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Medical communication—Its uses and abuses

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Ladies, gentlemen, members of the American Society for Surgery of the Hand and guests, Mother Wilgis, family and friends:

When I took on the presidency of this organization, many goals and aspirations passed through my head. As the year progressed, however, it became abundantly clear to me that this "ship" is on a steady course. The "pilot" merely has to hold the wheel. In my report to the membership yesterday, I detailed the joys and the sorrows of presidency, and by far, the joys exceeded the sorrows.

However, little did I know what a learning experience this would be! Only once in my life did I ever learn more, and that was in kindergarten! During that year, as a 5-year-old, I learned rules and procedures; school safety; manners, friendship, and peace. I also learned practical matters, such as where to hang my clothes, when I was allowed to speak, and when I could use the bathroom. I was introduced to fantasy, mythology, folklore, and fairy tales, while learning the importance of religious holidays, Valentine's Day, Thanksgiving, and teachers' meetings. I learned not to fight and to share, while still maintaining a sense of competition.

As the President of a national organization such as this one I found the learning curve to be as steep as that of a youngster entering kindergarten. During this

year I learned the value of friends and colleagues and of the deep commitment of the members to this organization. I learned about budgets and finances; about legal maneuvering and contracts; about profits and losses. During all these "lessons," I came to the realization that our organization represents a large number of practicing hand surgeons and that its job is to look out for their welfare, both educationally and professionally. This truly has been a wonderful experience, and I thank each and every one of you for allowing me to serve as your president for the past year.

As the topic of my discussion this morning, I have chosen "Medical Communication—Its Uses and Abuses."

We all know that communication among those interested in a particular field of medicine, such as surgery of the hand, is essential for the education and advancement of the specialty. As the basic premise of this address, I submit to you that while medical communication has maintained its purity through the years in some forms, other forms have suffered abuses which I feel need correction. In my opinion for medical communication to be effective in the future, we will need to have greater cooperation among the reporting surgeons so that we can present a strong case for surgery, and the subspecialty—surgery of the hand, proving that it is worthwhile, cost-effective, and useful for our patients.

Medical communication exists in many forms, both formal and informal. Informally, there are the one on one discussions with mentors and peers in many settings. The giants of hand surgery have been generous with their knowledge to a man, always finding time to

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discuss techniques with young surgeons in the field, treating them as equals. Whether on a sailboat or in a cocktail lounge or restaurant, the conversation usually gets around to tricks of operative technique. I remember so well in 1971 spending 4 hours in a bar in New York with Dr. Joe Boyes, leaving with my pockets filled with notes and diagrams about various surgical procedures. That left a lasting impression on this young hand surgeon.

Our own *Correspondence Newsletter* is a wonderful form of informal medical communication. Exchanging information during foreign meetings, not only traverses subjects between our own society members but also between our colleagues in other societies around the world. The meetings in Venezuela and the recent combined meeting with the British and Bulgarian Society this past spring are shining examples. Hand Society educational seminars allow small group informal discussion and the exchange of information between teachers and students, many times with the teachers learning as much as the students. The emergence of travel clubs has lead to small informal gatherings which allow frank discussion and honest questioning of procedures and techniques. While little of this is published, much is gained.

In contrast, formal medical communication involves textbooks, formal meetings, and journal articles. Textbooks take years to produce, are usually multi-authored and serve as reference points rather than up-to-date communication. They are extremely useful for the person in training who is building a body of knowledge on which to base his experience. National meetings, such as this one, have traditionally been an important method of communicating up-to-date material among specialists such as ourselves. For a paper to be delivered to this meeting, an abstract had to undergo close scrutiny and grading by six members of the program committee. Only 28% of those abstracts submitted are being presented at this meeting. It's tough to get a paper on a national meeting. Sometimes I ask myself why people present papers at a meeting such as this. Is it for national exposure? Personal advancement? Or is it a sincere desire to communicate knowledge to the assembled audience? I would venture to say that more than a few people tallied up the number of papers from various programs and use that as criteria to judge the success of that particular program—an abuse of medical communication. If so, that success will be short-lived.

Journals represent a third method of communicating usually—a single author's experience of clinical cases and/or basic research.

It is always interesting to look back in history to see

how the body of medical knowledge has been assembled in one's field. A quick perusal of the many articles and writings of the "founding fathers" of upper extremity surgery, as found in Joe Boyes' book, *On the Shoulders of Giants*,¹ indicates that much of the reporting was informal and anecdotal, and in many cases, an aside to an established interest. For example, Augustus Waller's⁷ description of distal degeneration after nerve division withstood the test of time. His laboratory was in his home; his equipment was primitive. Moreover, when Volkmann⁶ described the ischemic contracture in 1881, this was one of his minor contributions. His was a short paper, anecdotal emphasizing the difference between the contractures of rapid development and those which develop late after nerve paralysis. Few of us know Otto Wilhelm Madelung⁵ for his contributions to abdominal surgery, intestinal suture, and the advocacy of early laparotomy in trauma; instead we do know him for describing a deformity of the wrist occurring in young women probably due to a defect in development of the distal radial epiphysis. Another case in point was Fritz De Quervain,⁴ who in 1895 reported one case with a 1-year follow-up of stenosing tenosynovitis in the first dorsal compartment of the wrist. Little does the average hand surgeon know that De Quervain also published a textbook which lasted through nine editions. Sterling Bunnell² in 1918 introduced the flexor tendon graft with a one case report. Four years later,³ he reported on five successful cases. Nicholai Eck,⁸ a Russian surgeon, in 1877 described his operation creating Eck's fistula which was a venovenous fistula to shunt the portal blood around the liver. It is interesting to review the actual experimental operations Eck reported. He performed operations on eight dogs and of those eight experimental animals, seven died within the first weeks; thereby falling into the traditional category of an operative death. The eighth dog lived about 2½ months, but then escaped from the kennel, ran away, and was never found again. Today this data would indicate total disaster to us; however Eck proclaimed unqualified success and recommended application to man! Eck's writings were popularized by Pavlov who, interestingly enough, was strongly influenced by Eck's father who had selected Pavlov for a coveted 2-year postgraduate scholarship. The scientific fact that the patency of the shunt was never established and that there were no documented beneficial effects to the dog, was somehow lost. In this instance, the medical literature was, in fact, abused by both Eck and Pavlov for their personal gain.

I wonder about our fascination with names—De Quervain, Madelung and Essex Lopresti—with their musical sound are pleasing to our ears. What if

White, Black, and even Green described these same conditions?

The point of this historical purview is that the body of knowledge on which we base our decisions comes about through a gradual build-up of many experiences of the authors. I wonder if we haven't now reached the state of maturity in our body of knowledge where these small, incidental reports will have less and less importance. The specialty matures and medical communication must mature along with it.

Two years ago I heard a report by Founder's Lecturer, Dr. Alan Hudson, in which he surveyed certain journals and found what he thought was a serious lack of statistical information in the clinical articles. During the past year, we reviewed the *Journal of Hand Surgery* from 1980 to 1986. Nine hundred twenty-nine articles were published during that span, broken down as follows: 33% clinical studies; 16% basic research, and 51% case studies with less than 10 cases. Looking at the group of clinical research articles, which numbered 307, there was an average follow-up of 22.4 months. Only 56% of these articles presented statistics and, to our observer's opinion only 81% were adequate; 81% of these studies were retrospective studies. Of the 146 articles in the basic research category, only 36% gave statistics with 69% judged to be good by our observer. In short, I feel that this "informal survey" shows an alarming trend which represents a type of abuse of the communication media of journal reporting.

My feeling is that many articles are written solely for advancement, advertisement, and/or ego gratification.

As an example, I submit to you a parody of the typical useless clinical study. My article is entitled "The Wilgis Procedure—An Analysis of 5000 Cases to Restore Finger Function at the PIP Joint." It is important to point out that we have operated on 5000 cases in a 10-year period; however, only 300 of those cases were pertinent to the particular subject at hand. The first thing I would do is subject these cases to my personal classification so that future classifications could always be referred to by the Wilgis method. Next I would describe in the article my personal operative technique which differs from the conventional operative technique of trigger finger release only in the use of instruments with my name on them. My results would be based on patient examination at the last office visit approximately 3 weeks after operation or from a questionnaire sent to the patient. Now, I ask you how many people will say they don't like an operation which they elected to have and then paid approximately \$500 for. Finally, I would classify the results so that 90% fell into the good or

excellent category. While this is a somewhat farcical account it is my attempt to illustrate what I feel is the ultimate abuse of medical communication.

With maturity comes change—we need to change our concept of reporting clinical studies. Not totally, mind you, because there is still room for the occasional case report and the occasional personal series or the new technique.

If I may quote from a letter of Dr. Thomas Dameron, President of the American Academy of Orthopaedic Surgeons, to the Health Care Financing Administration, who said:

It is regrettable that Federal support of health services research has not created a comprehensive body of scientific knowledge which describes comparative quality and functional outcomes for patient care provided by generalists, by undifferentiated specialists, or by physicians whose specialty training is directed toward the specific areas of pathophysiology in question.

This was in response to a report that specialty care was not worth more in terms of reimbursement than non-specialty care. While I agree with Dr. Dameron in premise, I disagree with his methodology. I feel that we as reporters have failed to assemble this body of knowledge. When we look at the Congressional machinations going on at the present time, all designed to diminish physician reimbursement, we see the need for data. It is sad that with all of the formal medical communication available to us and equally available to Congressional committees, there is not one single bit of data to indicate that patients treated by board-certified specialists have a superior outcome to those treated randomly! In fact, there is one indication that the reverse is true! In our talks with the staff members of various Congressional committees, we learn of their dismay that they cannot find outcome studies when perusing the medical literature. In fact, it is very difficult for them to understand procedures with acronyms or eponyms. I submit to you that while we may report the results of a Lauenstein procedure, we all bill for a distal radial ulnar arthrodesis and osteotomy of the ulna in the "unbundled" mode. How then, can we expect a layman to understand our literature?

With maturity comes change. Medical literature must break out of the closed shop. We must collectively communicate to the public, putting the answers squarely on the line. The change must be in the form of medical communication. While some may perceive this as a public health measure, I perceive it as education—education not only of ourselves, but education of the nonprofessionals as well. We need prospective studies,

multicenter studies which are outcome-oriented. The landmark neurosurgical study which involved many centers evaluating the microvascular revascularization of the brain is exactly an example of such a study. This proved in essence that this procedure, which had been boosted by anecdotal reporting, was *not* useful and in fact, was harmful to the patients. Subsequently it is not being done. Another example is the landmark multicenter prospective study on the treatment of breast cancer which effectively buried the conventional radical mastectomy. We need more of this type report.

I would like to issue a challenge to this society—to do such studies perhaps one each year. The *Journal of Hand Surgery* has been extremely successful from a financial point of view. The profits from the *Journal* could finance a prospective, multicenter outcome-oriented study on any one of a given number of surgical procedures or conditions that would be very useful. We live in a competitive world. Why compete with each other openly in the *Journal* when we could join forces and compete in the socio-economic-political arena to answer some tough questions which are being raised by our adversaries, the congressional cost-cutters. By joining forces we would have to concede that we all do proper surgery with about the same expertise. Just imagine how exciting it would be to prospectively outline some clinical policies, standards of care, and then test them with outcomes in a large number of patients—this is the ultimate use of medical communication.

Along with a change of direction in our medical communication, I feel that we should also improve our technical communicative skills in the electronic areas. The use of video recording, computer technology, facsimile, and electronic mail could all be utilized to speed up the reporting process. Many of us already have this equipment in our offices. From a hardware prospective, FAX can be linked to the personal computer and word processor, copier, dot matrix printer, and optical character reader. The combination of the PC/word processor with the FAX not only provides intergrated texts and graphics processing, but also utilizes the storage and processing power of the personal computer with the image input

and transmission function of the FAX unit to provide automatic sequential dispatch of documents, a programmable multi-address broadcasting system; better control of communication expenses and electronic mail. When combined with copier technology the FAX becomes an electronic editing and remote copying system. I submit that with the use of this technology, we could reduce reporting time significantly. Centers which participate in such a study could be electronically linked to pass and collate information and produce outcome oriented studies in record time. I reiterate—to participate one would have to give up personal advancement, personal advertisement, and ego gratification, but in return you would gain the advancement of medicine and surgery; advertise the advantage of specialization and hand surgery. I disagree with Dr. Dameron that this must be done with Federal support. I feel that we should produce it ourselves for we have the resources, the knowledge, and certainly the data. However, we need to harness our collective energy to produce meaningful data on the outcome of specialty treatment, and to publish this data in our *Journal* so it could be made available to the non-professional world as well.

REFERENCES

1. Boyes JH. On the shoulders of giants. Philadelphia: Lippincott Co, 1976.
2. Bunnell S. Repair of tendons in the fingers. *Surg Gynecol Obstet* 1918;26:103.
3. Bunnell S. Repair of tendons in the fingers. *Surg Gynecol Obstet* 1922;35:88.
4. De Quervain F. Ueber eine Form von Chronischer Tendovaginitis. *Korrespondenz-Blatt Schweiz. Aertze* 1895; 25:389-94.
5. Madelung O. Die Spontane Subluxation der Hand nach Vorme. *Langbecks Arch Klin Chir* 1979;23:395-412.
6. Volkmann R. Die Ischaemischen Muskellähmungen und Koutkraktyren. *Centralblatt Chir* 1881;8:801.
7. Waller A. Experiments on the section of the glossopharyngeal and hypoglossal nerves of the frog. *Philos Trans R Soc Hand* 1850;140:423-9.
8. Warren D. Reflections on the early development of portacaval shunts. *Trans S Surg Assn* 1979;91: