



X

Accreditation of Training Programs

John S. Najarian

As ASTS evolved in the mid-1970s, it soon became apparent that, as stated in our bylaws, we needed to promote and encourage education and research in the field. Thus, as the fourth president (1977-78), I focused on education, the primary theme of my Presidential Address.

To his credit, Dr. James Cerilli, our sixth president, established the Education Committee in 1980, and I was appointed chairman. The charge to this 6-member committee was to develop criteria for approving quality training programs in transplant surgery. Once these training programs were approved, they would be listed in the annual program book. We anticipated that, eventually, training in an accredited program would be required for regular membership.

Cerilli sent a letter to all institutions that desired to establish approved programs in transplant surgery, advising them of the following:

1. The institution should complete an application, to be reviewed by the Education Committee; if approved, arrangements would be made for a site visit.
2. The site visit would involve two members of the Society, one from the Education Committee.
3. The expense of the one-day site visit would be borne by the visited institution.
4. The site visit committee would submit a report to the Education Committee; the Society would decide whether or not to approve the program.

The special requirements for graduate education in renal transplantation (Appendix 1) included:

1. The candidate must satisfactorily complete a residency that satisfies the educational requirements for certification by the American Board of Surgery or the American Board of Urology.
2. The program must provide instruction in basic sciences as they relate to the diagnosis and treatment of end-stage renal disease. It was stressed that the candidate must be provided with an adequate volume of operative experience in renal transplantation.

3. The duration of training must be sufficient—a minimum of 12 months—to allow the candidate to acquire skill in pre-, intra-, and postoperative care of transplant patients. The candidate must actively participate in the care of at least 35 new transplant patients per year. In programs with fewer than 35 new patients per year, the clinical training must be for two years, as long as 50 new transplant patients would be available during that time.

These initial requirements for approval of training programs in renal transplant surgery such as structure of the program and clinical material are covered in Appendix 1.

In addition, a copy of the initial application form for certification is in Appendix 2. Important features included the names of the transplant program director and associates, such as the director of nephrology, director of dialysis unit, director of clinical immunology or tissue transplantation, and laboratory staff. Also required are the date of certification as a transplant center by the end-stage renal disease network, the number of hospital beds devoted to transplantation, the number of dialysis beds, a history of the transplants done by that institution, and the names and locations of trainees. The Reviewer's Evaluation Form is in Appendix 3.

The recent bylaws of ASTS indicate that, to be a regular member, the candidate must complete a training program in a surgical specialty and must be certified by the American Boards (or the foreign equivalent). The training must be in an approved program (or the equivalent) in transplantation for at least one year, with active participation as a staff member in clinical transplantation for at least six months. Site visit approval is for a five-year period of time, after which reapplication is required; another site visit would be done, if deemed necessary by the Education Committee, for another five-year increment.

I continued as chairman of the Education Committee until 1988, followed by Dr. G. Melville Williams (1988-91) and Dr. Nancy Ascher (1991-94). Originally composed of six members, the committee has now been increased to 12 members to include those with expertise in liver or pancreas transplantation. The committee later decided that liver or pancreas transplant programs would be approved if the institution had an ongoing approved renal transplant program. But as of 1994 there is still no consensus regarding the minimum number of liver or pancreas transplants necessary for approval.

Appendix 1

Special Requirements for Graduate Education in Renal Transplant Surgery

Objective

The objective of a Renal Transplant Surgery Training Program is to develop proficiency in the surgical management of end-stage kidney diseases. This objective can be achieved through a structured supplemental program to study and treat these diseases in an accredited and properly supervised fellowship. Candidates for such training must have satisfactorily completed a residency that satisfies the educational requirements for certification by the American Board of Surgery or the American Board of Urology.

Scope

The program must provide instruction in the basic sciences as they relate to the diagnosis and treatment of end-stage renal diseases, encompassing anatomy, physiology, pathology, and immunology (including histocompatibility testing). Case material in sufficient volume must be available to develop skill in caring for patients requiring renal transplantation. Clinical material and facilities must be available for instruction in the performance and interpretation of special diagnostic techniques and instrumentation necessary to care for transplant patients. Most important, the candidate must be provided with an adequate volume of operative experience.

Duration

The program must be of sufficient duration to allow the candidate to acquire skill in pre-, intra-, and postoperative care of transplant patients. It should be at least 12 months long and should include active participation in caring for at least 35 new transplant patients. One year of training must be clinical, and the remainder may be spent in clinical or laboratory work.

The clinical experience must be obtained after completion of residency requirements. In programs with fewer than 35 new patients per year, the clinical training period will be for two years, as long as 50 new transplant patients are dealt with in this time.

Structure

The objectives can best be achieved within an institution approved for graduate education in general surgery or urology and also in those other disciplines particularly related such as infectious disease, immunology, radiology, nuclear medicine, nephrology, cardiology, and gastroenterology. To provide for an effective training program,

the transplant surgery section must be organized within the framework of a larger administrative unit, such as a department of surgery or general surgery or urology. It is essential that available teaching material be centralized. This can be best achieved by establishment of a unit to which all transplant cases are admitted, under the direction of a qualified transplant surgeon with continuous responsibility for teaching, quality of patient care, and research. The program director should be certified by the American Board of Surgery or the American Board of Urology. Other staff members should be experienced in transplant surgery, dedicated to teaching, willing to devote the necessary time and effort to the educational program, and engaged in research activities as well.

Clinical Material

An adequate volume of surgical experience must include vascular access procedures; living related or cadaver donor operations; and renal transplants, including operations for complications. The candidate must perform at least 25 transplant operations.

The candidate must have an intimate acquaintance with the laboratory and radiologic procedures used to diagnose rejection, infection, and other problems; must be fully conversant with the various techniques of immunosuppression and their complications; must have experience in the workup of living donors and in the procurement and preservation of organs obtained from cadaver donors; and must have experience in the postoperative follow-up of transplant recipients.

Approval

It is not necessary or even desirable that all institutions adopt exactly the same content and structure of their programs, but they all must meet the essentials for approval and must demonstrate that they can attain comparable results in the quality of education and experience obtained.

Appendix 2

Application for Certification as an Approved Renal Transplant Surgery Training Program

Institution: _____ Department : _____

Address: _____

*Departmental Chairman: _____

*Director of Transplant Program _____

Title: _____ Telephone No.: _____

Address: _____

*Associate Transplant Staff Members:

Name: _____ Title: _____

Name: _____ Title: _____

Name: _____ Title: _____

*Director of Nephrology: _____

*Director of Dialysis Unit: _____

*Director of Clinical Immunology or Tissue Typing Laboratory: _____

Date of Certification as Transplant Center by End-Stage Renal Disease (ESRD) Network: _____

No. of Hospital Beds: _____ No. of Beds Committed to Transplantation: _____

No. of Dialysis Beds: _____ Is there a specific Transplant Ward ? _____

Number of Transplants and Cadaver Donor Operations Performed in Each of the Last Four (4) Years Prior to Application:

	<i>Total Tx.</i>	<i>Living Related Tx.</i>	<i>Cadaver Tx.</i>	<i>Cad. Donor Ops.</i>	<i>Access. Ops.</i>
19					
19					
19					
19					

*List name, current location, and position of individuals you consider to have trained in transplant surgery at your institution and give dates of training (attach add'l sheet if necessary):

<i>Name</i>	<i>Current Location</i>	<i>Current Position</i>	<i>Dates of Training</i>

*Curriculum vitae and bibliographies for each individual must be forwarded with application.

Page 2 -- Application for Certification as an Approved Renal Transplant Surgery Training Program

Institution: _____

Describe the specific structure of your transplant surgery training program (limit to 2 pages).
Include information on:

- a) Transplant and immunology conferences at your institution
- b) Designated clinical and laboratory responsibility of the trainee with specific descriptions of the anticipated operative experience in living related donor transplantation, cadaver transplantation, organ procurement, and vascular access
- c) Transplant service organization for staff, ward, operating room, vascular access, clinical coverage and immunosuppressive management. Include a clear description of the relative responsibilities in patient care of transplant surgeon, trainee, and associate nephrologists.

Continue to next page

Page 3 -- Application for Certification as an Approved Renal Transplant Surgery Training Program

Institution

Documentation of information in application must be available to site visitors at time of site visit.

Forward application to: John S. Najarian, M. D.
Chairman of the Education Committee
American Society of Transplant Surgeons
Department of Surgery, Box # 195 Mayo
University of Minnesota Hospitals
Minneapolis, Minnesota 55455

Appendix 3

Renal Transplant Training Program Reviewer's Evaluation Form

**RENAL TRANSPLANT TRAINING PROGRAM
REVIEWER'S EVALUATION FORM**

INSTITUTION : _____

DIRECTOR OF TRANSPLANT PROGRAM: _____

Please complete the form below for the above proposed program.

I. Does the program meet the objectives as outlined in the Special Requirements for Graduate Education in Renal Transplant Surgery?

II. Scope of Training

A. Is adequate instruction provided in the basic sciences as they relate to the diagnosis and treatment of end-stage renal diseases, encompassing anatomy, physiology, pathology, and immunology, including histocompatibility testing?

B. Are facilities and clinical material available for the instruction of the candidate in the performance and interpretation of special diagnostic techniques and instrumentation necessary to care for transplant patients?

Renal Transplant Training Program Evaluation

Page 2

Institution: _____

III. Duration of Training

- A. Is the program of sufficient duration to allow the candidate to acquire skill in pre-, intra-, and post-operative care of transplant patients? (This period should be at least 12 months and include active participation in caring for at least 35 new transplant patients. One year of training must be clinical, and the remainder may be spent in clinical or laboratory work. In programs with fewer than 35 new patients per year, the clinical training period should be for 2 years, as long as there is active participation in caring for at least 50 new transplant patients.)

- B. Is the clinical experience in transplantation obtained after the completion of the candidate's residency requirements?

IV. Structure of Program

- A. Is the program based an institution approved for graduate education in General Surgery or Urology and other related disciplines?

- B. Is the program organized within the framework of a larger administrative unit such as Surgery, General Surgery, or Urology?

- C. Is there a specific Transplant Unit to which all transplant cases are admitted?

- D. Is the program director qualified as a Transplant Surgeon and either certified by the American Board of Surgery or Urology or a fellow of the American College of Surgeons ?

Renal Transplant Training Program Evaluation

Page 3

Institution: _____

IV. Structure of Program

- E. Are there other staff members experienced in transplant surgery, dedicated to teaching, willing to devote the necessary time and effort to the educational program, and engaged in research activities?

V. Clinical Material

- A. Is there an adequate volume of surgical experience including vascular access procedures, living related or cadaver donor operations, and renal transplants including operations for complications? (The number of transplant operations performed by the candidate must be at least 25).

- B. Does the candidate obtain acquaintance with the laboratory and radiologic procedures used to diagnose rejection, infection, and other problems?

- C. Does the candidate obtain experience with the various techniques of immunosuppression and their complications?

- D. Does the candidate have experience with workup of living related donors and procurement and preservation of organs obtained from cadaver donors?

Renal Transplant Training Program Evaluation

Page 4

Institution: _____

E. Does the candidate receive experience in postoperative follow-up of the transplant patient?

V. Total Program Evaluation

Please comment on whether or not the total program meets the required standards of an approval training program in transplant surgery and whether or not you would recommend the required site visit by the American Society of Transplant Surgeons for program approval.

Date _____ Reviewer _____



XI

Fellowship Grants and Faculty Development

Oscar Salvatierra, Jr. and Caliann T. Lum

Research training of transplant surgeons has been a primary objective of ASTS since its inception. It is considered an essential component of the curriculum of ASTS-approved fellowship training programs. To enhance and promote excellence in research, ASTS has sought outside corporate support to promote career development of outstanding young transplant surgeons.

Sandoz Pharmaceuticals Corporation was the first to generously commit to a competitive ongoing transplantation fellowship to encourage training of transplant surgeons, not only in the clinical aspects of transplantation but also in immunobiology research. Candidates for this award are required to submit an application that includes a well-described research proposal for the funding. They are then interviewed each year by a selection committee composed of members of the Education Committee and officers of ASTS, with the winner announced at the Annual Meeting.

The Sandoz Award description is as follows:

“The ASTS Sandoz fellowship is a two-year Fellowship to provide qualified surgeons with additional training in the field of organ transplantation. In-depth experience with the clinical aspects of transplantation is the primary objective, but involvement in related clinical and laboratory research is also encouraged. The career goals of candidates should include a major commitment to an area of organ transplantation such as renal, cardiac, liver, or pancreas transplantation. The award is \$25,000 per year for each of the two years of the fellowship. The award should be used to support the fellow’s salary and fringe benefits or the fellow’s direct research expenses.”

The first two-year award was made in 1985, with an additional one-year grant made that same year. Sandoz has provided \$50,000 per year in scholarships since 1985.

Another area targeted for support involved individuals completing ASTS training fellowships who needed to continue their research endeavors at a time when it might be difficult to obtain financial support. Through the generosity of Ortho Biotech, a

Table 1
Sandoz Fellowship Grantees

Award Period	Name	Fellowship Site	Present Position
1985-87	David L. Dunn, MD	University of Minnesota	Professor of Surgery, University of Minnesota
1985-86	John Holman, MD	Albany Medical College	Associate Professor of Surgery, University of Utah
1986-88	W. Henry Barber, MD	University of Alabama	Professor of Surgery, University of Mississippi
1987-89	Mark D. Pescovitz, MD	University of Minnesota	Associate Professor of Surgery & Microimmunology, Indiana University
1988-90	Jonathan S. Bromberg, MD	University of Pennsylvania	Associate Professor of Surgery & Immunology, Medical University of South Carolina
1989-91	Stuart Knechtle, MD	University of Wisconsin	Assistant Professor of Surgery, University of Wisconsin
1990-92	Kenneth Brayman, MD	University of Minnesota	Assistant Professor of Surgery, University of Pennsylvania
1991-93	Peter Stock, MD	University of California, San Francisco	Assistant Professor of Surgery, University of California, San Francisco
1992-94	Devin E. Eckhoff, MD	University of Wisconsin	
1993-95	Francisco Sequera, MD	Johns Hopkins University	

competitive ongoing research grant award program was created to further the academic development of an outstanding young transplant surgeon. The awardee must have completed an ASTS-approved fellowship and obtained a faculty position in a transplant program in the U.S. The first award was made in 1989. Funds were intended for performing pilot projects that would form the background for subsequent NIH support in future years. Particular emphasis was placed on the objectives and plans of the candidates, requiring them to enumerate specific goals for the year of the award and for the two succeeding years.

The Ortho Award description is as follows:

“Ortho Biotech continues its commitment to the development of transplant surgical research faculty by providing funds to ASTS for the Ortho Faculty Development Award. The \$25,000 award is available for one year with the possibility of renewal for a second year. Funds are to be used solely to support the direct costs of the research or enrichment of the awardee’s educational experience; no indirect costs will be paid;

payment will be made in the name of the recipient to the institution where the research will be conducted. The recipient must have completed a fellowship at a transplant training program approved by ASTS and must be a junior faculty member (no more than two years after completion of fellowship training) at a UNOS-approved transplant center. Transplant fellows may apply for the award during the training period; however, funding will not begin until the training is completed and faculty status achieved. Awardees may not concurrently receive any other financial support for research from ASTS or the American College of Surgeons (ACS); institutions may administer only one ASTS Fellowship at a time.”

Table 2
Ortho Faculty Development Awardees

<i>Award Period</i>	
1989–90	David Shaffer, MD Assistant Professor of Surgery, Harvard University; New England Deaconess Hospital
1990–91	John Chabot, MD Assistant Professor of Surgery, Columbia University
1991–92	Michael Abecassis, MD Assistant Professor of Surgery, University of Iowa and Northwestern University (current)
1992–93	Abraham Shaked, MD Associate Professor of Surgery, University of California, Los Angeles
1993–94	Paul Kuo, MD Assistant Professor of Surgery, Stanford University

In addition to the fellowship and young faculty development awards, ASTS also acknowledges the support of the Upjohn Company for its annual Outstanding Paper award. The award has grown over the years to its present level of \$4,000.

The Upjohn award description is as follows:

“The ASTS Upjohn Award is presented annually at the Scientific Meeting of the American Society of Transplant Surgeons to recognize the most outstanding paper on Transplantation by a Resident or Fellow. . . . All papers must be sponsored by a member of the American Society of Transplant Surgeons, and members are encouraged to sponsor one or more papers addressing original work on any subject relevant to experimental or clinical transplantation or allied fields. The recipient of the ASTS Upjohn Award will receive a plaque and a \$4,000 honorarium.”

Upjohn awardees are listed in chapter eight.

In keeping with this tradition of support, Fujisawa USA, Inc. has also agreed to fund a Career Development Award, to be offered for the first time in the fall of 1995. This annual award will be for \$25,000 per year for two consecutive years. The emphasis will be on launching the transplantation research career of a young surgical investigator.

ASTS gratefully acknowledges the generous support of the pharmaceutical industry in enriching the educational opportunities for young surgeon-scientists in the field of transplantation. Beneficiaries also include the many transplant recipients whose lives are enriched daily by the advances in science made possible by the young minds supported by these educational grants.



XII

Postgraduate Course

Hans Sollinger

The idea for the ASTS Postgraduate Course was Barry Kahan's, and this course was initiated during his presidency in 1990. The Postgraduate Course replaced the workshops which had been held after each of the annual scientific meetings during most of the 1980s. The concept was a course format. Kahan reasoned that transplant fellowships are unable to provide a full spectrum of didactic instruction, and that this course would fulfill an important mission for ASTS. The First Postgraduate Course was held in Chicago in 1990, covering topics in immunology, with particular emphasis on new immunosuppressants.

Because Kahan was very interested that the course would continue, he collaborated closely with David Sutherland, who followed him as president of ASTS.

A point of controversy was publication of the course. Many felt that the didactic format was unlikely to be a useful publication. In addition, Council was worried about the cost of the publication. Therefore, the first course never did get published. By the time Council agreed to have the course published, the second course was upon us, and it was difficult to get participants from the first course to write new papers. Whatever had been turned in for the syllabus was already becoming outdated. For the second course, we made sure that this process was in place, and Council's permission was secured to publish the course in *Clinical Transplantation* if money from independent sources could be secured. Basil Mundy from Ortho Pharmaceuticals graciously agreed to provide the funds. In addition, we were able to get most of the participants in the course to turn in manuscripts for the syllabus that were suitable for definite publication, or just required minor revisions.

The Second Postgraduate Course took a different shape than originally envisioned, because honorary ASTS member, Joseph Murray was awarded the Nobel Prize in October 1990. To honor this special event at the 1991 ASTS meeting, many of his former trainees and associates were invited to participate in the meeting and to speak at the Postgraduate Course. Many of them agreed. In addition, all submitted papers for the syllabus. One of the highlights of this course was that Gertrude Elion, a Nobel Prize winner for the discovery of azathioprine, attended the entire course.

The first and second courses were limited to one day—Saturday. Because of



Gertrude Elion and Hans Sollinger at the 1991 Postgraduate Course

numerous requests from participants to leave earlier Saturday afternoon, I suggested when I took over in 1992, that part of the course be held Friday night. The remainder was then held on Saturday morning and early afternoon, so people could depart on the day of the course and would not have to stay over another night. The number of participants at this course was approximately 250, and again, the course was published in *Clinical Transplantation*. When Ron Ferguson followed me as chairman of the ASTS Postgraduate Course in 1993, the attendance rate grew even more.

While there is no question that the Postgraduate Course will become a consistent event following the ASTS meeting, much consideration will have to be given to the format of the course. Will we continue to have presentations from a variety of specialists describing the current status and frontiers of their respective fields, or shall we

return to the original idea of a didactic course, teaching fellows and young transplant faculty the essentials of transplantation biology, organ preservation, and immunosuppressive pharmacology? Barry Kahan goes one step further and suggests that there would be a place for a separate course, specifically designed for fellows and young investigators, at a different time during the year. This separate course could include two full days of intense didactic teaching, identifying immune elements and progressing to dissect immunity versus tolerance.

The 1994 Postgraduate Course will be organized by Ali Najj, and again promises to feature outstanding presentations from some of the most respected authorities in our field.