

Taking a Planned & Comprehensive Approach to Renal Services

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Canadian 2007 - RRT numbers

Table 3 Incident Patients on Dialysis, by Type of Treatment and Province of Treatment, Canada, 2007 (Number, Percent)

Type of Treatment		Province of Treatment [†]									Canada
		B.C.	Alta.	Sask.	Man.	Ont.	Que.	N.B.	N.S.	N.L.	
HD	N	505	407	149	207	1,812	904	99	144	79	4,306
	%	75.8	81.2	76.8	82.8	79.8	89.4	90.0	85.2	94.0	81.9
CAPD*	N	101	88	43	28	285	94	10	24	5	678
	%	15.2	17.6	22.2	11.2	12.5	9.3	9.1	14.2	6.0	12.9
APD [†]	N	60	6	2	15	174	13	1	1	0	272
	%	9.0	1.2	1.0	6.0	7.7	1.3	0.9	0.6	0.0	5.2
Total	N	666	501	194	250	2,271	1,011	110	169	84	5,256

Notes

* CAPD: continuous ambulatory peritoneal dialysis.

† APD: automated peritoneal dialysis.

‡ British Columbia includes the population of the Yukon; Alberta includes the populations of the Northwest Territories and Nunavut; Nova Scotia includes the population of Prince Edward Island.

Ontario's dialysis stats

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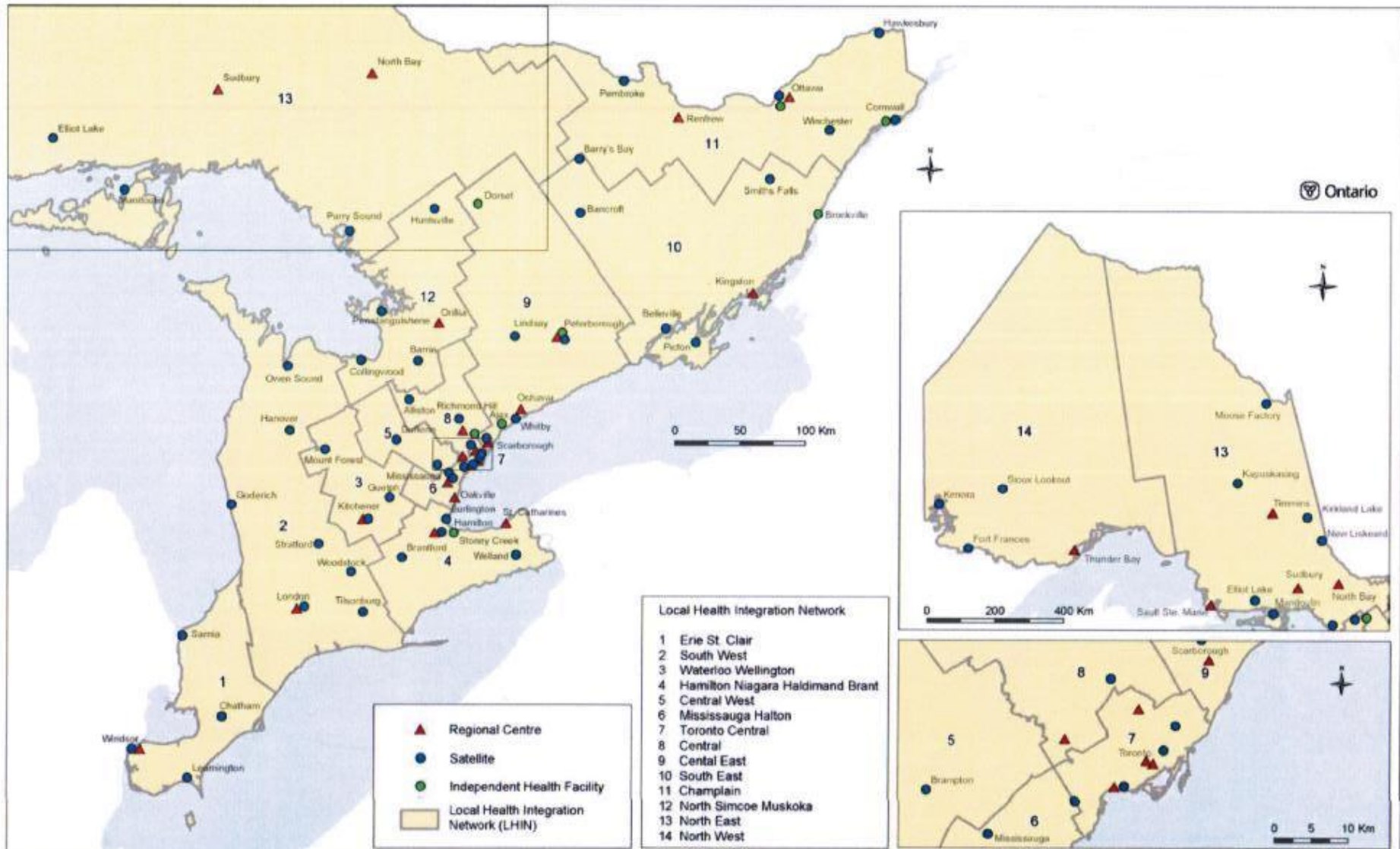
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Renal Care...Current Hospital Crisis

- Generally negative towards further dialysis expansion
 - Capital costs
 - Impact on inpatient beds, ICU etc.
 - Funding formulas
- In University settings, dialysis not a priority program
 - The largest Toronto hospital has capped its in centre hemodialysis program
- Budget deficits, accountability agreements.., not to over spend ???
- Expansionb proposals are shelved while other goals are pursued

Chronic Kidney Disease Program



Meeting the Needs of the Ontario's Renal Disease Community

- Hub and Spoke Model of Care was developed to meet and reach patients throughout the vast region of Ontario
- Model cloned from Australia's and England's health care delivery system
- 25 Chronic Kidney Disease's Regional (HUB), centres were created for the province of Ontario
- 60 satellite centres were created and attached to respective Regional Centres
- 7 Independent Health Facilities (IHF'S) were also developed and connected to Regional centres for support

CKD Program – Why Special Attention?



CKD Program – Why Special Attention?

- Impact of a dialysis program beyond the provision of dialysis services is intense
 - Personnel
 - Hospitalization
 - Invasive procedures (access-related complications), interventional radiology & surgical support
 - Provision of home care services
 - Rehabilitation, long term care, palliative services
 - Support for other services
 - Oncology
 - Cardiac surgery
 - Critical care

CKD Program – Why Special Attention?

- In spite of significant investment in renal replacement services, the system does not have excess and endless capacity, it is still hard pressed to meet today's needs much less those over the next five years
- The situation has become untenable for everyone. The Ministry of Health of Ontario is unable to plan and budget realistically to meet the needs of people who will be diagnosed with ESRD over the coming years

CKD Program – Why Special Attention?

- Major component of the program is the Renal Replacement Treatment (RRT) – dialysis treatments, timely access to this life-sustaining service is critical.
- Studies show that dialysis services will continue to grow given its direct relationship with the co-morbidity chronic diseases that are still on the rise, e.g. diabetes.
- Need for early detection and management of the health condition is required.
- With the creation of regional programs, many renal services will be shifted to the community...goal of the Ministry of Health therefore reducing the stress on hospital resources

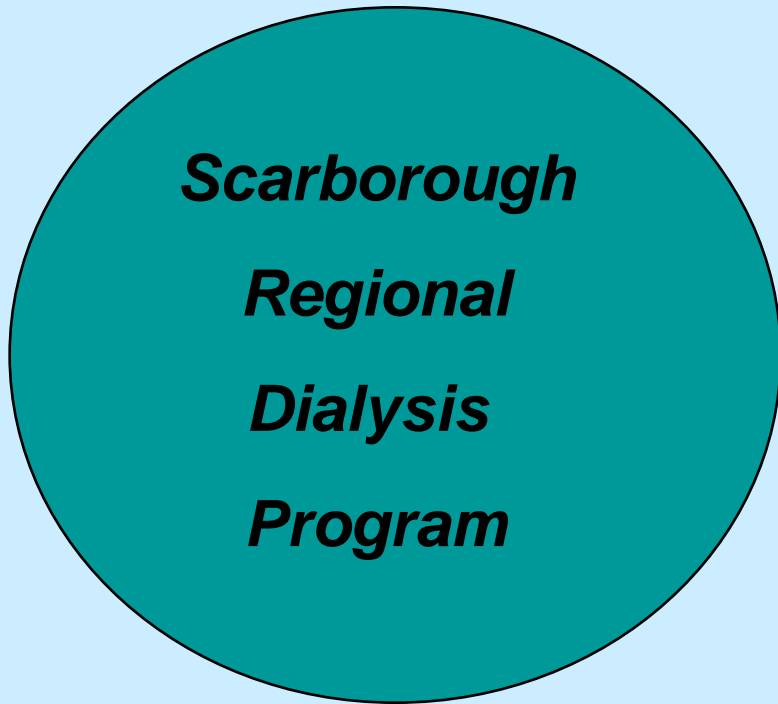
Clinical Services Provided by CKD Regional Centres

Program	Services
1. Acute Kidney Injury Program	<ul style="list-style-type: none">•ICU services for previously healthy individuals who have abrupt sustained decrease in kidney function•Continuous Renal Replacement Therapy (CRRT) – done in hospital by intensivists or nephrologists, depending on the program
2. Chronic Kidney Disease (CKD) Program	<ul style="list-style-type: none">•Pre-dialysis and treatment options clinics•Nephrology clinics - CKD management
3. In-Centre Dialysis Program	<ul style="list-style-type: none">•Level I Chronic Hemodialysis•Level II Chronic Hemodialysis•Level III Chronic Hemodialysis•Hemoperfusion services•In-hospital peritoneal exchanges•Follow-up clinics

Clinical Services Provided by CKD Regional Centres

Program	Services
4. Home Dialysis Program	<p>Training</p> <ul style="list-style-type: none"> •Home Hemodialysis (daily/nocturnal) •Continuous Ambulatory Peritoneal Dialysis (CAPD) •Continuous Cycler Peritoneal Dialysis (CCPD) <p>Maintenance</p> <ul style="list-style-type: none"> •CAPD •CCPD adult •CCPD pediatric •Home Hemodialysis <p>Home Visits</p> <ul style="list-style-type: none"> •Nursing (follow-up) •Technician (equipment repair and maintenance)
5. Body Access Creation and Maintenance	<ul style="list-style-type: none"> • Central venous catheter insertions (permanent) •Central venous catheter insertions (temporary) •AV fistula insertions •AV graft insertions •PD catheter insertions
6. Transplant Program	<ul style="list-style-type: none"> •Cadaver donor •Living donor •Post transplant clinics (for individuals awaiting transplant / had a transplant) <p>•RESPONSIBILITY FOR TRANSPLANTS SHARED BETWEEN TRANSPLANT CENTRES IN TERTIARY CENTRES AND CKD REGIONAL PROGRAMS</p>

Regional Centre (HUB) - Expectations



The **HUB** of the network for defined geographic region.

- Responsible, **accountable for CKD** care throughout its catchment area, including areas served by its satellite
- Oversee the management of all levels of CKD patients and the coordination and integration of services within its network through a **regional structure** composed of CKD services partners and stakeholders (e.g. committee)
- Maintain linkages with tertiary centres
- Direct recipients of Ministry funding for CKD services

Regional Centre (HUB) - Expectations

- Administer and coordinate the **continuum** of services in their network
- Service development and planning
- A **multi-disciplinary team** provides the professional, administrative and clinical expertise and backup, educational support, training and support services for its assigned satellites
- Oversee the management and assume responsibility for the direct care of any patient being treated within the network and maintain capacity to meet “ **in-hospital needs**”

CKD – Hub and Spoke Model

Regional Centre Role:

- Administer and coordinate the **continuum** of services in their network.
- Service development and planning.
- A **multi-disciplinary team** provides the professional, administrative, and clinical expertise and back-up, educational support, training, and support services for its assigned satellites.
- Oversee the management and **assume responsibility** for the direct care of any patient being treated within the network and maintain **capacity to meet ‘in-hospital’** needs.
- Requires in-patient bed capacity to support satellites
- Develop and manage data base program to audit and monitor care

Satellites - Descriptions

*Independent
Health Facility
Home Dialysis
Satellite A*

*Toronto East General
78 Corporate Drive
Satellite B*

*Bridgepoint
Health Centre
Satellite C*

Category A Satellite

- *Do not have medical back-up services such as cardiac monitoring or resuscitation, or a capacity for more complex patient care*
- *Restricted to the treatment of self-care and chronic stable patients*

Category B Satellite

- *Back-up medical assessment protocols using on-site medical staff (No on-site nephrologist)*

Category C Satellite

- *Back-up medical assessment protocols using on-site nephrologists*

CKD – Hub and Spoke Model

Tertiary Centre Role:

- Provide a **full continuum of nephrology care** for population within their primary catchment area.
- Deliver **chronic and acute dialysis treatment** in conjunction with **tertiary health services** on an in-patient or outpatient basis and kidney transplantation to the Regional Program based on negotiated partnership agreements.
- Conduct **research** through their association with Academic Centres.
- Require **in-patient bed capacity** to support both their regional role and their tertiary care role.

Multi-Disciplinary Team

Multi-disciplinary Team

- Nephrologists
- Vascular Surgeons
- Radiologists
- Urologists
- Registered Nurses
- Dietitians
- Pharmacists
- Social Workers
- Renal Technologists

May also include:

- Clinical Nurse Specialists
- Registered Practical Nurses



**Human
Resources
available at
the
HUB**

*(All human resources are
available to the spokes of
the regional programs,
the Hubs)*

Independent Health Facilities (IHF)

- Licensed to provide hemodialysis
- Patients are chronic and stable (Level I & II) and referred from the CKD Regional Centre
- If patient becomes unstable, transferred to CKD Regional Centre/Tertiary Centre
- CKD Regional Centre responsible for counseling (social worker), dietician, etc.
- Governed under a separate statute – IHF Act
- Funded by Alternate Payment Programs Branch of MOHLTC
- IHFs must participate in a quality assurance program to protect patient care
- Clinical Practice Parameters and Facility Standards (CPPs) are developed and published by the College of Physicians and Surgeons of Ontario
- Assessments are conducted of IHFs to determine compliance with the CPPs

CKD – Hub and Spoke Model

Satellite:

- Facility that has a **full affiliation** with a Regional Centre
- Provides **hemodialysis treatment** for CKD patients within their geographic catchment area
- Clear **patient transfer protocols** in place between satellite and Regional Centre, should need arise
- Regional Centres and satellites expected to reach a funding agreement regarding patient transfers
- Multi-disciplinary team associated with the Regional Centre **oversees** the care of patients receiving hemodialysis at a satellite
- Receive Ministry **funding** for CKD services through Regional Centre

Conclusion

Regional programs will provide nephrologists and patients with what they really need:

- Unlimited access to general nephrology, CKD and ESRD care
- Timely dialysis expansion planning, early proposals to MOHLTC, expansion before capacity is reached

Thank you...Comments?