

THE BEST OF TIMES AND THE WORST OF TIMES

Presidential Address

American Society of Transplant Surgeons

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Frank P. Stuart

Colleagues and guests:

It was my good fortune and privilege to be among the second wave of pioneers in organ transplantation. It is difficult to convey the excitement of the time. In the preceding wave Joe Murray, Francis Moore, David Hume and Hartwell Harrison, beginning in 1947, had developed the necessary techniques and started kidney transplantation at the Peter Bent Brigham Hospital. During my senior year at Northwestern University Medical School, just four blocks north of here, Tom Starzl was addressing the technical problems of liver transplantation in dogs; we are delighted that he will return to Northwestern in a few weeks to deliver the commencement address.

During my surgical residency in San Francisco, John Najarian returned from three years in the laboratory with Frank Dixon and Joe Feldman at Scripps to begin kidney transplantation at UCSF. In 1964 John Bergan initiated kidney transplantation in Chicago, at Northwestern, and made an attempt at pancreas transplantation; Richard Lillehei and Richard Varco succeeded shortly thereafter in transplanting the human pancreas at the University of Minnesota. When I arrived in Boston in 1964 for two years as an NIH postdoctoral fellow with Dr. Francis Moore in Harvard Medical School's Building E surgical labs, evidence of Ray Calne, Ross Shiel and Guy Alexandre's time there was all around us. The era of immunosuppression by total body irradiation had given way to prednisone and the purine analogs, 6-mercaptopurine and azathioprine. The laboratory staff were celebrating (with cake and ice cream) 500 days and 1000 days of kidney graft survival in beagle dogs named Massachusetts and New Hampshire, and the first human recipient had been immunosuppressed successfully with 6-MP in 1962.

During those two years in Boston I crossed paths with many of my current colleagues from that second wave. Dick Simmons, Olga Jonasson, Peter Morris and Robert Corry were working with Paul Russell, Tony Monaco and Henry Winn at Massachusetts General Hospital; Gil Diethelm was in the lab adjacent to mine as Joe Murray's fellow; and Nick Tilney and Alan Birtch were resident and chief resident at the Brigham. It was with enthusiasm and anticipation that Joan and I returned to Chicago two years later in 1966.

After initiating and building the transplant program at the University of Chicago for 25 years, it was a unique privilege to return to Northwestern, my medical alma mater, to expand and broaden the transplant program there, perhaps somewhat

along the lines that Tom Starzl might have wanted had he remained at Northwestern rather than moving on to Denver and Pittsburgh. The challenges and rewards in transplantation have been and continue to be more than sufficient.

On the occasion of our society's tenth anniversary in 1984, President Oscar Salvatierra reviewed its progress during the prior decade and identified major issues for all of us to address. I shall follow his lead on this twentieth anniversary. In 1984, highlighted problems were (with apologies to our Canadian colleagues who had variations on the same problems):

- organ wastage despite an overall shortage;
- uneven fellowship experience and the need for certification of fellowship programs;
- lack of scientific registries for all organs;
- purchase and sale of organs for profit;
- unequal access to expensive immunosuppressive drugs;
- and disagreements with HCFA and insurance companies on a variety of reimbursement issues.

Some problems yield slowly, but we progressed on several important fronts.

Many of our members had served on a transplant task force that led to passage of the National Organ Transplant Act in late 1984. That act prohibited commerce in organs for profit, and called for a National Organ Procurement and Transplant Network, a function that the United Network for Organ Sharing (UNOS) has served under contract with the Department of Health and Human Services since 1984. Except for a small paid staff, all of the complex arduous work of the many committees and Board of Directors has been provided free by a broad spectrum of physicians, surgeons, scientists, nurses and lay individuals--all of whom share the goal of making organ transplantation and its promise of fuller life available to as many as possible.

The network, UNOS, has reduced organ wastage, improved equitable allocation of organs, provided for multiorgan registries, and specified credentials for transplant surgeons, physicians, histocompatibility laboratories and hospital-based transplant programs. But the shortage of organs is worse than ever; immunosuppressive drugs are still beyond the means of many recipients (discontinuing treatment is a major cause of graft loss to rejection); and certification of clinical fellowship training is still imprecise and arbitrary.

New, more effective immunosuppressive agents--cyclosporine and OKT-3--introduced early in the past decade led to vastly improved graft and recipient survival. Kidney transplantation doubled, and heart, lung, liver and pancreas transplantation exploded. Most acceptable donors are now multi-organ donors. Our collective success has intensified some of the old problems and introduced new ones.

As I read through all of the previous presidential addresses, I was struck by several refrains with respect to what our society is, and what its purposes and functions should be. Because the problems of the day fit nicely into those various purposes, they are worth repeating now. The bylaws say it very well. We are incorporated in the State of Oregon as a nonprofit scientific corporation. The purposes of ASTS are threefold:

1. To promote and encourage scientific research with respect to transplantation surgery. (I believe this purpose applies equally to increasing our knowledge through both basic laboratory and clinical research.)
2. To promote and encourage education with respect to transplantation surgery. (I interpret education in its broadest sense.)
3. To collaborate with existing public and private organizations and agencies to provide maximal efficiency and optimal benefit to recipients of organ transplants. (I believe the third purpose is really an extension of promoting research, education and patient welfare by ensuring the overall functional integrity of organ transplantation as a healing discipline.)

Some of our members have emphasized research, others, education; still others have focused on the complex interface with myriad organizations and agencies. Most of today's issues and problems, however, call for intricate coordination of all three. Insofar as new knowledge and understanding are essential for intelligent solving of problems, research must lead education and interaction with agencies. But we should broaden our definition of research beyond basic laboratory investigation and clinical experience.

Most of us agree that the shortage of human organs for transplantation will not disappear and that only successful xenografting will relieve the intense pressure of lengthening waiting lists. Between now and then it is clear that we dare not be uninvolved in any area that affects transplantation surgery.

Our annual scientific program should begin to include more research and provocative essays into difficult questions, such as:

1. Is the potential pool of optimal organ donors shrinking? If so, what compensatory moves are appropriate?
2. Why aren't organ procurement organizations more effective?
3. What are appropriate allocation criteria for organs?
4. What should be the criteria for entry onto a waiting list?
5. How should trials for new clinical procedures be funded, evaluated and judged to be ready for inclusion in the emerging national list of health care benefits?
6. How can we reduce the cost of organ transplantation?
7. How much can or will organ transplantation grow between now and the time of successful xenografting?
8. How many transplant surgeons do we need?
9. Are we educating too many transplant fellows; do we have too many fellowship programs?
10. What constitutes an appropriate educational experience for transplant fellows?

Research into some of those questions requires time and effort but little expense. In this time of intense competition for funding basic laboratory research, we might be able to keep the Society's scientific research ethic alive and well by encouraging scholarly activity in issues at the medical-social interface that impact on transplantation surgery.

The presidency of this society provides a unique "birds' eye" view of the discipline for a year. Permit me to share some perspectives and observations. Foremost is that there is no substitute for the American Society of Transplant Surgeons. Despite its high profile, organ transplantation is numerically a small part of surgery in the United States and Canada. In the United States, it depends on about 5,000 cadaveric donors and 2,500 living donors. Organ transplantation is not a traditional specialty. Those who transplant organs are also cardiothoracic surgeons, general surgeons or urologists. They are certified by their respective specialty boards and are frequently members of the American College of Surgeons. Yet none of those organizations really understands or represents transplant surgery effectively.

That point came through most clearly when transplant CPT codes were reviewed by the American Medical Association's Relative Work Value Update Committee (RUC) on several occasions last year. The RUC consists of representatives from all of the specialty societies (surgical and nonsurgical) recognized by the AMA. ASTS is not and is not likely to be among that group. Rather, it must

approach the RUC indirectly through one or more of the recognized societies such as the Society of Thoracic Surgeons, the American Urologic Association and the Council for General Surgery of the American College of Surgeons.

RUC is advisory to the Health Care Finance Administration. It does its work by soliciting surveys of each society's members regarding work value of CPT codes relevant to that society. Then in a three-day marathon hundreds of surveys and proposed work values are reviewed by AMA staff and assembled representatives of the specialty societies. Without invited participation by ASTS and surveys submitted by many of you, the work values assigned by RUC to various recipient operations at its most recent meeting would have born little resemblance to the global work we know is required before, during and after transplantation. After intensive interaction with several of your ASTS colleagues, RUC recommended work values that are appropriate.

But, even with ASTS surveys, the final work value for cadaveric organ procurement was grossly undervalued, because RUC members considered only work performed at the donor operating table; they disregarded work spent before and after donation, and regarded travel to and from the sometimes distant hospital as being equivalent to driving to one's usual workplace to perform an appendectomy. In contrast, Canada recognizes and compensates donor travel time as "detention" time; i.e., the surgeon is viewed as being taken out of circulation and detained from any purpose other than donation. Failure by the ASTS to interact effectively with appropriate agencies and organizations to correct the defective relative work values assigned to all of the organ procurement codes means trouble. Such troubles would threaten the functional integrity of transplant centers, aggravate the already precarious donor supply, and compromise access to organ transplantation.

Fortunately, ASTS opinion is widely sought and valued. In the situation just reviewed, RUC doesn't have the last say; it is advisory to HCFA which plans to review relative work values for organ procurement directly with ASTS representatives next month. In these technical matters as in so many others intimately concerned with transplant surgery, ASTS plays an essential role for both the discipline and ultimately for the public interest. It would be a mistake to dilute surgeons' perspectives by broadening ASTS membership to include nonsurgeons or to merge ASTS with any other existing organization.

Congressional reauthorization of the Organ Transplant Act, which we are hopeful is close to passage, is another example in which the position of transplant surgeons as a body is sought and valued. Positions that were reviewed by your

officers and councillors and relayed to Congressional committees helped improve early versions of the Reauthorization Act.

That two aspects of the pending legislation still evoke considerable controversy among a portion of our membership is worth comment. The two vexing issues that remain concern the nature of hospital-OPO agreements and whether waiting lists should be OPO-wide, regional or national. Both are extremely important issues. As much as possible, consensus should be reached within ASTS, perhaps starting with the Committee on Issues, and conveyed as appropriate to UNOS and other agencies--especially committees of Congress. If we who are familiar with all the subtle and not so subtle implications of decisions about transplantation cannot arrive at and abide by consensus, it is difficult to see how Congressional committees and other agencies will arrive at the best possible compromises.

Moreover, an element of hypocrisy is introduced when we bypass ASTS to speak for what is frequently interpreted as narrow self interest. The OPO-donor hospital controversy provides an excellent example. There is a transplant team known for procuring organs in adjacent OPOs across state lines and known for direct contact with Congressional committees on behalf of that option. That transplant team has just succeeded in protecting its own turf through a new state law. The new law prohibits a hospital in its own state from referring possible donors to an OPO other than the one designated for that hospital's geographic area!

It is time to stop begging our neighbors, and one-upping each other. Mechanisms are at hand for building consensus through UNOS and its committee and regional structures, through ASTS and its committees, and through the OPOs.

Let us get about the business of leading and doing what it takes to increase organ donation. The Coalition for Donation and other efforts aimed at broad public education will certainly help. But I agree with those who say that public willingness to donate isn't the main problem. Rather, it is hospitals, thousands of which have never produced a single organ donor, where the real problem lies.

Jim Warren laid down the challenge for us in the recent issue of Transplant News, April 29 this year, when he said, "the reason only half of the 70 per cent who say they would donate do not is because when the opportunity arises they are either approached poorly or not approached at all. That is not their fault: it is the responsibility of hospital personnel in charge of organ donation to understand that approaching every potential organ donor is vitally important. It is the transplant community's responsibility to develop a relationship with each hospital and assure that

personnel have been properly trained to make the approach in the most effective manner."

By law we must approach hospitals and the organ-donor process through more than 60 nonoverlapping OPOs designated by HCFA. The OPO service areas range from compact urban areas to sparsely populated states. The population served by each OPO ranges from 600,000 residents to 11.6 million. OPO efficiency rates at organ retrieval cover an appalling span from ten donors per million population to 47.3 per million in 1993. The United States has a major OPO problem.

Such extreme variation in performance of OPOs should not be accepted by the American people, their governments, or the transplant community. The Secretary of Health and Human Services was authorized by Congress years ago to set performance standards for OPOs, but standards are nowhere near. UNOS has no authority to affect OPO performance with respect to donation. We all agree that OPOs have a difficult job, that effective interaction with hospitals is difficult to establish and sustain for many different reasons. But potential recipients die every day while OPOs try--or fail to try--to get their acts together. We must push for realistic OPO performance standards. In the meantime, we must all assume roles of leadership in our OPOs to help guide them into more effective performance.

Finally, let us not forget our responsibility to the transplant fellows whom we educate. We accept their help in organ retrieval and other burdensome aspects of patient care. Implicit in the contract between mentor and fellow is that the fellow will receive adequate experience and education, that there is an appropriate job out there somewhere when he or she finishes, and that the mentor will help the fellow find it. Unfortunately, letters and resumes that I have received from fellows during the past year lead me to conclude that many are not adequately equipped to serve the public, will not find jobs in transplant surgery, and are receiving little help from their mentors. I hope the Education Committee will continue to address this problem with vigor.

In closing, please know that serving as your president has been the high point of my professional life. Thank you for the opportunity. It is a wonderful time to be a transplant surgeon.

I am confident that the ASTS and each of you as individuals will lead us through the constantly evolving challenges so that we might achieve--through organ transplantation in the late 1990s--what I refer to in lectures to third-year medical students as "modern medical miracles at bargain prices."