

# Nephrology Transplant Training Program

## Goals

At the present time, our program is ASTS certified for surgical aspects of renal transplantation, which has requirements similar to those required for AST certification. While the CST does not yet have criteria for certification, this will be a future goal of that society and we will seek CST accreditation.

In the interim, our program is in the process of applying for AST certification. It is our intent to continue to provide (for eligible nephrologists) renal transplant fellowship training, which is sufficient to qualify them to head renal transplant programs as well as care for renal transplant patients. The goal of certification will be to provide a basis for the standardization of transplant training.

We will consider applicants who have successfully finished the requirements of two years of nephrology training, which enables them to be eligible for the nephrology examinations in Canada, the United States or equivalent abroad.

## General Information

### Scope:

The program offers integrated training covering all major aspects of clinical transplantation nephrology as well as highly developed research programs.

### Duration:

This is a one-year training program. However, we highly encourage planning for an additional year for those wishing academic positions. The second year can be used for obtaining a MSc in Clinical Epidemiology or Education, or to pursue further clinical or basic research. Funding for the second year can be from the program or from peer-reviewed salary support (CIHR, KFOC) with assistance from the program or the Division of Nephrology in exceptional cases or candidates.

### Structure of the Program:

The program has a medical director (Dr. A. Jevnikar), a transplant surgical director (Dr. P. Luke), basic research director (Dr. A. Jevnikar), a transplant pathologist (Dr. M. Moussa), and an HLA lab director. As well, this program is contained within the Division of Nephrology with an Education Program Director (Dr. C. Kortaz). The program is sited at the University Campus of London Health Sciences Centre (LHSC), which is on the campus of the University of Western Ontario, in London. London, Ontario has a population of 350,000 and is centrally located between Windsor (Detroit) and Toronto.

The first year of the program is clinical care, divided between in patient and out patient care. The transplant fellow coordinates all levels of care for renal transplant recipients, along with the senior surgical renal transplant fellow. Additional clinical responsibilities and requirements include:

- a. assessment of potential transplant recipients
- b. proficiency in renal transplant biopsies
- c. proficiency in interpretation of renal transplant biopsies
- d. proficiency in the interpretation of histocompatibility testing, including crossmatching, HLA matching, AHG and flow cytometry methodology
- e. ability to discuss immunobiology of transplantation, drug action and AEs, and rejection injury
- f. teaching of junior housestaff
- g. co-ordination of on call schedules with other fellows

### **Research Opportunities:**

During the program, the fellow will be expected to carry out a research project. This may be clinical or may be laboratory based. This will be organized with the director but may be in with any member of the transplant team. Travel bursaries are available for fellows to attend one national (CST) and one international (ATC) meeting. A "pre-AST" meeting is held annually to provide a forum for practice talks and presentations.

### **Organized Teaching**

A full complement of rounds, conferences, visiting professors days and seminar sessions is directed specifically to Transplant Fellows. Fellows may also participate in corresponding conferences and seminars available for General Internal Medicine and other subspecialties, if time permits. There is monthly journal club meeting, organized by fellows and attended by faculty and house-staff. There are didactic teaching sessions which cover the spectrum of transplantation. Additionally, elective times are encouraged and arranged for the following:

1. Transplantation infectious diseases - one month with Dr. Atul Humar in Toronto
2. Histocompatibility - one month with Dr. Peter Nickerson in Winnipeg. This will also contain some pathology assessment of surveillance biopsies at 1 to 6 months, as our program does not routinely do these.

### **Evaluation**

The following are the criteria by which certification for Fellows is granted from AST-accredited programs. Please note that almost all of these are currently in place at LHSC.

#### Criteria changes effective August 3, 2004

- 1) The transplant program must be UNOS approved as a Renal Transplant Program, and be affiliated with an ACGME-approved nephrology program. Transplant programs that are not UNOS approved and/or affiliated with an ACGME approved nephrology program will be evaluated by the AST/ASN Renal Fellowship Training Accreditation Program Committee on a case-by-case basis.
- 2) The transplant program must perform at least 10 renal transplants per year for each first year, general nephrology fellow in training and an additional 30 transplants per year for each renal transplant fellow to be trained. The minimum number of transplant biopsies to be performed by the fellow during the fellowship year is 10. This criterion ensures that the renal transplant fellowship program will not encroach upon the RRC-IM requirement that all nephrology trainees must manage 10 new transplant recipients.
- 3) The program must have a full-time faculty member or members capable of teaching a curriculum with a broad base of knowledge in transplant medicine. The curriculum designed by the RENAL transplant FELLOWSHIP program director needs to include training and experience in end-stage renal disease, training in the selection of appropriate transplant recipients and donors, experience in the immediate and long term care of the transplant recipient, and training in the performance of renal transplant biopsies. Additionally there must be an emphasis on the management of immunosuppressive agents and the evaluation of renal transplant dysfunction. Combined surgical and medical rounds should be conducted on a regular basis. It is strongly recommended that the didactic section of the program follow the AST's Primer on Transplantation.
- 4) The program must provide patient co-management responsibility with transplant surgeons from the peri-operative through the outpatient period. The renal trainee must primarily manage the transplant recipient's medical care including hypertension, diabetes, and dialytic problems. Trainees must also serve as a primary member of the transplant team and participate in making decisions about immunosuppression. The transplant renal fellow must be primarily responsible for 30 in-patient renal transplant recipients and 30 outpatient recipients over a period of 12 months. Outpatient follow-up must be continuous for a minimum of at least three months. Training must be

completed within 12 continuous months; a minimum of six months of training must be performed in inpatient clinical service and the remaining months should be selected to gain experience in tissue typing, experience on another organ transplant service or clinical or basic research projects associated with transplantation.

5) The program is to provide training in: a) the indications for, b) the performance of, and c) interpretation of, renal transplant biopsies. The transplant fellow must perform a minimum of 30 transplant biopsies during the training period. Documentation of the completion of these biopsies is required. Furthermore the program must provide didactic pathological experience with the trainee reviewing renal transplant biopsies with an experienced renal transplant pathologist.

6) The renal transplant fellow must observe at least three renal transplants (deceased donor and living related or living unrelated) and also must observe at least three procurement procedures.

7) The renal transplant fellowship program director must provide a letter to the fellow within two months of successful fellowship completion, stating that the trainee has met all of the above criteria and is capable of being certified as a UNOS transplant physician. A copy of this letter along with a written statement validating the transplant fellow's participation in the required didactic sessions and patient management experiences must be sent to the AST National Office for the program file and a copy of the letter should be given to the fellows. Documentation that the renal transplant fellow has performed the prerequisite number of 30 in-patient and 30 outpatient recipient encounters; 3 surgical observations, 3 procurement OBSERVATIONS and 30 renal transplant biopsies must be kept by the fellow. Documentation should, at a minimum, be in the form of a log that contains the date of patient contact, type of examination, type of procedure performed or observed and the signature of the transplant physician present. The fellow will be required to complete an evaluation form at six months into the program and at the completion of the 12-month fellowship. Each training program director will be responsible to ensure that the fellow receives and completes the forms. The forms should be sent to the AST National Office. Upon receipt, the committee will review the forms and a copy will be provided to the Transplant Training Program Director. These forms will help maintain a consistency of the education mission of the program.

In addition, the fellow at the successful completion of required training shall be competent to provide comprehensive, specialized medical care based on a high standard of demonstrated component skills. These skills should clearly exceed those demonstrated by the certified nephrologist as transplant care is additional to general nephrology.

Specifically, by the completion of the training program, the candidate will have had an opportunity to demonstrate the following:

**i) Clinical Judgment**

This is the process by which clinical decisions are made. Good clinical judgment encompasses:

- (a) integrating medical facts and clinical data,
- (b) weighing alternatives,
- (c) understanding the limitations of knowledge,
- (d) recognizing complications of disease and side effects of treatment,
- (e) instituting prompt measures to deal with serious or life-threatening clinical manifestations,
- (f) incorporating the consideration of risks and benefits to the patient, and
- (g) developing a logical plan for evaluation of both immediate and long-term management of the renal transplant patient.

**ii) Medical Knowledge**

This is defined as specialized, currently accepted, and up-to-date knowledge and information that is required to function as an expert clinical transplant nephrologist. This includes a broad knowledge of the pathogenesis, natural history and management of kidney transplants; renal physiology; disorders of fluid, electrolyte and acid-base regulation; normal and disordered mineral

metabolism; chronic renal failure; the management of patients receiving immunosuppressive therapy; and the management and diagnosis of hypertension. The clinical nephrologist also must be proficient in the principles and applications of various forms of renal replacement therapy, including hemodialysis and when to apply to the failing transplant.

### **iii) Clinical Skills**

These include:

- a) obtaining appropriately directed medical histories which are precise, logical, thorough, and reliable,
- b) conducting expert, focused physical examinations that elicit subtle findings and are directed toward the patient's problems,
- c) demonstrating understanding and proficiency while minimizing risk and discomfort to the patients in the performance of certain diagnostic and therapeutic procedures.  
(See above for requirements).

### **iv) Humanistic Qualities**

These are integrity, respect, and compassion as demonstrated in the care of patients and their families. They include the abilities to be honest, involved, and responsive to the patient's wishes; to respect the patient's need for information; to establish the patient's trust; to provide empathy; and to maintain credibility and rapport with patients and their families.

### **v) Professional Attitudes and Behaviour**

Those attitudes, behaviour, and interpersonal skills, defined as essential in relating to patients and educating them, their families, and other health care professionals include the ability and willingness to describe the diagnosis and likely clinical course to the patient and the family; to explain therapeutic options (including benefits and side effects); to accept responsibility; to write comprehensive consultation notes in medical records and letters to referring physicians, patients, and appropriate agencies; and to be available to other physicians when needed. Skills and experience in both self-assessment and peer-review of quality of care also are critical.

### **vi) Medical Care**

The outcome of the integration of the foregoing component skills is the ability to management patients. Excellent medical care results from the consistent ability to apply appropriate, comprehensive care of high quality; to be responsive to the patient's needs; to use laboratory tests, consultations, and diagnostic and therapeutic procedures efficiently, effectively, and in the patient's best interest; and to assure patient advocacy for optimal use of limited resources to maintain or enhance quality of care.

### **vii) Continuing Scholarship**

The encompasses the commitment to maintain and update clinical skills throughout the physician's professional career; to acquire new knowledge through computer access, by reading the current medical literature and participating in scientific or clinical studies, related research, and/or scientific or clinical meetings for nephrologists, and to evaluate critically the new medical and scientific information relevant to the subspecialty.

### **viii) Moral and Ethical Behaviour**

This implies the consistent demonstration of a high standard of moral and ethical behaviour within the clinical setting and of the medial profession. In conjunction with this philosophy and expectation, the program considers it unethical for a physician to refuse to treat a patient solely on the basis of that patient's disease, when that disease is within the physician's area of competence.

**Feedback**

Every attempt will be made by all teaching faculty to provide prompt, verbal, constructive feedback to trainees throughout the training program. The director will meet with each fellow at least monthly to provide more formal formative feedback. Every trainee will meet with the Education Director to discuss their performance.

The Program Director maintains a file on each trainee to document evaluation of his or her clinical competence, performance, and progress in the training program. This file will be in addition to the log kept by each fellow that documents all procedures.

**Appeals of Adverse Evaluations**

The Program is committed to providing trainees with due process. Any trainee wishing to appeal an adverse judgment must first appeal to the local hospital program chief. Failure to achieve satisfaction at this level should lead to an appeal to the UWO Nephrology Program Director. The next level of appeal should be to the UWO Nephrology Education Committee. Failures at these levels will then allow an appeal to the Faculty Appeals Committee. The final level of appeal is to the UWO Senate Review Board Academic.