



Nurses & Informatics: Transforming Healthcare Conference
Toronto
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VALUE-ADDED COMMUNITY OUTREACH: OUTCOMES OF A TELEREHABILITATION SERVICE

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Telehealth coordinator

The Rehabilitation Center

The Ottawa Hospital

What does it look like?





Promotion-Knowledge

- Presentations at Program meetings, Medical Grand Rounds
- Telehealth Service Awareness Week
- Articles in hospital newsletter
- Posters in central admitting office, chart rooms on each unit and in main areas of patient therapy
- Create and arrange opportunities for staff observation



GOALS

- Provide expert clinical information
- Involve the client, their family and health care providers
- Promote on-going exposure and experience with telemedicine technology



OUTCOMES

- Recommendations that are individualized to the client's immediate and future needs
- Recommendations that are feasible within existing community resources
- Support and liaison with resources located in nearby communities
- Opportunities to network with professional colleagues



Process

- Telerehabilitation Protocol
- Telerehabilitation Referral form



Clinical activity

- Diagnostic Categories:
 - TBI-8
 - CVA-10
 - SCI-4
 - MS-1
 - Post-op de-conditioning-1
 - Orthopedic complications-1
 - Swallowing disorders-2
 - Coming up: chronic pain, ALS, respiratory ailments



Clinical Activity

- Number of connections: 27
- Consultations: 24
- Follow-up: 2
- Pre-discharge conference: 1
- In-patients at community hospitals: 3
- Patients traveled to telehealth facility: 2



Reasons for consultation

- Behaviour modification strategies
- Evaluation/assessment for in-patient stay at TRC
- Medication management
- Memory problems-return to work issues
- Decreased mobility-safety issues
- Neuralgic pain issues
- Augmentative communication devices
- Special seating issues
- Need for further surgery for contracture release



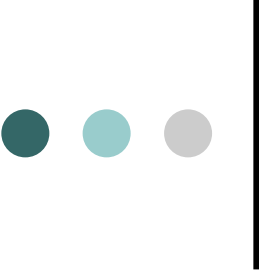
Distant site attendance

- Family physicians
- Patient care attendants
- Rehabilitation case managers
- CCAC nsg/PT/OT/SLP and case managers
- Local hospital PT/OT/nsg
- Private PT/OT
- Family members



Consulting site attendance

- Psychiatrists
- Nursing
- Nurse clinicians
- Occupational therapy
- Physiotherapy
- Speech therapy
- Augmentative Communication Device Clinic
- Special Seating Clinic
- Psychology
- Family members residing in Ottawa
- Translator



Length of time between receipt of request and telehealth connection

- Longest: 82 days
- Shortest: 2 days



Recommendations

- Recording of behavior patterns
- In-patient admission to TRC
- Further tests/investigation required
- Initiate therapies
- Medication regimes
- Activity restrictions
- In-patient admission not required
- Patient teaching; pacing/transfer techniques
- Appropriate home renovations
- Adjustments to disability



Documentation

- Patient entered into SMS and RTIS (referral tracking information) systems by admitting officer
- Assigned hospital number and coded with “TELEMD”.
- Telerehabilitation coordinator completes triage of consultation request.
- Data entered into GRASP workload measurement system.



Documentation

- Standards of documentation of TOH
- Standards of documentation from individual professional colleges
- For example:|
 - Nursing process
 - Risk for Falls Assessment Tool
 - Braden Scale[©] for risk of skin breakdown
 - Pressure Sore Status Tool[©] by Jates-Bensen for pressure sores and surgical wounds.



TeleRehabilitation CLINIC SUMMARY SHEET

THE REHABILITATION CENTRE ● LE CENTRE DE RÉADAPTATION

Location:	Name:	TOH Chart#:
Date:	Address:	
	Phone #	
	Date of birth:	
Referring physician :	WCB/Health# (Exp date):	
	Physiatrist:	
	Preferred language:	

Patient diagnosis:	
<input checked="" type="checkbox"/> Consult	<input type="checkbox"/> Inpatient
<input type="checkbox"/> Follow-up	<input checked="" type="checkbox"/> Outpatient (lives at home)
<input type="checkbox"/> Uni-discipline	<input type="checkbox"/> Nsg/Grp home _____ (name of home)
Reason for consultation:.	

Remote site:
Patient seen with:
Recommendations discussed with:

TRC site:
Client seen by: <input type="checkbox"/> Nurse: <input type="checkbox"/> Occupational Therapist:
<input type="checkbox"/> Orthotist _____ <input checked="" type="checkbox"/> Physiatrist:
<input type="checkbox"/> Physiotherapist: <input type="checkbox"/> Prosthetist _____
Report from <input checked="" type="checkbox"/> : <input type="checkbox"/> Psychologist _____ <input type="checkbox"/> Seating _____
<input type="checkbox"/> Social worker _____ <input type="checkbox"/> Speech pathologist: _____
Telehealth coordinator: Christine Rochefort ext. 75406

Clinic Summary to client/family, referring physician , family MD
Reports to referring physician.
Aids & devices recommended _____ Date prescribed _____
_____ Date received _____

Date revised: 2004 Nov 22



Data Collection

- Excel spreadsheet
- Sorting of Information
- Future refinements:
 - Lickert scale on feedback form
 - Ratings for effectiveness of service delivery
 - Practicality of proposed recommendations/interventions

City	Pembroke	New Liskeard	Comwall	Arnprior	Glengary
TOH Chart #					
Referral Rec'd	18/01/2005	24/11/2004	20/12/2004	20/12/2004	20/01/2005
Referral Processed	24/01/2005	21/01/2005	21/01/2005	21/12/2004	08/02/2005
Date of Transmission	27/01/2005	01/02/2005	03/02/2005	17/02/2005	10/03/2005
Referring Physician	Dr. Timpson	Dr. Glen Percy	Dr. Reen	Dr. J. Kiskis	Dr. Ashok Nadkarni
Patient Name					
Diagnosis	TBI	Pontine Stroke	TBI	CVA-Dec 05/2004	surgical removal of meningiomas
Reason for referral	agitated behaviour, restlessness. Review ABI approach; medications	difficulty with concentration, fatigue, word finding, loss of balance and increase in falls	assess for in-pt TBI program at SCO	appropriateness for in-pt stroke program	CCAC team involved. Family wants her assessed by TRC.
TRC Clinicians	Dr. Marshall, nsg	Dr. Deforge, resident, nursing	Dr. Marshall, nsg, rehab case manager, interpreter, Dr. MacGregor as observer	Dr. Dan Deforge, nursing	Dr. Shawn Marshall/nursing
Site Clinicians	pt, family, OT	pat, physio	pt, family, OT, SW	patient, physio	patient, family, CCAC OT/PT/case manager
Recommendations	recommend decrease schedule for Noznan med. No return to driving without eval. No return to present employment for May 1st/05. No return to downhill skiing for present. Recommend initiating cognitive SLP prior to scheduled neuropsych eval with Mark Ferland. Donna Peeling to make arrangements.	recommend sleep study to investigate poor concentration, non-restorative sleep and decreased initiation. Results to be cc to Dr. Deforge. Education re: pontine stroke reviewed with patient. Neuropsych testing not recommended at this time, however if insurance company wants this done, there are two neuropsychologists available in Northern Ontario. Names available through telehealth coordinator @ TRC	recommend out-pt rehab with translator. Reassess after pt receives new glasses and hearing aids. Recommend supervised living arrangements.	deficits more sensory than motor-in-pt rehab would not be useful. Recommend family MD order for CCAC OT for home safety assessment. Education provided re: cause and management of stroke related to fatigue and patient's wishes to resume exercise. Reinforced lifestyle changes such as decreased smoking, dietary, lipid and hypertension monitoring. Patient continues to be seen by Dr. Attack.	
Follow Up	after neuropsych report is available patient wants to come to Centre	after results of sleep study reviewed.	none required	none	
Date css sent to ref source	27/01/2005	01/02/2005	03/02/2005	21/02/2005	
Date OACIS report sent to ref source	22/02/2005	21/02/2005	22/02/2005	03/03/2005	



Baseline Measurements

Frequency of requests

Consultation vs follow-up, which diagnostic categories

Length of time before patient is seen by rehabilitation specialists

From the time the referral is received in admitting, how much time to complete triage, how long the wait list is,

Client feedback & Clinician feedback

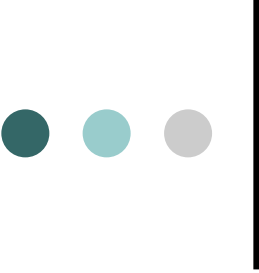
Comfort level with technology, patient issues being addressed, communication between healthcare providers.

(This is in addition to the Provincial Telehealth Networks patient feedback form)



Client and Clinician Feedback

- Would they use telehealth services in the future: 100% said yes
- “next best thing to the real thing”
- “this was an extremely positive experience for the family. A great learning opportunity”
- “participate in a way that is not possible when patient is at an out-of-town consultation”
- “questions were answered immediately. Very client focused”
- “very well organized. Saves time, energy and money for the patient”



Future outcome measurements

1. Effectiveness of TeleRehabilitation Clinic Summary Sheet as a interim communication tool

- primary care physician and allied health care providers in remote sites-Sept/October 2005

2. Impact of Telehealth on clinical practice

- allied health care providers of consulting site-2005



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