



# Neurotrauma and Critical Care

Head Injury    Spinal Cord Injury    Sports Medicine    Critical Care    Prevention

Editor: Donald W. Marion, MD, Secretary of the Joint Section

Summer/Fall 1997



## In This Issue

**Management of Severe Traumatic Brain Injury in 1997: The Impact of the Guidelines for the Management of Severe Head Injuries** ..... 2

**Committee Reports** ..... 4

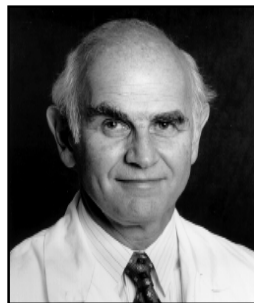
**Socioeconomic Issues in Neurotrauma: Recommendations for Action - Report of the Ad Hoc Committee on Neurotrauma, Joint Council of State Neurosurgical Societies** ..... 7

**Recent Neurotrauma Meetings** ..... 7

**CNS Meeting Highlights** ..... 8

**Update of the Joint Section Bylaws** ..... 9

## Message from the Chairman



*Charles H. Tator, MD*

The Joint Section has taken specific steps to foster research in neurotrauma and critical care through the development of an annual Fellowship to be offered in Neurotrauma or Critical Care. We have started the Fellowship with our own funds, but we are seeking sponsorship from an external agency or industry. If a member knows of an agency or industry interested in fostering neurotrauma or critical care research in this way, please contact me.

As a group, we must continue to foster high quality research in neurotrauma and critical care as one of our priorities. There are a number of ways to do this, but attracting bright neurosurgeons and neuroscientists to work in this field is the most certain

mechanism through which we can expect the "breakthroughs" we need to enhance treatment of brain and spinal cord injured patients. Politically, we must encourage our governments and national research funding agencies to support trauma research. These groups are besieged by other groups with similarly worthy causes, but we must make our case, too. We have to remind government and government research agency leadership that trauma is the leading cause of death during the first 40 years of life, and that head and spinal cord injuries account for the majority of these deaths. We can thank Christopher Reeves for being such a wonderful spokesperson for neurotrauma and regeneration research.

At the upcoming CNS Annual Meeting in New Orleans, Ross Bullock and Larry Pitts have planned an excellent meeting on outcome measures for head injury studies. They are hoping to improve the outcome measures currently in use for trials in head injury patients. The negative results in some head injury trials may be due, in part, to the lack of sensitivity of current outcome measures. This satellite meeting is sponsored by the Joint Section and is scheduled to occur immediately preceding the Congress Meeting in New Orleans.

The Executives of the Joint Section would like to encourage the development of satellite meetings in association with either the CNS or AANS Annual Meetings. If any member has a suggestion for a Neurotrauma or Critical Care satellite meeting, please let me know.

Last year our Section endorsed the Sports Injury Meeting organized by Julian Bailes in Orlando. Julian is Chair of the Sports Medicine Committee of the Joint Section, and is considering another Sports Injury Meeting in 1998.

Neurosurgery plays a major role in the acute treatment and rehabilitation of victims of gun violence. Now it is time for us to try to prevent some of these terrible incidents. Under the auspices of Michael Caron's Prevention Committee, Howard Kaufman's Gun Safety Subcommittee has been formed. The committee will be exploring strategies to reduce the incidence of gun violence in North America.

Charles H. Tator, MD, PhD, FRCS(C)  
Chairman

# Management of Severe Traumatic Brain Injury in 1997: The Impact of the Guidelines for the Management of Severe Head Injuries

By Donald W. Marion, MD, and Katrina Firlik, MD

In 1996, the *Guidelines for the Management of Severe Head Injuries*, a joint initiative of the AANS, Joint Section on Neurotrauma and Critical Care, and the Brain Trauma Foundation, were sent to all board certified neurosurgeons in the United States and Canada. The document provided evidence-based standards, guidelines, or options regarding the role of neurosurgeons in trauma systems, indications for intracranial pressure monitoring, the role of glucocorticoids, the role of antiseizure prophylactics, the use of hyperventilation, and the importance of cerebral perfusion pressure in the care of patients with severe traumatic brain injuries. Several other elements of the management of these patients also were included.

In the spring of 1997, a two-page questionnaire was mailed to all neurosurgeons in North America who were certified by the American Board of Neurological Surgeons. The questionnaire asked the neurosurgeons if they were familiar with the *Guidelines*, and, if so, if the *Guidelines* had changed their practice. In addition, the neurosurgeons were asked how they treat patients with severe traumatic brain injury. The results of the survey are presented in Figure 1. The questionnaires were sent to 3,156 board certified neurosurgeons and as of July 15<sup>th</sup>, 1997, 1,239 responses were received for a response rate of 39 percent.

Ninety-three percent of the respondents indicated that they were familiar with the *Guidelines for the Management of Severe Head Injuries* although only 45 percent stated the *Guidelines* had changed their practice.

## Trauma systems and the neurosurgeon

Only 44 percent of the respondents thought that all patients with severe traumatic brain injury should be treated at a Level 1 trauma center. Fifty-two percent felt that a neurosurgeon, either resident or staff, should be in-house at all times at a Level 1 trauma center. The Severe Head Injury Guidelines Committee did not find evidence sufficient to support a standard regarding the type of facility that can provide optimal care for patients with head injuries. At the level of a guideline, it was recommended that all regions in the United States have an organized trauma care system. Because 70 percent of neurosurgeons in this country are private practitioners and many are practicing in rural areas, it is clear that in many areas of the country, it is not practical to treat patients with severe traumatic brain injuries solely at a Level 1 trauma center. The responses for this survey question therefore do not appear to be inconsistent with the *Guidelines*.

## Indications for intracranial pressure monitoring

Eighty-three percent of neurosurgeons who were asked if most patients with severe traumatic brain injuries should have intracranial pressure monitoring indicated that they should. The *Guidelines* did not find that there was literature sufficient to provide a standard for this diagnostic modality, but the recommendations at the level of a guideline were that intracranial pressure monitoring be used for all patients with severe traumatic head injury and an abnormal admission CT scan.

## Figure 1

### Survey of North American neurosurgeons regarding their treatment of patients with severe traumatic brain injury (GCS $\leq$ 8). (Response rate of 39%; 1,239 neurosurgeons)

	Yes*	No
Should all of these patients be treated at a Level I trauma center?	44%	55%
Should a neurosurgeon (resident or staff) be in-house at all times in a Level I trauma center?	52%	47%
Should most comatose head injured patients have intracranial pressure monitoring?	83%	17%
Fiberoptic white matter probe (e.g. Camino, Codman)	48%	52%
Fiberoptic/ventriculostomy combination	21%	79%
Ventriculostomy catheter fluid coupled to an external transducer	29%	71%
Subdural or epidural monitor of any kind	7%	93%
Other	0%	100%
During the first several days after injury do you routinely use:		
Steroids?	19%	80%
Anticonvulsants?	52%	47%
Antibiotics?	28%	70%
Hyperventilation (paCO <sub>2</sub> <30 mm Hg)?	36%	62%
Should the cerebral perfusion pressure be maintained above 70 mm Hg whenever possible?	97%	3%
Should moderate hypothermia (32-33 degrees C) be used during the first 24 hours after injury?	34%	59%
Are you familiar with the <i>Guidelines for the Management of Severe Head Injury</i> ?	93%	7%
If yes, have they changed your practice?	45%	55%
Based on your past experience or that of your colleagues, are you more likely to be sued for services you provide to trauma patients than for services you provide to patients with any other type of neurosurgical disease?	30%	60%

\*The sum of the "yes" and "no" percentages often are less than 100% because some respondents chose not to answer some of the questions.

---

## Recommendations for intracranial pressure monitoring technology

In our survey, nearly 50 percent of the respondents stated they used a fiberoptic white matter probe for intracranial pressure monitoring and 50 percent used a ventriculostomy catheter, in some cases in combination with a transducer tipped probe (21 percent). The *Guidelines* recommendation is that the ventricular catheter connected to an external strain gauge transducer is the most accurate, lowest cost, and most reliable method of monitoring intracranial pressure. In addition, it is pointed out that the use of a ventriculostomy catheter allows therapeutic cerebral spinal fluid drainage.

## The role of glucocorticoids

In the survey, nearly 20 percent of respondents stated that they are still routinely using steroids for their patients with severe traumatic brain injury. Based on several prospective randomized trials, the *Guidelines* found sufficient evidence for a standard regarding the use of glucocorticoids: glucocorticoids are not recommended for improving outcome or reducing intracranial pressure in patients with severe head injury.

## The role of antiseizure prophylactics

Fifty-two percent of the respondents to the survey indicated that they routinely use anticonvulsants during the first several days after severe traumatic brain injury. The *Guidelines* found as a standard that the prophylactic use of phenytoin, carbamazepine, or phenobarbital is not recommended for preventing late posttraumatic seizures, but did note, at the level of an option, that anticonvulsants may be used to prevent early posttraumatic seizures in patients at high risk for seizures following head injury.

## Hyperventilation therapy

In the management of patients with severe traumatic brain injury, 36 percent of the respondents indicated that during the first several days after injury, they routinely used hyperventilation, ( $\text{paCO}_2 < 30 \text{ mm/Hg}$ ). In the *Guidelines*, the standard is that in the absence of increased intracranial pressure, chronic prolonged hyperventilation therapy should be avoided after severe traumatic brain injury. At the level of a guideline, the recommendation is that the use of prophylactic hyperventilation ( $\text{paCO}_2 < 35 \text{ mm/Hg}$ ) therapy during the first 24 hours after severe traumatic brain injury should be avoided because it can compromise cerebral perfusion.

## Cerebral perfusion pressure and head injury

Ninety-three percent of the respondents indicated that they felt the cerebral perfusion pressure should be maintained above 70 mm/Hg whenever possible. The *Guidelines* did not find evidence sufficient to establish either a standard or guideline in this regard, and only at the level of an option (consensus opinion, expert opinion) did the *Guidelines* suggest that cerebral perfusion pressure should be maintained at a minimum of 70 mm/Hg.

In 1991, Ghajar et al. conducted a survey of trauma centers across the United States and asked about neurosurgeon practices relative to many of the guidelines described above<sup>1</sup>. Based on that survey, there appears to be a number of changes in the way neurosurgeons currently treat patients with severe traumatic brain injury. In 1991, only 28 percent of the neurosurgeons reported that they routinely used intracranial pressure monitoring for these patients, while in the 1997 survey, 83 percent did. In 1991, 72

percent of the respondents used ventricular catheters for monitoring intracranial pressure while only 50 percent are using these catheters in 1997, and an equal percentage now prefer a transducer tipped white matter catheter. Steroids were used to treat the majority of head-injured patients (64 percent) in 1991, while only 19 percent of the respondents to the 1997 survey indicated that they routinely used steroids. Prophylactic hyperventilation therapy also was very commonly used in 1991 (83 percent), but only 36 percent of respondents to the 1997 survey indicated that they were using prophylactic hyperventilation therapy.

Based on these changes, it appears that the *Guidelines for the Management of Severe Head Injuries* have had a significant impact on the care of head-injured patients in North America. Clearly, however, neurosurgeons also treat patients in ways that they feel are most appropriate, irrespective of the *Guidelines*. For example, among the questions in the 1997 survey the highest level of agreement (93 percent) was for the statement "Cerebral perfusion pressure should be maintained above 70 mm/Hg whenever possible". But this concept was supported only at the level of an "option" in the *Guidelines* and not as a "standard" or "guideline". Reasons for such widespread acceptance of this cerebral perfusion pressure threshold, despite relatively little scientific evidence for it, may include the widespread acceptance of findings of low cerebral blood flow early after head injury and concern that cerebral perfusion should be enhanced under these circumstances. They also may be related to the educational programs conducted by Michael Rosner, MD, in the form of professional development courses and other courses to neurosurgeons, critical care intensivists, and emergency medicine. In those courses, Dr. Rosner has provided detailed information regarding early posttraumatic cerebral physiology and metabolism, information which may well have convinced most neurosurgeons of the importance of maintaining adequate cerebral perfusion during the first few days after injury.

Neurosurgeons surveyed in the 1997 questionnaire were asked their view regarding the use of therapeutic moderate hypothermia during the first 24 hours after severe traumatic brain injury. This treatment was not addressed in the *Guidelines*, so the 34 percent of respondents who indicated that hypothermia should be used early after injury concluded this not because of the *Guidelines*, but rather on the basis of the peer-reviewed scientific literature.

The improvement in outcomes following severe traumatic brain injury that were noted by Ross Bullock in the Winter/Spring issue of the Joint Section Newsletter is likely related to improved care of these patients by the majority of practicing neurosurgeons in North America. While the current survey was completed by only 40 percent of board certified neurosurgeons, it gives some insight into the changes that have occurred since 1991. Because a very high percentage of the respondents to the 1997 survey indicated that they were familiar with the *Guidelines for the Management of Severe Head Injuries*, it seems reasonable to assume that the *Guidelines* had a significant impact on the treatment changes that have led to the improved outcomes.

---

## References

1. Ghajar J, Hariri RJ, Narayan RK, Iacono LA, Firlik K, Patterson RH. Survey of critical care management of comatose, head-injured patients in the United States. *Crit Care Med* 1995;23(3):560-7

---

## Committee Reports

### **Pediatric Neurotrauma**

*P. David Adelson, MD*

The Pediatric Neurotrauma Committee continues to be involved in guidelines development for traumatic brain injury in children. A draft of the guidelines has been completed and is being revised. In the near future it will be sent to the Guidelines Committee prior to final revision. In addition, we are reviewing a draft of the mild head injury guidelines that are being developed in conjunction with the American Academy of Pediatrics. Hector James and Tom Luersson are spearheading this effort. Guidelines projects are the major goals of the Subcommittee at this time. Upon their completion, the committee will develop further goals and projects related to pediatric neurotrauma.

### **Spinal Cord Injury**

*Michael G. Fehlings, MD, PhD*

Our Committee is developing guidelines for the management of spinal cord injury, and assessment of the role of decompression in spinal cord injury (STASCIS study). The guidelines group met at the 1997 AANS Annual Meeting and formulated a series of questions which will be examined relative to the management of acute spinal cord injury. These include pre-hospital care and transport of patients suspected of having a spine injury; pharmacological management; optimal critical care; and the role of traction, decompression and surgical stabilization. A prospective, non-randomized feasibility study (STASCIS) has been underway over the last six months to examine whether it is possible to decompress patients with acute spinal cord injury within 8 hours after trauma. The results indicate that the 8-hour time window is not feasible, but that a 12-hour time window should be. A multicenter study is currently in progress to develop reproducible, quantitative, and clinically relevant radiographic outcome measures to assess cord compression. These instruments will be used in the planned prospective, controlled study of the timing of surgical decompression in spinal cord injury.

### **Sports Medicine**

*Julian E. Bailes, MD*

The Sports Medicine Committee continues to attempt to increase interest and interaction among neurosurgeons caring for athletes with vertebral column or neurological injuries. Both the patient-athlete and the medical community would benefit if neurosurgeons were to take a more active role in caring for those with sports injuries.

The Joint Section along with the National Athletic Trainers Association and National Football League Players Association sponsored the "Athletic Injuries of the Nervous System" Conference in Orlando, Florida in February, 1997. Nearly 200 attendees enjoyed the presentations and exchange by numerous experts in athletic central nervous system and peripheral nerve injuries. The highlight of the Meeting was the panel discussion involving former and current professional football players, moderated by Lynn Swann. A firsthand accounting of the type, severity, and impact of head and spinal cord injuries was beneficial in understanding the medical and career implications of athletic injuries. The Joint Section intends to continue support for this Annual Meeting as it represents the only conference in North America focusing exclusively upon athletic injuries of the central and peripheral nervous system.

The Sports Medicine Committee continues to address such issues as athletic concussion and concussion management guidelines. Some controversy has existed this year concerning an effort by organized neurology to gain national exposure and support for a specific concussion management protocol which they have designated as a "practice parameter." While the Joint Section did not endorse these guidelines, support was voiced on our behalf for continued dialogue and discussion to help raise awareness for increased recognition of minor head injuries in athletes. We will continue to attempt to be more involved in this process of recognition and decision making regarding the appropriate management and return to play criteria for athletes with minor and repeated head injuries. Our Committee is editing an AANS publication entitled *Neurosurgical Sports*

*Medicine*, drawing from a host of recognized experts in the field. One of our primary goals is to increase awareness, participation and education of AANS and CNS members so that they can take an active role in managing both recreational and organized athletic injuries.

### **Membership**

*Alex B. Valadka, MD*

At the Executive Committee meeting in Denver, we approved a revision of the Section's Bylaws that will allow residents to become members of the Joint Section. Resident membership is open to all those who belong to the CNS and/or the AANS. Dues are not required of resident members while they are still in training. The Membership Committee hopes that these changes will increase residents' awareness of the importance of neurotrauma and neurological critical care and will also promote involvement of young neurosurgeons in the activities of the Section. Membership applications and further information may be obtained from:

Chrystine Hanus, Member Services Manager  
The American Association of  
Neurological Surgeons  
22 S. Washington Street  
Park Ridge, IL 60068-4287  
(847) 692-9500  
or from:  
Alex B. Valadka, MD  
6560 Fannin, Suite 944  
Houston, TX 77030  
(713) 798-4696

### **American Brain Injury Consortium**

*Lawrence H. Pitts, MD*

The clinical trials involving American Brain Injury Consortium (ABIC) members remain a moving target. Novartis has the North American trial of Selfotel on hold until mid-November to review the European trial currently underway. A final decision to start or to abandon the North American trial will be made then. Several weeks ago, the Phase III trial of SNX-111 was started, but has been placed on temporary hold while the latest safety data from Neurex, the original owner of SNX-111 and the organizer of the

Phase II trial of that compound, is reviewed. We are working with Pfizer in initiating their upcoming Phase III trial of CP-101, 606, an NMDA-antagonist; the first investigators meeting is scheduled to occur in New Orleans on Friday, September 26, immediately before the Congress of Neurological Surgeons Annual Meeting. We also are in discussions with four other pharmaceutical companies about trials they are planning.

ABIC and the Joint Section are sponsoring a one-day symposium on "Determining Outcome after Traumatic Brain Injury," also in New Orleans just before the CNS Annual Meeting. It will be held at the Radisson Hotel from 8:30 a.m. to 5 p.m. on Saturday, September 27. The intent of the meeting is to quickly review available outcome data, outline weaknesses in current methodology, and propose changes or improvements in outcome measures that can be tested in future clinical trials. Ross Bullock and Lawrence Pitts have put together an excellent program to address these important issues.

### Awards & Fellowships

*Jack E. Wilberger, MD*

The Joint Section on Neurotrauma and Critical Care has established an annual grant/stipend of \$40,000 to support a fellowship in the area of basic or applied clinical research in the field of neurotrauma and/or critical care.

The grant will be competitively awarded to a neurosurgery resident in training, or within two years of finishing training, from an accredited North American program and is intended to support either one year's salary or a predetermined research proposal that can be accomplished in a one year time frame.

The fellowship may be undertaken at any North American or European center with an established reputation in either clinical or basic research for head injury, spinal cord injury or the important issues in critical care pertinent thereto. The fellowship is not intended to support advanced clinical training in these areas.

(Continued on page 6)

## SYMPOSIUM ON OUTCOME AFTER TRAUMATIC BRAIN INJURY\*

RADISSON HOTEL,  
NEW ORLEANS

SATURDAY, SEPTEMBER 27, 1997

### BACKGROUND AND INTRODUCTION

8:30 AM

*Ross Bullock, MD, and Lawrence Pitts, MD*

### TRIAL DESIGN - SELECTED ISSUES

9 AM

Statistical considerations

*Charles Contant, PhD*

9:30 AM

Patient stratification

*Lawrence Marshall, MD*

9:50 AM

Waiver of consent or not?

*Lawrence Pitts, MD*

### DISCUSSION

10 AM

Co-Moderators -

*Sung Choi, PhD, Gordon Murray, PhD*

### COFFEE BREAK

10:30 AM

### OUTCOME AFTER SEVERE HEAD INJURY

11 AM

GOS - *Graham Teasdale, MD*

11:20 AM

DRS - *Sung Choi, PhD*

11:40 AM

When do we test outcome (3 or 6 months)? *Sung Choi, PhD*

### DISCUSSION

NOON

Co-Moderators - *Lawrence Marshall, MD, Anthony Marmarou, PhD*

### BUFFET LUNCH

12:30-1:15 PM

### OUTCOME AFTER MODERATE HEAD INJURY

1:15 PM

Neuropsychological testing

*Jeffrey Kreutzer, MD, Anthony Marmarou, MD*

### DISCUSSION

2 PM

Co-Moderators - *Ronald Ruff, PhD, and Harvey Levin, PhD*

### SURROGATE OUTCOME END POINTS IN PHASE II TRIALS

2:30 PM

Therapy Intensity Level

*Anthony Marmarou, PhD*

2:45 PM

"Surrogate endpoints" - Microdialysis, Neurochemical

*Ross Bullock, MD*

3 PM

Neuroimaging

*Lawrence Marshall, MD*

### COFFEE BREAK

3:15 PM

3:30 PM

NIH and Neurotrauma Trial Sponsorship

*Mary Ellen Cheung, PhD*

3:45 PM

Special Issues in the Hypothermia Trial

*Guy Clifton, MD* (not confirmed)

### ROUNDTABLE DISCUSSION

4 PM

What data do we need to do better?

Co-Moderators - *Ross Bullock, MD, and Lawrence Pitts, MD*

### ADJOURN

5 PM

\*See Head Injury Committee Report on page 6 for further information.

It is expected that the research accomplished during this fellowship would be of a caliber to result in one or more publications in appropriate refereed journals and would be presented as a special lecture at either the AANS or CNS Annual Meeting Joint Section programs.

Applications for fellowship are available from:

Jack Wilberger, MD  
Professor of Neurosurgery and Vice Dean  
Allegheny University of the Health Sciences  
420 East North Avenue  
Pittsburgh, PA 15212

The application requires a clear description of the proposed research as well as sponsorship by a basic science or clinical mentor in the institution where the fellowship will be undertaken.

Deadline for receipt of the completed application is December 21, 1997 and the awardee will be notified of the final decision by February 1, 1998.

### Critical Care

*Michael J. Rosner, MD*

The Neurosurgery Critical Care Committee is working on a syllabus and curriculum which would be made available to neurosurgical residency programs. This process is being carried out in parallel with the development of a second critical care course in neuro-critical care to be offered in Puerto Rico in January of 1998. This course will be complementary to the first course in neuro-critical care.

### Head Injury

*M. Ross Bullock, MD, PhD*

A CNS-sponsored symposium will be held at the Radisson Hotel in New Orleans to convene a group of experts in the area of Head Injury Outcomes Analysis. This symposium will try to resolve the issues and concerns which have been raised following the recent succession of negative Phase III Head Injury Trials. All members of the Joint Section and other interested persons are invited to attend. Attendees will be asked to pay a \$50 registration fee at the door to cover the cost of room rental, lunch and coffee. The purpose of the meeting will be to formulate a "consensus document" regarding determination of outcome in severe and

moderate head injury trials. Those interested in attending are requested to fax their interest to Charles Tator, Lawrence Pitts, or Ross Bullock at the following numbers:

Dr. Tator:	416/603-5298
Dr. Pitts:	415/885-3818
Dr. Bullock:	804/828-0034

Please remember to arrange your accommodations through the CNS Housing Bureau accordingly. For a schedule of the symposium, please see page 5.

### Prevention

*Michael J. Caron, MD*

The Prevention Committee of the Joint Section provides a vehicle for education and involvement of members of the AANS and CNS in issues related to prevention of neurological injuries. The current areas of activity for the Prevention Committee are gun safety, and ongoing endorsement of the Think First brain and spinal cord injury prevention educational programs.

The gun safety subcommittee will be chaired by Howard K. Kaufman, MD. The committee is in the process of recruiting interested members from the AANS and the CNS. A mission statement and agenda for the subcommittee will be its first priorities. Volunteers to date include: Emil Bethel, Michael Carey, Michael Caron, F. Donal Cooney, Theo Dagi, Tom Generalli, Gene George, Michael Levy, Anil Nanda, Philip Villeneuve and Mimi Sutherland. Those interested in becoming committee members or individuals having issues which they would like to be addressed by the committee, should contact Howard Kaufman, Professor and Chairman, Department of Neurological Surgery, West Virginia University School of Medicine, Robert C. Byrd Health Science Center, P.O. Box 9183, Morgantown, WV, 26506-4819. Phone: (304) 293-5041; Fax (304) 293-4819.

The THINK FIRST educational program was founded by members of the AANS and CNS with its mission to prevent brain and spinal cord injuries through the education of individuals, community leaders, and the creators of public policy. The two educa-

tional programs for young adults and children are: 1. A junior high and high school one-day presentation on neurological injuries, with a neurologically injured speaker telling how they became injured and the impact it has had on their life. These presentations are given by trained personnel from one of our 250 U.S. local chapters. 2. The THINK FIRST For KIDS Program for grades 1 through 3 is a six lesson (1 per week) curriculum including an introduction to brain and spinal cord injury, followed by five modules covering vehicular safety, bicycle safety, violence and weapons safety, sports and recreational safety, and water safety. The curriculum is designed to be administered by grade school teachers. It is intended to prevent injury by early repetition of the lessons which should enhance habit formation and behavioral change in young children. The THINK FIRST For KIDS curriculum packets can be purchased by schools or donated to schools by neurosurgeons with or without the involvement of a local THINK FIRST Chapter. The THINK FIRST Foundation is attempting to implement THINK FIRST For KIDS in as many elementary schools as possible in the next two years. These two award-winning programs of the THINK FIRST Foundation were presented to almost one million children and high school students in the United States during the 1995-96 school year. Chapters have been established in Canada, Chile, Mexico and Turkey. A Web page also has been developed. All members of the Joint Section are encouraged to get involved as chapter sponsors, assist in implementation of THINK FIRST For KIDS in their local schools, or volunteer for committee work at the National Foundation level. For more information, contact the THINK FIRST Foundation at the AANS/CNS National Office, 22 South Washington Street, Park Ridge, Illinois, 60068-4287. Phone: (800) THINK-56; Internet: [www.thinkfirst.org](http://www.thinkfirst.org); e-mail: [thinkfirst@aans.org](mailto:thinkfirst@aans.org).

For any questions or issues regarding injury prevention which members feel the Joint Section should address, contact Michael J. Caron, MD, 1301 Copperfield Avenue, Suite 111, Joilet, IL 60432. Phone: (815) 726-8585; Fax (815) 740-1062.



# UPDATE OF THE JOINT SECTION BYLAWS



By Brian T. Andrews, MD

At the request of Chairman Charles Tator, the bylaws of the Joint Section were revised, and updated where appropriate, to reflect the current activities and goals of the Section. This updated draft of the bylaws is included in the Newsletter to provide an opportunity for members to review it. Please notify Dr. Andrews with any concerns, criticisms, or recommendations for changes. The final draft will be voted on by the Executive Committee of the Joint Section at the AANS Annual Meeting in the Spring, 1998.

## JOINT SECTION ON NEUROTRAUMA AND CRITICAL CARE BYLAWS

Founded: 1985: Proposed to AANS Board of Directors 4/6-8/84 as Joint Section on Trauma and Emergency Medical Services  
1989: Absorbed Sports Medicine Section as proposed by 1/9/88 Joint Officers  
1991: Name changed to Joint Section on Neurotrauma and Critical Care

Joint Status: 1985

Founders: D. Becker; H. Eisenberg; T. Gennerelli; A. Hudson; J. Jane; T. Langfitt; L. Marshall; J. Douglas Miller; L. Pitts; T. Saul; S. Tolchin; F. Wagner; M. Walker; and H. Wilkinson

Membership: 400 in 1990; 934 in 1996

Newsletter: Joint Section on Neurotrauma and Critical Care Newsletter

Meetings: Twice Annual Meetings in conjunction with the AANS and CNS Meetings

Awards: Brain Trauma Foundation Fellowship (1992-1995)  
Brain Trauma Foundation Lecture (1992-1995)  
General Trauma Foundation Lecture (1985-1988)  
General Motors Neurotrauma Award (1985-1988)  
Resident's Award by the JSNTCC (to begin 1997)

Special Activities: Neurotrauma Questionnaire (1984)  
Responsibility of Neurosurgeons for the Management of Trauma (1986)  
Inter-Agency Head Injury Task Force (1990)  
Neurotrauma: Severe Head Injury Guidelines (1994)  
Surgical Trial in Acute Spinal Cord Injury (1994)  
Practice Parameters for Imaging in Minor Head Injury (1994)  
Neurotrauma Questionnaire (1995)  
Periodic Revision of Head and Spinal Injury Management Charts for American College of Surgeons

Publications: Cerebrospinal Trauma (1986)  
Neurotrauma Care and the Neurosurgeon  
Neurosurgical Intensive Care (McGraw-Hill) (1994)  
Guidelines for the Management of Severe Head Injury (Brain Trauma Foundation Publ.) (1996)  
Neurotrauma (McGraw-Hill) (1996)  
Pediatric Neurosurgical Intensive Care (AANS Publishers) (1997)

Interface/Liaison: Think First Foundation  
Brain Trauma Foundation  
American Brain Injury Consortium  
American Spinal Cord Injury Consortium  
American College of Surgeons (Committee on Trauma)  
Joint Section on Pediatric Neurosurgery (Guidelines Committee)  
Neurotrauma Committee, World Federation of Neurosurgical Societies  
International Trauma Society

(Continued on page 10)

---

## Update, continued

Standing Committees: American Brain Injury Consortium  
American Spinal Cord Injury Consortium  
Awards Committee  
Critical Care  
Guidelines  
Head Injury  
Membership  
Pediatric Neurotrauma  
Prevention  
Spinal Cord Injury  
Sports Medicine

## ARTICLE I

### Name

This section shall be named, known and styled as:

The Joint Section on Neurotrauma and Critical Care of The American Association of Neurological Surgeons and the Congress of Neurological Surgeons.

It is an affiliate Section of the parent organizations, The American Association of Neurological Surgeons and Congress of Neurological Surgeons, and as such, members are also bound by the Rules and Regulations of the parent organizations.

## ARTICLE II

### Objectives and Functions

#### Section 2.01

The objectives of this Section shall be:

- A. To foster the use of neurosurgical methods for the treatment of traumatic disorders of the cranium, brain, spinal neural elements, the spine and peripheral nerves.
- B. To advance the understanding of neurotrauma, and related sciences, to improve patient care, to support meaningful basic and clinical research, to provide leadership in undergraduate and graduate continuing education and neurotrauma prevention, and to promote administrative facilities necessary to achieve these goals.
- C. To act as a source of information and authority on matters pertaining to neurotrauma for the general public, governments, foundations and other fields of medicine.

#### Section 2.02

The function of this Section shall be:

- A. To provide a forum for education and research on traumatic injury to the brain and spinal neural elements and spine toward the improvement of neurosurgical procedures that alleviate human disease and suffering through treatment of these disorders.
- B. To cultivate and provide leadership in promoting excellence in the quality of neurosurgery related to neurotrauma. This goal is accomplished through means such as the development and evaluation of guidelines in neurotrauma and the study and evaluation of outcomes in neurotrauma care.
- C. To coordinate activities and programs relating to neurotrauma and critical care for the parent organizations and other societies, committees, and agencies.
- D. To represent the parent organization, at their discretion, at any organizations or group on matters relating to neurotrauma and critical care.
- E. To advise the parent organization of activities which relate to diseases and surgery for traumatic disorders of the spinal neural elements, the spine and peripheral nerves by other individuals, groups, and/or agencies.
- F. To promote research in neurotrauma care and prevention by means such as offering awards to residents or researchers.

## ARTICLE III

### Membership

#### Section 3.01

There shall be seven classes of membership:

- A. **Active:** Active members of The American Association of Neurological Surgeons or Congress of Neurological Surgeons who have a special interest in neurotrauma and critical care.
- B. **Associate:** Individuals who qualify as associate members of The American Association of Neurological Surgeons or Congress of Neurological Surgeons.

*(Continued)*

---

## Update, continued

- C. **Honorary:** The Executive Committee may grant honorary membership to such qualified physicians or scientists who in their opinion, merit such recognition. They shall not be required to pay dues and shall not have the privilege of voting or holding office or committees.
- D. **Corresponding:** Corresponding members shall reside beyond the limits of the United States of America and Canada, and they shall be chosen because of their devotion and contributions to neurotrauma and critical care. They shall be required to pay dues. They shall not have the privilege of voting and holding elective office. However, they may serve as members of special committees. They need not be corresponding members or the equivalent of The American Association of Neurological Surgeons or Congress of Neurological Surgeons.
- E. **Adjunct:** Adjunct members shall be physicians or scientists of other collateral or related fields who are active in the area of neurotrauma or critical care, but are not members of The American Association of Neurological Surgeons or Congress of Neurological Surgeons. Each adjunct member must be sponsored by two active members and must be approved by unanimous vote of the Joint Section on Neurotrauma and Critical Care.
- F. **Resident:** Resident members of The American Association of Neurological Surgeons and Congress of Neurological Surgeons who have special interest in neurotrauma and critical care.
- G. **Senior:** Senior membership may be granted to any Active member 60 years of age or older who applies to the Secretary in writing, or to any Active member who retires from active practice. Senior members shall be exempt from payment of annual dues. Senior members may be reinstated to Active membership on request, subject to approval of the Executive Committee.

### **Section 3.02 Responsibilities and Privileges**

Only active members shall vote and hold elective office.

### **Section 3.03 Disclaimer**

No form of membership in this section should be interpreted as endorsing the qualifications of the respective member to perform operations on human patients. Members who use their membership for advertising purposes (implying that they have special skills or training endorsed by the Joint Section) shall forfeit this membership.

### **Section 3.04 Applications for Membership**

Applications for membership should be made in writing to the Secretary or Membership Committee Chairman of the Joint Section. Completed applications for each membership category shall be reviewed by the Executive Committee. Applications for Active membership will be presented to the membership for review in the Joint Section Newsletter. Ratification of Active membership applications will occur at the first Joint Section Annual Meeting 90 or more days thereafter. The Executive Committee may confer all other membership status categories without vote of the Active Membership of the Joint Section at the Annual Meeting.

### **Section 3.05 Dues and Assessments**

Dues and assessments shall be heard and reviewed by the Executive Committee of the Joint Section. Ratification of dues and assessments shall be determined by majority vote of the Executive Committee at the first Joint Section Annual Meeting occurring 90 days or more thereafter.

### **Section 3.06 Termination of Membership**

- A. Membership shall terminate if any member (other than honorary, corresponding, or adjunct) ceases to maintain membership in either one or another of the parent organizations.
- B. Membership shall be terminated if dues or assessments be delinquent by one or more years and no response is received within 30 days following a reminder.
- C. Membership shall terminate upon receipt by the Secretary of a letter of resignation.
- D. Honorary, Corresponding, Adjunct or Senior membership may be terminated by a majority vote of the Joint Section Executive Committee, without vote of the Active membership.

## **ARTICLE IV**

### **Officers and Executive Committee**

#### **Section 4.01**

The control of the Joint Section on Neurotrauma and Critical Care shall be vested in the Executive Committee, who shall manage the affairs of the Section in conformity with the Rules and Regulations of The American Association of Neurological Surgeons and Congress of Neurological Surgeons. Only active members who are active members of both The American Association of Neurological Surgeons and Congress of Neurological Surgeons shall be officers or members of the Executive Committee.

#### **Section 4.02 Officers**

The officers of this Section shall be the Chairperson, Chairperson-Elect, Immediate Past-Chairperson, Secretary-Treasurer.

*(Continued on page 12)*

---

## Update, continued

### **Section 4.03 Executive Committee**

The Executive Committee shall consist of the four officers, two Members-at-Large, and the Chairmen of the Standing Committees, and Ex-officio members may be appointed at the direction of the Chairperson.

### **Section 4.04 Tenure of Office**

The officers shall serve a term of two years. The Members-at-Large of the Executive Committee shall serve two terms of two years and may not serve more than two consecutive terms. All officers and members of the Executive Committee shall assume office at the end of the AANS Annual Meeting.

### **Section 4.05 Duties**

- A. **Chairperson:** The Chairperson shall preside at all meetings of the Section. The Chairperson shall appoint all committees not otherwise provided for, and shall perform all such other duties as appertain to the office of Chairperson. The Chairperson shall be an ex officio member of all committees with the right to vote only in case of a tie vote. The Chairperson shall supervise the execution of all rules.
- B. **Chairperson-Elect:** The Chairperson-Elect shall be a voting member of the Executive Committee and shall assume the responsibility of the Chairperson in the case of absence, death, resignation, or inability to act as the Chairperson.
- C. **Secretary-Treasurer:** The Secretary-Treasurer shall keep an accurate record of the proceedings of meetings of the Section and the Executive Committee and shall conduct all correspondence of the Executive Committee. The Secretary-Treasurer shall issue printed or written notice of all meetings of the Section and the Executive Committee, and shall perform such other duties pertaining to this office, as may be required from time to time by the Executive Committee. The agendas for the meeting of the Executive Committee will be generated by the Secretary-Treasurer in consultation with the Chairperson.
- D. The Secretary-Treasurer shall keep an accurate record of the Collections and disbursements of funds, shall pay all financial obligations incurred by the Joint Section.
- E. **Executive Committee:** The Executive Committee shall supervise and effect an efficient management of the Joint Section, review applications for membership, and recommend, challenge or reject the applications, and report annually, or when requested to the parent organizations on all activities of the Joint Section.
- F. The Officers and Executive Committee shall be held blameless for all activities of this Joint Section or for activities done in its name, except for any theft from the organization or for willful and malicious conduct.
- G. **Election of Officers and Executive Committee.**  
It shall be the duty of the immediate past Chairperson of the Joint Section to convene the Nominating Committee each year prior to the AANS Annual Meeting. The slate of nominees for Officers of the Joint Section will be presented to the Executive Committee in April when the Joint Section Executive Committee convenes at the AANS Annual Meeting. Following Executive Committee approval, the slate of candidates will be presented to the membership in the Joint Section Newsletter. The membership may nominate additional candidates and will vote on the candidates at the next Joint Section Annual Meeting.

## **ARTICLE V**

### **Standing Committees**

#### **Section 5.01 Nominating Committee**

The Nominating Committee shall consist of four (4) members appointed by the Joint Section Executive Committee and the Committee Chairperson. The immediate past Joint Section Chairperson shall serve as chairperson of the Nominating Committee. This committee shall present candidates for the officer positions within the Joint Section to the Executive Committee at the time of the CNS Annual Meeting. In February, the slate is presented and nominations are taken from the floor. Fifteen days after presentation, the full ballot will be circulated to the full voting membership. The balloting shall be conducted by mail and only the ballots received on or before March 15<sup>th</sup> of the year of the election shall be counted. A simple majority of those voting shall be necessary to elect an officer.

#### **Section 5.02 Head Injury Committee**

#### **Section 5.03 Spinal Cord Injury Committee**

#### **Section 5.04 Critical Care Committee**

#### **Section 5.05 Membership Committee**

#### **Section 5.06 Pediatric Neurotrauma Committee**

#### **Section 5.07 American Brain Injury Consortium**

#### **Section 5.08 American Spinal Core Injury Consortium**

#### **Section 5.09 Guidelines Committee**

#### **Section 5.10 Sports Medicine Committee**

*(Continued)*

## ARTICLE VI

### Meetings

The general membership of the Joint Section shall meet at the time of the Annual Meeting of The American Association of Neurological Surgeons and the Congress of Neurological Surgeons. At these meetings, the Joint Section's Executive Committee may call special Business Meetings when required to conduct the activities of the Section. The Joint Section shall hold an Annual Scientific and Educational Meeting in conjunction with the Annual Meetings of The American Association of Neurological Surgeons and Congress of Neurological Surgeons, and shall hold the Joint Section's Regular Annual Business Meeting at that time.

### Section 6.02 Quorum

At all Business Meetings of the Joint Section called by the Executive Committee, both regular and special, the majority of active members present and voting at the time of the meeting shall constitute a quorum for the purpose of transacting the business of the Joint Section.

### Section 6.03 Items Requiring Vote

Actions that require a vote of the active membership of the Joint Section will be presented to the membership in the Joint Section Newsletter, or by separate mailing. Voting will occur at the next Joint Section Annual Meeting. In the event of an action that the Executive Committee believes requires membership consideration before and distinct from the Joint Section Annual Meeting, the action may be presented to the active membership by special mailing. Returned ballots will be counted by the Secretary no earlier than sixty (60) days after they are sent to the member. Unless otherwise specified in the Rules and Regulations, a mail vote shall be determined by a simply majority of those who cast votes.

### Section 6.04

Robert's Rules of Order shall govern the conduct of Executive Sessions of the Joint Section unless otherwise specified.

### Section 6.05

The order of the Procedure of the Executive Session of the Joint Section shall be as follows:

- (1) The Call to Order
- (2) The Reading of the Minutes
- (3) Unfinished Business
- (4) Reports of the Executive Committee and Committees
- (5) Election of New Members
- (6) Appointment of Committees
- (7) New Business

## ARTICLE VII

### Amendments to Rules and Regulations

#### Section 7.01

New or revised Rules and Regulations may be proposed by any active member. The proposed change or addition shall be mailed to the Chairman of the Section. Within 30 days of receipt of the proposed revision, the proposed change or addition and the recommendations of the Chairman regarding such proposal shall be submitted to the Secretary-Treasurer for consideration at the next Joint Section Executive Committee Meeting.

Upon approval by the Joint Section Executive Committee, the proposed changes will be presented to the membership in the Joint Section Newsletter.

Discussion and ratification of Rules and Regulations changes shall occur at the next Joint Section Annual Meeting, 90 days or more thereafter. Any change in the Joint Section Rules and Regulation shall require a two-thirds majority of the active members present to vote.

Final approval of Joint Section Rules and Regulations changes are subject to ratification by the AANS Board of Directors and the CNS Executive Committee.

#### Section 7.02

Proposed changes in Rules and Regulations accompanied by a petition signed by at least 50 Section members may be submitted to the Secretary-Treasurer, who will send them to the active members of the Section for a mail vote. Only those ballots returned on or before the indicated deadline shall be counted. The change in the Rules and Regulations should require a two-thirds majority of those voting to be passed.

**AANS/CNS Joint Section on Neurotrauma  
and Critical Care**

22 South Washington Street  
Park Ridge, Illinois 60068-4287

FIRST CLASS  
U.S. POSTAGE  
PAID  
DesPlaines, IL  
Permit No. 329

**Professional  
Development**  
W I T H



THE AMERICAN ASSOCIATION OF NEUROLOGICAL SURGEONS

Mark your calendar *now* to attend these 1998 courses!

**NEUROSURGICAL CRITICAL CARE**

**January 24-27 ♦ San Juan, Puerto Rico (*Advanced Course!*)**

**June 4-6 ♦ Chicago, Illinois**

**Chairman: Michael Rosner, MD, FACS**

*These remaining 1997 courses also may be of interest to you . . .*

**1997 Reimbursement Update  
for Neurosurgeons**

**October 24-25 ♦ Philadelphia, PA**

**November 16-19 ♦ Maui, HI**

**A Proactive Approach to**

**Managed Care: Strategies & Solutions**

**November 7-8 ♦ Palm Beach, FL**

**Neurosurgery Review**

**by Case Management:**

**Oral Board Preparation**

**November 9-11 ♦ Houston, TX**

For more information, call the AANS Professional Development Department at (847) 692-9500, or email us at [info@aans.org](mailto:info@aans.org).