as research into novel diagnostic methods suitable for out-patient care. The Centre serves the whole country and cooperates with institutions abroad. Since 1992, the Centre has been treating roughly 9-11.000 patients/year with voice and speech, language disorders and hearing defects.

The Projects envisages doubling the floorspace of the Centre, providing a barrier-free area for the physically handicapped, enlarging the capacity of the out-patient wards by an out-patient department for specialists in related fields, increasing the capacity of the day-care centre for children with communication disorders and hearing defects to 35 places, setting up a boarding-house for mother and child, in order to make the Centres services accessible to all.

Two architectonic studies for the reconstruction of the Centre for Communication Disorders, Medical Healthcom, Ltd. were designed.

Planned Implementation:

Duration of Project: 2000

Expected completion: 2001

Ideal start-up date of operation: 2000 at the time of the Abilympics World Conference in Prague (expected attendance 5000 specialists).

2001 - 25th Congress of International Association of Logopedics and Phoniatics, Montreal, Canada - Information to be given on founding and activities of Centre,

2002 - 80th anniversary of founding Czech phoniatics - demonstration of first results of activities

2004 - 26th Congress of International Association of Logopedics and Phoniatics, Brisbane, Australia - Report on Centres activities and comparison of results of European philosophies of care for patients with communication disorders.

Prague 8. 2. 2000 Ass. Prof. Dr. med. Franticek SRAM, CSc.