



Strategic Scientific Workshop

**Scientific Evidence Based Approach to the Management of Patients
with Severe Traumatic Brain Injury**

6 June, 2004, Vienna, Austria

Internationale Gesellschaft zum Erforschung von Hirntraumata
International Neurotrauma Research Organization

held as a Satellite meeting to the 7th Conference on Injury Prevention and Safety
Promotion

Final Report

Wien, Austria

1 SUMMARY OF RESULTS AND KEY REFERENCES

Project Title: **Scientific Evidence Based Approach to the Management of Patients with Severe Traumatic Brain Injury**
INTAS Ref.Nr. 03-60-140

Project period: **June 6-9, 2004**

Co-ordinator/Contractor:

Internationale Gesellschaft zum Erforschung von Hirntraumata (IGEH)

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The grant was used to support a Strategic Scientific Workshop as well as to facilitate participation of trauma specialists from NIS at the international conference, both in the area of traumatic brain injuries management. One day scientific workshop labeled **Scientific Evidence Based Approach to the Management of Patients with Severe Traumatic Brain Injury (TBI)** was held at IGEH and was attended by 7 trauma specialists from 3 NIS countries (Georgia, Armenia, and Russia). The meeting achieved following objectives:

- participants got acquainted with methodology of Evidence Based Medicine and its application to the prevention of complications stemming from secondary brain injuries;
- they were introduced to and discussed guidelines and treatment protocols on prehospital and hospital management of TBI patients;
- the concept of outcome research for quality assurance in TBI care was introduced and demonstrated on practical examples;
- different trauma systems in Europe were presented and consequences discussed;
- the situation in TBI in Europe and NIS countries was reviewed with respect to epidemiology and treatment modalities;
- surgical and intensive care approaches to TBI management were presented and discussed;
- participants visited the leading trauma care facility in Vienna;
- they participated at the 7th Conference on Injury Prevention and Safety Promotion.

2 RESEARCH

2.1 Overview of Research Activities / Conformance with the Work Programme (1-2 pages)

The aim of the Strategic Scientific Workshop was to familiarize 9 participants from INTAS/NIS countries (general trauma and brain trauma specialists) with principles of secondary brain trauma complications prevention applying Scientific Evidence based approach and outcome research. Specific IT technology to support this aim was demonstrated in a form of internet based database ITCP. The workshop pursued following objectives:

- *To acquaint participants with methodology of Evidence Based Medicine (EBM) and its application to the prevention of complications stemming from secondary brain injuries.*

The discussion as well as presentations by individual countries representatives proved, that the concept is well known, although practical implementation does not exist. This is what substantiated the value of the meeting – demonstration of how the EBM could be implemented into clinical process of TBI management and research to improve the quality of care.

- *To present and discuss guidelines and treatment protocols on prehospital and hospital management of TBI patients.*

Detailed discussion on prehospital and hospital TBI guidelines was carried on. The discussion opened up many issues for further study in the countries involved. It has been consented to look for grants which could support such a research. Participants documented on their data how important TBI is in the mortality of populations and how the research could contribute to better handling of the “silent epidemics”.

- *To introduce a concept of outcome research for quality assurance.*

The concept was introduced and subsequently discussed. It's value for improvement of quality of TBI care has been demonstrated on data from TBI database. All participants expressed a desire to be included into the group of ITCP users. All centers received a CD ROM with the program and all rights required to access the database. They were also introduced to the structure and technology of its use. Information on patient's anonymity and individual information security was also acknowledged. All centers will install ITCP upon returning home.

- *To present different trauma systems in Europe.*

A presentation given by IGEH provided an overview of different trauma systems in Europe. Comparison of details is not feasible because of lacking information. It was felt, that further research in this issue will be of immense value for countries with serious economic limitation, since it would allow them to make economically effective decisions while increasing efficacy of the system.

- *To review the situation in TBI in Europe and NIS countries*

The session was initiated with a presentation of IGEH on TBI research in Balkan, Austria and new EU member countries. Presentations of individual countries once more confirmed the need of trauma research and subsequent national trauma policies development.

- *To present and discuss surgical and intensive care approaches to TBI management*

IGEH team presented a concept of intensive care approach to TBI management supplemented with hands on training in Intracranial Pressure Monitoring. The issue of costs was discussed and ethical considerations were put on the table.

- *To visit the leading trauma care facility in Vienna*

All participants went to visit the Lorenz Bohler Unfall Krankenhaus in Wien, which is the leading trauma facility in Austria. It has served as a model for similar facilities built in neighboring countries (Brno, Budapest).

The workshop proved to be an effective platform for the introduction of evidence based traumatic brain injury (TBI) management to the invited trauma experts for NIS countries. Activities of International Neurotrauma Research Organization (Internationale Gesellschaft zum Erforschung von Hirntraumata IGEH), especially TBI guidelines implemented in cooperating hospitals, patient database created by IGEH and international projects were presented.

In the second half of the workshop the NIS participants presented TBI situation in their countries, as well as their professional experience.

All NIS participants were given a CD ROM with the database and contact with IGEH administrator for continuous support.

After the workshop all 7 NIS participants and 3 IGEH related professionals participated at the 7th Conference on Injury Prevention and Safety Promotion in Vienna, Austria. The objectives of the conference were to strengthen injury control, exchange most recent scientific findings and practices in all fields of injury prevention and safety promotion, increase synergy and foster partnerships between professionals working in all levels of injury prevention and safety promotion, encourage outcome orientated research and improve the transfer to evidence based practice, highlight the current international injury prevention milestones and global campaigns, specifically in violence prevention, road safety and child safety. The international conference was attended by 1200 participants from 102 countries. Participation at the conference was a great opportunity for experts from NIS countries to gain up-to-date information on safety promotion and prevention and make international contacts. The IGEH participants had 1 presentation (Epidemic and Clinical Characteristics of TBI situation in three Balkan countries: case study of Croatia, Macedonia and Bosnia) and 2 posters (Factors that prevent undesired short and long term health outcome of TBI victims' management in Austria and Influence of health care specific factors on mortality and long term disability of TBI patients in Austria).

2.2 Scientific Results

Results of the strategic scientific meeting could be summarized as:

- 7 physician working in the area of traumatic brain injury in 3 NIS participated in a scientific workshop on TBI management in Vienna, Austria;
- participants were acquainted with the methodology of Evidence Based Medicine and its application to the prevention of complications stemming from secondary brain injuries;
- guidelines and treatment protocols on prehospital and hospital management of TBI patients were discussed;
- different trauma systems in INTAS and NIS countries were presented;
- the situation in TBI in Europe and NIS countries was presented;
- leading trauma care facility in Vienna was visited by NIS participants;
- NIS participants were able to participate in international safety conference

No scientific papers, presentations & patents have resulted directly from this project.

2.3 Impact of the results

- Cooperation with TBI professionals in three NIS countries was established with a potential impact on capacities development in the area of evidence based trauma care;
- Participants were instructed on the TBI guidelines and on the use of patient database. All obtained a CD ROM for database installation at their workplace. Ability to follow up results of the patient management and potential for a benchmarking will result in increased quality of care;
- Participants from INTAS countries as well as NIS shared experiences in TBI management in their home countries. Practical experiences will be applied resulting in improved trauma care. One of the tools to continue research in this area are fellowships for young scientists from NIS countries. IGEH is ready to accept successful candidates;
- Through participation in the international conference (7th Conference on Injury Prevention and Safety Promotion) the participants observed the latest development in the area of safety promotion and prevention in the world and shared personal experiences with other conference participants.

No patents or other protection of intellectual property were needed.

3 MANAGEMENT

3.1 Meetings and visits

Scientific workshop enabled participants from Russia, Georgia and Armenia, actively working in the area of traumatic brain injury management, to learn about state of the art of the presented topic and discuss possibilities for the implementation of scientific guidelines in their home countries. Basis for future cooperation between these newly independent countries and countries of INTAS cooperating with IGEH was established.

Prof. Hovhannes Manvelian, MD – Armenia, traveled from Yerevan to Vienna and back
Alexandra Karapetyan, MD – Armenia, traveled from Yerevan to Vienna and back
Prof. Irina Bubnova, MD – Russia, traveled from Chelyabinsk to Vienna and back
Rashid Shakurov, MD – Russia, traveled from Chelyabinsk to Vienna and back
Prof. Manana Khotchava, MD – Georgia, traveled from Tbilisi to Vienna and back
Zurab Germanishvili, MD – Georgia, traveled from Tbilisi to Vienna and back

Nana Tatishvili, MD - Georgia, traveled from Tbilisi to Vienna and back

Mr. Paul Beckers attended the meeting on behalf of INTAS.

<i>Visits</i>	Number of scientists	Number of person days
West ==> East	0	0
East ==> West	7	35
West ==> West	0	0
East ==> East	0	0

Table 1 Summary of the meeting

3.2 Collaboration

<i>Intensity of Collaboration</i>	High	Rather high	rather low	low
West <=> East	x			
West <=> West	n.a.			
East <=> East	n.a.			

Table 2 Intensity of the collaboration among the different Contractors

- In this project, did you co operate to a major extent with additional (inter)national organizations and institutions not mentioned in the Co-operation Agreement?

NO

3.3 Time Schedule

- Has the time planning been in accordance with the Work Programme? If not, please, specify and justify.

YES

3.4 Problems encountered

- Did you encounter any major problems (e.g. with regard to quality and quantity of the scientific contributions of the different Contractors, telecommunication, the transfer of funds and goods, taxation, customs)? If yes, please specify the problems and describe how you solved them.

NO

- Summarize your experiences in the table below.

<i>Problems encountered</i>	Major	Minor	None	Not applicable
Co-operation of team members			X	
Transfer of funds			X	
Telecommunication			X	
Transfer of goods				X
Other: None				

Table 3 Summary of experiences

3.5 Actions required

- Do you see any need for action from INTAS? If yes, please specify.

NO

3.6 Manpower invested

- On the whole, how many person-years went into the project? Give a rough estimate. How much of this was due to the funding received from this grant?

IGEH's team spent roughly 5 times 7 man days = **35 man days** for the meeting preparation and run, another 3 times 3 man days during the conference = **9 man days** and **2 man days** for preparing the final report, in total **46 man days**

4 FINANCES (in EURO)

4.1 This grant

- How did you spend the money of this grant? Please use the table below to give for each Contractor a consolidated breakdown in EURO1 of the expenditures actually incurred under the different cost categories. Please use the figures certified by each team leader (Cost Statements of the General Conditions, Part D1, included as last page of these guidelines; for each contractor, a signed copy must be kept by the Coordinator and should only be sent to INTAS upon request); the table below replaces the Summary Cost Statement of the General Conditions, Part D2).

Contractor		Cost Category						TOTAL (Euro)
# *)	Name of Contractor *)	Individ. Grants Labour Costs	Overheads	Travel and Subsistence	Consumables	Equipment **)	Other Costs	
1	IGEH	2,000	2,000	7,248	661	0	5,805	17,714
2								
3								
4								
5								
6								
TOTAL (Euro)		2,000	2,000	7,248	661	0	5,805	17,714

- Has the spending been in accordance with the one foreseen in the Work Programme? If not, in what respect and why?

The spending was in accordance with the one foreseen in the Work Programme.

- There were no expenditures on equipment and other costs. Under consumables we report conference fees (7th Conference on Injury Prevention and Safety Promotion) for the NIS fellows and 3 IGEH team members.

4.2 Other funding

- Did your project receive substantial funding from other sources than INTAS? If yes, please indicate the sources and the approximate amounts received.

NO

5 ROLE AND IMPACT OF INTAS

- In your mind (i.e. the Co-ordinator's) how important was this grant for starting and carrying out the project? Please tick the adequate boxes in the table below.

Without the INTAS funding the seminar will not take place and contacts among IGEH and NIS participants will not be established.

<i>Role of INTAS</i>	Definitely yes	rather yes	rather not	definitely not
Would the project have been started without funding by INTAS?			X	
Would the project have been carried out without funding from INTAS?			X	

Table 4 Role of INTAS

- From your point of view, what were the most important achievements of the project? Please tick the adequate boxes in the table below.

<i>Main achievement of the project</i>	very important	quite important	less important	Not important
exciting science	X			
new international contacts	X			
additional prestige for my lab		X		
additional funds for my lab		X		
helping scientists in NIS	X			
other (specify):				

- Will the project continue?

The project itself will not continue, but relations will remain. Since each participating center has received a copy of the ITCP database with appropriate intellectual property rights from IGEH the cooperation on this level is feasible.

- Will the co-operation among the project Contractors continue in the future?

Yes, during the seminar and subsequent meetings a feasibility of new project(s) were discussed. There might be an open call for projects from INTAS next year, there are calls from EUROAID for Russia and Georgia. There is also a call for fellowship applications from NIS countries. All those options are being followed by IGEH team and partners in NIS are being informed.

6 RECOMMENDATIONS TO INTAS

- What was particularly good and should not be changed?

The contribution from Mr. Paul Becker was particularly welcomed. His description of INTAS, activities and granting scheme were extremely useful for all participants. It was appreciated by all present.

- What was particularly bad and should be changed? Please specify and explain how it could be improved?

NO suggestions

7 ANNEXES

- Attach a summary report of each team describing its work undertaken in relation to the workprogramme and results achieved (1-2 pages per team). It should also include a list of the team members and a brief description of their contributions to the project.

Not applicable

- If appropriate, include reprints of (key) papers with acknowledgement of INTAS' support and any other items you consider to be of relevance to the project (pictures, videos, recordings, etc.).

Not applicable

- NB: The certified cost statements of each team leader and copies of invoices etc. should only be added upon request from INTAS.

- **Program of the Strategic Scientific Workshop:**

June 6th, 2004

9:00 – 12:00

- Welcoming address – M.Rusnak
- Introduction of participants
- Presentation of INTAS program – P.Beckers
- Presentation of IGEH – M.Rusnak
- Brief presentations of institutions of NIS participants
- TBI guidelines – P.Dado
- ITCP database – A.Rosso

LUNCH BREAK

14:00 – 17:00

- Trauma systems – L.Lenartova
- Epidemiology of brain trauma – A.Brazinova
- ICP monitoring, presentation – P.Dado
- ICP monitoring, hands-on training – P.Dado, J.Leitgeb
- CT imaging – J.Leitgeb
- Nursing aspect of TBI – I.Wilbacher
- Neurotrauma situation in NIS countries –presentation per country

17:00 – 21:00 CONFERENCE REGISTRATION, OPEN, and RECEPTION

June 7th

Participation at the 7th Conference on Injury Prevention and Safety Promotion
Visit to the Lorenz Bohler Unfall Krankenhaus

June 8th

Participation at the 7th Conference on Injury Prevention and Safety Promotion
Conference dinner at Vienna Town Hall

June 9th

Participation at the 7th Conference on Injury Prevention and Safety Promotion
Dinner with the IGEH team to evaluate the meeting and the conference
Departures

Reported by Martin Rusnak

8 COST STATEMENT PER CONTRACTOR

A signed copy of each contractor's cost statement must be kept by the Coordinator and only submitted to INTAS on request.

For the period from June 6, 2004 to **June 9, 2004**

INTAS Ref. No.: **03-60-140**

Project Title : **Scientific Evidence Based Approach to the Management of Patients with Severe Traumatic Brain Injury**

Exchange rate used for conversion from the used currency to Euro¹:

Categories of Costs ²	Amount for the period		
	Currency	Amount	Amount in EURO
1. Labour - Individual grants	EURO	2,000	2,000
2. Management/Overheads	EURO	2,000	2,000
3. Travel and Subsistence	EURO	7,248	7,248
4. Equipment	0	0	0
5. Consumables	EURO	661	661
6. Other costs including external services/ subcontracts	EURO	5,805	5,805
Total of Costs			17,714

Attention:

Please specify the actual costs incurred for the project during its contractual duration, which are financed by the INTAS grant. Any main cost items such as equipment (> 1000 Euro), significant purchase of consumables (>1000 Euro), project meetings and any other travel (aim, destination and duration, scientists involved, costs incurred) etc. should be specified overleaf.

Please specify in the Cost Statement the full Contractor's grant including the final payment of 10 % possibly still to be received by you. A final payment will only be made for costs advanced by the Contractor, Individual Grants committed but not yet paid or, within their allowable maximum, to cover Overhead Costs.

Contractor's Certificate

I certify that

- the above costs are derived from the resources employed and were necessary for the work under the Co-operation Agreement,
- such costs have been incurred and fall within the definition of allowable costs as specified in Articles 11,12 and 13 of the General Conditions to the Co-operation Agreement,
- all supporting documentation for justifying the costs is available for audit.

Name of Contractor:

¹ To calculate exchange rates you might use the currency converter as provided at <http://www.oanda.com/converter/classic>, the official converter for EU currencies can be found at <http://europa.eu.int/comm/budget/inforeuro/en/index.htm>

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Name and Signature of the authorised representative/NIS team leader:

Dr. Med. Martin Rusnak, CSC

Date: 12/13/2004