

Nephrology

Advanced Hemodialysis Clinical Fellowship

Application details

Prerequisite(s):

Certification in Nephrology

Estimated % clinical workload: 75%**Number of positions annually:** 1**Duration:** 1 year**Start date:** July 1st (not including PEAP period if required)**Application deadline:** September 15th**Contact:** Celine Dery cdery@toh.ca

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Fellowship Director: Dr Pierre Antoine Brown

Background:

The University of Ottawa Hemodialysis Fellowship is a one-year program designed to give you advanced training in the medical management of hemodialysis patients, strong and practical technical knowledge of hemodialysis and water treatment equipment as well as the managerial skills required to head a hemodialysis program.

You will gain experience in a large and diverse program working with faculty with expertise in medical education, clinical research, vascular access and technical support of hemodialysis and water treatment and administration of health care. You will be expected to participate in scholarly activity including a quality assurance or improvement project, while developing clinical expertise in the care and management of patients.

The University of Ottawa Nephrology training program offers an adult nephrology education program, affiliated to the University of Ottawa and accredited by the Royal College. In addition, we also have an AST approved Transplantation fellowship, ASH approved Hypertension fellowship and a Home Dialysis fellowship.

Training will take place within the Division of Nephrology at the Ottawa Hospital and the University of Ottawa. The Division provides hemodialysis care in a tertiary care hospital that serves a population of approximately ~ 1 million. The hemodialysis program is one of the largest in Canada and delivers care to approximately 750 hemodialysis patients in 2 large in-centre hemodialysis units as well as in 6 satellite hemodialysis units of various sizes spread within 120km of the tertiary care centre.

Aim of the Program:

The program will foster interest in clinical knowledge and research in dialysis field, introduce the important concepts of quality assurance and improvement and introduce the roles and obligations of a medical director of a dialysis unit.

Specifically, the trainee will to achieve the following competences:

- a) Ability to independently assess a patient's dialysis prescription, and adjust based on clinical and laboratory parameters.
- b) Ability to write, monitor and adjust initial dialysis orders and identify, investigate and treat complications of dialysis such as intradialytic hypertension, intradialytic hypotension and cramps.
- c) Ability to independently provide longitudinal medical follow-up for patients on hemodialysis including monitoring of dialysis adequacy, and prevention and management of long-term complications of renal disease (such as anemia, bone disease and cardiac disease).
- d) Knowledge of the responsibilities of a medical director of a hemodialysis program, including the ability to perform ongoing quality assurance monitoring. This also encompasses effectively interacting with allied health personnel and hospital administration staff involved in the multi-disciplinary care of individual patients as well as the management of the overall program.
- e) Knowledge of the equipment necessary for hemodialysis water treatment. Ability to understand and apply the international standards for water quality testing.
- f) Become a medical expert in vascular access for hemodialysis, including choice of appropriate access, monitoring and management of access-related complications.
- g) Gain an acceptable level of understanding of modern hemodialysis machines including the ability to troubleshoot most common equipment issues.

Training:

The following structure is proposed for this clinical fellowship which is planned for a period of 12 months:

- a) Initial two-month rotation in the hemodialysis unit following the objectives and schedule of the Royal College of Physicians and Surgeons (RCSPC) training program. This will be evaluated using the rotation specific ITER that is also used by the RCSPC nephrology training program.
- b) Following the satisfactory completion of the initial two month orientation period:
 - i. The fellow is also assigned a 10-month longitudinal rotation in a satellite unit, where he/she will visit patients once per month under the supervision of a senior dialysis expert and provide care for these patients. This will run concurrent to the other months of the rotation.

- ii. Four months of inpatient care focusing on providing care of hemodialysis patients admitted under various services at one of the 2 Ottawa Hospital Campus
 - iii. Two months spent in a large dialysis unit with a focus on care of new chronic hemodialysis patients and well as challenging vascular access cases.
 - iv. Two months spent in a medium sized dialysis unit combined with time dedicated to patients with AKI and AKI specific renal replacement therapies (i.e. intermitted hemodialysis; slow, low efficiency dialysis (SLED) and continuous-renal replacement therapy (CRRT).
 - v. One month dedicated to the as the inception and completion of a quality assurance project in hemodialysis.
 - vi. One month dedicated to working with the hemodialysis technical team during which time the fellow will perfect knowledge on water treatment, quality assurance of water quality and hemodialysis machine maintenance.
- c) Attendance at weekly hemodialysis access rounds and at least once monthly attendance of a half-day vascular access clinic.
- d) Attendance at all Hemodialysis Management meetings (quarterly) and Hemodialysis Clinical Practice meeting, working closely with the medical director of hemodialysis.

Benefits:

The program is expected to raise the level of knowledge in the field of dialysis and increase awareness of advanced concepts related to the care of dialysis patients. Upon graduation, the fellow will be a clinical expert in clinical management of hemodialysis patients as well as in the technical and administrative responsibilities of a hemodialysis physician. By improving the knowledge about the running of the dialysis unit the overall standard of care would improve further.