



THE UNIVERSITY  
OF BRITISH COLUMBIA



# Overview of UBC and BC Renal Home Therapies Fellowship Program

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# Home Therapies Fellowship Program Overview

This 12 month fellowship is offered through collaboration with BC Renal and the UBC's Division of Nephrology.

**Rationale:** The practice of nephrology requires general nephrology knowledge and wide exposure to all aspects of renal replacement options. There is a growing recognition that additional training is needed to obtain expertise in home based therapies- Peritoneal Dialysis (PD) and Home Hemodialysis (HHD).

**Eligibility:** This fellowship program is open to individuals who have completed 24 months of training in an accredited Nephrology program or those who have completed 12 months, under special circumstances, with the approval of the Residency program supervisory and the Home Dialysis Fellowship Training Co-Directors. It is open to both Canadian and non-Canadian trainees; however, Canadian trainees will be given preference in the case of number of applicants exceeding available training positions.

## Program Goals:

- To develop expertise in the delivery of home based therapies (PD and HHD) through extended exposure to large cohorts of patients, clinical circumstances and provincial/ local administrative activities
- To develop expertise in home therapies program management and evaluation at the provincial and local level
- To gain an understanding of provincial and local home therapies program development, implementation, and resource allocation
- To gain exposure to adult home therapies programs and the integration of these into general nephrology care. If desired, exposure to paediatrics home dialysis programs can be arranged
- To gain an understanding of home therapies vendor contract management
- To gain skills in leading quality improvement initiatives and research projects, with the aim to publish findings
- To gain an understanding of the structure and administration of home therapies programs and accountabilities within a larger provincial program

## Program Intake:

- There are 2 home dialysis fellowships available per year with start dates Jan 2 and July 1.
- Submission of applications are due by Sep 1<sup>st</sup> for both start dates.
- Holidays and conference leave (4 weeks, and 5 working days respectively) should be communicated to the supervisor for incorporation into the scheduling, and to the Chief Nephrology Resident for on call rota.

## Evaluation:

Each fellow will have quarterly evaluation sessions with supervisor to:

- Identify progress
- Review milestone standard assessments
- Review BC Renal home therapies project work
- Identify additional learning needs/ wants
- Identify problems or issues with implementation of program

A final evaluation will be completed at the end of the fellowship.

Fellows will receive a certificate of completion after successfully completing the program

## Key elements of the Home Therapies Fellowship Program

### Training Objectives

The fellow will demonstrate:

- Knowledge and understanding of HD machine and dialyzer characteristics, using robust unbiased methodology
- Knowledge to compare and contrast HD machines
- Knowledge to compare and contrast dialysis membrane characteristics
- Vascular access expertise in assessment and insertion
- An understanding of the current literature and research related to home therapies
- Knowledge of PD cyclers, PD techniques and issues related to clearance/ measurement of treatment adequacy
- Knowledge and understanding of PD access techniques, types of PD tubes, including experience in PD tube insertion
- Knowledge of administrative structure and funding of home therapies (PD and HHD) programs
- An understanding of guidelines for HHD and PD clinical practice and program development
- Experience reviewing analytic outputs and analytic methods of administrative and patient level data
- Experience with provincial project/initiatives to support quality improvement on a provincial level
- Presentation of project results formally and informally for the purposes of teaching, administrative meetings and other public forums such as provincial and international conferences
- Gain experience working clinically and administratively with interdisciplinary teams
- Exposure to different care models, programs of various sizes in the province
- Exposure to geographical challenges that may promote interest in home dialysis programs.
- Exposure to different techniques of PD catheter placement (FHA in particular)
- Opportunity to engage HARPS with QA/QI work and/or ongoing clinical research work.
- Knowledge and understanding of the key components of the BC Renal structure and function

### Clinical Exposure (based on assigned training site):

- All HHD clinics and PD clinics at Vancouver Coastal Health authority and Providence Health.
- 2 x two week clinical rotations with other health authority home therapies programs (FH + 1) to observe different care approaches and system differences.
- Rural and Remote Indigenous community visits: For Canadian trainees, 2-3 x 1 week  
For non Canadian trainees, elective option
- 2<sup>nd</sup> on call for general nephrology and transplantation (maximum of 1 weekend per month and additional weekday call not to exceed 1 night per month, averaged over the 12 month experience).
- Assignment to the Consult service x 2 months to maintain general nephrology skill set.

### Leadership and Administrative Exposure:

- Working with BC renal leadership to gain understanding of the role of nephrologist to support home therapies care delivery and continuous quality improvement in patients outcomes at a local program and provincial scale
- Working within the Home Therapies Research Group and the Provincial home therapies committee leadership teams to gain experience and skills with co-leading provincial initiatives including but not limited to: clinical research, projects, guideline reviews, CQI, outcomes evaluation, abstract development and manuscript/report writing. Active participation will be conducted over the course of the fellowship term with completion after the 12-month program if needed.
- Review of provincial program outcomes with provincial directors (HHD and PD) to determine and establish next steps
- Review of existing provincial home therapies guidelines and supporting process to revise
- Presentation to UBC Division of Nephrology (via the Province-wide round structure) re: current state of home therapies locally (at least once during the 12 month program)

### **Program Requirements:**

- Participation at all teaching rounds re: home therapies
- Attendance to all academic rounds of the Division of Nephrology
- Preparation to provide in-services/ teaching rounds for the nursing staff and allied healthcare providers
- Participation and contribution at BC Renal HHD and PD committee meetings
- Participation at all provincial home therapies vendor business meetings
- Development and review of core protocols/ review of teaching materials for fellows
- Attendance at BC Kidney Days
- Attendance at BC Consensus meetings
- Attendance at the Annual Home Dialysis Conference.

### **Program Logistics**

A schedule of activities and expectations will be developed on a monthly rotational basis to ensure cohesive and well rounded exposures to all aspects of home based therapy. Graded responsibility for all aspects of care will be developed, so that a 'senior registrar/ junior staff' type of position is developed for the program.

The schedule will be circulated to the UBC Division of Nephrology members so as to ensure clarity as to obligations/ needs and expectations

## **Program Specific Learning Objectives:**

### **Peritoneal Dialysis: Learning Objectives**

#### **A. Medical Expert**

1. To enhance knowledge base in regards to various PD modalities
2. To understand the techniques of peritoneal dialysis
3. To be the local and provincial resource person regarding PD modalities

## **B. Communicator and Collaborator**

4. To gain clinical experience in working with a multidisciplinary team in the PD program
5. To gain expertise as a physician leader in a multidisciplinary team setting
6. To evaluate and assess patients at all stages of peritoneal dialysis training (from initial assessment to training to chronic management)

## **C. Manager and Health Advocate**

7. To gain experience managing and coordinating routine PD clinical issues
  - a. Access placement and management
  - b. Infectious complications
  - c. Mechanical complications
  - d. Evaluation of PD Adequacy and prescription modeling
  - e. Nutritional assessment
  - f. Transitions to Hemodialysis, with a focus on home hemodialysis where appropriate
8. To participate in the review, updating and creation of new Policies and Procedures relating to PD
9. To develop experience and understanding of administrative principles needed to manage a Peritoneal Dialysis program through attendance to PD program management meetings at the local, regional and provincial level.
10. To gain understanding in the development and management of an assisted PD program
11. To promote the utilization of PD where appropriate, both clinically and in health policy
12. To evaluate strategies for the promotion of PD and develop a process for implementation
13. To evaluate and revise current clinical practice at the local and provincial level to improve delivery of PD based on local and international standards.

## **D. Scholar - resident will develop a plan for (self-improvement) academic activities, and scholarly work**

14. To participate in a clinical research or Quality Improvement project relevant to independent hemodialysis
15. To present to subspecialty Residents in Nephrology Trainees during Academic Half Day on PD related topics
16. To present at a Regional and Provincial Level on Home Therapies topics such as review of a program topic area, presentation of new protocols, presentation of original research.
17. To attend a national or international Home Dialysis Conference (PD University, Home Dialysis Meeting (Annual))
18. To participate in multidisciplinary team education—ongoing support for home therapies nurses, dietitians, pharmacists and social workers.

## **E. Professional - carries out duties in a professional manner**

19. To gain exposure to current guidelines and clinical practice (clinical rounds, journal clubs etc)
20. To participate in all formal PD clinic activities (ie, PD Outpatient Clinics, New Patient assessments, PD Catheter placement, Laboratory / Interdisciplinary Rounds)

## **Home Hemodialysis: Learning Objectives**

### **A. Medical Expert**

1. To gain experience with home hemodialysis clinical practice, including expertise in management of novel and intensive hemodialysis modalities
2. To gain experience with a “2-machine model” and to develop a systemic approach for patient/equipment selection.
3. To understand the technical aspects of hemodialysis, water treatment, access care relevant to home therapies.
4. To be the local and provincial resource person for all aspects of independent hemodialysis

### **B. Communicator and Collaborator**

5. To gain clinical experience in working with multidisciplinary team in home hemo unit
6. To gain expertise as a physician leader in a multidisciplinary team setting
7. To evaluate and assess patients at all stages of independent hemodialysis training (from initial assessment to training to chronic management)

### **C. Manager and Health Advocate**

8. To gain experience in dealing with routine home hemodialysis issues
  - a. Access monitoring and management
  - b. Infectious complications
  - c. Routine equipment ‘Trouble-shooting’
  - d. Evaluation of Adequacy, particularly with respect to intensive therapies
  - e. Nutritional assessment and management, particularly with respect to intensive therapies
9. To offer an opportunity for the Home Therapies trainee to participate in the review, updating and creation of new Policies and Procedures relating to independent hemodialysis
10. To attend all Independent Hemodialysis Administrative meetings at the Hospital, Regional and Provincial Level to develop experience and understanding of administrative principles needed to manage a home therapies program.

### **D. Scholar - resident will develop a plan for Academic activities and scholarly work**

11. To participate in a clinical research or Quality Improvement project relevant to independent hemodialysis
12. To have the occasion to present to Subspecialty Residents in Nephrology Trainees during Academic Half Day on Independent HD related subjects
13. To present at a Regional and Provincial level on Independent HD related topics (ie, review of a topic area; presentation of new protocols; presentation of original research)
14. To attend a national or international Home Dialysis Conference (ie, PD University; Home Dialysis Meeting)

### **E. Professional - carries out duties in a professional manner**

15. To gain exposure to current guidelines and clinical practice (clinical rounds, journal clubs)
16. To participate in all formal Independent HD activities (ie, Outpatient follow up clinics; new patient evaluation clinics, telehealth clinics, Vascular Access Clinic attendance; Laboratory / Interdisciplinary Rounds)

**Other Activities:**

1. To complete training on PROMIS (provincial renal registry and clinical information system) and participate as appropriate in PROMIS development work related to home dialysis care
2. To collaborate with the BC Renal methodology and analytic team for understanding processes, systems and data interpretation.
3. .Monthly evaluation of activities:
  - a. Clinical activities
  - b. Meeting of learning objective milestones
  - c. Review of CQI and/or Clinical Protocol work
4. Q 3 monthly Academic / Research Committee meeting (minimum frequency)
  - d. Home Therapies Trainees
  - e. Supervising physicians (Copland, Singh)
  - f. Statisticians as needed
  - g. Objectives:
    - i. Review of recent literature on Independent HD and PD (Trainee's responsibility)
    - ii. Review of research activities (with statistician support in attendance)