

## TELENEPHRO - Nephrology Telemedicine

<b>Project Name:</b>	TELENEPHRO - Nephrology Telemedicine
<b>Lead Organization:</b>	Beauséjour Hospital Corporation
<b>Category:</b>	Telehealth
<b>Geographic Scope:</b>	Provinces New Brunswick
<b>Project Start Date:</b>	1998/04/01
<b>Project Completion Date:</b>	2000/09/30

## Description

### **Brief Overall Project Summary:**

TELENEPHRO is a nephrology telemedicine program started in May 1998. Developed by the Beauséjour Hospital Corporation, in Moncton, New Brunswick, TELENEPHRO is a unique program in Canada, which includes research and evaluation components. The Corporation is composed of three facilities, including the Dr. Georges-L. Dumont Regional Hospital, which is one of the two centres to offer comprehensive nephrology services throughout the province. TELENEPHRO is designed for renal disease patients located at 100 to 250 km from the Beauséjour Hospital Corporation's Nephrology Centre. The Telenephro Project involves the use of telecommunication technology and computer equipment to link up patients undergoing dialysis treatment at home or at a satellite dialysis centre with clinical nurses, nephrologists and other members of the interdisciplinary care team. The project aims to bring specialist expertise home to both patients and health professionals through teleconsultation, telediagnosis, teleradiology and distance education.

### **Project Objectives:**

- increase the quality of life of renal dialysis patients (greater autonomy, less travel, better opportunity to find or keep a job, staying near with their relatives);
- make it easier for both the patients and the health professionals to access specialized services that are not available in their region;
- continue to provide the best possible renal dialysis care, despite the continually increasing number of patients in need of these specialized care;
- provide education to renal disease patients;
- help reduce morbidity.

### **Brief Description of Technical Aspects:**

Various technologies were selected to allow the most possible applications in renal dialysis: a radiology image transfer system, a dialysis data management system, a videoconference system, as well as a clinical information transmission system.

### **Benefits to the Information Society:**

The team successfully addressed a major challenge by creating a comprehensive, multimedia, automated record, accessible in real time by doctors and the multidisciplinary team, anywhere in the hospital. The software configuration and interface enables them to enter patient data only once when creating the patient record, to remotely evaluate the patient and monitor his or her treatments, as well as to access electronically all of the patient's clinical and radiography data.

### **Target Groups (users):**

The TELENEPHRO project links three sites in NB, as well as home-based patients:

- Regional Hospital Centre in Bathurst, located at more than 250 km north-east from the Beauséjour Hospital Corporation. There is a dialysis unit at the Regional Hospital Centre in Bathurst, but with no resident nephrologist; patients are followed-up by medical internists. The Telenephro Project allows consultation between internists and nephrologists, along with diagnosis, case conferences between multidisciplinary teams, and distance learning for both patients and health professionals.
- satellite centre for haemodialysis in Miramichi, Eastern NB. The patients of surrounding areas go to this unit, instead of going to the Corporation's Nephrology Centre, located at more than one hour's drive from Miramichi. Six patients can be treated at the same time, under the supervision of nurses, who regularly communicate with the nephrologist through videoconference. All of the nursing notes and health care processes are computerized, and can be consulted remotely by nephrologists.

- Big Cove Health Centre, based on an Aboriginal reserve, Eastern NB. The Aboriginal community presents a large number of people with high blood pressure or diabetes. These individuals are at risk of eventually developing a renal disease. A distance learning program aims at prolonging the renal health of these patients.

- home-based patients are linked to the Beauséjour Hospital Corporation's Nephrology Centre through telemedicine technology. The home patients involved are spread across the province. Thanks to telemedicine, nurses and nephrologists of the Corporation can have a remote access to hemodialysis data and to the patient's vital signs. Thus, they are ready to take action and to advise patients, should any complication occur.

**Source of Funding:**

Health Transition Fund (HTF)

**Funding Availability:** No

## Partner Information

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