

Training Center for Otorhinolaryngology (TCO) in Beograd, Serbia and Montenegro

Project proposal by the Society of Friends of Otorhinolaryngology
(Förderverein für Otorhinolaryngologie. FO) in Basel, Switzerland.
President: Prof. Dr. Mihael Podvinec

1. Background

The Society of Friends of Otorhinolaryngology (FO) is part of the Academic Association ORL-BAL which includes four Otorhinolaryngology Departments: the University Department of Basel and the Cantonal hospital Departments of Aarau, Liestal and Olten, the latter three being teaching hospitals attached to the University of Basel. The FO, a non-profit organization, is concerned with knowledge transfer to Otorhinolaryngology (ORL) Departments outside Switzerland interested in a professional exchange. The FO has ongoing activities since the year 2000 in Poland, Slovakia, the Czech Republic and Serbia and Montenegro. For more information on the FO, see Attachments 1 and 2. FO is also member of "Medicus Mundi Switzerland – Network Health for All" (www.medicusmundi.ch).

This project, originally submitted to the Institute for Otorhinolaryngology and Maxillofacial Surgery of the University of Beograd in May 2002 is now updated after a meeting in the Otorhinolaryngology Department of the Military Medical Academy of Serbia and Montenegro (**VMA**) on May 14th, 2004. Present were: the Chief of the Department Col. Dr. D. Bijelić, Maj. Dr. M. Milojević and Dr. Lj. Pavičević, Mr. R. Nikolić, representative of **Karl Storz**, Instrument manufacturer from Tuttlingen, Germany, and Professor M. Podvinec of the **FO**.

2. Management Summary

The use of modern surgical and diagnostic methods and of state-of-the-art medical instruments in the newly democratic South-Eastern European states is over a decade out-of-date. There is great interest in the medical profession to learn to apply these new methods and modern instruments, which exist only selectively in certain hospitals and are not widely accessible for teaching purposes.

New surgical procedures and introduction of new technologies are taught mainly during actual surgery on patients. This fact reveals a great need for teaching centers in which theoretical and practical knowledge and skills may be taught outside live operative situations. Furthermore, Continuing Medical Education (CME) is presently being introduced within the Medical Society of Serbia as a novel feature.

With continuing economic growth in perspective, this constitutes a large potential market for the producers of medical instruments and for the pharmaceutical industry.

The goal of this project is to bring together these different interests in the field of Otolaryngology i.e. the introduction of new methods, new medical technologies and of modern teaching methods and to form a Training Center for endoscopic surgery and microsurgery, in which the newest methods of treatment will be taught by highly qualified professionals of international repute and where surgical training will be performed on up-to-date instruments.

The realization of the project will be effected by a concerted effort of:

- a host organization capable of offering infrastructure, continuous management and up-keeping, the Military Medical Academy (Vojnomedicinska Akademija, **VMA**)
- the leading professional organization of specialists in the field of Otolaryngology in Serbia and Montenegro, the Serbian ORL Society **SORLS** (ORL Sekcija Srpskog Lekarskog Društva)
- an independent organization of professionals working on knowledge transfer and capable of establishing connections with highly developed and reputed international clinical teaching centers, the Society of Friends of Otolaryngology in Switzerland (Fördeverein für Otorhinolaryngologie der ORL-BAL), **FO**
- manufacturers of medical instruments and of pharmaceutical companies interested in the potential market, acting as sponsors and organizational collaborators.

3. Definition of Problem / Opportunity

During more than ten years the medical profession in Serbia and Montenegro has been closed out from practically all new developments in the medical field in Europe and the United States. The cut-down on imports had eliminated the influx of medical journals and literature. Purchase of modern medical instruments was practically impossible and is still reduced to donations or selective acquisitions in bigger hospitals. Training of medical personnel concentrated on existing instruments and apparatus, all of which is considerably more than ten years old. Any specialist training of physicians from Serbia and Montenegro in countries with highly developed medical technology and teaching was limited over these years to private initiative, the costs for the individual being prohibitive due to degradation of personal income. Accordingly, centers of excellence in modern treatment remain extremely rare. Electronic communication is finding its way into the medical profession, but powerful hospital or university servers are still rare. Literature searches are performed on individual PC's by those who can afford them, but are often impaired by the less than satisfactory state of telephone connections.

Since the onset of the democratization process in countries of South-Eastern Europe, there is an opportunity of supporting the reconstruction of the medical structures and the quality of health services by establishing a Training Center for Otorhinolaryngology (TCO), which would instruct both established otorhinolaryngologists and trainees in the specialty in the use and handling of up-to-date medical methods, instruments and equipment, e. g. minimal invasive (endoscopic) surgery of the sinuses, microsurgery of the temporal bone and of endoscopic procedures, including the use of lasers.

In Serbia and Montenegro (population 8 million), a large reservoir of qualified and competent medical professionals in Otorhinolaryngology exists (SORLS has 350 members), which are highly motivated to be trained in the latest surgical and diagnostic methods, to implement new instruments and learn micro-invasive and endoscopic surgical procedures. Once the key "power users" have been trained, they themselves are to become vectors of knowledge transfer to both young trainees and to established potential users throughout the country, potentially also in other countries of South-Eastern Europe at a later date. CME, considered today as essential for the quality of health services, is still rudimentary in Serbia and Montenegro.

For producers of medical equipment the support of such a training program is a door opener and an ideal opportunity to introduce local opinion leaders to their specific medical instrument technology. Pharmaceutical companies may also be interested in the scope of the CME activities as sponsors.

Surgical specialties other than Otorhinolaryngology (Plastic and reconstructive surgery, Ophthalmology, Microvascular surgery, Maxillofacial surgery, endoscopic surgery in all specialized fields etc), may have interest in participation in the activities of the TCO and develop their own programs of CME within the facilities. This perspective is to be kept in mind as a potential in growth and financing.

4. Project goal

To establish a Training Center for Otorhinolaryngology (TCO) in Beograd, which will educate both certified and ongoing otorhinolaryngologists from Serbia and Montenegro as well as other countries of South-East Europe in the future, in the use of modern medical technology, instruments and equipment. The main goal of the TCO is knowledge transfer to otorhinolaryngologists in Serbia and Montenegro in the sense of surgical training and CME, and in establishing closer contacts with medical professionals in Switzerland other countries of Western Europe.

5. Solution proposal

The central activity of the TCO is to provide courses in microsurgery of the temporal bone, minimal invasive surgery of the head and neck region, such as endoscopic sinus surgery and endoscopy of the upper airways and upper digestive tract, including laser application. It is proposed to create a basic administrative and physical infrastructure for the training courses.

To that effect,

- § the TCO is to have dedicated facilities including personnel, premises and instruments.
- § the courses will be held by eminent experts in the respective field (Course Directors). They will be selected according to their international reputation and/or special knowledge.
- § the trainees must be accompanied and supported by Tutors, appointed in view of their expertise and experience in the subject. Ideally, each Tutor should support two course participants. Tutors may be appointed from the ranks of qualified specialists within the host country.
- § hard copy handouts including summaries of lectures, lists of pertinent literature, instructions etc. are mandatory for each course.
- § each course will train a minimum of 6 persons and have a duration of 1 to 7 days.
- § the TCO can also accommodate individual training sessions, provided that the facilities are available. Tutoring supervision is mandatory in such a case.
- § the activities of the TCO are recorded and consequently published periodically in a bilingual Newsletter appearing each December. This record will be sent to past and prospective course participants, Course Directors and Tutors as well as to the individual and corporate sponsors.

At a later date, the TCO may internationalize its activities.

6. Strategy, means and general policy

It has been established that the medical team of the Otorhinolaryngology Department of the VMA is willing to explore possibilities to establish the TCO in their institution and to present the project to their superiors.

A project management team consisting of: M. Podvinec, D. Bijelić, M. Milojević, Lj. Pavičević and R. Nikolić exists since May 14, 2004. This team is responsible for putting the project on line, specifically to ensure that the premises are committed, the initial financing is arranged, and the necessary personnel assigned. It will also ensure that the Steering Committee and the Managing Team are nominated and in place for the start up of the regular functioning of the TCO.

The project management team ceases to exist with the start-up of the TCO. After implementation, the Steering Committee and the Managing Team will take over the running of the TCO.

It has been established, that the FO is willing to actively support the founding and functioning of the TCO within VMA through participation in the governance of the TCO for at least five years' duration. It will help in the choice and establishing of contacts with prospective Course Directors and other experts and Institutions by facilitating correspondence and by general counseling on subjects where its experience may be of use. Members of the FO will not be remunerated for their activities. If sponsors of the TCO are willing to participate, of their own accord, in air fare costs for members of the FO, they may do so.

It is understood, that the TCO is independent in its choice of all partners from the medical industry, but will refrain from creating conflicting situations within the individual courses. To that effect, the established partners/sponsors from the medical industry may suggest further partners/sponsors within individual courses which produce complementary products not furnished within its own product line.

It has been established, that the manufacturer of surgical instruments Karl Storz in Tuttlingen is willing to put at the disposition of the TCO all instruments of its production for the normal functioning of the courses in all mentioned areas of activity. It is presumed that at least one, possibly two, working places for temporal bones are equipped permanently, the rest being brought in for the duration of the courses. Transport, insurance, customs formalities and any other expenses are borne by the firm including degradation of equipment within normal use. The host, VMA, will insure that unauthorized access to equipment is prevented. Possible separate agreements between VMA and medical firms are not in the responsibility of the TCO.

The sponsoring firms participate decisively in the financing of Course Directors and other persons participating in trainee instruction. The financial situation of the VMA, the FO and the training hospitals in the Republic of Serbia and Montenegro is such, that the normal function of the TCO will depend on this sponsoring.

The members of the Steering Committee and the Managing Team of the TCO work without remuneration.

It is understood that the TCO is accessible to all trainees and trained specialists in ORL which are interested in its activities, who have gone through the procedure of inscription and have paid the inscription fee in advance to a separate account of the VMA. In no-show situations, no refund will be given. The trainees will receive letters of acknowledgment from the TCO, which will mention VMA, the FO and the participating sponsors.

The trainees will receive handouts before or during the courses. Questionnaires pertinent to Quality Management will be handed out after each Course and evaluated by the Managing Team.

The inscription fees are nominal, in view of the economic situation of health workers. At the present time, a sum of 3.500 Dinars (50 Euro) is acceptable. The income from these fees will be used against a part of the infrastructure expenses of the VMA. The management of the TCO takes into account the policies of the VMA, the Serbian ORL Society, the University Chairs of Otorhinolaryngology in Serbia and of the FO.

The TCO seeks close collaboration with the University of Beograd and its Medical Faculty as well as other academic institutions in Serbia and Montenegro as well as from abroad. It seeks the recognition as a CME-certified institution in collaboration with the Medical Societies and their Specialist Sections, more specifically the SORLS.

INFRASTRUCTURE

The inspection of the prospective premises and facilities have shown, that sufficient space may be allocated to the six necessary training places for temporal bone work (2 training rooms, with a total of approx. 50 square meters).

- Necessary modifications have to be done on those premises: water and electricity connections to six working places, connections between the two separate rooms by electronic media. A minimum of 6 sockets per work place is necessary.
- It will furthermore be explored whether the two rooms may be joined by the elimination of a partitioning wall.
- Direct access to the sewage system is necessary for the elimination of waste.
- Working tables and chairs are to be provided.
- A mandatory condition for the utilization of the inspected rooms is the faultless function of the aeration system, as the rooms have no external windows. The air processing system has to be appraised and repaired where necessary or newly installed, because bone dust developing during work may seriously impede normal utilization of the rooms and damage the health of the trainees if the aeration system is inefficient or faulty.

- Space for wardrobes, adequate storage space for instruments and preparation material is to be defined.
- In the case of courses of sinus surgery training, the premises will be within the Institute of Pathology.
- It has been established, that the Ethics Committee of the VMA has approved the controlled implementation of cadaver parts for training. Also, the cooperation of the Head of the Pathology Department will be solicited.
- In the future, training of procedures on anesthetized animals or animal parts may be possible in facilities already existing within the VMA, which is of importance for training in endoscopy and laser surgery.
- A small auditorium for approx. 30 persons is available. Electronic projection (laptop beamer, CD-ROM and DVD) will be provided on request by VMA for specific lectures.
- For later perspectives, there are facilities for the transmission of live surgery to an auditorium of 400 seats, which may be utilized if Course Directors or Tutors are invited by VMA to demonstrate live surgery.

EQUIPMENT

Training room(s): A defined number of work places, of which one is a master station with Video-attachment, making it possible for the trainees to follow demonstrations by the Course Directors. The work places consist otherwise of a working table and chair, instrument drawers, training microscope, drilling equipment, a choice of instruments for ear surgery, a bone fixation facility, a watering system, a suction system and preferably an air suction system for the elimination of bone dust, with at least 6 electricity sockets per place. For training of endoscopic surgical techniques there should be available a cold light source, different types of optical telescopes and instrument for sinus surgery, preferably with video-facilities for the trainees. Storage facilities for anatomical preparations (in formalin and in a refrigerator) and washing facilities separately for instruments and for trainees are needed.

7. People and organization (Proposals)

STEERING COMMITTEE

The activities of the TCO are coordinated by a Steering Committee, consisting of three persons:

Col. Dr D Bijelić, Head of the ORL Department of the VMA

Prof. Dr. R. Dergenc, President of the SORLS and Head of the ORL Department KBC Zvezdara.

Prof. Dr. M. Podvinec Head of ENT, HNS Department, Cantonal Hospital, CH-5000 Aarau, Switzerland and President of the FO.

To assure close cooperation with the Medical Faculty, at least one member of the Steering Committee must be on the academic staff of one of the Universities in Serbia and Montenegro.

MANAGING TEAM

The actual running of the TCO is entrusted to a Managing Team of at least 5 persons:

Head: Maj. Dr. M. Milojević, ORL Department VMA

Member: Mr. Ranko Nikolić, Head of Ranex Corporation, Representative of Karl Storz Manufacturing Co. Tuttlingen, Germany.

Other members to be designated by the Project Team after electronically circulated name proposals.

8. Task outlines

The Steering Committee has three members and meets at regular intervals (electronic forum decisions possible). It:

- ◆ produces a Program of the TCO, delimiting the policy mainlines for the coming years,
- ◆ appoints the members of the Managing Team,
- ◆ selects Course Directors and Tutors for each course,
- ◆ is responsible for relationships with sponsors,
- ◆ is responsible for the administration of the financial resources,
- ◆ issues reports on the progress of the project, stating activities, costs and plans for the coming year with a budget proposal. The report will be incorporated into the

bilingual Newsletter of the TCO appearing every December and the yearly Bulletin of the FO appearing every February.

- ◆ constantly monitors efficiency and effectiveness of the project.

The Managing Team consists ideally of 5 persons who are locally based and willing to invest time and energy into the organization of the project. It:

- § is responsible for the technical aspects of the organization and execution of the activities / courses, including selection of the course applicants and all correspondence to that effect, distribution of information prior to the courses, and the technical integrity and correct function of the course facilities.
- ◆ maintains collaborative contact with the Steering Committee, informing it immediately of any problems concerning the correct organization and progression of the courses. A written routine report after the conclusion of each course is expected containing the evaluation of the Quality Control Questionnaires.
- ◆ develops initiatives and programs to the effect of raising the quality of the services of the TCO to course participants (evaluation of changes following Quality Control Questionnaires for the participants etc.)
- ◆ manages its financial planning and control functions, reports and applies for financial means in written form to the Steering Committee.

The Managing Team may enlist the help of existing institutions in the organization of technical support (in this case the infrastructure of the VMA, like Accounting services etc.)

Project management is a temporary function, executed during the buildup of the TCO, which becomes obsolete when the TCO is inaugurated and the management team takes over. Roughly, project management

- ◆ works out the detailed steps of the project and produces detailed action programs to be confirmed by the Steering Committee,
- ◆ is in control of the project timetable and responsible for meeting the project deadlines.

9. Financing

VMA is willing to explore the total financing of the infrastructure as described earlier under "Strategy, means and policy". It is envisaged, that a large part of the remaining financing is obtained from sponsors – primarily producers of medical equipment or the pharmaceutical industry. Part of the sponsoring will be providing the medical instruments on a loan basis. However, direct financial support will be necessary as well, specifically for the expenses of the Course Directors, and other persons invited from abroad.

10. Project cost

At this point in time, it is essential that the local host, VMA, works out an estimate of the costs of the infrastructure and adaptation of existing premises to the standards described in this project. This position of the cost is to be established by the host. The costs to be borne by the sponsors for the temporary import of their material are unknown to the author and should be established by the sponsors themselves.

Considering the sponsoring of Course Directors, Tutors and Lecturers, the sponsoring manufacturers and pharmaceutical firms with a past experience in this matter should make an estimate based on a projection of three courses on temporal bone surgery and three courses in sinus surgery within one year.

11. Cost / Benefit Discussion

The benefit to medicine in Serbia and Montenegro (and potentially to neighboring countries) is evident.

There is a great potential market in this whole region for the producers of medical technology, which can be realized in the future. As soon as the economy picks up, one of the first investments in a democracy is into health services, improvements in quality of life and life span prolongation. Therefore, producers of medical instruments and the whole medical industry including pharmaceutical companies should be interested in an early presence in the market at a presently moderate cost. Sponsoring activities will be openly published and acknowledged.

12. Timeline

The project should be initiated and set up within the current year of 2004.

Envisaged is a program duration of 5 years. At that point in time the Steering committee will issue a final report to all donors and contributors, stating all data from which effectiveness, efficiency and overall results will be evaluated. Continuation of the whole activity will then be discussed with the host and the sponsors.

13. Risks

Any risk of applying the funding to purposes outside the project brief should be counteracted by the financial rules of the Steering Committee and the current reporting within the Steering Committee.

The main risk to the timely and successful completion of the project is the availability of financial means.

14. Recommendation

The authors recommend establishing the TCO within VMA with an initial capacity of 6 work places, in the scope of instructing trainees from Serbia and Montenegro in temporal bone surgery and endoscopic sinus surgery within defined courses, held by foreign Course Directors and accompanied by local Tutors. They consider this venture to be of obvious interest in a long-term perspective to all parties concerned. Efficacy and effectiveness of this venture is ensured by the participation of experienced experts and proven decision-makers involved, with the support of organizations such as FO, itself being part of a Swiss academic association. It is realistic to expect that the success of this project would open development perspectives to other surgical specialties.

Sponsoring of the initiated activities has already been recruited with instrument manufacturers and is ongoing at the present time. Financing will depend crucially on the availability and contributions of sponsors in the first activity period of 3 years, after which the possibility of soliciting of state funds will be explored. However, the perspectives of knowledge transfer, of establishing closer personal contacts and of professional exchanges remain very important ones and should be permanently focused. The effect of a permanent and functioning institution of this type on the improvement of expertise and the quality of medical services is more than considerable.

The renewal of the traditionally good and friendly contacts with the medical professionals in highly developed countries as well as with those of the surrounding countries is also an important task in introducing permanent international exchange of knowledge within Europe. Another important effect of the TCO is the communication of contemporary teaching and CME.

Finally, the establishing of such institutions, common within Europe, will advance the homologation of the specialist education system of Serbia and Montenegro in regard to European countries.