**Dalhousie University ASTS Accredited Kidney Transplantation Fellowship Information and Objectives**

The primary objective of the Surgical Kidney Transplant Fellowship at Dalhousie University is to train fellows in all aspects of kidney transplantation and produce qualified surgeons who are competent in: 1) the evaluation of potential kidney transplant recipients 2) the selection of appropriate recipients for donor organs 3) performance of cadaveric and living donor nephrectomy and kidney transplantation procedures 4) and the post-operative management of transplant recipients and live donors. Our program adheres to the certification requirements outlined by the American Society of Transplant Surgeons. The duration of the fellowship is 24 months, and during this period the fellow must perform 40 kidney transplants and 12 live donor nephrectomies in the role of principle surgeon. In addition the fellow must complete the online ASTS Academic Universe kidney transplantation curriculum modules. Other program specific objectives and responsibilities of our fellows are outlined below: Our program performs 70-90 kidney transplants/year with 1-2 live donor kidney transplants/month.

**Staff**

During the following two years, the fellow will work closely with several staff members belonging to the department of Medicine and Surgery:

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| Dr. Mark Walsh (Surgery) | Dr. Roman Panek (Nephrology) |
| Dr. Boris Gala-Lopez (Surgery) | Dr. Penelope Poyah (Nephrology) |
| Dr. Scott Livingstone (Surgery, Program Director) | Dr. Karthik Tennankore (Nephrology) |
| Dr. Joseph Lawen (Urology) | Dr. Michael West (Nephrology) |
| Dr. Kenneth West (Nephrology) | Dr. Amanda Miller (Nephrology) |
| Dr. Tammy Keough-Ryan (Nephrology) | Dr. Rob Lewski (Pathologist/HLA lab director) |
| Dr. Christine Dipchand (Nephrology) | Dr. Christopher Daley (Pharmacy) |
| Dr. Neil Finkle (Nephrology) |  |

There is often a second year general surgery resident or a senior urology resident rotating on the kidney transplant service.

**Clinical Responsibilities**

1. **Inpatient Care**

The fellow will round daily on the patients admitted to the kidney transplant service, as well as any post-operative live donor patients. Rounds should also be conducted daily with the surgical staff on call for kidney transplant. The fellow is responsible to ensure that any patients admitted for kidney transplantation are assessed with a history and physical exam, and that pre-operative admission orders, surgical consent and booking of the transplant operation are completed. In addition the fellow will ensure that patients consulted to the kidney transplant service by the emergency department are assessed, reviewed with the on call staff and admitted if required.

1. **Operations**

**Organ Procurements:** The fellow is expected to attend cadaveric donor procurement operations. Generally these operations are performed by the HPB/liver transplant and kidney transplant fellows with assistance from the rotating surgical resident. It is expected that the fellow will develop the skills to independently perform procurements from cadaveric neurologically dead (NDD) and cardiac death (DCD) donors. Back table preparation of donated kidneys is an integral part of the procurement procedure which the fellow is also expected to be able to perform independently.

Living donation has become a major source of organs for renal transplantation with ~30% of all transplanted kidneys in North America coming from live donors. Laparoscopic kidney procurement is the gold standard training in this procedure is now a requirement for certification by the ASTS. The fellow will attend all laparoscopic kidney procurements, and by the end of their training is expected to be able to perform this procedure as the primary surgeon.

**Transplants:** The fellow is to attend all kidney transplant operations. There are multiple steps to the operation, and as the fellow demonstrates technical proficiency and good judgement they will perform more steps of the operation in the role of the principal surgeon. By the completion of training it is expected that the fellow will be able to perform a straightforward kidney transplant operation independently with the assistance of the rotating surgical resident. The steps to the operation are outlined below in the typical order of progression of fellow independence:

Entry into the iliac fossa

Closure

Exposure preparation of the iliac vessels

Ureteric anastomosis

Venous anastomosis

Arterial anastomosis

**Dialysis Access:** Dialysis access cases (AVF’s and PD catheters) are typically performed at the Halifax Infirmary site every Monday morning between 7:30 and 12:00 (usually 2 cases/day). The fellow is expected to attend these OR’s, and by the completion of training should be independent in the performance of AVF creation, revision and ligation and PD catheter placement and removal.

**Case Logs:** The fellow is expected to log all cases onto the ASTS website. The program director will frequently review these cases for approval. Logging of cases is required to ensure that the fellow has achieved the required case volume for certification at the completion of training.

1. **Outpatient Pre- and Post-operative Clinics**

The kidney transplant assessment clinics are run by the nephrologists, on Monday, Wednesday and Friday Mornings from 9:30-12:00. It is expected that the fellow attend these clinics as they comprise the greatest source of non-operative teaching available to the fellow. Attendance of a minimum of at least 1 clinic/week is considered mandatory.

The fellow is also required to attend dialysis access clinic every Tuesday from 13:00 - 16:00pm. Here patients are assessed for candidacy for arteriovenous fistula creation or Peritoneal dialysis catheter insertion.

1. **Call**

Call for the Multi organ transplant program is divided amongst the kidney transplant fellow, the HPB/liver transplant fellow and the general surgery resident rotating on the transplant service. The most senior fellow is responsible for making the call schedule. The call duties for the on service resident cannot exceed those specified in the Maritime Resident Doctors collective agreement. As a general rule the fellow should not be required to do more than 2 weekends of call/month, although in exceptional situations this may be necessary.

**Educational/Academic Responsibilities**

There are numerous educational and academic activities that enhance overall training that the fellow is expected to attend.

**Kidney Transplant Team Meeting**

Held weekly on Friday from 08:00 – 09:00. These multi-disciplinary meetings are a forum for discussion of donor activity, wait list selection, and administrative issues pertaining to post-transplant inpatients/outpatients, wait listed patients and referred candidates for kidney transplantation.

Controversial cases are discussed at length and the status of waitlisted patients removed, placed on hold or reactivated are also discussed. These rounds are an excellent opportunity for exposure and discussion of the evaluation and resolution of problems that may preclude transplantation or may require more extensive pre-transplant evaluation/treatment prior to active listing.

**Transplant Biopsy/HLA Rounds**

Held monthly on Thursdays from 12:00-13:00. These are an excellent learning opportunity for the interpretation of post-transplant pathology, especially the ability to recognize the pathologic features of acute and chronic rejection. HLA rounds invaluable teaching with regards to transplant immunology and the complexities of recipient-donor matching in renal transplantation.

**Weekly Transplant Academic Rounds**

These rounds are held every Thursday from 16:00 – 17:00. They may take the form of Journal Club, Interesting Case Presentations, Morbidity and Mortality Presentations, or Grand Rounds with a local or invited speaker.

The fellow is expected to regularly present at journal club, interesting case rounds, and morbidity and mortality rounds. This is often done in rotation alternating with the on service surgical resident and transplant nephrology fellow.

**Weekly General Surgery team C service rounds**

General Surgery team C consists of 4 general surgeons, of whom 3 are the HPB/MOTP surgeons. Service Rounds are held weekly on Tuesdays at 08:15. During these rounds team C and transplant inpatients are reviewed and a paper is presented by a rotating medical student or team C resident. Every 6 weeks senior residents and fellows are evaluated by the team C staff.

**Transplant Atlantic**

Transplant Atlantic is an educational conference held annually in the fall. It is an opportunity for the Atlantic satellite physicians caring for kidney and liver transplant recipients to update their knowledge, discuss patient care and administrative policies and to be informed about clinical trials being conducted or evaluated. There is a business meeting that reviews the wait list, patient selection, outcomes, and amendments to the allocation process. There is also a scientific program that includes basic and clinical research presentations from local and satellite members on transplant related topics. Internationally recognized visiting speakers present two or three lectures, one of which is often a State-of-Art presentation. All topics are related to transplantation and theme based.

**National or International Conference**

The fellow is encouraged to undertake a research project, with the goal of publication and presentation at a major transplant meeting. Fellows are entitled to attend one National or International Conference during their fellowship. This is in addition to the annual senior fellow ASTS Symposium which all second year fellows are expected to attend. Fellows who are particularly productive may attend more than one meeting if they are invited to present submitted research.

**Performance Review Meetings**

In addition to the evaluations given every 6 weeks, the fellow will meet in person with the fellowship director every 3 months to review areas of strength, discuss any identified deficiencies and develop a plan for improvement. This is intended to be a positive experience with the aim of helping the fellow achieve their goal of becoming an independently capable and competent transplant surgeon. Fellows are encouraged to provide feedback regarding their experience, which may be used to improve the training program. Following this meeting a formal evaluation will be submitted to the ASTS by the program director.