Utilization of resources for the maintenance of excellence in neurological surgery

The 1988 AANS presidential address

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In order to maintain the highest standards of care, neurosurgeons commit significant monies and time to continuing education. Significant time is devoted to national and regional organizations that work to assure standards for neurosurgical training, certification, and patient care. The continued increase in the sum of these efforts, both in money and time, indicates that a more efficient approach will be necessary in the future if neurosurgery and neurosurgeons are not to be overwhelmed or standards compromised.

KEY WORDS • American Association of Neurological Surgeons • quality control • neurosurgical education • financial costs

I would like to share with you some thoughts about how we (the neurosurgical community) have been spending our time and financial resources to maintain our professional skills and standards in order to insure the best possible care for our patients. The growth of these commitments in recent years will be reviewed. I will conclude with some suggestions as to how we might possibly utilize our resources more efficiently in the future.

Your active participation and, whenever possible, your individual leadership will be essential if we are to plan the best and most efficient utilization of our neurosurgical resources toward achieving our professional goals. I would suggest to you that, apparently unlike our federal government, we do have some limit to the amount of time and money that we can commit to continuing education and associated organizational activities. These limits show every sign of becoming more stringent in the near future.

By way of introduction to this topic the following figures may catch your attention. In 1986, neurosurgeons in the United States paid a total of just over $2.6 million ($2,675,141) in the form of registration fees and dues to support neurosurgical continuing medical education (CME) through our national, regional, state, and invitational neurosurgical organizations. Additionally, according to the current national survey jointly conducted by the American Association of Neurological Surgeons (AANS) and the Congress of Neurological Surgeons (CNS), neurosurgeons spent an estimated total of $13 3/4 million ($13,700,850) during the 1986 fiscal year for related unreimbursed professional travel expenses.

Thus, a minimum of $16 million was spent by fewer than 4000 North American neurosurgeons in 1986 for medical society dues, meeting registration, and related professional travel expenses. It must be emphasized that this is a conservative figure that almost certainly understates the actual expenses. Not included, for example, are registration costs for the many seminars, symposia, and workshops put on by individual entrepreneurial groups and academic centers. The figure also does not include dues and registration costs associated with our involvement with local hospitals, city, county, and state medical society activities, the American Medical Association (AMA), or the American College of Surgeons. There are additionally smaller neurosurgical travel clubs and restricted-interest research groups not included. It is essential to remember that this $16 million paid directly by individual neurosurgeons in support of our neurosurgical education activities almost universally stems from the delivery of neurosurgical patient care. This is true not only for the private practitioner but also for most of the academic centers, which are now forced to support their academic programs almost entirely through revenue generated from patient-care
activities. Given the increasing constraints on reimbursement for patient care, it will become steadily more important in the years ahead to maximize our (forgive me for this) "bang for the buck," not only with respect to our essential CME efforts but also with respect to the maintenance of the maximum possible effectiveness in our interrelationships with the growing number of agencies external to our profession that are increasingly involved in delivery of health care.

You will recall that at one time we clearly had the best telephone system in the world. Special-interest groups were ultimately successful in breaking up AT&T, and very few of us are now satisfied with the result. We are repeatedly reminded by our national political figures of our leadership position on the forefront of medical research and technology and of the excellence of North American medicine in comparison with that available in other parts of the world. Again, a special-interest group is trying to effect a major restructuring of a historically very successful system, with, I fear, the same predictable outcome. Neither we nor our patients are going to be happy with the result.

It is important that we understand the magnitude in both time and dollars of our current commitment to our professional organization activities if we are to plan responsibly for the future. This past fall, with the assistance of our national office, I surveyed all of our state neurosurgical societies, our four regional societies, the four larger invitational societies, and our two major national neurosurgical organizations, together with their sections, to document the last complete fiscal year's educational activities. This survey included the associated dues and registration receipts. All of the regional and invitational societies and 48 of the 50 state neurosurgical societies responded to the survey. Figures were also obtained from both of our major national organizations and all of their sections.

The results of this survey, I believe, provide a reasonable starting point for discussion. I will present to you data concerning our time commitments for CME and the professional activities related to it, followed by the related financial costs.

Time Commitments

The first meeting in 1932 of the AANS, then known as the Harvey Cushing Society, was 1 day in length, with Dr. Cushing as host. Twenty-three people attended the meeting. The "Scientific Program" consisted of observation of an operation by Cushing involving a glioma attached to the wall of the third ventricle. The operation was a success. The patient, a young woman, went on to be married and raise two children. There were no simultaneous sessions, multiple breakfast seminars, or additional days devoted to committee time.

Today the scientific portion of our annual meeting has increased to a length of 3½ days, with 40 CME credit hours for 92 scheduled hours of scientific discussions and paper presentations including multiple simultaneous seminars and workshops and scheduled poster presentation time. Total attendance for this 1988 Toronto meeting including all categories of registration is 3372. A further period of 4½ days at our annual meeting is spent by various components of our membership in carrying out the administrative and socioeconomic responsibilities of our organization. Five of our sections held interim meetings in 1986 or were major participants in a joint meeting. A total of 70 additional CME credit hours were generated through these interim activities. The CNS annual meeting, including practical workshops, is currently 4½ days in length, and there is frequently an additional post-meeting extension. There were 134 scheduled hours of scientific presentation for the 1986 CNS annual meeting, for a total of 40 CME credit hours. The combined attendance of post-residency neurological surgeons at the AANS, CNS, and section meetings was 2983 for 1986 (Fig. 1).

The four regional neurosurgical societies provided 55 hours of CME credits in 1986. There are currently 41 active state neurological societies. Thirty-seven of these held at least one meeting in 1986. Twenty had an annual meeting restricted to socioeconomic activities, while an additional 17 state organizations had an accompanying annual scientific meeting with an average of 3 CME credit hours. Thus, our combined national, regional, and state organizations provide a total of 35 scientific meeting days annually for 226 CME credit hours.

Four invitational neurosurgical societies (American Academy of Neurological Surgery, Society of Neurological Surgeons, Neurosurgical Society of America, and Society of University Neurosurgeons) provided a further 63½ total hours of CME credit in 1986. Each of these societies has an annual meeting format usually requiring 2½ days of attendance.

We as a profession have also obligated ourselves to some other additional and extremely important time
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commitments. The American Board of Neurological Surgery is one example of this. The 14 Board members and an equal number of guest examiners meet for $3\frac{1}{2}$ days of committee and Board examination activities twice a year. In addition, there are significant time commitments associated with Board member committees and administration for credentialing activities prior to these meetings. Further time is required for development and maintenance of the annually administered written examination of the American Board of Neurological Surgery.

The Residency Review Committee represents another major time commitment in the service of our professional community. Four days a year are spent in formal meeting activities, with an additional 6 days for each of its members in reviewing detailed site-visitor reports prior to these meetings.

Our two major neurosurgical journals require another largely unreimbursed time commitment for a number of our members. Each member of the Journal of Neurosurgery editorial board averages approximately 12 hours per week (624 hours per year) plus 3 days of meetings in fulfilling his obligations. The chairman's commitment is significantly greater. This is superimposed on the time already required to maintain the qualifications looked for in the first place in selecting members of the editorial boards.

These additional activities of the American Board of Neurological Surgery, the Residency Review Committee, and the journal boards have an impact extending considerably beyond the smaller numbers of our membership actually involved. Because of the very nature of the activities and responsibilities of these organizations, their membership is drawn from those of our professional community who have demonstrated particular neurosurgical skills, scholarship, and leadership, usually of an ongoing and time-consuming nature.

FIG. 2. Date of section formation and number of hours spent cumulatively at section meetings. Ped = Pediatric Neurological Surgery; F & S = Functional and Stereotactic; CV = Cerebrovascular.

FIG. 3. Current membership of each section. Peds = Pediatric Neurological Surgery; CV = cerebrovascular; F & S = Functional and Stereotactic.

These individuals are also more often than not people you have selected as a result of the same qualifications for leadership responsibilities in our national societies. Were a neurosurgeon to attend the complete scientific program of only one of our two major national neurosurgical organizations in addition to fulfilling the strongly encouraged participation in the regional and state neurosurgical societies, at least 8 meeting days would be required (not including travel time to and from these three activities). Were this hypothetical member to attend only two interim meetings of the nine sections of the AANS currently in existence, an additional 4 days on site (again not including travel time) would be necessary. Time commitments can become a greater problem if this member has agreed to accept further responsibilities either with our national organizations or with the American Board of Neurological Surgery, The Residency Review Committee, or the editorial board of our major neurosurgical journals.

The formation of sections in the AANS began in 1972 with the Pediatric Neurological Surgery Section (Fig. 2). The Cerebrovascular Section and the Functional and Stereotactic Section followed in 1976. The Disorders of the Spine and the Peripheral Nerves Section and the Basic Neuroscience Section were established in 1979 and 1980, respectively, with the Trauma Section and Sports Medicine Section following in 1984. The Tumor Section was established in 1985, followed by the Pain Section in 1987. Current membership in these sections is shown in Fig. 3; the largest individual section is the Disorders of the Spine and Peripheral Nerves Section, with 405 members.

The committee structure of our two national organizations has grown apace; Table 1 and Fig. 4 compare the situation in 1960 with the present. A more complete 1988 listing occupies over nine pages in your program book. There has been a corresponding increase in the time commitment required for their activities. The Joint Committee on Education in Neurological Surgery, the Joint Council of State Neurosurgical Societies, and the committee structure necessary for putting on
Fig. 4. American Association of Neurological Surgeons (AANS) committees in 1987. CNS = Congress of Neurological Surgeons; P.R. = public relations; AAN = American Academy of Neurology; AANN = American Association of Neuroscience Nurses; AAOS = American Association of Orthopaedic Surgeons; AAPMR = American Academy of Physical Medicine and Rehabilitation; ACS = American College of Surgeons; AMA = American Medical Association; CMSS = Council of Medical Specialty Societies; WFNS = World Federation of Neurosurgical Societies; EMS = Emergency Medical Service; ABNS = American Board of Neurological Surgery; AAMC/CAS = Association of American Medical Colleges, Council of Academic Societies; ARP = American Registry of Pathology; NABR = National Association for Biomedical Research; NCRNCD = National Committee for Research in Neurological and Communicative Disorders; NINCDS = National Institute of Neurological and Communicative Disorders and Stroke.
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**TABLE 1**

<table>
<thead>
<tr>
<th>AANS Committees in 1960*</th>
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</thead>
<tbody>
<tr>
<td>Executive Committee</td>
</tr>
<tr>
<td>Program Committee</td>
</tr>
<tr>
<td>Journal of Neurosurgery Editorial Board</td>
</tr>
<tr>
<td>Membership Committee</td>
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<tr>
<td>Committee on Arrangements</td>
</tr>
<tr>
<td>Auditing Committee</td>
</tr>
<tr>
<td>Ladies' Auxiliary</td>
</tr>
<tr>
<td>Delegates to the World Federation of Neurosurgical Societies</td>
</tr>
</tbody>
</table>

* AANS = American Association of Neurosurgical Surgeons.

**TABLE 2**

<table>
<thead>
<tr>
<th>Number of neurosurgeons in the United States*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
</tr>
<tr>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>AMA figure for 1986</td>
</tr>
<tr>
<td>AANS figure from computer data bank in 1988</td>
</tr>
<tr>
<td>practicing neurosurgeons</td>
</tr>
<tr>
<td>all other categories</td>
</tr>
<tr>
<td>ABNS figure on board-certified neurosurgeons in 1988</td>
</tr>
</tbody>
</table>

* AMA = American Medical Association; AANS = American Association of Neurological Surgeons; ABNS = American Board of Neurological Surgery.

this annual meeting are but three examples of this increased complexity.

The full governing bodies of the AANS and CNS meet at least twice yearly with each meeting lasting a minimum of 3 days. In addition, because of pre- and postannual scientific meeting attendance requirements, your Board of Directors currently obligates its members to a minimum of either 8 or (for some) 9 days in continuity at the time of the annual meeting, exclusive of travel time. There is in addition a 4-day interim directors meeting each fall. The joint officers of the AANS and CNS meet twice yearly and the Executive Committee of the AANS has for the past several years been holding additional 1-day meetings at least four times a year. A member of your Executive Committee currently spends annually a minimum of 19 on-site meeting days, exclusive of travel time, devoted to AANS activities.

To keep the above multiple time and travel obligations in some perspective, it should be noted that some of our membership find it extremely difficult to make a time commitment to attend even the entire 3 1/2 days of our annual scientific meeting. This time commitment problem is exacerbated if the member has attended the Joint Council of State Neurosurgical Societies or other committee activities preceding the annual scientific meeting. I will comment further on this phenomenon a bit later.

Membership growth in the AANS is shown in Fig. 5, beginning with 20 members in 1932. The figure today is 2980, including all membership categories.

The actual number of practicing North American neurological surgeons is not entirely clear. The number of active neurological surgeons in the United States according to the latest (1986) AMA figures is 4126. Practicing neurological surgeons tracked through the AANS/CNS data bank number 3438 in 1988. The American Board of Neurological Surgery records show 2853 board-certified neurological surgeons in the United States in 1988 (Table 2).

It is both a commentary on and a tribute to the stature of our past leaders in neurological surgery that we have had a national influence and impact on the evolution of medical care far out of proportion to our actual numbers (Fig. 6). Although we comprise 0.73% of the North American medical community, our input is not only repeatedly sought but almost invariably utilized by most of the major national bodies involved in health care. It is absolutely essential that we avoid fragmentation of our small numbers if we are going to continue to be heard and attended to by external agencies. (May I remind you of the fate of the banana — when it leaves the bunch it gets skinned.) We must stay together if we are to avoid seriously diminishing our ability to respond to and influence the multiple societal forces attempting to modify health-care delivery, not only now but also in the predictably more difficult times ahead.

Thoughtful long-range planning of our profession’s energies and resources, and deliberate orchestrating as to how those selected for the various leadership positions are utilized with respect to time and interrelated economic resource commitments will become increasingly important in the years ahead. We are already seeing individuals of demonstrated ability declining acceptance of important commitments on your behalf at the national level because of current socioeconomic restraints on their available time.

![AANS Membership Growth Chart](https://example.com/aans_membership_growth.png)

Fig. 5. Growth of membership in the American Association of Neurological Surgeons (AANS).
TABLE 3
Receipts from neurological meeting registration, organization dues and assessments in 1986*

<table>
<thead>
<tr>
<th>Receipts</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>AANS, CNS, joint sections</td>
<td></td>
</tr>
<tr>
<td>registration receipts</td>
<td>$ 1,218,074</td>
</tr>
<tr>
<td>dues receipts</td>
<td>$ 816,799</td>
</tr>
<tr>
<td>total</td>
<td>$ 2,034,873</td>
</tr>
<tr>
<td>state neurosurgical societies, regional societies, &amp; invitational societies</td>
<td></td>
</tr>
<tr>
<td>registration receipts</td>
<td>$ 268,809</td>
</tr>
<tr>
<td>dues receipts</td>
<td>$ 255,209</td>
</tr>
<tr>
<td>special assessments</td>
<td>$ 116,250</td>
</tr>
<tr>
<td>total</td>
<td>$ 640,268</td>
</tr>
<tr>
<td>all societies</td>
<td></td>
</tr>
<tr>
<td>registration receipts</td>
<td>$ 1,486,883</td>
</tr>
<tr>
<td>dues receipts</td>
<td>$ 1,072,008</td>
</tr>
<tr>
<td>special assessments</td>
<td>$ 116,250</td>
</tr>
<tr>
<td>total</td>
<td>$ 2,675,141</td>
</tr>
<tr>
<td>all levels</td>
<td></td>
</tr>
<tr>
<td>registration fees and dues</td>
<td>$ 2,675,141</td>
</tr>
<tr>
<td>professional travel expenses</td>
<td>$13,700,850</td>
</tr>
<tr>
<td>total</td>
<td>$16,375,991</td>
</tr>
</tbody>
</table>

* AANS = American Association of Neurological Surgeons; CNS = Congress of Neurological Surgeons.

Financial Commitments

The financial commitment made by neurological surgery toward the support of its educational activities is, as was noted earlier, substantial. Total 1986 registration receipts for the AANS, CNS, and all sections were over $1 million ($1,218,074). The total 1986 dues receipts for these same entities were $816,799 (Table 3).

Additional registration receipts for the same reporting year (1986) for state neurosurgical societies, the regional societies, and the four invitational societies were approximately $269,000 (Table 3). There were total dues and special assessment receipts of approximately $116,000 for the same fiscal period for these respective components. Thus, over a half-million dollars ($640,268) was generated through dues and registration obligations for the state, regional, and invitational societies. This figure, coupled with $816,799 for dues and $1,218,074 for registration expenses for our two national organizations and their sections, results in the previously mentioned figure of just over $2.6 million for the neurological community for 1986 (Table 3). These figures do not include costs for optional social activities associated with the scientific meetings.

It is possible to project the meeting time commitment and associated costs, exclusive of loss of income from the time away from practice, for a hypothetical neurosurgeon belonging to both the AANS and CNS, but attending only one of the two annual meetings in addition to participating in his regional and state neurological society meetings in 1986. This individual would spend 7 days on site for an average of 57 CME credit hours at an annual cost of $5,504. This is very close to $100 for each CME credit hour.

These expenditures do not, of course, include each physician's own local area CME credit time and related costs, nor do they include attendance at special courses, seminars, workshops, or symposia of a regional or national character. This cost figure again almost certainly underestimates our actual commitments, since the average number of CME credit hours earned by an AANS member in 1986 was 63 as recorded through the AANS/CNS accreditation procedure alone.

The aggregate total cost includes dues, registration, and related travel costs for our profession in 1986 for
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the listed neurosurgical societal activities at all levels was over $16 million ($16,375,991) (Table 3). This figure does not include, as previously pointed our, loss of income from time away from practice or expenditures for optional social activities concomitant with these meetings. Neither does it include revenue received from exhibitors attending our meeting or from advertising associated with these meetings and their publications.

Discussion of the Problem

There are now seven meetings annually scheduled by the AANS, CNS, or their sections, for a total of 19½ meeting days and 150 CME credit hours. In addition to state and local neurosurgical activities and meetings there are a total of 20 meeting days annually for the four invitational and the four regional societies with 100 additional CME hours.

The greater the individual’s commitment to regional and national neurosurgical concerns, the greater the time requirement if he is to meet his obligations responsibly. This problem has been exacerbated by partitioning of individual areas of interest for our profession among different sections and societies. This necessitates attendance at multiple meetings at different sites if our membership is to remain current and if problems in communication are not to become overwhelming. It is becoming increasingly necessary for individuals who have made or accepted major national commitments for neurological surgery to attend part, if not all, of both major annual meetings of the AANS and CNS in addition to one or more section meetings and at least two of the invitational society meetings. This is in addition to fulfilling responsibilities to the regional and state neurosurgical societies, and to the editorial boards of the journals, the Residency Review Committee, and the American Board of Neurological Surgery.

Nearly all of the membership have to support their commitment to these activities either largely or entirely through their clinical practice activities. As previously emphasized, this is true for those working in academic units as well as in private practice.

We are faced with burgeoning time obligations resulting from proliferation of neurosurgical organizational activities as well as from the progressive intrusion of governmental and other third-party agencies into our clinical practice sphere. These increasing time requirements, when coupled with the ongoing attempts at curtailment and capping of revenue sources, will create a serious problem ahead for our profession. In fact, for some of us this problem may have already arrived.

Suggested Solutions

There are at least four major areas where, with some thought, and perhaps more flexibility than we have been willing to accept in the past, protection and more efficient utilization of our membership’s time and financial resources could be achieved. These areas concern: 1) the format of our AANS annual meeting; 2) the joint section interim meeting activities and their interrelationship with the AANS and CNS annual meetings; 3) the possible partial integration of regional and invitational society activities; and 4) the governance of and the interaction between the joint sections and committees and their two parent national organizations.

I would submit to you that we are rapidly reaching the time when we cannot afford the luxury of any further multiplication of meeting activities. Currently, almost all of these activities appear to be independently conceived and carried out by 19 different North American neurosurgical regional and national sections and organizations in addition to our 41 active state societies, with a total community of less than 4000 practicing neurosurgeons.

One pressure for interim meeting activities has been the perception that the two major national organizations do not, within their annual meeting format, provide an adequate forum for communication with particular reference to oral scientific paper presentations. This problem has been under active scrutiny by your Long-Range Planning Committee for the past 3 years.

The AANS has taken some initial, although still inadequate, steps to increase the number of papers on our annual scientific program. There were 93 oral presentations this year as compared with 81 in 1987 and 66 in 1986. This year there were 632 abstracts submitted for our scientific program, and the acceptance ratio for oral presentation was 93, or only 15% (Fig. 7 and Table 4).

As a further partial solution, we have expanded and emphasized the poster session by assigning specific time in the program for poster viewing and by the creation of awards for the most outstanding posters. The 292

![Annual Meeting Scientific Program](chart.jpg)

**FIG. 7.** Annual meeting scientific program acceptance rate in 1986, 1987, and 1988.
posters accepted this year are in many cases a better way to communicate detailed scientific information, which can potentially reach a wider audience than can oral presentations.

We have expanded the number of simultaneous sessions to again increase the total number of oral presentations possible. The possibility at future meetings of clustering certain papers into oral presentations during the 2 hours of the breakfast seminar period is being explored. The breakfast seminar format with six to eight papers in each seminar group focused around a specific area of interest could be used. This would also allow more time for discussion of the papers presented than is possible during the plenary sessions.

The possibility of adding a half-day of meeting time either at the beginning or at the end of our current 3½-day format has been discussed at some length. This would allow additional time for more oral presentations, seminars, and workshops. Section responsibilities could be expanded to include this increased time in our annual scientific program. Lengthening the annual meeting even by a half-day does create problems with respect to time away from our clinical practices. This is especially true if members have had additional organizational commitments either through the Joint Council of State Neurosurgical Societies or other administrative responsibilities that have already extended the time of attendance at the annual meeting. However, I submit to you that to spend an additional half-day is almost certainly more time- and cost-effective than to travel to and from plus the time involved in attending a second session at another time during the year.

Figure 8 shows our annual scientific meeting attendance for each of the days of this past year’s annual meeting as reflected in hotel occupancy figures. You will note the peak days of attendance and the rapid fall-off. It is somewhat paradoxical that our pressing practice demands prevent us from being away from our clinical practices for the full duration of our annual meeting, yet there are very few of us in this room who have not taken a personal vacation of considerably longer than 3 or 4 days during the past year while presumably dealing with the same practice pressures and demands on our time.

It may seem easier to break down educational needs into multiple smaller fragments. It is easily demonstrable, however, that this is not the most time- or cost-efficient way of meeting our communication and education needs. If the current socioeconomic scene continues to evolve in the same direction that it has been following for the past 3 years, many of us are going to have to look much more closely at our time and other resource commitments in this area. Neurosurgery in the United States is fairly unique in its number and complexity of neurosurgical organizations and meetings.

The AANS currently has nine sections, five of which hold interim meetings. These interim meetings have been stimulated, at least in part, by the perceived need for a forum for papers that could not be accepted into our annual scientific meeting format. Meeting costs to the section members, in addition to the attendance time involved for these interim meetings, totaled $106,206 in 1986, exclusive of section dues, travel, and lodging expenses.

Continued attention to mechanisms for expanding section activities during the annual meeting should carry with it the opportunity for decreasing the necessity for and frequency of interim meetings. There is additionally some potential for improving time utilization by serious consideration of folding several of the sections into each other. This, in some areas, would provide a better membership base for submission of scientific papers and development of section programs. Two such possible unifications might be the joining of the Basic Neuroscience and the Functional and Stereotactic Surgery Sections, where the commonality of interests would seem to be mutually reinforcing. Similarly, Sports Medicine and Trauma would appear to be two sections dealing with somewhat different aspects of the same basic problem. Other possibilities may also exist.

There could be major economy as well as a very valuable cross-fertilization and enhancement of neurosurgical communication if the regional and invitation societies could in their long-range planning consider joint meetings on a periodic basis. Joint meetings
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FIG. 9. Joint meeting format at the annual meeting. Open boxes = current sessions; crosshatched box = new session.

can be successful and greatly facilitate communication and dissemination of information between our societies. The American Academy of Neurological Surgery has held successful joint meetings with both British and German neurological surgery organizations. Joint meetings can be brought off without infringement of individual society personalities and goals, particularly if these joint meetings are scheduled on alternate or every 3rd or 4th years. There is already a very major membership overlap between many of these societies.

The common format of 1 full and 2 half-days at either the beginning or the end of the week could be modified in the latter instance by conversion of the Saturday half-day into a second full day (Fig. 9). Each organization could be responsible for one of the full days with the intervening half-day devoted to special lecturers and awards. This would also take advantage of reduced air fares resulting from staying over Saturday night. Some thought would be required in dealing with sharing meeting costs and also with registration fee allocation for those with membership in both organizations.

A joint meeting between the invitational societies or between an invitational society and one of the four regional societies on a periodic basis would be very healthy for neurological surgery and also provide an initial step toward some reduction in annual time and financial commitments (Fig. 10 left). Common meeting attendance requirements for the various societies and organizations, together with the clustering of society meetings in the fall and spring have caused a major scheduling as well as attendance problem for some time now.

The final area I would like to touch on briefly is the cumbersome apparatus that has evolved, somewhat like Topsy, with respect to joint activities between the AANS and the CNS.

I am not entirely certain that, in retrospect, the development of joint sections and committees has been entirely in the best interest of either of the parent organizations, or even of the committees and sections themselves. In an era where needed response times seem to be progressively shortening, particularly when dealing with external agencies, the response mechanisms for our joint activities appear to be increasingly cumbersome. Initiatives as well as responses developed in the joint sections currently require formal approval by

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**NEUROSURGERY-RELATED MEETINGS**

**AANS, CNS & JT. OFFICERS MEETINGS**

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Fig. 10. Calendar of neurosurgical meetings: regional, invitational, and national meetings (left) and American Association of Neurological Surgeons (AANS), Congress of Neurological Surgeons (CNS), and joint officers meetings (right). N.S. = Neurosurgical Society; BOD = Board of Directors; ACS = American College of Surgeons. NSA = Neurosurgical Society of America; SNS = Society of Neurological Surgeons; F & S = Functional and Stereotactic Section; AMA = American Medical Association; Peds = Pediatric Neurological Surgery.
the full governing bodies of both the AANS and the CNS before they can move forward.

These governing bodies meet approximately as shown in Fig. 10 right. An initiative developed during the Joint Council of State Neurosurgical Societies sessions at the spring meeting of the AANS currently requires a minimum of 3 months before obtaining final approval by both organizations. If any breakdown in communications occurs or, in the view of either parent organization, the initiatives or resolutions require some modification, the lag time from initial proposal to final approval can easily reach 1 year.

I am not going to suggest merging or unification of the AANS with the CNS. Each of these organizations serves a very different and valuable function for the neurosurgical community. This general topic of unification of our two large organizations has been discussed in varying detail over the past 12 years in the presidential addresses of DeSaussure2 in 1976, Drake4 in 1978, Dohn3 in 1979, and Kemp Clark1 in 1982.

The CNS serves a number of unique functions in our professional community. In addition to its quite different CME goals, both through its annual meeting format and through its publications it provides a forum for the harnessing and focusing of the energy and attention as well as an excellent platform for the voices of that component of our neurosurgical community under the age of 45 years. The experience gained by our membership through CNS activities in years past has served and continues to serve the neurosurgical community well. The primary concerns of the two organizations are not the same. Much would be lost and little would be gained by the loss of individual autonomy of these two organizations.

There are, however, certain areas where joint committee and section activities could be greatly facilitated if specific selective approval authority could be delegated from the two parent organizations to the joint officers structure. The joint officers of the AANS and CNS, 10 in number, currently meet twice yearly, in July and in January. These 10 officers have been and, of necessity, always will be very sensitive to the feelings and constraints of the respective boards and councils of their parent organizations. Their actions are always subject to review by their parent organizations, as are the actions of any executive committee dealing with delegated areas of responsibility. If a decision in a specifically delegated area of responsibility is made by a consensus of at least 75% of the joint officers of the two organizations, the likelihood that the parent governing bodies would find it necessary to rescind such a decision or response to one of the joint sections or committees would seem vanishingly small. This specific delegation of responsibility would greatly enhance the handling and speed of communication and decision-making vis-à-vis the joint activities of our two organizations. It would reduce the travel and related logistic costs for many of our joint activities.

There are several possible formats for delegation of joint activity responsibilities to the joint officers. Techniques and methodology for this type of delegation of operational authority are well worked out in the large number of organizations that function with both a board and an executive committee. This principle of very selective and specific delegation of authority as proposed to you is much more important than the actual mechanics of how it is to be established.

Formal delegation of specific approval and monitoring of authority to the existing joint officers structure for the joint activities of our two organizations could provide a timely and needed improvement in the functioning of our two organizations. This would not change in any way our current national responsibilities or infringe upon the distinctive characteristics of either parent organization. Furthermore, it would not compromise the status of the AANS as the national organization speaking for neurological surgery. Specific requests, resolutions, and initiatives arising from our joint structures in this area have been and would continue to be addressed directly to the Board of Directors of the AANS.

Conclusions

I believe a slowly progressive increase in constraints on the time of interrelated financial resources of the individual members of our profession is inevitable. For this reason it will be essential for us to do two things. First, we must husband and spend wisely the time and financial resources I have discussed with you today. Second, we must develop the broadest possible base of neurologists prepared for and willing to accept professional time commitments away from their clinical practice directed toward our national professional needs. We have many more capable individuals in our organization than are currently being utilized.

Neurological surgeons as a group have passed a series of intellectual achievement hurdles at least as difficult as those of any other profession in this nation, beginning in almost every instance with superior academic performance in high school and college, with the next hurdle being superior Medical College Acheivement Test (MCAT) scores and success in the traditionally very competitive admission process to medical school. Neurosurgeons have a strong history of superior achievement in medical school with the further hurdle of strongly selective admission into neurological training programs across the nation.

Successful completion of residency training, accompanied by passing the written examination of the American Board of Neurological Surgery and passing the licensure examinations set by either the National Board of Medical Examiners or the individual states, and finally completing the certifying examination of the American Board of Neurological Surgeons are all additional achievement milestones for our profession. All of these hurdles must be passed before admittance to the active membership of this organization. Accomplishment of this extended itinerary by each of our
Utilization of resources for continuing neurosurgical education

member should in itself be a significant indication of abilities inherent in our association. As a professional group, we have no shortage of skills and talents. I submit to you that, in dealing with and responding to the rapidly changing national health-care scene, we do have a need for more prospective time commitments to our national organization and its activities for the majority of us.

Protecting our ability to give the best possible care to the patients who entrust themselves to us and preserving the ethical and professional standards that are increasingly threatened by current societal socioeconomic forces is requiring steadily increasing effort. The resources for this effort must come from as broad a base of our membership as possible. To paraphrase Olin Miller of the Chicago Sun Times, if each of us wants to make this job harder, just keep putting off getting involved in doing it.

Each of you who are not already actively involved should not wait to be called, but should look now for areas in our national organizations where you feel you could render particular service to our profession. If this sounds somewhat like a call to arms, I suspect you are right. We need to attach at least as much importance now and for the foreseeable future to the protection and advancement of our national professional goals as we all presently attach to our personal individual interests. These two areas will almost certainly turn out to be one and the same in the long run. Some of you are perhaps already overcommitted, but there are many of us who are undercommitted.

There is a tale about a great feast to be held in a medieval village. To insure its success a huge wine cask was built, into which each participant (possibly future neurosurgeons) agreed to pour a bottle of wine. "If I fill my bottle with water," soliloquized one, "and empty the water into the barrel with others, surely it won't be noticed." The big day arrived. All the village assembled. The great cask was tapped. Lo, only water flowed forth. Each of the villagers had also reasoned "my bit won't make this job harder, just keep putting off getting involved in doing it!"

To summarize, I have presented data concerning our organizational and individual time and financial commitments directed toward maintaining the highest standards of care for our patients. These figures are sufficiently large and the future capping of professional income sufficiently predictable to demand careful long-range planning to insure the most efficient cost-effective utilization of our resources in the years ahead.

Some suggestions have been put forward for facilitating the way our organizations function in relation to each other and to many third-party agencies encroach-