

PROVINCIAL PERITONEAL DIALYSIS
COORDINATING COMMITTEE

PROVINCIAL PERITONEAL DIALYSIS JOINT INITIATIVE

RESOURCE MANUAL

DETAILED STRATEGY ON INCREASING PERITONEAL DIALYSIS
(PD) USE IN ONTARIO

December 18, 2006

Table of Contents

COMMITTEE MEMBERSHIP/CONTRIBUTORS	2		
SECTION 1		SECTION 3	
BACKGROUND	4	ESSENTIAL ORGANIZATIONAL SUPPORTS	71
THE VISION	7	SECTION 3 a	
ACHIEVING THE VISION	7	COMMUNITY CARE ACCESS CENTRE (CCAC)	73
CKD CARE MAP	8	SECTION 3 b	
IMPLEMENTATION PLAN	9	LONG-TERM CARE HOMES	79
SECTION 2		SECTION 4	
PROVINCIAL PD COORDINATING COMMITTEE APPROACHES AND METHODS	11	DATA MANAGEMENT	94
ACTION PLAN	11	SECTION 5	
Section A		OUTSTANDING ELEMENTS	109
EARLY REFERRAL	12	SECTION 6	
SECTION B		CONCLUSION	111
INITIAL ASSESSMENT & TRIAGE	14	APPENDICES 1 1 2	
SECTION C		APPENDIX A: TREND GRAPHS	113
PRE DIALYSIS CARE	38	APPENDIX B: HD:PD RATIO IN ONTARIO	114
SECTION D		APPENDIX C: TERMS OF REFERENCE	115
PD TRAINING AND EDUCATION	53	APPENDIX D: MEMBERSHIP	118
SECTION E		APPENDIX E: PD INITIATIVE FRAMEWORK	123
PD CATHETER IMPLANTATION	64	APPENDIX F: CKD CARE PATHWAY	124
SECTION F		APPENDIX G: BIBLIOGRAPHY	125
RETENTION ON PD	67	APPENDIX H: FOOTNOTES	128

COMMITTEE MEMBERSHIP / CONTRIBUTORS

PROVINCIAL PD COORDINATING COMMITTEE (See Appendix D)

Co-Chairs: **Dr. Dimitrios Oreopoulos, MD, PhD, FRCP(C)**
Ms. Sandra Coleman, B.B.A, LL.B.
Also representative for the Ontario Association of Community Care Access Centre (OACCAC)

Project Manager **Ms. Ethel Doyle, RN, BScN, CNeph(C), MHSM**

Task Group Co-Chairs:	Task Group
Dr. Matthew Oliver	Chair: Initial Triage & Assessment
Ms. Sharon White	Co-Chair: Pre Dialysis Education
Ms. Denise LeBlanc	Co-Chair: Pre Dialysis Education
Ms. Sharron Izatt	Co-Chair: PD practice/Clinical Guidelines
Ms. Karen Roosen	Co-Chair: PD practice/Clinical Guidelines
Ms. Nancy Kelly	Co-Chair: Staff training & Education
Ms. Lucie Cayen-Houle	Co-Chair: Staff training & Education
Ms. Sally Davis	Tri-Chair: Data Management
Ms. Ainsley Gillespie	Tri-Chair: Data Management
Ms. Helen Brenner	Tri-Chair: Data Management
Dr. Brendan McCormick	Chair: Retention

Executive Members:

CCAC Ms. Jennifer Scott
Ms. Cathy Hecimovich
Ms. Susan Roberts
Ms. Joan MacIntosh
Ms. Maureen Kitson
Ms. Aldene Rankin

LTC Homes Ms. Stella Au-Yeung Leung
Ms. Krista Robinson-Holt

Ontario Association of Nephrologists (OAN):
(Appointed representatives by OAN) Dr. Brendan McCormick
Dr. Bharat Nathoo

Kidney Foundation of Canada Ms. Janet Bick, Director: Government and Professional Relations

COMMITTEE MEMBERSHIP/CONTRIBUTORS

PROVINCIAL PD COORDINATING COMMITTEE (Con't)

Institute for Clinical Evaluative Services	Dr. Jan Hux
Ministry of Health and Long Term Care	Ms. Ginette Daigle Ms. Natalie Diduch Ms. Susan Furino Ms. Julie Girard

We gratefully acknowledge the collaborative effort toward the completion of this report by the members of:

The Provincial PD Coordinating Committee Task Groups.

**Complete Membership list found in the appendices.*

And

The ministry leadership and support provided to this initiative by:

Mary Kardos Burton – Assistant Deputy Minister: Acute Services Division
John McKinley – Assistant Deputy Minister, Community Health Division
Peter Biasucci— Acute Services Division
Irene Medcof— Community Health Division
Tim Burns— Community Health Division
Lydia Steward-Ferreira—Community Health Division



INTRODUCTION

Background

The Provincial Peritoneal Dialysis (PD) Initiative was established by the Ministry of Health to address these challenges by increasing the use of PD in Ontario from the present 17% to 30% by 2010 and to promote a standardized, consistent, and integrated delivery of PD services throughout Ontario.

There are a number of surveys and articles published that indicate that 30% PD modality mix is appropriate.

Two surveys, one in North America¹ and one in the United Kingdom² indicates that based on the opinions of nephrologists, 30-40% PD is the right distribution mix for PD.

In papers by Manns et al³, Mehrotra et al⁴, and Marone et al⁵, all indicated that with early patient education of dialysis modalities, 30%-40% of patients chose home dialysis.

The Provincial PD target was established in response to the following observations:

- Continued rise in ESRD (8-10% annually; See Appendix A). Approximately 1400 new dialysis patients per year in Ontario and an ESRD prevalence in 2006 of 8700 patients.⁶
- The escalating pressure needed to sustain current dialysis modality utilization practices (e.g. exhausting of available in-hospital dialysis treatment capacity)

¹ American J Kidney Disease. 2001 Jan;37(1):22-29. What do American Nephrologists think about dialysis modality selection?

² Nephrology Dial Transplant. 2002 Mar;17(3):474-7. *Attitudes of British Isles Nephrologists towards dialysis modality selection: a questionnaire study.*

³ Kidney International, 2005; 68, 1777-1783 *The Impact of Education According to Kidney Disease Patients' Plans to initiate Dialysis with Self-Care Dialysis: A Randomized Trial*

⁴ Kidney International, 2005; Jul;68(1): 378-90 *Patient education and access of ESRD patients to renal replacement therapies beyond in-centre hemodialysis.*

⁵ Peritoneal Dialysis International, 2005: Feb; 25 Suppl 3: s56-9 *Analysis of Patient Flow into Dialysis: Role of Education in choice of dialysis modality.*

⁶ Ministry of Health, 2006

Provincial PD Joint Initiative: Report on the delivery of PD in Ontario

- Barriers to cost effective care
- Needed improvement to meet the needs of the elderly population
- Continued decline in the use of PD in Ontario (See Appendix B)

The proposed planning process highlights the elements that need to be carried out by programs to help them establish growth of their PD programs whilst creating targets within timeframes that are realistic and achievable by the individual program. The Committee acknowledges the different circumstances that exist within programs that impact their abilities to achieve growth of their PD programs.

Through the work of the Provincial PD Coordinating Committee, a series of recommendations were developed. These recommendations were derived from the Committee members' expertise and from feedback obtained by key stakeholders and were led under the direction of the two Committee Co-Chairs: Dr. Dimitrios Oreopoulos and Sandra Coleman. Both co-chairs ensured content of both reports appropriately reflected the feedback received from the field and from key stakeholders and provided final approval of both reports for submission to the ministry.

The intention of this initiative is not to merely promote PD as the only home dialysis option, but more importantly to develop a process that makes improvements within the nephrology community in partnerships with community stakeholders to support and encourage all home dialysis modalities. The Provincial PD Coordinating Committee acknowledges other forms of home dialysis therapies for ESRD patients. Canadian Nephrologists have endorsed home dialysis modalities (both PD and HD) as an initial modality since 1997⁷ and the Canadian Society of Nephrology (CSN) has established guidelines regarding ESRD care that supports the use of home dialysis therapies.⁸ Although all forms of home dialysis are encouraged as initial modalities for suitable patients over in-centre HD, the document as well as the Summary Report is on Home PD.

This resource manual was written as an accompanying document to the Provincial Peritoneal Dialysis (PD) Coordinating Committee's Summary Report to provide details of the recommendations, action plans, strategies, implementation plans, and tools created by the Provincial PD Coordinating Committee's Task Groups. These elements outline the strategies on how to implement the recommendations that will enable best PD practice and performance targets. Readers are encouraged to read the Summary Report to gain an understanding of the background that directed the work of the Provincial PD Coordinating Committee and to utilize this resource manual as a means of directing the actions required to implement the recommendations and action plans of the Provincial PD Coordinating Committee so as to achieve the standards of PD care in Ontario and move towards the Provincial PD target.

The content of the manual is organized following the elements of the Chronic Kidney Disease (CKD) care map (See Figure 1, or Appendix F). Consistent with the CKD Model of Care, this resource manual is intended to standardize and support care providers in the provision of PD to achieve the initiative's objective to increase use of PD in Ontario to 30% by 2009/2010.

⁷ Annals RCPSC, 30;271-273: 1997

⁸ Canadian Society of Nephrology, 1997

Provincial PD Joint Initiative: Report on the delivery of PD in Ontario

One year after the official launching of the initiative by the ministry, stakeholders from the field (CKD programs, Community Care Access Centres (CCACs), Long-Term Care (LTC) Homes, and other community partners) met once again to plan the implementation of the PD initiative. As part of this process, the field identified key actions that are required to begin the implementation process of the initiative (See pg. 10: Implementation Plan).

The ministry was aware of numerous benefits brought forth by home dialysis modalities and acknowledged not only the cost benefits of providing and supporting health care needs of patients at home versus in hospitals, but the many health and quality of life outcomes associated with home support.

Of all the home dialysis modalities, PD seemed to be the simplest and most feasible dialysis modality to focus on initially, given the requirements to support this initiative. The responsibilities of the CKD programs, defined in the current CKD Model of Care, facilitate the necessary components required to lead and implement this initiative especially the training and education required to help community supports acquire the skill sets necessary to provide PD.

The Provincial PD Coordinating Committee was empowered to advise the ministry and CKD providers on strategies to overcome the issues and barriers to PD use in Ontario. (See Appendix C,D, & E)

The implementation of the PD Coordinating Committee strategies will make the system more responsive to patients in need, allow dialysis services to be used uniformly and more efficiently, prevent acute resources from being unnecessarily utilized, and better meet the needs of the elderly.

The Vision

The vision for PD services in Ontario is that PD will be readily available to patients who are fully informed of their dialysis choices. Ontario CKD providers will offer standardized clinical PD practice that reflects the latest evidence. PD will be delivered by educated health care professionals who all share a common knowledge and skill level based upon measurement and benchmarking through the support of continuous improvement practices that will ensure PD services remain a vital and an attractive option for patients to reduce disease related morbidity and increase the quality of life.

Achieving the Vision

In the short term, opportunities to slow or hold the ESRD growth in Ontario are limited. However, it is possible to implement service mix opportunities that make treatment more convenient, accessible, efficient and sustainable for patients, service providers, and for the overall health care system.

The approach to achieving the vision of PD in Ontario is guided by the CKD care map (See figure 1 pg. 8). The care map outlines the processes required to fulfill the PD vision.

The plan focuses on the components of the CKD care map beginning with Early Referral (which is not limited to PD but increases patient likelihood to choose PD), and ends with the patient being maintained on PD.

It is acknowledged that there are other components within the CKD care map that influence and address other dialysis modalities; however, for the purposes of this initiative, PD is the modality of interest and focus. Other initiatives will address other components of the care map (e.g. nocturnal, home HD, etc.)

CKD Care Map

The CKD Care Map (See Figure 1) was created to direct the provision of all services required to manage CKD in a coordinated and consistent manner. The components that make up this care map, outlines the elements of care required throughout the full continuum of care spectrum. By following a consistent care pathway, patients, regardless of region, should have ready access to services and resources from hospital-based providers to community providers for support of PD. The CKD Care Map provides a consistent approach to achieving the vision for PD delivery in Ontario.

Figure 1

CKD CARE MAP DIALYSIS SELECTION

PD Service Initiatives

EARLY REFERRAL

INITIAL ASSESSMENT & TRIAGE

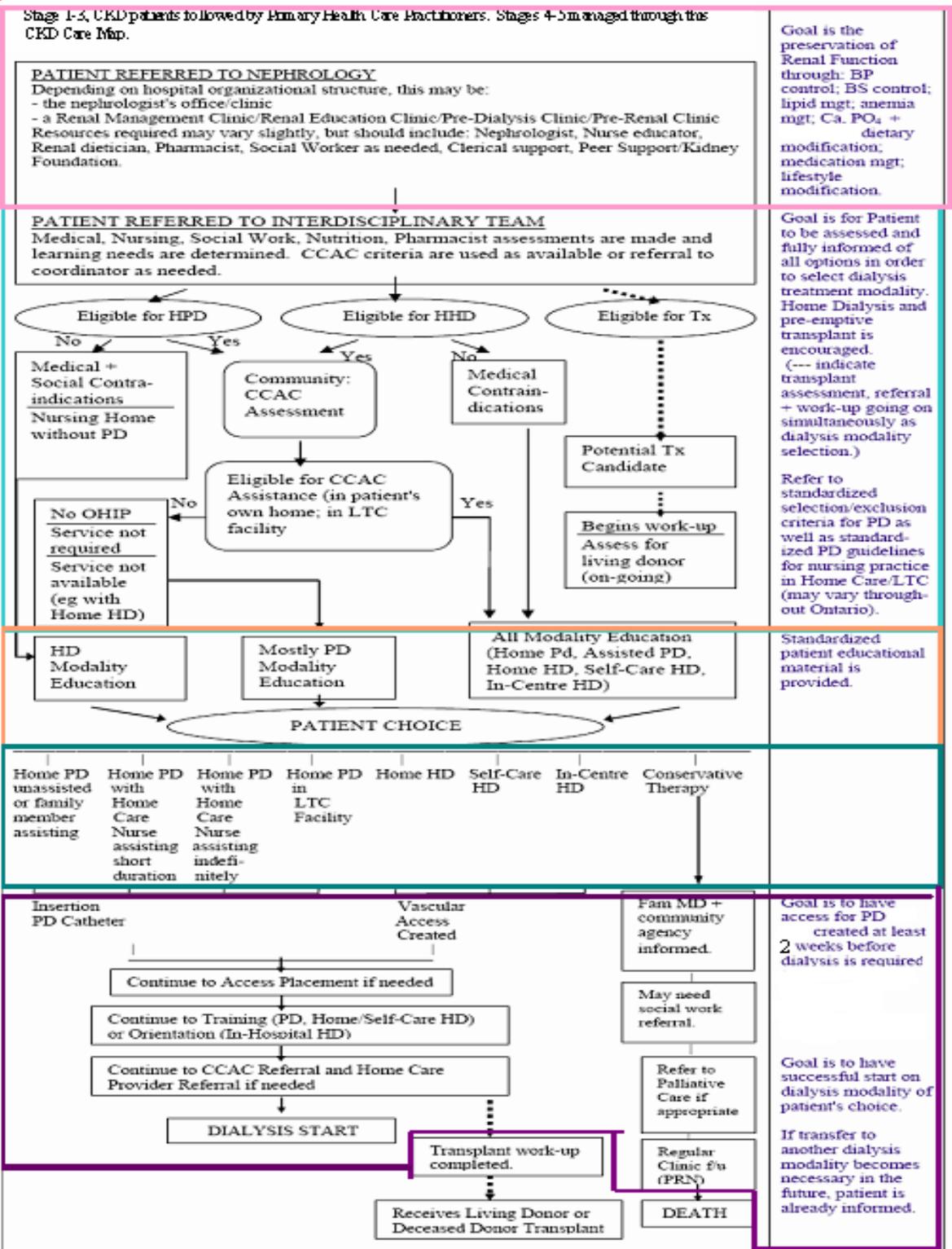
Data Management

PRE-DIALYSIS EDUCATION

PD STAFF TRAINING AND EDUCATION

INDICATE THE INTERPOINT

RETENTION ON PD



References: Hamilton CCAC, Humber River Regional Hospital, Lakeridge Health Centre; London Health Sciences Centre, Soldiers Memorial Hospital (Orillia), Sunnybrook + Women's College Health Sciences Centre -- January 2006
Legend: CKD-Chronic Kidney Disease; CCAC-Community Care Access Centre; PD-Peritoneal Dialysis; HPD-Home Peritoneal Dialysis; HD-Hemodialysis; HHD-Home Hemodialysis; Tx-Transplant; LTC-Long Term Care

Implementation Plan

A 3-phased implementation plan outlines the tasks and expectations of the field to move this initiative forward.

Phase I

Phase I focuses on creating standard practice and process in the delivery of PD care through 4 key process areas and recommends enhancements and/or monitoring to three core service components.

The 4 key process areas include:

1. Standardized content/elements of a triage and assessment process
2. A core curriculum for pre-dialysis education
3. A core curriculum for PD staff training and education
4. A standardized clinical pathway for care of CKD patients

The three key core service components requiring enhancements and/or monitoring include:

1. PD catheter implantation
2. PD allocations to CCAC
3. Increasing the number of LTC homes providing PD

The development of standardized practices incorporated evidence based guidelines and best practices. As stakeholders implement the Phase I strategies, the Provincial PD Coordinating Committee and stakeholders will identify the resources needed to set in motion the activities that get initiative in Phase I. Phase I will also involve the collection of key indicators for establishing benchmarking and outcome studies. (See Timeline diagram: Pg. 10)

Phase II

Phase II of the implementation plan will involve a business case for required resources using the data collected and opportunities identified in Phase I and proposed changes to a number of system and funding policies that enhance support for PD. Phase II also includes the full implementation of allocated resources identified during phase I

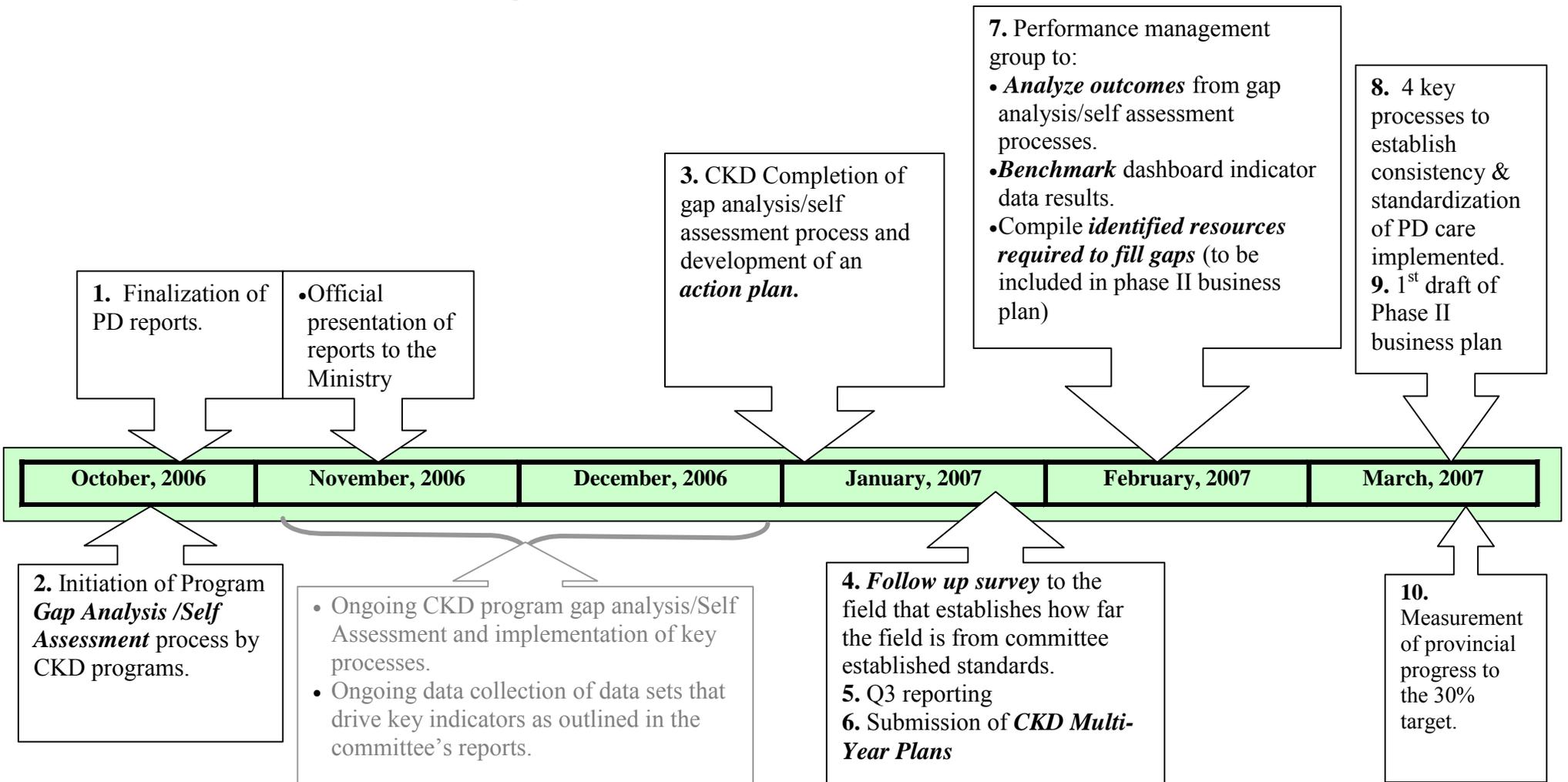
Phase III

Phase III is the consolidation phase. Here the policy and funding enhancements will be fully aligned and the results of system integration demonstrated.

There is much to be learned from the process and outcomes of implementing this PD initiative. The processes involved in increasing PD in Ontario will facilitate future processes, resource needs, and approaches needed in supporting and increasing use of other forms of home dialysis therapies.

The Provincial PD Initiative -- Implementation Plan

Timeline: Peritoneal Dialysis Initiative Next Steps: Plan



PROVINCIAL PD COORDINATING COMMITTEE APPROACHES AND METHODS

Action Plan

The following sections (sections A through F) outlines the specific approaches and methods to achieving the Provincial PD Coordinating Committee's action plan across the CKD care map. The recommended indicators and measures for each section are listed as well as examples of tools to direct the implementation of the work developed by the Provincial PD Coordinating Committee.



Early Referral

Early referral is defined as a patient receiving their first nephrology visit 4 or more months prior to start on dialysis.⁹ In general, patients with estimated glomerular filtration rate (eGFR) of less than 30ml/min (stage 4 CKD) and an ideal time of at least 12 months prior to the need for End Stage Renal Disease (ESRD) treatment should be considered for referral to Nephrologists.¹⁰ The Canadian Society of Nephrology has developed guidelines that identify patients at risk of CKD progression and guidelines for referral to a Nephrologist.¹¹

Late referrals are considered to be patients who receive their first nephrology visit less than 4 months before starting dialysis.¹² Research has shown that these patients have a higher risk of death 1 year after initiation of dialysis than patients who are not referred late.¹³

CKD patients should undergo regular assessment for impairment of functioning and well being to:

- establish a baseline and monitor changes in functioning and well-being over time
- assess the effect of interventions on functioning and well-being.¹⁴

The implementation of eGFR (estimated Glomerular Filtration Rate)¹⁵ makes it easier for the primary care team to identify patients with CKD at a time when treatment options can be considered, discussed and proactively planned. There is a potential to foster the development of a co-managed model where the expertise of the nephrologists can be implemented in care

⁹ Nephrology Dialysis Transplantation, 19, pp. 1808-1814, 2004.

¹⁰ CMAJ 1999; 161: 413-417 (Endorsed by the Canadian Society of Nephrology (CSN))

¹¹ Canadian Society of Nephrology: *Care and Referral of Adult Patients with Reduced Kidney Function*; September 2006.

¹² CMAJ 1999; 161: 413-417 (Endorsed by the Canadian Society of Nephrology (CSN))

¹³ Nephrology Dialysis Transplantation, 19, pp. 1808-1814, 2004.

¹⁴ KDOQI CKD Guideline 12, Association of Level of GFR with indices of functioning and well-being, 2000

¹⁵ eGFR is a mathematical calculation based on several readily available parameters that measures Glomerular Filtration Rate (kidney function).

plans managed by the patient's primary care provider especially in early CKD stages (stages 1-3).

Early referral enables time for education and awareness regarding dialysis modalities available for treatment and facilitates these patients to choose a home modality. However, early identification of CKD is an aspect within the CKD Continuum of care that is under-developed. In order to have an impact on the growth of ESRD in Ontario, a more structured, standardized approach that addresses CKD prevention and CKD management must be incorporated into the CKD care model. Currently, the Renal Funding Formula (RFF) does not support training and education that many programs are administering as part of Chronic Disease Prevention and Management. RFF should include allocations towards early stages of CKD.

In addition, identification, collection, and analysis of necessary data sets to monitor performance and evaluate impact early referral has on patient outcomes is essential. This can be done by collecting key data sets that drive performance indicators.

Recommendations on Early Referral

A1) CKD Patients to receive their first Nephrology visit 4 or more months prior to start on dialysis. Ideal estimated glomerular filtration rate (eGFR) for referral to CKD clinics is considered less than 30ml/min (stage 4 CKD) and the ideal time is greater than 12 months prior to end stage renal disease.

A2) Patients to undergo regular assessment for impairment of functioning and well being to:

- ***establish a baseline and monitor changes in functioning and well-being over time***
- ***assess the effect of interventions on functioning and well-being***

A3) The ministry develop:

- ***The process required to perform an environmental systems analysis to further define the approach/ model needed to address CKD prevention and early management within the existing CKD Model of Care.***
- ***An information system to facilitate collection, transfer, and analysis of program performance measures.***
- ***A CKD Prevention and Management process that is inclusive of the eGFR initiative.***

Section
B

Initial Assessment and Triage

To increase PD use, the process by which patients who start chronic dialysis are assessed and offered home modalities must be optimized. Increasing PD use can likely be achieved by triaging patients through a standardized process that offers and encourages PD as their choice of dialysis modality (See Figure 2).

By distinguishing the patients for whom PD is contraindicated and whose barriers to PD can be overcome will improve triaging (e.g. Community Care Access Centre (CCAC) service). Incorporating criteria of applicability for home support such as that offered by CCACs into the assessment process will increase the number of patients being offered PD. The facilitation of use of a standardized triage and assessment processes may be aided by utilizing an inventory of established assessment tools that include:

- Triage and Assessment Tool (See page 28)
- Home Assessment Tool (See page 30)
- Social Work Assessment Tool (See page 35)

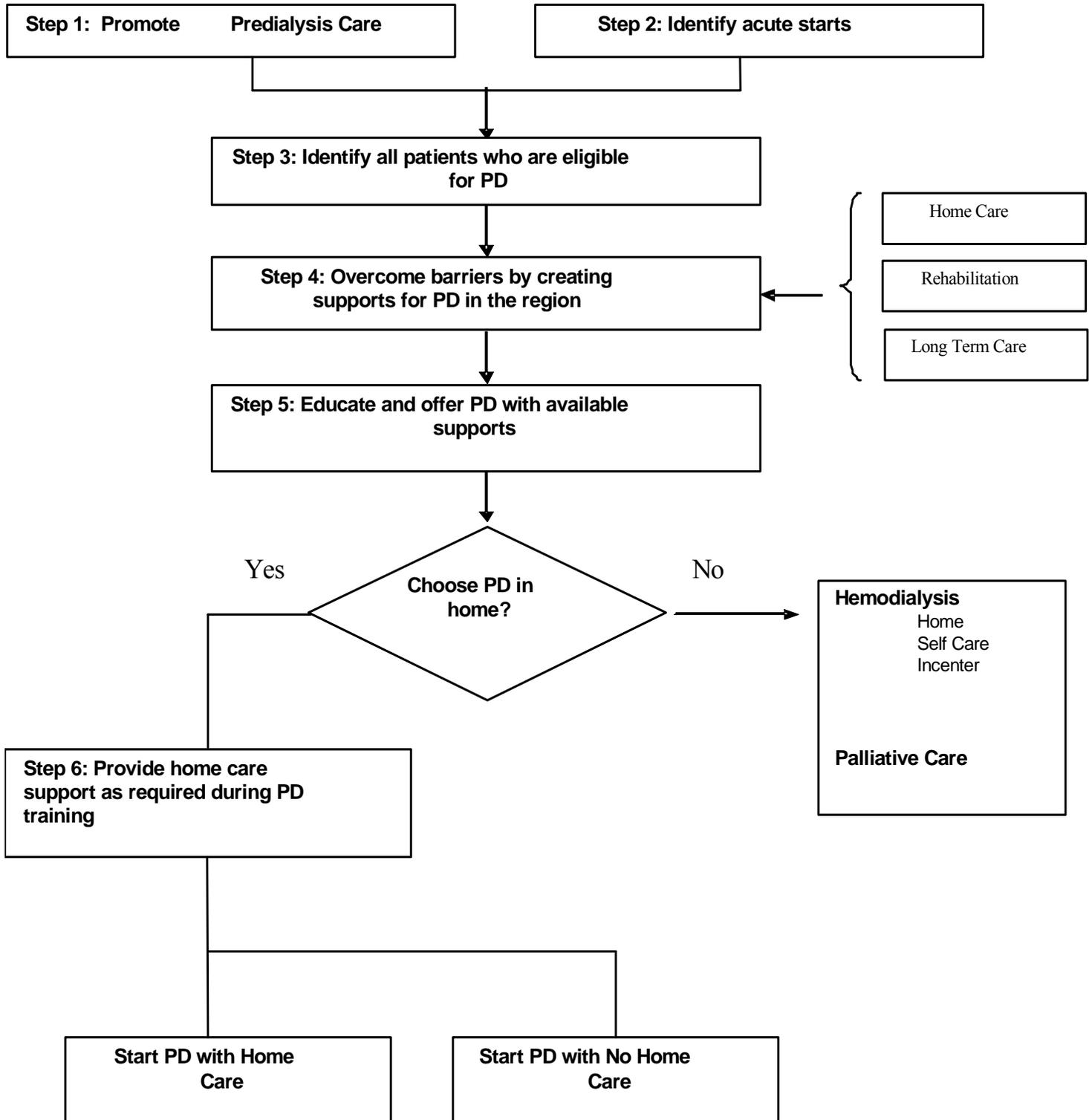
Recommendations for initial assessment and triage

B1) The initial assessment and triage algorithm be adopted and utilized as the standardized process within CKD centres' in assessing and triaging referred CKD patients.

B2) The content of the established initial assessment and triage tools be reviewed to assist CKD programs in developing their triage and assessment processes.

Best PD Triage and Assessment practice is outlined in the algorithm below. (See Figure 2)

Figure 2. Triage and Assessment Algorithm for PD with Home Care support



TRIAGE AND ASSESSMENT ALGORITHM

Step 1: Promote Pre-Dialysis Care

Predialysis clinics provide multidisciplinary care to patients who have a high probability of requiring dialysis in the future. A proposed definition of predialysis patients include the following criteria:

- 1) Serum creatinine above 250 umol/l or eGFR less than 30 ml/min and
- 2) Progressive chronic kidney disease

The current MOHLTC definition of predialysis care is based on serum creatinine above 250 umol/L. Women and older patients will have lower serum creatinine for a given level of renal function because they have less muscle mass. These patients may be at higher risk for not receiving predialysis care if serum creatinine is the only criteria for referral.

Predialysis care in the scientific literature has been traditionally been defined as seeing a nephrologist at least 4 months prior to starting chronic dialysis. Optimal predialysis care has been defined as a patient seeing a nephrologist at least 12 months prior to starting chronic dialysis. Other measures of predialysis care such as number of visits, receiving multidisciplinary assessments, modality education, and timely placement of access should also be considered as defining predialysis care but have not as well defined in the literature. However, it is a consistent finding that patients who receive predialysis care are much more likely to select home dialysis. Although it is not possible for all patients to receive predialysis care (e.g., acute renal failure), the number of patients receiving predialysis care should be maximized.

Recommendations on promoting Pre-Dialysis Care

B3) Educating referring physicians about the importance of early referral to CKD clinics to be undertaken.

Educating local physicians about local criteria for referral is beneficial. In some cases, programs have engaged their community with educational sessions or public education campaigns.

Important sources of referral likely include:

- Family Physicians
- Emergency Room Physicians
- Specialists (General Internal Medicine, Urology, Cardiology, Emergency; Hypertension specialists; Endocrine Clinics)
- Walk-In Clinics

B4) Patients to be triaged by a nephrologist or the nephrology service prior to booking clinic appointments. Patients with shorter predicted times to dialysis to be seen earlier in the pre-dialysis clinic.

B5) Pre-dialysis clinics to have sufficient capacity and flexibility of schedules to see patients in a timely manner particularly patients with severe, progressive kidney disease who may start dialysis soon.

Patients being seen with later stages of chronic kidney disease (CKD) may have to be seen frequently or for longer visits.

B6) CKD clinics be staffed according to the recommended staffing ratios to facilitate and support admission of triaged patients to promote education of CKD patients and appropriately allocate needed resources to support the choice of home PD. (See recommended staffing ratios on pg. 22)

B7) Regional Programs to measure the numbers of patients starting chronic dialysis that have received pre-dialysis care to determine if access to care is adequate in their region.

Measurements to include:

- ***Date of first visit to nephrologist/pre-dialysis care***
- ***Number of visits prior to starting dialysis***
- ***Date of referral for access creation***
- ***Date of access creation (PD catheter, fistula, or graft)***
- ***Need for hospitalization to start chronic dialysis***

Step 2: Identify all patients who start dialysis without pre-dialysis care (acute hemodialysis starts)

Up to half of all patients starting chronic dialysis in some centres start as inpatients. Some of these patients will have received partial pre-dialysis care but others none at all. CKD may accelerate before pre-dialysis care can be completed. Alternatively, the reason for hospitalization (e.g. cardiac by-pass) may cause the patient to progress to chronic dialysis. Although it is not feasible to expect that all patients will have received pre dialysis care, all patients, regardless of referral, should be offered the various options of Renal Replacement Therapies (RRT) that they are suitable for.

Recommendations for identifying all patients who start dialysis who received adequate pre dialysis care (acute HD starts):

B8) All patients, including acute HD starts, should be offered the various options of RRT that they are suitable for.

B9) Regional Dialysis Programs to establish a process of rapidly identifying patients who start chronic dialysis and have not received or have received only partial pre-dialysis care.

Many of these patients will start on hemodialysis in hospital and are very likely to continue on in-centre hemodialysis once discharged from hospital, unless active interventions occur to complete modality education.

B10) Once patients are medically stable, they are to be rapidly assessed to determine what components of pre-dialysis care they have received.

B11) Education about home dialysis to be completed prior to discharge.

Educational materials may need to be modified to account for the acuity of illness but the concepts of home dialysis are to be introduced prior to discharge.

B12) It is recommended that an acute care/modality nurse coordinators help identify and educate patients before discharge from hospital.

A team approach may be effective for delivering pre-dialysis but accountability for ensuring education of all acute starts is to reside in one individual in the Regional Dialysis Program.

Step 3: Identify all patients who are eligible for PD

Patients starting chronic dialysis are often elderly and frail. Their family or health care professionals may feel that they are just “too sick” for home dialysis. However, many of these patients will find traveling back and forth to the hospital also a burden. Rather than prejudge, patients should be rigorously evaluated and offered home dialysis if they are eligible. Many patients who have a choice prefer home dialysis if educated and supported in that choice.

At the same time, patients can have legitimate contraindications to home dialysis or may simply not wish to perform home dialysis and this choice should be respected.

Contraindications to PD are traditionally classified as medical or social. Medical contraindications are list in Table 1 and are likely to be similar across programs. Social contraindications are listed in Table 2 and are more likely to vary by program and region.

Table 1: Medical Contraindications

Absolute contraindications for PD
<p>Documented loss of peritoneal membrane function or extensive abdominal adhesions that limit dialysate flow.</p> <p>Uncorrectable mechanical defects that prevent effective PD or increase the risk of infection (eg, surgically irreparable hernia, omphalocele, gastroschisis, diaphragmatic hernia, and bladder extrophy)</p>
Relative Medical Contraindications to PD include
<p>Fresh intra-abdominal foreign bodies (eg, 4-month wait after abdominal vascular prostheses, recent ventricular-peritoneal shunt)</p> <p>Body size limitations i.e. Morbid obesity (in short individuals)</p> <p>Intolerance to PD volumes necessary to achieve adequate PD dose</p> <p>Inflammatory or ischemic bowel disease</p> <p>Abdominal wall or skin infection</p> <p>Severe malnutrition</p> <p>Frequent episodes of diverticulitis.</p>

Adapted from NKF-K/DOQI Clinical Practice Guidelines for Peritoneal Dialysis Adequacy: Update 2000

Table 2: Social Contraindications

Social Contraindications to PD
A patient lives in a residence that does not permit PD
A patient requires rehabilitation in a centre that does not permit PD
A patient's residence has insufficient storage space for PD supplies and equipment
A patient's spouse or family is not supportive of PD in the home

Recommendations for identifying all patients who are eligible for PD:

B13) Regional Programs to have rigorous process to assess all patients starting chronic dialysis to determine if they are eligible for PD in the home (no contraindication).

B14) Modality options for patients are determined by conducting multidisciplinary assessments in partnership with the patient and their families.

B15) Regularly scheduled multidisciplinary meetings should be held to facilitate the assessment process and likely identify more patients who are eligible for home dialysis.

B16) Communication between pre-dialysis and home dialysis health care teams to be conducted on an ongoing basis to assist in the assessment process. Involvement of home dialysis nurses in the pre-dialysis clinic to be part of the strategy.

B17) Regional Programs to measure the percentage and number of patients starting chronic dialysis who are eligible for PD.

Step 4: Overcome barriers to PD by offering support (Home Care)

Many patients who wish to receive home dialysis will have social or medical conditions that make PD challenging (barriers). Many of these barriers can be overcome with proper supports. Patient related and environment related barriers are listed in Table 3. Home Care is a broad intervention capable of overcoming many barriers to home dialysis. Retirement homes and long term care facilities may provide further support to patients.

Table 3: Patient and Environmental Barriers to PD in the home

Patient Related	Environment Related
Decreased Manual dexterity *	Lack of storage space in home ^b
Decreased Physical Strength *	Unsafe home environment
Decreased Vision *	Lack of caregivers in the home *
Decreased Hearing	Unable to afford paid caregivers *
Decreased Cognition *	Fear of social isolation in the home *
Poor Compliance *	Difficulty attending clinic appointments
Poor Hygiene	Cleanliness of the home
Anxiety/Fear of home dialysis *	
Language Barrier ^a	
Poor knowledge of dialysis technique*	

* Denotes a barrier that may be overcome by providing home care support

^a Language barriers that can be overcome by visiting home care nurse who can speak the same language as the patient

^b May be overcome by more frequent deliveries of supplies

Recommendations to overcome barriers to PD by offering support:

B18) Programs to use a multidisciplinary approach to identifying and overcoming barriers to PD in the home and who may benefit from home care support. Multidisciplinary team members involved in this process to include:

- *Nephrologist*
- *Nurses*
- *Social Workers*

Optional resources:

- *Physiotherapists*
- *Occupational Therapists*
- *CCAC Coordinators if considering home care*
- *Primary Care Physicians*
- *Palliative Care Team*
- *Personnel from Retirement homes*
- *Personnel from Long Term Care Facilities*
- *Personnel from Rehabilitation Centres*

B19) Regional programs in partnership with Community Care Access Centres and Home Care Providers to have the capability of providing home care support to:

- *Patients starting PD at home*
- *Previous self-care patients who develop the need for support*
- *Patients in retirement homes*

B20) Regional Programs to partner with long term care facilities to provide patients the option of receiving PD in a long term care facility

B21) Regional Program to partner with rehabilitation services or institutes to provide rehabilitation or complex continuing care support for patients receiving PD.

Step 5: Educate patients about PD in the home and the supports that are available to them

Patients may start hemodialysis urgently and assume that this is the only modality available to them. Other patients may just assume the hospital dialysis is the best since it's the most common. In some cases, patients may speak to other patients who have had bad experiences on home dialysis and become biased.

Once supports are in place to promote home dialysis, education is critical so patients make an informed modality choice. Shared decision making is associated with increased home dialysis. Some educational materials are modality neutral and further education is required highlight the benefits of home dialysis. Educational materials may also not provide details on local supports available to home dialysis patients such as training, home care, and on-call services.

Recommended Staffing Ratios

Recommended staffing ratios were established to enable CKD programs to provide Pre Dialysis care to CKD patients when needed. These recommendations make the assumption that PD and Pre Dialysis Programs are open for 8 hours a day five days a week and that the PD program does not provide the dialysis treatment care for the admitted patients except on an on call basis.

There are exceptions where PD programs are open up to 16 hours a day and situations where PD programs provide all of the in hospital PD supports.

A telephone survey of current RN, Clerical, Social Workers, Dietitian, and Pharmacists working in PD and Pre Dialysis Programs throughout Ontario was conducted. A total of 12 out of 14 units responded. It was clear from the responses that to achieve PD growth it is necessary to increase the resource capacity within the programs by ensuring resources are available to provide care and training as needed to referred CKD patients.

Respondents also indicated that flexibility and capacity for the skill, expertise and supports (other than clerical) that are built in to the program also affect growth. These supports include housekeeping, trained part time and casual nurses, and nurses who are cross-trained to PD within the Renal programs.

With respect to Allied Health the BC Renal Agency report was used for Social work¹⁶ and Dietician Staffing Guidelines¹⁷ as the staffing ratios acquired from the survey for allied health varied. The BC Renal Agency Report did not have a recommendation for Pharmacy or Physiotherapy; however it is our recommendation that Pharmacy and Physiotherapy support are necessary for effective CKD and PD clinics.

PD RN Staffing:

PD growth requires a higher baseline-staffing component for small and medium sized PD programs¹⁸. This applies to programs whose percentage of prevalent PD is at or around the 18% mark; the smaller the program, the less efficient initially.

There needs to be enough flexibility in the system so that PD training and assessments can be achieved when patients need it. It is recommended that separate dedicated RN Full Time Equivalents (FTEs) are allocated within each Pre Dialysis and PD Program of CKD Centres. If the RNs are shared between PD and Pre Dialysis Programs, the FTE's should not be reduced.

B22) Separate and dedicated RN Full Time Equivalents (FTEs) are allocated within each Pre Dialysis and PD Program of CKD Centres. If the RNs are shared between PD and Pre Dialysis Programs, the FTE's should not be reduced

B23) For growth to 30%, 1 RN FTE for every 20 to 23 patients in PD Programs

For sustainability of 30% PD Prevalence, 1 RN FTE per 23 to 25 patients in PD Programs.

Pre Dialysis RN Staffing

For a Pre Dialysis program to be effective the assumption is made that a nurse is dedicated to the sole function of provision for education, follow up, and modality selection planning.

B24) Pre Dialysis RN Staffing ratio is recommended to be 1 RN FTE per 150 to 175 patients.

¹⁶ Robinson, W. and Murphy-Burke (1998). Staffing Guidelines for Renal Social workers. *BC Provincial Renal Agency*.p.10,

¹⁷ Reid, R. (1999). Dietician Staffing Guidelines for Renal Centres in British Columbia, *BC Provincial Renal Agency*. p.9.

¹⁸ PD Program size = Small (0-45) and Medium (45-90) and large PD programs (90-200)

Clerical staffing for Pre Dialysis and PD.

Depending on location and size of the programs, efficiencies can be achieved between the areas. There is a need to have a minimum of 1 clerk FTE in each service area. The larger the PD and Pre Dialysis programs the more clerical support is required.

B25) A minimum of 1 clerk FTE to 75 patients be allocated each to the Pre Dialysis Program and PD Program. The larger the PD and Pre Dialysis program, the more clerical support is required.

Social Work

The data collected through the survey indicated variation in Social Work (SW) staffing ratios; therefore, the BC Renal Agency recommendations were used to indicate the staffing ratios for Social Work.

B26) For Pre Dialysis Programs, 1 FTE Social Work per 80-100 patients is recommended and for PD programs, 1 FTE per 75-100 patients is recommended.

Dietitian

The data collected through the survey indicated variation in Dietitian staffing ratios; therefore, the BC Renal Agency recommendations were used to indicate the staffing ratios for Dietitians.

B27) For Pre Dialysis Programs, .5 FTE Dietitian per 100 patients is recommended and for PD programs, 1.05 FTE per 100 patients is recommended.

Physiotherapy

Some programs utilize a physiotherapist and others do not.

B28) It is recommended that the services of a physiotherapist be available to assist with pre-dialysis teaching to improve the potential for increased self-management skill development. A staffing ratio of .2 FTE for every 100 patients is recommended.

Pharmacy

B29) It is recommended that the services of a pharmacist should be available to the Pre dialysis and PD programs at a minimum of .5 FTE for every 100 patients in both Pre Dialysis and PD Programs

Recommendations to educate patients about PD in the home and the supports that are available to them:

B30) Educational materials to highlight the benefits of home dialysis and supports available to patient and families in the region.

B31) Patients and families to be educated about all modalities available to them. Palliative care or no treatment options to be presented to patients if appropriate on a case by case basis

B32) Patients to be provided choice in how and where they receive chronic dialysis where possible. If hemodialysis spots are full, and choosing hemodialysis will result hospitalization then patients to be informed of this requirement.

B33) Regional CKD Programs to have dedicated Home Dialysis programs that are enabled to provide adequate resources to train home dialysis patients in a timely fashion. (Including recommended staffing resources). Minimal resources include experienced home dialysis nurses to educate patients and families, adequate training space, and adequate clinic space for follow-up. Ideally training rooms should be attractive and away from in-centre hemodialysis to reinforce that home dialysis is a positive experience that promotes independence.

B34) Home care services to be clearly described to patients and families when making a modality choice. The description of support to include:

- ***Maximum number of visits per day***
- ***Skill set of visiting personnel (RN, Registered Practical Nurse (RPN), or Patient Support Worker(PSW))***
- ***Typical tasks that can be performed***
- ***Duration of support***
- ***Criteria to withdraw home care support if required***
- ***Criteria to restart home care support if required***

B35) CCACs to work with CKD programs to develop a specialized case management role for Nephrology Clients to guarantee smooth transition to

community, strong linkages with Regional centres, and a knowledgeable work force supported by ongoing educational initiatives

B36) Regional CKD programs to offer patients PD in a long term care or complex continuing care facility if appropriate for the patient

B37) Regional programs to offer patients PD and rehabilitation if appropriate for the patients. If rehabilitation centres do not support PD patients in the region then additional physiotherapy and occupational therapy to be available in the hospital for PD patients so they do not have to choose HD to receive rehabilitation.

Step 6: Provide home care support as required after PD training is complete

The offer of home care support for PD should be made at the time of modality choice. The need for home care support is often not known until the patient and family are trained. In some cases, the need may be substantially different from what was expected.

Recommendations for providing home care support as required after PD training is complete:

38) Regional programs, CCAC, and home nursing agencies to determine the level of home care support offered to patients during the training period or once the patient is home on PD.

B39) Regional programs, CCAC, and home nursing agencies to determine the number of maximum patients that can be offered the service in the region. Regional programs to be aware of capacity before offering patients assistance from home care. A critical mass of staff may be required to cover the 7-day a week schedule within a region.

B40) Home care services to be offered generously if available to promote a successful start on home PD.

Some programs have mandatory home care support for patients starting PD at home and withdraw it once the patients are confirmed to be doing well. In some cases, monitoring of PD at home without providing direct care can pick up conditions early (e.g., peritonitis) and avoid hospitalizations.

Step 7: Programs offering home care assistance to PD measure quality indicators

Home care assistance allows patients who previously were not eligible for home dialysis to receive it. In many cases, the age and co-morbidity of patients receiving PD in the home will

increase. It would not be unexpected that these patients would have higher rates of hospitalization, peritonitis, technique failure, and death than the traditional self-care PD population.

Recommendations on programs offering home care assistance to PD measure quality indicators:

41) Regional Program to track adverse events in patients receiving PD with home care support. Adverse events may include:

- ***Peritonitis***
- ***Hospitalization***
- ***Technique failure***
- ***Death***

B34) Service utilization of home care to support PD to be tracked by CCAC and home care agencies. Service utilization may include:

- ***Number of patients assisted to start PD***
- ***Number of self care patients who required home care to “rescue” PD and prevent technique failure***
- ***Number of visits delivered per patient-week***
- ***Type of home care personnel assisting patient***

Triage and Assessment Tools

Communication:

Language: _____ Speech: functional impaired _____
Hearing: functional impaired Hearing aid Y / N R / L _____
Vision: Glasses Y / N _____ Able to read strength, expiry date and check solution
clarity on solution bag.
Notes:

Perception:

Visual perception: Able to differentiate among color hues Y / N
Visual neglect noted:

Cognition:

Alert and oriented Alert but disoriented to _____
 Able to sequence card series _____
Notes:

Physical Performance:

Hand dominance R / L General strength within functional limits
 No coordination deficits noted No sensation difficulties that would impair function
Notes:

Functional Trial of PD Self-Care:

- Y / N Able to follow bag exchange instructions
- Y / N Able to locate and collect all supplies
- Y / N Able to remove outer wrapper of solution bag
- Y / N Able to manipulate clamps
- Y / N Able to swap clamps appropriately
- Y / N Able to break cone
- Y / N Able to open alcohol swab package
- Y / N Able to manipulate extension set/apply minicap
- Y / N Able to learn Cyclor
- Y / N Able to manipulate syringe
- Y / N Able to do perform 4 to 5 bag exchanges in a day

Notes: _____

Home Care support:

- Y / N Available in their area
- Y / N Would patient benefit from this?

Home Assessment Tool

The assessment tool was primarily based on assessment tools from St. Joseph Hamilton Health Care

To be completed on first visit to each new clients home and returned to office.

1. CONDITION OF APPROACH TO HOUSE. IF HAZARDOUS, STATE WHY

Sidewalk	Good <input type="checkbox"/>	Hazardous <input type="checkbox"/>
Front Steps	Good <input type="checkbox"/>	Hazardous <input type="checkbox"/>
Back Steps	Good <input type="checkbox"/>	Hazardous <input type="checkbox"/>
Verandah (Front & back door)	Good <input type="checkbox"/>	Hazardous <input type="checkbox"/>

2. CONDITION OF ENTRANCE HALL: (Cluttered/Scatter rugs/Lighting)

Good Hazardous

3. STAIRWAYS/BANISTERS:

Good Hazardous

4. LIVING ROOM: (Cluttered/lights/ornaments/floors/wires)

Good Hazardous

5. KITCHEN: (Floor: tiles, linoleum, too much wax, furniture, newspapers)

Kettle	Good <input type="checkbox"/>	Hazardous <input type="checkbox"/>
Iron	Good <input type="checkbox"/>	Hazardous <input type="checkbox"/>
Fridge	Good <input type="checkbox"/>	Hazardous <input type="checkbox"/>
Toaster	Good <input type="checkbox"/>	Hazardous <input type="checkbox"/>
Stove	Good <input type="checkbox"/>	Hazardous <input type="checkbox"/>
Other (Describe)	Good <input type="checkbox"/>	Hazardous <input type="checkbox"/>

6. EATING AREA (cluttered, lighting)

Good Hazardous

7. BATHROOM (floor, rugs, space, electrical outlets)

Good Hazardous

8. BEDROOM (Lighting, floor, wires, furniture)

Good Hazardous

9. BASEMENT

Stairway	Good <input type="checkbox"/>	Hazardous <input type="checkbox"/>
Washer	Good <input type="checkbox"/>	Hazardous <input type="checkbox"/>
Dryer	Good <input type="checkbox"/>	Hazardous <input type="checkbox"/>
Lighting	Good <input type="checkbox"/>	Hazardous <input type="checkbox"/>
Wiring	Good <input type="checkbox"/>	Hazardous <input type="checkbox"/>

10. STAIRS IN APARTMENT BUILDINGS (when and if elevator is not in use – walk no more than one flight up and two down)

Good Hazardous

11. ELEVATORS (push buttons, doors working)

Good Hazardous

12. FIRE ESCAPE (2 Exits?)

Yes No

SMOKE ALARMS?

Yes No

13. TEMPERATURE (Indoors)

Too Hot Too Cold

14. PETS IN CLIENTS HOME

Yes No

Specify _____

15. UNSANITARY CONDITIONS (mice, cockroaches, etc.)

Yes No

16. Workplace Environment if patient plans to perform PD exchanges at work

Occupation: _____

Storage space for supplies: yes no

Safe for dialysis: yes no

Complete this page for all patients

Date of Form Completion: _____ / _____ / _____
 yyyy mm dd

Employment

<input type="checkbox"/>	Employed Full time	<input type="checkbox"/>	Volunteer work
<input type="checkbox"/>	Employed Part time by choice	<input type="checkbox"/>	Homemaker
<input type="checkbox"/>	Employed Part time due to disease	<input type="checkbox"/>	Retired due to age/preference
<input type="checkbox"/>	Employed Casual by choice	<input type="checkbox"/>	Retired due to disability
<input type="checkbox"/>	Employed Casual due to disease	<input type="checkbox"/>	Medical leave of absence
<input type="checkbox"/>	Not employed due to disease	<input type="checkbox"/>	Student part-time
<input type="checkbox"/>	Seeking full time employment	<input type="checkbox"/>	Student Full time
<input type="checkbox"/>	Seeking part-time employment by choice	<input type="checkbox"/>	
<input type="checkbox"/>	Seeking part-time employment due to disease	<input type="checkbox"/>	
<input type="checkbox"/>	Seeking casual employment by choice	<input type="checkbox"/>	
<input type="checkbox"/>	Seeking casual employment due to disease	<input type="checkbox"/>	

Drug Coverage

<input type="checkbox"/>	Ontario Drug Benefit	<input type="checkbox"/>	No Coverage
<input type="checkbox"/>	Private Insurance – Name	<input type="checkbox"/>	Other
<input type="checkbox"/>	Trillium	<input type="checkbox"/>	

Current Living situation

<input type="checkbox"/>	lives alone	<input type="checkbox"/>	lives with family willing to provide care
<input type="checkbox"/>	lives alone with regular visits from	<input type="checkbox"/>	lives with family not willing to provide
<input type="checkbox"/>	lives alone with regular visits from	<input type="checkbox"/>	

Current Residence

<input type="checkbox"/>	House	<input type="checkbox"/>	Long term care facility
<input type="checkbox"/>	Townhouse	<input type="checkbox"/>	Complex Continuing Care
<input type="checkbox"/>	Condo	<input type="checkbox"/>	Retirement Home
<input type="checkbox"/>	Rooming House	<input type="checkbox"/>	Acute Care Hospital
<input type="checkbox"/>	Shelter	<input type="checkbox"/>	Alternative Level of Care in Hospital

What is the highest level of education?

<input type="checkbox"/>	No formal education	<input type="checkbox"/>	bachelor degree
<input type="checkbox"/>	Elementary school	<input type="checkbox"/>	post-graduate degree
<input type="checkbox"/>	secondary school	<input type="checkbox"/>	

Approximately how many kilometers does the patient live from the nearest dialysis unit?

<input type="checkbox"/>	≤ 5	<input type="checkbox"/>	16-20
<input type="checkbox"/>	6-10	<input type="checkbox"/>	>20
<input type="checkbox"/>	11-15	<input type="checkbox"/>	

How does the patient plan to get back and forth to the hospital for clinic visits or dialysis?

<input type="checkbox"/>	Drive themselves	<input type="checkbox"/>	Public Transit
<input type="checkbox"/>	Has someone driver them	<input type="checkbox"/>	Cab
<input type="checkbox"/>	Wheel Trans	<input type="checkbox"/>	Other

How important is travel in the patient's lifestyle

<input type="checkbox"/>	Very important
<input type="checkbox"/>	Somewhat important
<input type="checkbox"/>	Not very important

Does the patients plan to travel once dialysis is started Yes No

Complete this page only for people that are good candidates for home dialysis

Caregivers in the Home

Does the patient have a family member(s) that is willing to provide dialysis care?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does the patient have an external caregiver willing to provide dialysis care?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the patient willing to accept an external caregiver in the home?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the family willing to accept an external caregiver in the home?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does this patient or family have anxiety home dialysis	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does this patient or family have a fear of being isolated when receiving treatment in the home even with regular nursing visits	<input type="checkbox"/> Yes <input type="checkbox"/> No

Complete this information to perform a full social work assessment.

Complete this information to perform a full social work assessment. This information is not required to be eligible for the Home Plus program

Contacts	Last Name	First Name	Relationship	Telephone
1.				
2.				
3.				

Power of Attorney	Last Name	First Name	Relationship	Telephone
<input type="checkbox"/> None				
Financial				
Personal Care				

Relevant Health Information:

Family/Social Relationships:

Financial/Insurance/Legal:

Client Perceptions of Situation/Coping Skills:

Other information:

Impressions:

Complete this page for all patients

Final Assessment

What do you feel would be an appropriate form of dialysis therapy for this patient?

Check all the apply	Modality	Location	Home Care Assistance
<input type="checkbox"/> Yes <input type="checkbox"/> No	CCPD	Home	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Yes <input type="checkbox"/> No	CAPD	Home	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Yes <input type="checkbox"/> No	APD	Home	
<input type="checkbox"/> Yes <input type="checkbox"/> No	Hemodialysis	Home	Not available
<input type="checkbox"/> Yes <input type="checkbox"/> No	Hemodialysis	Home	Not available
<input type="checkbox"/> Yes <input type="checkbox"/> No	Hemodialysis	Self Care Unit	Not applicable
<input type="checkbox"/> Yes <input type="checkbox"/> No	Hemodialysis	Satellite	Not applicable
<input type="checkbox"/> Yes <input type="checkbox"/> No	Hemodialysis	Hospital Based	Not applicable

Impressions:

Plan:

Please estimate the time that was required to complete the assessment including review of the chart _____ minutes

Name (PRINT)

Name (Signature)



Pre Dialysis Care

It has been recognized that individual opinions or bias of the Nephrologist and/or nursing staff when transmitting information to a patient initiating dialysis treatment plays a major role in decisions taken by patients as to choice of dialysis modality.¹⁹ In a US study only 25% of HD patients remembered having been informed about PD, but 68% of the PD patients recalled the HD option being discussed with them.²⁰

As part of the goal of ensuring that patients are appropriately assessed for eligibility for PD, it is necessary for patients to also be fully and objectively informed of all dialysis modality options in order to select a suitable and appropriate dialysis modality for them.

There are currently no standard recommendations as to the components of pre-dialysis educational curriculum, but there is need for standardization of content. Use of a standardized pre-dialysis educational curriculum facilitates consistency in formal educational components being used throughout all CKD pre-dialysis programs, and supports consistent patient education and understanding.

To ensure therefore that patients are being made aware of dialysis treatment options available to them and are being provided with a full understanding of what is involved in making such a decision; a core curriculum for pre-dialysis education has been developed. This core curriculum is based on the principles of adult education, the CKD Model of Care, and the various guidelines around pre-dialysis care.

Basing the educational program on the principles of adult learning ensures the appropriateness of delivery of educational materials and content in a manner best understood by this patient population. Maximizing awareness and understanding of treatment options by the patient, makes them most likely to choose PD.

The Pre-Dialysis Education curriculum (See Table 1, pg. 41) represents the minimum didactic material that should be mastered by the time the patient reaches stage-4 renal failure (GFR

¹⁹ Kidney International, 1995; 15 [Suppl]: S38-S40

²⁰ American Journal of Kidney Disease, 1998; 32[Suppl 1]: S67-S85

<30ml/min). Programs that wish to enhance the didactic component or further alter the approach to teaching beyond the content of this report should feel free to do so.

C1) Every renal program in Ontario to determine, based on the practice pattern of its nephrologists, the program size and resources available, the ideal point on the CKD pathway where the patient should be referred to the nephrologists and or renal educational program.

Some renal programs will opt to follow the patient from the time of this referral point, others will provide an initial assessment and this education program and refer the patient back to the family practitioner for clinical management until Stage 4 renal failure has been reached.

A number of topics are identified with general education, cognitive and functional goals. While it is not absolutely essential that the patient and/or family master all the cognitive and functional goals the CKD education task group members believe that the willingness to consider a home therapy will be higher among those who have been taking an active role in self management before they reach ESRD.

C2) The patient to be introduced as early as possible in the CKD pathway to applicable self-management activities of this chronic disease.

If this occurs, the concept of self-administered dialysis will be more readily accepted as ESRD approaches. Strategies included in this section can be applied to improve the effectiveness of educational programs for the elderly and “hard to reach” patients such as those with language barriers or other learning disabilities.

The educational plan will also be applicable for those unplanned clients who start acutely on hemodialysis. The method and timing of delivery will vary. Programs with the most success in transferring acute hemodialysis patients into the home setting will be those who begin education of the patient and family early in the acute phase of illness.

C3) Dialysis modality education should be introduced early to the patient and family early in their acute phase of illness.

The goal of the pre dialysis education task group work is to develop a CKD educational program that increases the number of patients choosing and implementing Peritoneal Dialysis as a renal replacement therapy.

The Education Plan

Research demonstrates that patients identify three areas in which they have learning needs. They want to learn about:

- a) The facts about their illness, and how it will affect their daily lives
- b) How to cope with the illness, diet and exercise changes, medications and other tests
- c) How the illness will affect their relationships, especially family life

Chronic disease management requires a different approach than acute care and the education plan must incorporate this difference. As a chronic disease with the potential to drastically alter the patients lifestyle, the emphasis on a teaching/learning plan for these patients and their families is to help them adapt to or manage (rather than cure), develop self management skills (rather than compliance to provider prescriptions) and eventually to provide as much of their own care as possible (as opposed to being the recipient of care). Patients and their families need to understand that they have a future before they will be motivated to learn.

In order to implement an effective CKD educational program there are several principles of adult education that should be considered. These principles assist the educator in designing the process or “how to”, rather than the specific content. A thorough assessment of the learning needs, preferred style and specific challenges that may affect learning is essential to ensure appropriate transfer of knowledge and skills. This assessment will determine if group teaching, one on one or a combination of both will be most effective. (See Principles of Adult Learning, Pg. 49)

C4) A thorough assessment of the patient’s learning needs to be conducted to determine the best approach in assuring knowledge and skill transfer; the assessment process to include consideration of the principles of adult education.

Table I

The following tables describe the curriculum topics for CKD clients, their specific content, as well as the cognitive and functional goals to be achieved by the client/family.

Curriculum Topic	Content	Cognitive goals to be achieved by client/family	Functional goals to be achieved by client/family	Date Achieved
Chronic kidney Disease (CKD)	<ul style="list-style-type: none"> • What is CKD? • How is it diagnosed? • What are the symptoms? • Introduce the multidisciplinary team and their roles and functions in the management of CKD • What is meant by Co-morbidity? 	<ul style="list-style-type: none"> • Provide a basic definition of the various terms related to CKD, ESRD. • Accurately describe how the diagnosis of CKD relates to his/her health status. • Relate any co-morbidities to his/her CKD. • Patient will correctly identify the various disciplines needed to support him/her in the management of their disease. • Provide a basic and accurate explanation of how CKD affects other body systems. • Identify any other disease processes that affect his renal diseases. • Correctly state he/she can do to slow the progression of his/her disease. 	<ul style="list-style-type: none"> • Actively participate in the teaching sessions. • Monitor and document/report self for symptoms . • Patient will contact various team members for management issues. • Attend all appointments and teaching sessions as scheduled. • Attend all referred appointments as scheduled (endocrinologists, cardiologists). • Maintain contact with his/her family practitioner. • Implement actions to improve/ maintain his/her health. 	

Provincial PD Joint Initiative: DRAFT Manual on the delivery of PD in Ontario

<p>Anemia</p>	<ul style="list-style-type: none"> • Define Anemia • Cause of anemia • Symptoms of anemia • Treatment for anemia • What is hemoglobin • What does the hemoglobin have to do with oxygen...how does a low hemoglobin affect my breathing/ • How is the hemoglobin measured? • What is the normal value of a hemoglobin • The relationship of iron and hemoglobin 	<ul style="list-style-type: none"> • Provide a basic and accurate definition of anemia. • Correctly explain what is hemoglobin and its normal range of values; 110 – 125 g/L. • Correctly explain the role of Iron in anemia management. • Accurately differentiate fatigue related to low hemoglobin and other reasons for feeling fatigued. • Correctly explain role of EPO in anemia management. • List the particulars of caring for his/her supply of EPO. • Correctly describe how to self-administer EPO. • Correctly identify other important causes of anemia that may affect a CKD patient. 	<ul style="list-style-type: none"> • Monitor self for symptoms of fatigue and report his/her symptoms to health care team. • Report whether his/her Hg results are normal or abnormal. • Administer his/her EPO as prescribed. 	
<p>Blood Pressure</p>	<ul style="list-style-type: none"> • What does a blood pressure monitor • What does the top number signify • What does the bottom number signify • What are normal values • What causes abnormal readings • The techniques of taking a blood pressure • How to record the blood pressure • The role of medications in controlling blood pressure • Identified side effects of anti hypertensive medications 	<ul style="list-style-type: none"> • Correctly define what is a blood pressure, and identify its normal range. • Correctly list his/her prescribed antihypertensive medications. • Correctly identify side effects of prescribed antihypertensive medications. • Identify how lifestyle choices can improve blood pressure i.e. regular exercise, weight loss, stop smoking. 	<ul style="list-style-type: none"> • If hypertensive, undertake actions to decrease blood pressure i.e. medication, exercise, decreasing smoking, lose weight as needed. • Monitor and record his/her blood pressure on a regular basis. • Adhere to antihypertensive medication regimen as prescribed. • Report any side effects of his/her prescribed antihypertensive medications. 	

Provincial PD Joint Initiative: DRAFT Manual on the delivery of PD in Ontario

<p>CKD and Nutrition</p>	<ul style="list-style-type: none"> • What are healthy food choices • How nutritional requirements change in CKD • Why the diet changes as CKD progresses and with different dialysis modalities • Components of the diet for dialysis (protein, sodium, potassium, phosphorous and fluid) • Meal Planning with healthy food choices • Salt and fluid control • Weight management • Label interpretation and menu selection when dining out • How and when to use nutritional supplements. • How to access the renal dietitian 	<ul style="list-style-type: none"> • Recognize which foods to avoid and which foods to add to his/her diet. • Correctly explain the importance of monitoring fluid intake. • Describe their specific protein requirements and identify strategies to achieve their goals. • Explain the importance of monitoring fluid intake. • Correctly explain why they need to limit sodium in the diet and which foods are high in sodium . • Correctly explain when and how contact the renal dietitian to ask questions or arrange follow-up appointments; and agree to the renal dietitian contacting him/her regarding pertinent dietary issues. <p><u>Potassium</u></p> <ul style="list-style-type: none"> • State the normal range for blood potassium. • Provide an accurate basic explanation for the link between their potassium prescription and their bloodwork (i.e. limit or increase potassium in diet) and identify which foods to add or eliminate to meet their potassium needs. • State that those with CRF have limited ability to excrete potassium. • State the effects of high potassium levels. • State that some drugs, especially ACE inhibitors can predispose to high blood potassium levels. • State that certain drugs, especially diuretics, can cause low blood potassium levels. 	<ul style="list-style-type: none"> • Follow a diet that will best meet his/her health needs at home or in a restaurant. • Maintain a food intake diary. • Monitor fluid intake. • Maintain a weight diary. • Use food labels to help make dietary decisions. • Take appropriate nutritional supplements when required. • Call renal dietitian with questions or for follow-up education. • Correctly interpret food labels and to choose wisely when eating out. • Accurately monitor his/her weight. • Correctly utilize nutritional supplements. <p><u>Potassium</u></p> <ul style="list-style-type: none"> • Interpret own blood levels, review with healthcare professional, understand what actions to take if not within normal range. • Be able to describe in general terms the content of a high or low potassium diet and management diet accordingly. 	
---------------------------------	---	---	--	--

		<p><u>Calcium</u></p> <ul style="list-style-type: none"> • State the normal range for blood calcium. • State that calcium and vitamin D supplements are often necessary to maintain normal blood calcium levels. <p><u>Phosphorus</u></p> <ul style="list-style-type: none"> • State the normal and target ranges for blood phosphorus. • Explain why they need to restrict phosphorous in their diet and identify which foods are high in phosphorous. • Explain the purpose and correct way to take phosphate binders. <p><u>Parathyroid hormone (PTH)</u></p> <ul style="list-style-type: none"> • State the normal target ranges for PTH in CRF patients. • State that treatment of elevated PTH levels include: <ul style="list-style-type: none"> • Phosphate binder • Use of a special form of vitamin D • Occasionally surgery 	<p><u>Calcium</u></p> <ul style="list-style-type: none"> • Interpret own lab report to determine if calcium is within normal range. <p><u>Phosphorus</u></p> <ul style="list-style-type: none"> • Interpret own lab report to determine if phosphorus is within target range. • Describe in general terms a low phosphate diet and manage diet accordingly. • Demonstrate ability to properly take phosphate binders. <p><u>PTH</u></p> <ul style="list-style-type: none"> • Interpret own lab report to determine if PTH is within target range. 	
--	--	---	--	--

Provincial PD Joint Initiative: DRAFT Manual on the delivery of PD in Ontario

<p>Hemodialysis</p>	<ul style="list-style-type: none"> • In-center • Satellite unit • Self-care • Home Hemodialysis 	<ul style="list-style-type: none"> • Accurately describe the various dialysis modalities available. • Accurately describe dialysis process. • Accurately describe access creation. • List resources to assist with travel. • Identify the potential benefits of home hemodialysis. • Describe the supports in place for home hemodialysis selection. • Involve family with modality selection. 	<ul style="list-style-type: none"> • Make an informed selection regarding a dialysis modality & agree to vascular access creation in a timely manner. • If home hemodialysis chosen, attend all training sessions. • Actively participate/support home hemodialysis arrangements including, helper, water & drainage system, electrical outlets and adequate space for treatment & storage. • Prepare to take 4 to 6 weeks off work for home hemodialysis training. • Access necessary transportation resources if dialyzing incentre/satellite. 	
<p>Peritoneal Dialysis</p>	<ul style="list-style-type: none"> • Home Peritoneal dialysis • CAPD • APD • Home dialysis modality support and CCAC support will be available. 	<ul style="list-style-type: none"> • Identify the advantages of the various dialysis modalities. • Describe the supports in place for home modality selection. • Involve family or significant other as a need for support with a home modality selection. • Identify the potential benefits of a home modality. 	<ul style="list-style-type: none"> • Prepare for a home dialysis modality, including ensuring the availability of a nearby bathroom, adequate storage space and electrical outlets. • Agree to the establishment of a peritoneal catheter in a timely manner . • Prepare to take time off from work to attend dialysis training daily for approximately 5-7 days. 	

Provincial PD Joint Initiative: DRAFT Manual on the delivery of PD in Ontario

<p>Transplant</p>	<ul style="list-style-type: none"> • Cadaver (deceased) donor • Living Donor 	<ul style="list-style-type: none"> • Accurately identify the risks and benefits of transplantation. • Discuss his/her intention to pursue a transplant work-up (deceased / live donor) with the attending nephrologist. 	<ul style="list-style-type: none"> • If interested in transplantation, willingly participate in the work-up process and work with transplant team to keep this current. 	
<p>No Dialysis/ Conservative Measures</p>	<ul style="list-style-type: none"> • Consequences of not getting dialysis treatment at the end stage of renal diseases i.e. pulmonary edema, hyperkalemia, and ultimately death. 	<ul style="list-style-type: none"> • Identify and discuss consequences of choosing this option i.e. certain death. • Describe how to access the available palliative care support -should this be his/her choice. 	<ul style="list-style-type: none"> • Ensure that end-of-life issues have been discussed, including powers of attorney and care directives. • Receive referral to in-home palliative care and/or in-patient program as appropriate. 	

<p>Psychosocial</p>	<ul style="list-style-type: none"> • How Do I learn to live with chronic renal insufficiency? 	<ul style="list-style-type: none"> • Describe the stages and tasks of adjusting to living with kidney disease, including denial, anger, isolation, depression and adaptation. 	<ul style="list-style-type: none"> • Find out as much as possible about chronic renal insufficiency from your renal team and become a partner with them in managing your care. • Talk to others about your experience with kidney disease; e.g. support is available from friends, family, as well as individual or group counselling. • Share coping strategies with others who have kidney disease; e.g. Kidney Foundation Peer Support volunteers. • Explore community programs and resources that will enable you to live more effectively with CRI; e.g. home support services, transportation and respite care. • Discuss preparation of advance directives including Powers of Attorney and living will documents. • If appropriate, invite family to attend pre-dialysis information sessions. • Access information re: changes in intimacy and sexual functioning. • Ensure that younger children have an opportunity to learn about and discuss their feelings regarding living with a family member who has chronic renal insufficiency. 	
----------------------------	--	--	---	--

Provincial PD Joint Initiative: DRAFT Manual on the delivery of PD in Ontario

CKD Laboratory Values: Hgb, Hcl, electrolytes, Ca Phos	See anemia, nutrition, etc			
Medication management -	See anemia, BP, tums			

Principles of Adult Learning

1. The topic must be perceived as relevant for the adult learner. If the adult learner understands how the information will meet his/her personal goal, there will be more motivation to learn. The information needs to be seen as practical, useful and will benefit the learner in some important way. A useful analogy for teaching adults is that the information is like a puzzle piece that needs to fit into the whole jigsaw puzzle. The teacher needs to help the adult learner answer “what’s in it for me”.
2. Build from the adult learners existing knowledge and understanding. This demonstrates respect for the patient’s life experiences, current pressures and needs. Teaching the patient something he/she already knows is a wasted effort and the patient may become frustrated and “tune out”. The educator needs to keep the adult learners pride intact by acknowledging different points of view and complimenting them for asking questions.
3. Allow opportunity for self directed learning/active participation. Adult learners do better when they feel in control of the learning process and methods. Letting the adult learner determine the pace and order of the material to be covered will enhance learning. Allow for lots of questions. In a group setting time for dialogue with other patients who are dealing with similar challenges will enable learning.
4. Learning styles vary. Try to understand what works best for the individual patient; verbal, written, pictures, learn by example. In a group setting use several methods to reduce boredom and to reach all individual learners. Some patients want to first understand “the why” before learning knowledge or a skill. Others first want to learn “the what” with the rationale at a later date. The teaching plan should be flexible enough to accommodate these variances.
5. A positive pre-existing relationship with the educator reduces anxiety, builds trust and facilitates knowledge transfer. Ask them about their concerns. Many patients cannot learn until concerns such as: “how long will I live, how well will I live” are addressed. Exploring these questions will demonstrate that the educator cares about them and fosters a relationship of trust. The following well-known expression is very applicable “They don’t care how much you know until they know how much you care”.
6. Validate learning with the patient and family at a later time in a non-stressful supportive environment to ensure the learnings have been sustained. Research demonstrates that learners need to hear or see something demonstrated three times before knowledge/skill transfer occurs.
7. Be mindful of cultural diversity and its impact on the barriers and motivation to learn e.g., some may view sickness as a punishment and feel guilty or fatalistic about taking an active role in their health. Beliefs need to be explored and satisfactorily addressed before significant learning can occur.

Teaching the Elderly

The same principles of adult education apply to the elderly and “hard to reach” adults, but there are some additional considerations and strategies to effectively reach these learners. While advanced age may result in physical, psychological and socio-cultural changes, many elderly with the proper

support, can learn to take a more active role in their care. The elderly and “hard to reach adults” have the same need to learn about and effectively manage their health.

Potential Barriers to Teaching the Elderly: Physical Changes

Visual impairment is very common in individuals 65 years or older. Squinting, relying on touch or being withdrawn may indicate visual loss. Be alert for other cues such as the clients may say, “I left my glasses at home”. Strategies for effective teaching of the elderly with vision loss are as follows:

1. Always speak to the patient and identify yourself when entering the room.
2. Use touch more frequently.
3. Position yourself close to the patient during interactions.
4. Face the patient directly when speaking, speak clearly, and avoid speaking too rapidly.
5. Ensure that there is good lighting with no glare.
6. Give verbal explanations since the patient may be few, if any, visual cues as reference.
7. Use other forms of sensory stimulation such as touch, sound, and smell. Substitute or reduce reading demands by using tapes, CD’s, models, etc.

Given these strategies, teaching on a one to one rather than group setting may be more effective.

Hearing loss for higher frequencies occurs first in the elderly and may be manifested by leaning closer to the speaker, cupping the ear, asking for things to be repeated or answering questions inappropriately are indications of hearing loss. Strategies for effective teaching in response to hearing loss include:

1. Touch the patient so he or she is aware of your presence before you attempt to speak.
2. Keep your face visible to the patient and do not cover your mouth with your hands. Have the patient look at you while you are talking.
3. Keep yourself positioned on the same level as the patient.
4. Be certain that the windows or lights are behind the patient so a glare will not occur when he or she looks at you.
5. Do not shout. Enunciate clearly and slowly in a low pitched voice. Speak towards the ear which seems to have the most hearing.
6. Use shorter sentences and repeat or rephrase important areas of instruction. If necessary, write or draw the information.
7. Use gestures or objects to clarify what you are saying.
8. Eliminate distractions or extraneous noise before teaching.
9. Do not change the topic abruptly.
10. If the patient is fatigued or in pain, he or she will understand less.

Intellectual Ability

Intellectual ability does not decline with age but it does change. The capacity to perceive relationships or think in abstract terms decreases in some elderly. Established habits and preconceived ideas (more common in the elderly due to their longevity) interfere with learning.

1. Allow more time to absorb new information and ask questions.

2. Break down information into smaller steps.
3. Before introducing new material, determine recall of previously learned material in a safe and positive environment and repeat as required.
4. Use consistent and simple vocabulary.
5. Appeal to all 5 senses in educational program
6. Proceed from simple to more complex tasks.
7. Encourage active participation.

The elderly often struggle with changing roles due to retirement and changes as their children become adults. Some become isolated and suffer loss of independence. An illness often adds one more level of complexity to their lives. Teaching strategies that recognize and build on a wealth of life experience will enhance self-esteem and make the elderly learner more receptive. Patients with diminishing renal function may not be able to think clearly, may be depressed or anxious which will interfere with the learning process. A thorough assessment to determine the underlying cause and associated treatment is essential before significant learning can occur.

Teaching the “Hard to Reach” Client

Hard to reach patients due to language barriers may benefit from interpreters or the active participation of a trusted bilingual family member. Hospital programs may find it useful to develop information pamphlets in other languages. If the patient has vision or hearing deficits the previous discussion on these deficits for the elderly will apply. Cultural barriers to learning must be understood and respected. North American aboriginal patients at times appear “non compliant” with instructions etc when the real problem may be a lack of trust or confidence in the traditional health care system. Working through health care providers “of the native” community who are trusted may help meet their educational needs.

Considerations in Developing the Adult Learner Teaching Plan

1. Learning goals should be specific, measurable and actionable.
2. Ignorance of the topic does not equal stupidity.
3. Most people are comfortable reading 3-5 grades below their educational level. MS Word can check for grade level.
4. Reading material should use columns with < 7 words/line.
5. Utilize short syllable words as much as possible e.g. for arrangement use plans instead, for edema use puffy or swollen instead.
6. Use pictures in written material.
7. Mix fonts for visual interest.
8. Avoid scary anachronisms i.e. “End Stage Renal Disease” instead say, as you reach the point when your kidneys can not do the whole job of cleaning your blood ...

Principles of Adult Learning Summary

Research on health related learning demonstrates that patients learn that they can understand their health problems, find solutions, and realize that they can change their lives in a positive way. A well-designed teaching plan that helps the patient meet his/her goals will facilitate a positive life change.

CKD - Model of Care

Based on the principles of adult learning, the educator should be a knowledgeable care provider who has developed a relationship of trust with the patient/family. A consistent care provider who knows and is known to the patient is in the best position to develop this trusting relationship. The educator should also be aware of and accountable for the achievement of program goals, ie growth in use of Peritoneal Dialysis.

A multidisciplinary approach to patient education is essential to ensure that the principles of adult education are followed. For example, if the patient is extremely anxious, this anxiety must first be addressed possibly with the help of a social worker, before significant learning can occur.

If CKD (pre-dialysis) education is to be effective, the staff providing such education must have time to plan, implement and evaluate educational programs. One of the most successful programs in Ontario in achieving high use of PD as a modality (37% of total) recommends a staffing ratio of one nurse case manager for every 250-300 active CKD patients. In this same program the key responsibilities of the case manager are:

- To schedule an appointment with the case manager
- To obtain a complete nursing history and to assess the needs of the patient/family at the first visit
- To arrange consults to the allied health team
- To organize and provide the patient's educational sessions and evaluate same
- To initiate transplant workup once an order has been written by the nephrologist
- To communicate with other members of the multidisciplinary team and family practitioner the patient's progression
- To assist with the patient's transition from CKD to a dialysis modality'
- To maintain accurate documentation and forward to other practitioners as appropriate

The case manager must also have access to other members of the multidisciplinary team (social worker, dietitian, physiotherapist, pharmacist) as the need arises.

Each Renal program in Ontario will have its own unique organizational structure and so must determine how best to staff the CKD area but staffing ratios should be such that an effective program can be offered.

C4) The pre dialysis educator should be a knowledgeable care provider who has developed a relationship of trust with the client/family. They should also be aware of and accountable for the achievement of program goals.

C5) A multidisciplinary approach to patient education is essential.

C6) Staff providing education must have time to plan, implement and evaluate education programs as well as have access to other members of the multidisciplinary team. A staffing ratio of one nurse case manager for every 250-300 active CKD patients should be supported for this purpose.



PD Training and Education

As per the CKD Model of Care, the Regional CKD centre is accountable to ensure that the standard of CKD care is maintained within their respective region. This is done, partly through the provision and/or coordination of education to the patients and to PD care providers including regional CCACs, care provider agencies, and LTC home staff.

It is acknowledged that HD therapy will be favored when insufficient professional PD experience prevails. This will be even more the case if a HD unit structure and trained staff are more readily available and accessible than the PD counterpart. Therefore factors that facilitate the use, support, and availability of PD, such as PD education, should be used in order to contribute to an increase in PD use.

There are currently no standards in establishing PD competencies or any standard certification processes in place. This has resulted in varying practices in training and education by CKD programs. It is the belief of the PD Training and Education Task Group that there is a correlation between the training received by patients and families in managing their PD at home and in their retention on the home PD program. It is, therefore, of importance to ensure the quality and standard of education provided by CKD programs is done in a manner that enables patients to choose PD as their dialysis modality and remain on it.

The goals of standardized PD training and education are:

- To support patients, their families and caregivers in their choice of PD
- To provide training and education to ensure safe and effective peritoneal dialysis
- To assist in early identification and treatment of PD related problems thus ensuring patient safety, satisfaction and retention on the PD program

There are, however, identified barriers to standardization of staff education. They include:

- Numerous dialysis companies providing equipment and supplies

- Varying levels of educational backgrounds of providers,
- Inconsistent levels and duration of training programs being offered,
- Staff turnover and coordination of training of new staff.

There are a number of strategies that are being used by various CKD programs to facilitate the knowledge transfer of PD skills. Dialysis vendors in some programs have been instrumental in training care providers on their respective CCPD machines and offsetting some of the training from the CKD Regional Centre. Dialysis vendors have also facilitated community providers such as CCAC nursing agencies and LTC home staff to learn their respective PD systems. Involving the dialysis vendors in the training process will help CKD programs provide specific training on the equipment and supplies used by the program.

D1) CKD programs to include dialysis vendors as part of their training and education programs to enable training on specific systems, equipment, and supplies provided directly by the dialysis vendor.

Consistency in training and education is key to establish a standard level of knowledge and skill set among PD care providers. Use of a core curriculum for training and education will facilitate CKD programs in managing the varying levels of education amongst care providers. It will also establish staff education and training processes whose PD content is consistent and provide CKD programs the flexibility of designing training and educational programs that best suit the educational needs of their staff.

The PD staff training and educational task group created a core curriculum that is in alignment with various nephrology nursing college courses, existing staff training and educational programs within CKD centres, and the Canadian Nursing Association's Nephrology Nursing Certification Exam: List of Competencies for PD. It provides a list of elements that are felt to provide a good foundation of PD knowledge and enables the creation of education and training programs that best fits the professionals being trained. Each component can be taught in varying level of detail to match the skill set, competencies, and roles played by each trainee. The exact content provided during PD training predictably will vary, but a desire to include the most up to date, evidence based knowledge, should allow for the evolution of ever increasing standards of care.

The objective is to have a curriculum that is consistent in practice and education for patients, families, and providers in CKD programs, LTC homes, and in the community with CCAC service providers. (See Table D1.)

Table D1.

<u>CORE CURRICULUM</u>	
SECTION 1: OVERVIEW	
- Understanding Dialysis	
- Renal Anatomy & Physiology	
- Definitions	

- Terminology
SECTION 2: INFECTION CONTROL - Hand Washing - Clean Technique
SECTION 3: FLUID BALANCE - Fluid Assessment - Definitions for Fluid Status
SECTION 4: PD CATHETER MANAGEMENT - Catheter Flushes - Exit Site Care - Dressing Technique - Healthy and Infected Exit Sites
SECTION 5: PD PROCEDURES - Cyclers, APD or CAPD
SECTION 6: INTRAPERITONEAL MEDICATIONS - Diabetes Management - EPO, Antibiotics, Heparin, Xylocaine
SECTION 7: PERITONITIS PROTOCOL - Identification, Sampling, Antibiotics
SECTION 8: TROUBLESHOOTING/SUPPORT - Telephone numbers to Call
SECTION 9: END OF LIFE CARE ISSUES - Life Support and Withdrawal - Power of Attorney for Care - Resuscitation Plan

D2) The PD Coordinating Committee’s training and educational curriculum is to be adopted and incorporated into the training and educational programs within CKD centres.

In recognition of the various nursing care providers taking part in the administration of PD care, guidelines for level of care in PD were created (See Table D2, Pg. 58).

Basic skill level describes the minimum standard of information required to provide for safe delivery of PD for a stable patient with predictable outcomes and changes, realizing that the situation may

require collaboration with the patient's home unit or available resources if the patient's status changes.

Intermediate skill level may be required for a moderately predictable patient (see guide on page 61). The degree to which collaboration will be required will be determined by the amount of practical experience the practitioner has in the care of PD patients.

Advanced skill level may be required for an unpredictable patient (see guide on page 61). The degree to which collaboration will be required will be determined by the amount of practical experience the practitioner has in the care of PD patients.

Determining the appropriate level of care for various care providers, enables the educational content to be tailored to match the tasks performed for the delivery of PD care. In addition, using the College of Nurses document on the Roles and Responsibilities of the RN vs. RPN will further direct and guide the determination of appropriate PD tasks to be allocated based on professional competence and roles. (See page 58).

TABLE D2: GUIDELINES FOR LEVEL OF CARE IN PERITONEAL DIALYSIS

Skill Level	Care Provider	Available Practice Supports	Dialysis Tasks - lists below are cumulative	Complexity of Health Status	Patient Risk
Pre-Basic (Assisted Care) (assisting pt. and/or family)	-Unregulated -RPN -RN	- Health Care Provider (Agency) Educator - Trained Family Members/ Caregiver - Trained Patient	- lifting bags - patient's weight - blood pressure to support fluid assessment - cyclor set-up - equipment clean-up - exit site care	N/A	N/A
Basic (B)	-RPN -RN	- Regional Centre RN's - Regional Centre MDT - Health Care Provider (Agency) Educator - Trained Family Members/ Caregiver - Trained Patient	<i>Understanding of:</i> - Normal Anatomy & Physiology, Renal Failure - PD Modality/ Principles/ Prescription <i>Assessment of:</i> - Overall Health Status - Lab Values - Fluid Assessment - Exit Site/Wound care <i>Practice of:</i> - Machine Programming - Bag Selection - addition of heparin, antibiotics and insulin (in collaboration with home unit) - Infection Control - Medication assistance i.e. EPO, dosettes <i>Supervision of Patient:</i> - Connection/ Disconnection - Machine Set-up - Bag Selection <i>Identification and Understanding of:</i> - Infectious and non-infectious complications in the ESRD patient - role differentiation between RN & RPN/ RN	LOW <i>Patient's Physical Health:</i> - Stable over time - Well managed by patient/family - Well defined medical conditions <i>Patient's Psychosocial Health:</i> - Stable over time - Well defined - Well-managed by patient/family	LOW - Changes to patient status obvious - Predicted low acuity response to status changes - Well-defined plan for response to changes - Well-defined communication and reporting of changes
Intermediate (I)	- RPN -RN	-As Above	<i>Understanding of:</i> - Co morbid Conditions <i>Assessment of:</i> - Fluid/ BP Assessment (Frequent need) - Catheter Functioning/Complications <i>Practice of:</i> - Adding infrequently ordered medication to Bags i.e KCL - Catheter Irrigation <i>Identification of:</i> - Need for patient teaching/ learning - Acute response to health changes	MODERATE to HIGH <i>Patient's Physical Health:</i> - Variety of Comorbid conditions - Unpredictable/ frequent changes in physical health - Uncontrolled / unmanaged health issues - Subtle changes in patient status - Limited patient ability to respond to changes - Limited family/caregiver ability to respond to changes <i>Patient's Psychosocial Health:</i> - Large patient knowledge deficit - Extreme anxiety/overwhelmed - Poorly managed or unrecognized by patient/family - affecting compliance with plan of care	MODERATE to HIGH - Changes to patient status likely to be unpredictable - Response to changes likely to be acute - Outcomes to changes in status likely to be grave if not responded to - Communication plan regarding reporting unclear or undefined (few resources on hand for immediate feedback)
Advanced (A)	- RPN -RN	- Regional Centre RN's - Provincial Education i.e (Certificate Programs, Nephrology)	- Demonstrates advanced knowledge of Renal Failure once experienced in the provision of care of PD patient - Assessment of PD Adequacy - Assessment of membrane function	HIGH <i>Patient's Physical Health:</i> - increased complexity of health status	HIGH - need for adjustment in current level of care provided

ROLES OF THE RPN AND THE RN AS PER THE CNO

Ontario College of Nurses

RNs and RPNs – Working Together

Introduction

In Ontario, nursing is one profession with two categories, Registered Nurse (RN) and Registered Practical Nurse (RPN). Although there are areas of overlap between the two categories in the performance of certain patient care tasks, critical practice differences exist. These differences are based on entry and ongoing nursing knowledge, and competencies. While it is important to be able to articulate these differences to ensure that the most appropriate care providers are matched with the appropriate patient populations, it is also important that RNs and RPNs work together to collaborate to meet patient care goals. Research results are now providing evidence of the impact of collaborative nursing (RN and RPN) practice on the delivery of safe and effective patient care¹. Research, however, has not determined the precise mix of registered staff that leads to the most effective and efficient patient care.

As the regulatory body for both categories of nurses, it is the responsibility of the College of Nurses of Ontario (CNO) to clearly describe the scope of practice for nurses (RNs and RPNs). Since both categories share a legislated scope of practice, there is often confusion on the part of nurses, employers, the public, and even other nursing organizations, as to which category of nurse is prepared to meet the varying needs of patients. CNO has interpreted the level of autonomy and consultation required for each category of nurses, through documents such as the [Utilization of RNs and RPNs](#) practice guideline. This document guides the determination of appropriate nursing staff mix based on characteristics of the client population, the environment and the nurse.

Educational Differences

The basis of differentiation in RN and RPN practice begins with the basic program of nursing education. Although there have been changes to both the registered nursing and practical nursing programs, effective January 1, 2005, the inherent educational differences and consequent practice differences remain. RNs now graduate with a baccalaureate degree in nursing. RPNs graduate with a two-year practical nursing diploma. Educational programs are becoming available for RPNs who wish to obtain the additional theory and clinical application required to become an RN. These programs (approximately three years in length) provide an opportunity for RPNs to obtain a baccalaureate degree in nursing.

Practice Differences

Although both categories of nurse take academic courses in their basic programs that have similar titles, there is a difference in both the depth and breadth of knowledge that is covered, in the competencies that are developed, and in the expectations for clinical

performance. For example, differences exist in the creation and implementation of care plans. An RPN, after carrying out a patient assessment, is required to determine if she/he is able to meet the patient care needs or if consultation with an RN is required. The consultation may result in a sharing of ideas and approaches or, in fact, may involve transferring the care to an RN, depending on the complexity and acuity of the patient and the environmental factors. (See [attached table](#).) An RN, drawing on a more in-depth theoretical and clinical knowledge base, has a greater range of care delivery options from which to select when adopting a plan of care.

For example, an RN can carry out a broader, more in-depth assessment, and is expected to be able to analyze and synthesize patient data to a much greater extent than an RPN. An RN is prepared to address complex, unpredictable patient care needs.

While both categories may be capable of performing a patient care intervention, the technical performance alone is not sufficient. The technical performance must be accompanied by a specific level of cognitive ability (i.e., critical thinking, decision-making, professional judgment). The presence of these cognitive competencies in the care provider, in combination with patient and environmental characteristics, are critical to decisions around staff mix and assignments of care providers to patients. Collaboration among RNs and RPNs is an essential determinant in supporting ongoing decision-making about matching care providers competencies and skills with patient care needs.

How does this translate into practice? An RPN independently cares for an elderly patient in the community who has controlled diabetes and an infected foot ulcer that is responding well to treatment. In the same practice setting, an RN cares for a patient with diabetes who has an infected foot ulcer that is not healing well, and whose blood sugars are fluctuating. Again, the emphasis is not just on the skill of providing the wound care but rather on the complexity and/or acuity of the patient, the predictability of the patient's needs, the nurse's knowledge, skill and judgment to assess and manage the outcomes, and the environmental supports. Each nurse, whether RN or RPN, must continually assess these factors. Understanding these concepts emphasizes the importance of professional judgment rather than sole reliance on technical skills.

Decision-Making Factors and Questions to Consider

As a result of the differences in education, RNs and RPNs have different levels of autonomy in practice. The level of RN and RPN autonomy and the degree of required consultation are directly influenced by the patient's condition and the environment in which care is provided between the categories of nurses. (See [table](#).)

When determining staff mix, decision-makers are encouraged to consider the following questions:

- What competencies are essential in providing patient care that will lead to a positive patient outcome?
- Does the unit workload allow adequate time for consultation and collaboration amongst nursing staff?
- Is there a methodology available within the organization to evaluate the impact of staff mix, or changes in staff mix on patient outcome?

Changes that occur in staff mix in the absence of evaluation and evidence-based decision making will lead to further confusion on the part of governments who fund nursing services, employers who determine staff mix, and RNs and RPNs who are responsible (within the range of the competencies of their category) for delivering safe, effective and ethical care.

The following table outlines the patient factors and environmental circumstances that influence the level of RN and RPN autonomy and consultation.

<p>RPNs and RNs can independently care for patients defined as low risk with little or no consultation.</p>	<p>RPNs and RN collaborate at varying degrees in the care of patients in the medium-risk category.</p>	<p>RNs care independently and RPNs may be involved in limited aspects of care provided to patients in the high-risk category.</p>
<p>Patient</p>		
<p>Predictable Outcomes and changes</p>	<p>Moderately predictable Health conditions may not be controlled or managed A number of identifiable changes could occur Timing may not be predictable</p>	<p>Unpredictable Outcomes and changes</p>
<p>Less complex Care needs well defined Coping mechanisms and support systems in place Health condition well controlled Little fluctuation over time Individual, family or group</p>	<p>Moderately complex Readily identifiable or established care needs which may/may not be related Full range of coping mechanisms may/ may not be in place</p>	<p>More Complex Care needs not well defined/established or changing Coping mechanisms and supports unknown, not functioning or not in place Health condition not well controlled or managed Requires close, frequent monitoring and reassessment Fluctuating condition Communities and populations</p>
<p>Low risk of negative outcome in response to care Localized and manageable responses Obvious signs and symptoms</p>	<p>Moderate risk of negative outcomes A number of identifiable negative outcomes are possible Outcomes have a systemic effect creating an urgent or emergent situation</p>	<p>High risk of negative outcome in response to care Unpredictable, systemic or wide- ranging responses Signs and symptoms subtle and difficult to detect Effect may be immediate, systemic and/or create an urgent or emergent situation</p>

Environment		
Many practice supports Clear and identified supports (e.g., policies, plans of care assessment tools) High proportion of expert nurses High proportion of nurses familiar with environment	Some practice supports Have policies, parameters, plans of care that may be individualized to meet client care needs Some independent decision making required	Few practice supports Unclear or no policies, plans of care, or assessment tools Low proportion of expert nurses or high proportion of novices Low proportion of nurses familiar with the environment
Many consultative resources Stable and predictable environment Low rate of client turnover Few unpredictable events	Some consultative resources Moderately stable and predictable environment Turnover of clients Considerable variation of overall client care needs	Few consultative resources Unstable and unpredictable environment The number and types of clients requiring urgent care are not consistently predictable It is difficult to identify an overall consistent level of client care requirements Wide variety of care needs within a group High rate of client turnover Many unpredictable events

References

1. L. McGillis Hall; D. Irvine Doran, "A Study of the Impact of Nursing Staff Mix Models and Organizational Change Strategies on Patient, System and Nurse Outcomes" (2001), Faculty of Nursing, University of Toronto
2. College of Nurses of Ontario: Utilization of RNs and RPNs practice guideline (2004) and Alberta Association of Registered Nurses Guidelines for Assignment of Patient/Client Care and Staffing Decisions (2003).

CKD programs, along with partnered community PD providers to:

- ***D3) consider the scope of practice and appropriate roles for care providers involved in the delivery of PD care, to determine the appropriate PD tasks to be allocated to each care provider.***
- ***D4) determine the educational detail and content to match and support the allocated PD tasks through use of the PD Guidelines for level of care in PD table.***
- ***D5) The curriculum is to be included in the education and training of other care providers as deemed necessary by the regional CKD programs.***

Once educational content and training of PD care providers has been established, it is important for CKD programs and their community partners to ensure understanding of the roles and responsibilities involved of each partner to sustain the educational requirements and needs in support of staff providing PD care.

A Development of a memorandum of understanding (MOU) between community providers i.e. CCAC nursing providers and LTC home staff, and the regional centre may facilitate transparent expectations and understanding of service provision between partners. Ongoing quality monitoring and improvement activities can also be supported.

The MOU should outline the process and content of education to be provided by the Regional centre to staff within the community. The MOU should stipulate that it is the responsibility of the employer of trained staff to PD to assess and maintain ongoing competence in order to ensure safe and effective provision of PD services. The Regional CKD centre should always be kept updated as to how the process and outcomes in maintaining competence is accomplished by the community provider. Given the Model of Care document, the Regional CKD centre is required to ensure that a standard level of care is being provided to the dialysis patients affiliated with the respective program. If inadequate care is being provided, CKD centres should be enabled to identify and communicate their concerns about the care, and be able to work collaboratively with these community providers to resolve any issues and improve the level of care being provided. These are some elements that should be included within the established MOU between CKD programs and community partners.

D6) A memorandum of understanding (MOU) between partnered CKD program and community PD provider be established and signed.

D7) Terms of the MOU should include:

- ***Educational content and resources to be provided***
- ***Processes for monitoring community providers' PD performance to ensure staff competence.***
- ***Process for resolution and improvement to deal with situations of inadequate care being provided***

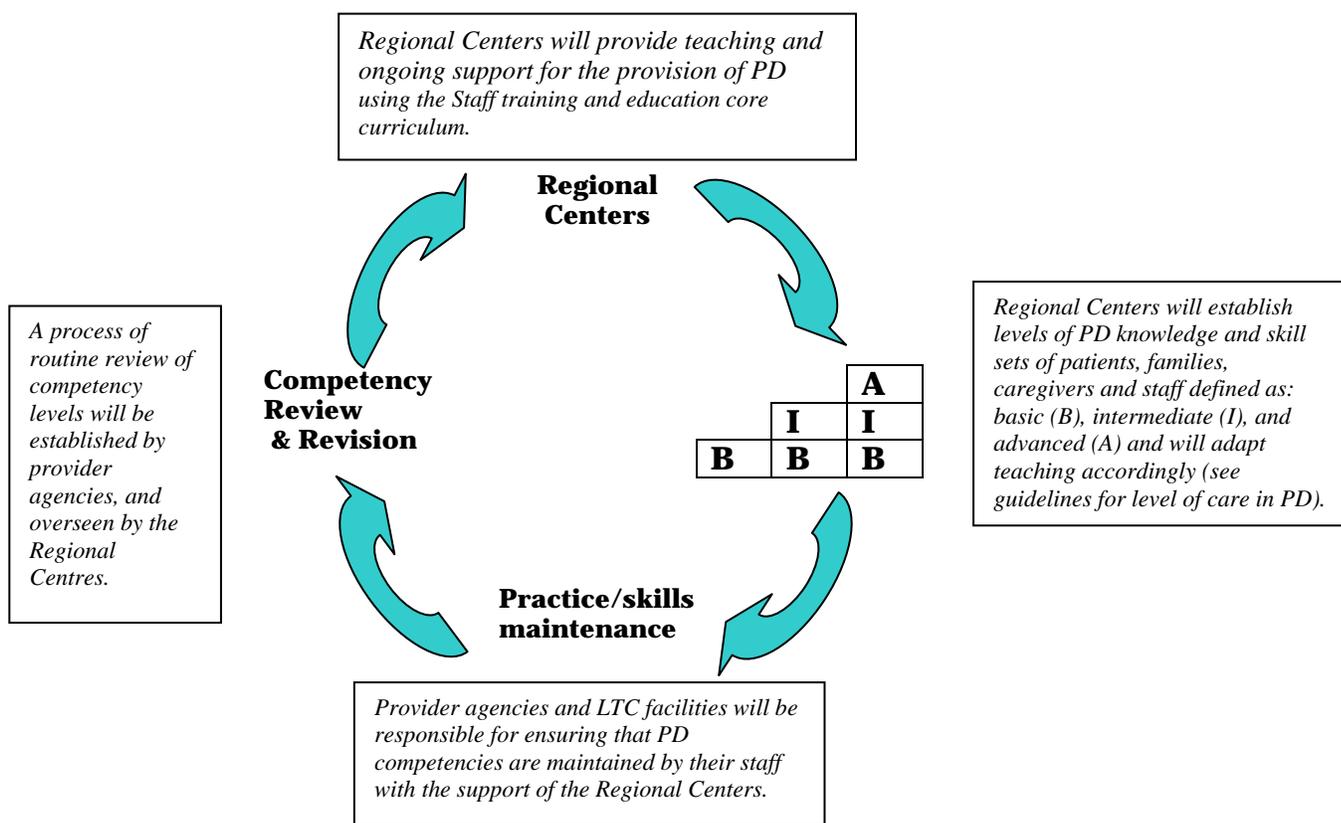
The work of the PD Training and Education Task Group focused on the core elements for PD training and education of PD care providers. In order to promote and support PD as a dialysis choice for patients, it is imperative that nephrologists have the knowledge and comfort to manage patients on PD.

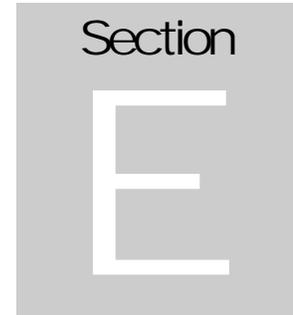
The International Society for PD (ISPD) has an established PD curriculum for Nephrology Fellow Trainees. It is recommended that the ISPD curriculum be used for the education and training of Nephrology Fellow Trainees.

D8) The PD curriculum set up by the International Society for PD, be part of all Nephrology Fellows training programs.

Figure D1 provides a summary of process elements required to provide PD training and education. By following the recommended steps outlined above and by utilizing a standardized core curriculum in PD training and education, will enable creation of educational programs that will assure inclusion of elements that establish the standard of PD practice.

Figure D1. Collaborative Educational Model





PD Catheter Implantation

PD Catheter Implantation

Recommended PD practice guidelines state that PD catheters should be created more than 2 weeks prior to the start of PD.²¹ Timely PD catheter insertion is a vital component of PD service provision. Without the ability to provide patients with expedited PD catheter implantations, patients will go on to HD.

To increase access to and increase the effectiveness of PD catheter implantation the following are recommendations that should be considered as means to expedite PD catheter implantation.

Surgical recommendations include the need for:

- Catheter implantation be considered a priority by hospital administration and those responsible for the overall operating room operational scheduling and surgical staff.
- Operating rooms be equipped with the special technology needed for laparoscopic implantation.
- Hospitals provide dedicated OR time to accommodate the demand and ensure PD catheters are placed within the standard 2 week time frame. This time is not to be part of the surgeon's OR time.
- Surgeons undergo standardized training and one or two committed surgeons are identified for this purpose.
- The surgeon be prepared to provide PD catheter removals on short notice for patients requiring catheter removal in cases of unresolving or fungal peritonitis and insertions on short notice for acute peritoneal dialysis.
- PD catheter implantation not be performed by unsupervised surgical residents or fellows.

²¹ Exception for buried PD catheter insertions.

Provincial PD Joint Initiative FINAL REPORT: Strategy on the Delivery of PD in Ontario

- The nephrologist in charge of the PD program in collaboration with the designated surgeons chooses the technique of implantation (by laparoscopy, peritoneoscopy, or laparotomy) and the type of PD catheter.

Resource utilization within CKD Model of care include:

- Large institutions make their services for PD catheter implantation available to smaller institutions until they have enough volume to justify an experienced surgeon of their own.
- Hospitals should explore alternative services that can provide ways of supporting PD catheter implantation i.e. interventional radiologists or nephrologists to support expeditious implantation and more cost effective methods and provide resources required to support the performance of these services.
- Assist with the selection of the exit site and the care of the catheter and the patients, before and after implantation.

And Quality Assurance and Continuous Quality Improvement recommendations include:

- At least every six months at a combined meeting between surgeons (or other health providers inserting PD catheters) and the nephrology team, the results of PD catheter data be reviewed. Data includes the following:
 - Date of catheter implantation and first use
 - Individual who implanted the PD catheter
 - PD Catheter type
 - Implantation technique
 - Number of PD Catheter failures and complications
 - Date PD catheter failed and reason
 - Whether PD catheter was revised or new one inserted.
- Early (within one month post-implantation) complications related to the following be collected:
 - Outflow obstruction
 - Manipulation and outcome
 - Two-way obstruction
 - Positional flow only
 - Persistent bloody effluent
 - Peritonitis
 - Exit site infection
 - Dialysis fluid leak
 - Other abdominal complication (specify)
- That data be shared with other programs in an annual forum to promote “Best Demonstrated Practices”

Other considerations:

- In large cities and where there is support by the Nephrology community, consideration be given for the creation of a PD Access Centre (perhaps together with vascular access).
- Higher fees for catheter implantation be negotiated with the OMA Tariff Committee to more appropriately support and encourage the resources, time, and desire of MDs to provide expedited services to implantation of PD catheters.

To increase access to and increase the effectiveness of PD catheter implantation:

8) The Peritoneal catheter implantation should be planned in advance and the PD catheter be implanted within two weeks or more before Dialysis starts. If there was no previous planning, then services should be available to facilitate PD Catheter implantation within no more that two weeks from request by the Nephrologists.



Retention on PD

In order to reach the 30% PD target, efforts must be directed not only towards increasing recruitment of new patients to PD but also to increasing retention of PD in existing patients.

Growth in the number of prevalent patients on PD can only occur if retention is enhanced at the same time as recruitment increases. If current rates of technique failure persist, it will be very difficult to achieve the provincial PD target.

Currently, technique failure on PD is in the range of 25%²² at two years. This attrition rate is multifactorial in origin but some of these factors can be addressed. Healthier patients with lower comorbidity frequently leave PD after receiving a successful renal transplant. Exits also occur due to patient death as the mortality rate among end stage renal disease patients is in the range of 15% per year irrespective of dialysis modality. Other significant causes of patient transfer to hemodialysis include refractory peritonitis, PD catheter malfunction, inadequate dialysis, inadequate fluid removal and patient/family burnout.

The following recommendations have been designed to address the remediable medical, social, and logistical causes for transfer from PD to HD. There are also recommendations for tracking of retention with a provision for centers to use the data in a CQI capacity to identify their individual patterns of retention. It is likely that a significant number of transfers to hemodialysis are preventable through a combination of optimal clinical practices to support retention and enhanced CCAC support. With implementation of these recommendations, it is anticipated that Ontario will move towards the goal of 30% of prevalent dialysis patients treated with PD.

²² Technique failure is the probability of a patient discontinuing his initial dialysis modality. Dr. D. Oreopoulos.

Strategies that would help with PD retention include:

F1) Data from each regional program should be centrally collected at regular intervals to track retention on PD. Tracking should begin once a patient indicates PD as the preferred modality. Exits from PD should be classified as due to medical, logistic, or social reasons. Specific reasons for exits from PD should be indicated.

F2) This data should be available to each program for use in CQI capacity. Statistics on loss of patients from PD should be reviewed on a regular basis by each regional program.

F3) Best demonstrated practice statistics should be made available by the province so that programs can benchmark themselves.

F4) A core group of indicators including: losses due to peritonitis, due to catheter malfunction, due to logistic barriers, and due to social barriers be reviewed regularly. Areas where efficiencies are identified should be flagged for attention by the medical director of the program.

F5) Clinical practices to promote retention of patients on PD should be encouraged.

These practices include:

- a) Timely insertion of PD catheters: allowing at least two weeks for the catheter to heal prior to starting PD. Surgical resources should be available so that the time from referral to insertion of a PD catheter is less than four weeks. In many centers, this will require funding to establish dedicated operating room time for insertion of PD catheters. Dedicated operating room time should also allow resources for an expedited second catheter (within less than two weeks), if the initial catheter fails. Recommendations for optimal practices of PD catheters have been published by the International Society for Peritoneal Dialysis.²³
- b) Practices to reduce the risk of peritonitis. These practices have been summarized by the International Society for Peritoneal Dialysis.²⁴
- c) The use of newer peritoneal dialysis solutions. These solutions have emerged as potentially very important in extending the length of time a patient can be successfully treated with PD.
 - i) Icodextrin is a non glucose containing solution which has been shown to enhance ultrafiltration and improve blood pressure control. The routine use of icodextrin means that fewer patients require transfer to HD due to inadequate ultrafiltration.
 - ii) In addition to icodextrin, a new generation of biocompatible PD solutions has recently become available in Canada. These solutions differ from standard glucose

²³ Flanigan M, Gokal R. Peritoneal catheters and exit site practices towards optimum peritoneal access: a review of current developments. Perit Dial Int 2005; 25:132-139

²⁴ Piraino B, et al. Peritoneal dialysis-related infections recommendations: 2005 update. Perit Dial Int 2005;25:107-131

based solutions because they have a physiologic pH, bicarbonate buffer, and are free of contaminants called glucose degradation products. There is data suggesting that these solutions cause much less damage to the peritoneal membrane than traditional solutions and it is expected that there will be less peritoneal membrane damage with these solutions than traditional solutions. Membrane failure manifests as ultrafiltration failure which inevitably leads to transfer to HD.

- iii) These innovated solutions are more expensive than tradition PD solutions and current reimbursement rates do not allow for most programs to use them. We recommend that once their efficiencies are confirmed by long term controlled studies, the funding formula for CAPD and CCPD be changed to allow for programs to use these novel solutions in appropriate patients.
- d) Adherence to new adequacy targets. Previous PD adequacy targets published by the National Kidney Foundation were based on flawed data and recommended very ambitious adequacy targets. This lead to many patients transferring to HD because of inability to achieve these targets. Recently, the Canadian Society of Nephrology has produced new draft guidelines recommending a more evidence-based approach with less ambitious targets. We recommend that these new guidelines be followed.

Further retention strategies include the availability of clinical resources to promote retention. The PD practice clinical guidelines task group's recommendations about staffing ratios are supported to be the standard. It should be stressed, as it has been pointed out by the PD practice clinical guidelines task group, that when a program is in a rapid phase of growth that lower patient to nurse ratios will be required to allow for the increased time commitment to training. A capacity for patient re-training when complications arise must also be built into the recommendations for nurse to patient ratios.

F6) When a program is in a rapid phase of growth, a lower patient to nurse ratio to be supported. A capacity for patient re-training when complications arise must also be built into the nurse to patient ratios.

Community support for patients on PD must also be enhanced in order to promote retention of those patients who have physical or cognitive limitations that impair their ability to perform PD unassisted. Many of the task groups have already identified many of these recommendations and have incorporated them into their strategies. It is recommended that:

F7) The minimal service for CCAC to provide support to those patients on PD who are unable to perform their dialysis without assistance would involve two visits per day, one to assist with CCPD set up and the second for disconnection.

F8) Each regional program identify one LTC home where a core of PD nursing expertise will be maintained.

This will allow for patients requiring LTC placement to continue on PD. At present, in many parts of Ontario, PD patients who require LTC placement must transfer to HD.

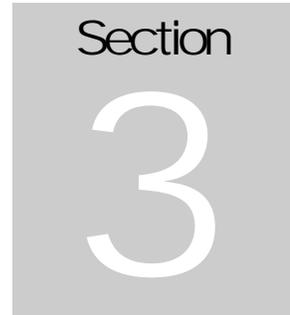
F9) Funding to LTC homes will have to be enhanced to support this initiative as PD patients will require above average nursing hours if they are to be safely maintained on PD.

F10) Rehabilitation of patients on PD be a priority.

At present there are limited opportunities for in-patient rehabilitation available to patients on PD. This is due to lack of trained staff at most rehabilitation facilities. As a result, patients on PD often do not receive optimum rehabilitation therapy, or if they do, they are either switched to HD or occupy an acute care bed. Failure to deliver timely and appropriate physical rehabilitation to PD patients may result in loss of patients to in centre HD.

F11) Respite care be made available to patients on PD.

In many cases, the family of PD patient assumes the burden of care and caregiver burnout is common and can result in transfer to HD. In other cases, patients may have temporary health setbacks which impair their ability to perform PD in the short term. The use of respite care can be crucial in maintaining patients on PD in these situations. Respite care should be available through the CCAC for patients requiring just assistance with PD, while those who also require assistance with other activities of daily living would be better served in an in-patient facility.



ESSENTIAL ORGANIZATIONAL SUPPORTS

Community Care Access Centres (CCACs) & Long-Term Care (LTC) Homes.

Ontario has the highest rate among all Provinces of elderly patients receiving Renal Replacement Therapy (RRT), with 42% of all new patients being 70% and older.²⁵ PD, in most cases, represents a medically effective choice of dialysis treatment for this patient population. These patients can receive their dialysis treatment in the comfort of their home (including LTC home) without having to frequently travel (as required in the case of in-centre HD). The barriers that affect the decision for some patients and/or caregivers²⁶ include:

- Clients feeling overwhelmed with learning the procedure/technology and or uncertainty about their ability to manage without the “safety net” of the nurse in close proximity.
- Some clients may not have the manual dexterity, eyesight, or physical strength to manage the process independently. For example, they may not have the physical strength to manage bags of dialysis fluids.
- Some caregivers that are willing to assist with PD care need support and/or respite from their care giving roles.

For CCACs, having a clear and consistent mandate to support PD clients and having recommended service plans that specify required resource supports, client criteria, standard operational processes and client goals will assure success of the provision of PD care in the client’s home environment.

For LTC homes, increasing the capacity to accept and care for PD patients will increase the number of patients choosing PD, decrease length of stay (LOS) of patients needing dialysis care, reducing the

²⁵ CIHI, 2005

²⁶ For the purposes of this document section, the term “client” includes both the client and the client’s primary caregiver.

number of alternative level of care (ALC) patients in hospital settings, and reduce the pressure on HD treatment capacity.

By enabling enhanced care specific to PD clients in their homes will reduce and eliminate the above mentioned barriers and give clients more choice in dialysis treatment modalities.

It is assumed that increasing community resource supports towards the delivery of PD through CCAC and LTC homes, will enable these elderly clients and those otherwise handicapped who would otherwise not be considered candidates for PD to choose PD. It is acknowledged that the impact of enhanced CCAC and LTC services in support of these patients and the degree these patients would choose PD as a result of this support is unknown; however, preliminary experiences by various CKD centres have demonstrated patients having benefited from this approach. The outcomes are to be studied and tracked through established indicators to determine accurately, the true impact CCAC and LTC have in assisting this population being maintained on Home PD.

Section
3a

Community Care Access Centers (CCACs)

Until recently, the extent to which CCACs were involved in providing Peritoneal Dialysis (PD) care to clients varied across the province. In many instances, CCACs provided services related to other health care issues and were not providing care to ensure PD clients remained on that modality. For example, referrals to CCACs may have been for services related to wound care, personal support services and other health conditions. But these CCACs would not have provided daily or twice daily visits of nursing and/or personal support to ensure clients remained on PD.

Partnership between the Regional CKD programs and the respective CCACs, facilitate the opportunity to design a solution that enhances the existing continuum of PD care and further integrates the PD client's care within the health care system. A systems approach to care delivery includes key roles for the client, CCAC case manager, CCAC community care team, and the Regional CKD program care team.

CCAC support can be categorized into three roles:

- Additional support and teaching to ease client transition from hospital to home;
- On-going nursing and/or PSW support for clients who are medically appropriate for PD and do not have a primary caregiver to assist with the PD in the home; and
- Respite and support for primary caregivers to support their capacity to continue in the care giving role.

The type and amount of service that is provided is based on recommendations from the care team at the regional CKD program and the CCAC assessment of the case manager. During client education sessions provided by the regional CKD program, the Nurse/Educator identifies the teaching and support needs of the client. Support may involve nursing, personal support and/or therapy. In some cases a nurse may be necessary for both the hook up and disconnect. Case managers and CKD Program staff must have a shared understanding of what is the appropriate level of support for each PD client. The case manager ensures the right services are provided to the right clients, adjusts services according to client needs, provides information about community services and supports, and ensures that clients are supported in their efforts to manage their own care.

3a1) CCACs and CKD centres are familiar with the roles expected of them as partners in administration of care and support of PD clients.

3a2) CCACs and CKD centres communicate needs of the PD client and work collaboratively in identifying client needs and appropriately allocate available resources of support within the client's care plan to ensure success of PD at home.

3a3) The number of visits in the CCAC service plan will reflect the PD client's condition and service goal (as per MIS Service Recipient Category).

1. Additional support and teaching to ease transition from hospital to home – Short-Stay Clients (Service Recipient Code (SRC) 91)

Clients who at the initial assessment are anticipated to achieve independent self-management of PD care within 60 days are deemed to require a short-stay on CCAC service. The CCAC service plan is expected to consist of nursing visits that may begin with a daily or twice daily visit frequency, and progressively decrease as the client's independent self-management increases by the 60th day. Variations in nursing visits will be based on the individual needs of the client and legislated service level maximums. For example, a client may require a mid-afternoon exchange when medically indicated.

For clients using CCPD, the basic exchange begins with hook up in the evening and occurs as the client sleeps during the night, lasting 8-10 hours. The CCPD apparatus is disconnected in the morning and the client resumes their activities of daily living.

The Personal Support Worker (PSW) role may or may not be involved with this client service plan. The primary responsibility for the teaching and monitoring role is with the in-home nurse. If a PSW is involved, he/she is in a supportive role completing specific non-nursing activities and/or activities delegated by the nurse for a specific client (for example, most often, in the morning disconnect). The nurse reports client progress to the case manager and the regional CKD program.

As with other CCAC clients, OT visits may be provided if there is a need for a home safety assessment. The case manager and the care team at the regional CKD program determine the need.

Where CCAC services are necessary to maintain the client on PD, it is recommended that:

3a4) The service for a Short-Stay Client to be provided with 1-2 times daily visits, ending within 60 days.

3a5) If a Personal Support Worker (PSW) is utilized within the client's care plan, the in-home nurse is responsible for teaching and monitoring. The PSWs are to be

in a supportive role completing specific non-nursing activities and/or activities delegated by the nurse for a specific client).

3a6) Other services i.e. OT can be provided if there is a need for a home safety assessment. The case manager and the Regional CKD program's care team to determine the need.

2. Ongoing nursing and/or personal support for clients who cannot manage PD care independently – Long-Stay Client (SRC code 93 or 94).

A client who is not anticipated to achieve independence in the self-management of PD care may receive nursing visits of up to 7 days per week, in accordance with legislated nursing service level maximums. This level of service intensity may be identified and implemented either after the initial assessment for CCAC services to support the client with PD care or may be as a result of a reassessment due to complications arising during a short-stay admission.

The PSW role, if needed, would be as for the short- stay client.

Where CCAC services are necessary to maintain the client on PD, it is recommended that:

3a7) The service for Long-Stay clients unable to manage PD care independently to receive nursing visits up to 7 days per week, in accordance with legislative nursing service level maximums.

3. Respite and support for primary caregivers – Long-Stay Client (SRC code 94 or 48)

The care plan that is designed for the purpose of respite/caregiver relief is developed with the input from the client and the primary caregiver. The amount and frequency of the service will be dependent on the individual's support needs and in accordance with legislated service level maximums for nursing and PSW. Some clients may request weekly, bi-monthly or monthly in-home respite/caregiver relief. In lieu of CCAC service for respite/caregiver relief, the client may choose to apply for short- stay respite in a long-term care home.

The specific activities and visit schedules of the in-home nurse and PSW in the service plan will reflect the care protocol for the PD client and the respite needs of the caregiver. On the days in-home respite is provided the service plan will be up to a maximum of a daily nursing visit or daily PSW for one hour, within the legislated standards. There may be variations in the PSW routine not related to PD care, if the respite is provided to support other caregiver functions within the home environment. The roles and functions of the caregiver in the home would assist in determining the type and level of support that would be beneficial.

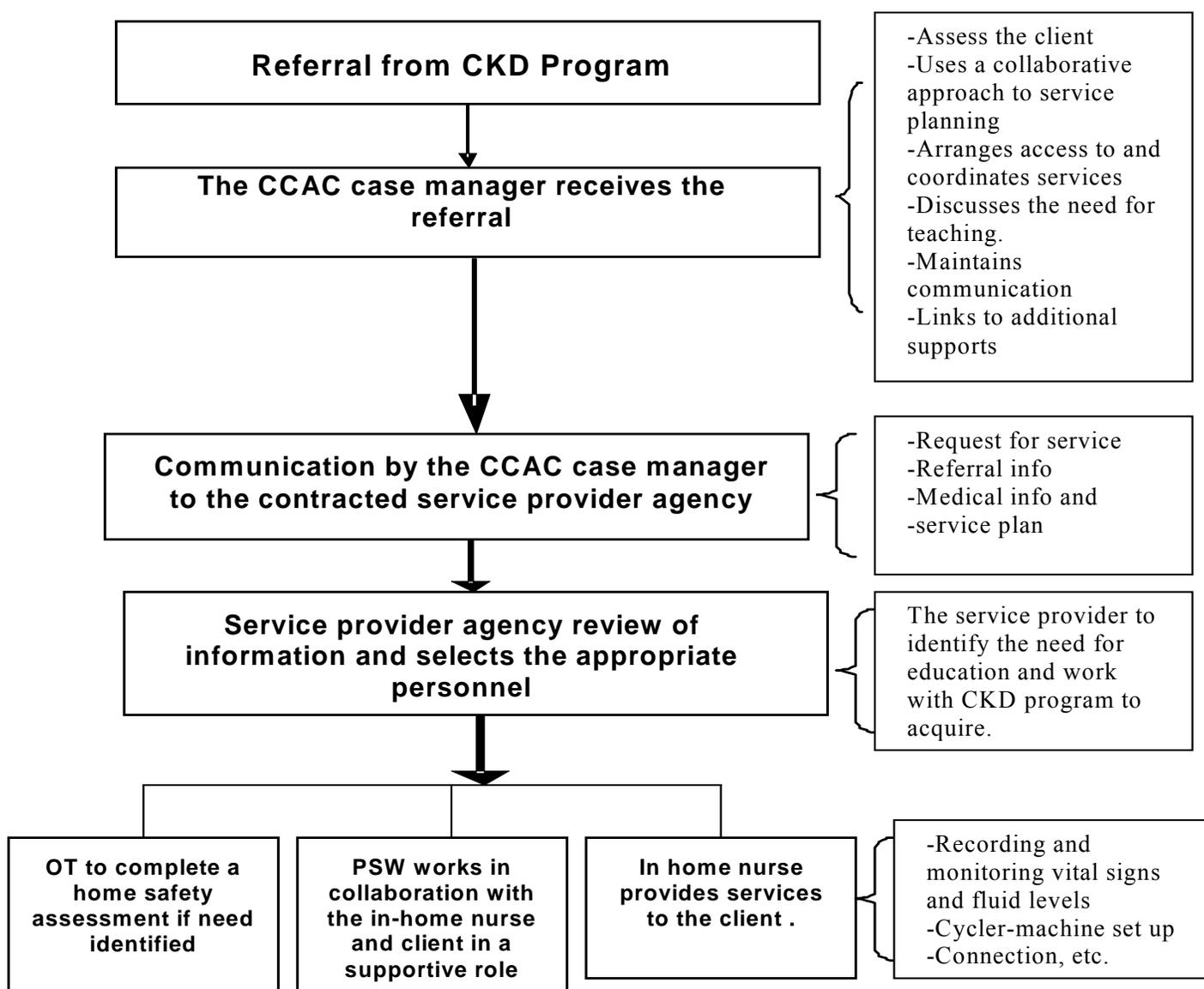
Where CCAC services are necessary to maintain the client on PD, it is recommended that:

3a8) The care plan for respite/caregiver relief is developed with the input from the client and the primary caregiver.

3a9) The level of service for respite/caregiver relief will daily nursing visit or daily PSW for one hour, within the legislated standards.

3a10) CCACs conduct the following process of care and support of PD clients. (See Figure 3a1.)

Figure 3a1.



The CCAC case manager receives the referral from the regional CKD program, assesses the client, uses a collaborative approach to service planning, arranges access to and coordinates services, discusses the need for teaching the client and the CCAC community care team, maintains communication regarding client's ongoing status with client, CCAC community care team and regional CKD program, and links to additional supports that may be beneficial to the client. The request for service, the referral information, medical information and service plan is communicated by the CCAC case manager to the contracted service provider agency. The service provider agency will review the information and select the appropriate personnel. The service provider agency will identify the need for staff education and will make arrangements for this with the regional CKD program.

The role of the in-home nurse in PD is to provide teaching and support to the client as well as monitor client progress. The specific elements of the nursing care plan are developed in conjunction with the CCAC case manager and the regional CKD program. Nursing care plans may include the following activities: recording and monitoring vital signs and fluid levels, cyclor-machine set up, connection (hook up), adding heparin to dialysate, adding antibiotics, catheter care, exit site care, monitoring for infection and supervision and support. The education session that is provided by the regional CKD program with the CCAC community care team provides an opportunity to discuss and review routines in depth and clarify any expectations of the care plan.

The PSW works in collaboration with the in-home nurse and the client in a supportive role for specific activities related to the provision of PD. The PSW learns specific components of the care protocol for each specific client. The PSW may learn to complete activities that are delegated by the nurse. For example, the PSW may be involved in exit site care (delegated by nurse), assistance with recording vital signs, disconnection (delegated by the nurse), stripping the machine/emptying the gas can and hanging the CCPD solution bag. The PSW may also be involved in assistance with personal care and support with the cleanliness of the area directly related to care.

Another aspect of the service plan may also include the use of OT to complete a home safety assessment. This can support new clients and caregivers in the safe set up and handling of materials in the home environment from a physical demand perspective.

Caregivers play an essential role in client support and care in the home and in the health of their family. For many clients, the success of the provision of PD care in the home environment relies on the assistance from a caregiver, which has been taught by the regional CKD program. The impact on a caregiver that is providing care and support for a client with a chronic disease is significant.

One of the identified reasons that necessitates changing from PD to hemodialysis is the prolonged impact of providing care in the absence of support or relief for the primary caregiver. The CCAC can play a role in reducing caregiver burden through the provision of respite/caregiver relief. This would be arranged in collaboration with the case manager, the client and the caregiver (see respite and support for primary caregivers).

It is anticipated this initiative will affect key stakeholders as follows:

Provincial PD Joint Initiative: Position Paper on the delivery of PD in Ontario

- The CKD programs will experience enhanced communication and partnership with CCACs and also experience greater capacity to serve their growing ESRD client numbers and provider agencies.
- The CKD program will experience decreased system pressures on the hemodialysis unit and medicine in-patient units.
- CCACs will experience a limited increase of clients and hospital referrals (estimated at a 3% to 5% increase in annual CCPD client volume targets).
- Although CCACs are accountable for only CCPD clients at this time within the Provincial PD Joint Initiative, a CCAC has the discretion to provide support to other PD modalities.
- CCACs can anticipate meeting the projected PD client volume targets as set out in the ministry's Provincial Joint Peritoneal Dialysis Initiative.
- Service provider agencies will experience an increase in referral volume for nursing and personal support services for specific populations.
- Service provider agencies will need to accommodate the additional staff education needs for their nursing and PSW staff.
- With additional support in the home, clients will experience greater choice in treatment modality and enhanced support throughout their ESRD treatment.

3a11) The following are deliverables expected of CCACs and CKD programs:

Expected CCAC Deliverables

- Coordinated access to services, clear and consistent referral process, client assessment, collaborative service planning, arrangement and coordination of services and supports, communication regarding client's ongoing status, monitoring of the service plan and linking to additional supports that may be beneficial to the client, and discharge planning.
- Communication of the role of in-home nursing.
- Communication of the role of the PSW, description of standard functions versus delegated tasks the PSW can learn for a specific client.
- Knowledge and expertise in the management of chronic diseases as well as additional co-morbidities that lead to complex medical needs.

Expected Regional CKD Program Deliverables

- Detailed referral information including the type of service and support being requested.
- Information, education and post-learning support re: client's PD routine.
- Collaborative communication process for the CCAC and CKD Program to agree on, including the role of the CKD staff and the role differentiation between the visiting PD nurse employed by the regional CKD program and the in-home nurse employed by the CCAC contracted service provider agency.
- Advance notice to accommodate the arrangement of services and the training requirements.



Long-Term Care Homes

Long-term care (LTC) homes provide care for patients who are no longer able to safely maintain themselves at home and who require a higher level of care that cannot be provided by a CCAC. With CKD programs dealing with an aging ESRD population, linking to LTC home services extends the reach of CKD programs into more 'homes'. At this time, of the over 600 LTC homes in Ontario, only 15 offer residents the option of PD treatments within the LTC home setting. (See Table 1, pg. 80) The current capacity in LTC homes to accept residents with PD care requirements is limited. Reasons for this are outlined as part of the outcomes of the LTC survey (see page. 81).

ESRD hospitalized patients in need of LTC placement often cannot be considered for PD because of the limited number of LTC homes accepting PD residents. As a result, many of these patients are placed on HD, which may not necessarily be the most suitable treatment modality. HD treatment requires travel from the LTC home to the HD centre three times weekly for a treatment session of approximately four hours. Many of these patients are quite frail and unstable especially after their HD treatments, and do not tolerate the effects of HD or the accompanying routine required for HD treatment. Travel costs to take these patients from their LTC home to the HD centre amounts to a cost range of approximately \$10,000 - \$25,000 per patient per year²⁷

This initiative seeks to identify resource needs and enhanced funding to support LTC homes to provide PD services and enable elderly ESRD patients requiring dialysis expanded treatment options.

²⁷ Long-Term Care High Intensity Needs Fund (HINF), 2004

TABLE I

LTC HOMES' PD EXPERIENCES

* Identified as of October, 2006

	CURRENTLY PROVIDING PD	DID PD IN THE PAST	HAS FORMALLY EXPRESSED INTEREST
BAYCREST			X
CASTLEVIEW WYCHWOOD TOWERS			X
COPPER TERRACE	X		
DRS PAUL AND JOHN REKAI CENTRE	X		
ESPANOLA NURSING HOME			X
EXTENDICARE ST CATHARINES	X		
HILLSDALE ESTATES	X		
HURON LODGE			X
KNOLL CREST LODGE		X	
LEISURE WORLD IN GUELPH	X		
MON SHEONG (Richmond Hill)	X		
MON SHEONG SCARBOROUGH LONG TERM CARE CENTRE	X		
O'NEILL CENTRE (THE)	X		
ROCKCLIFFE NURSING HOME	X		
SIMCOE MANNER HOME FOR THE AGED	X		
ST. JOES HEALTH CENTRE IN GUELPH	X		
SUN PARLOR IN LEAMINGTON	X		
VALLEYVIEW H F A	X		
WESTPARK	X		
YEE HONG CENTRE - SCARBOROUGH FINCH	X		

To provide optimum management of ESRD services to the elderly, both CKD programs and the LTC homes sector need to plan for the future care of this growing group of patients. This section of the resource manual directs CKD programs and interested LTC homes to assess the feasibility of establishing formal partnerships. These partnerships will enable LTC homes to access available supports through the CKD centres including staff training on how to provide PD and some supplies and equipment related to PD treatment. Also included within this section is a list of data sets that will help to measure performance related to PD service provision as well as support any future resource requests in Phase II of the PD Joint Initiative to support and enhance provision of PD care by LTC homes to meet the provincial PD target to increase PD use to 30% in Ontario. The collection of such data can be facilitated by the CKD programs to strengthen partnership with the LTC home. Regular reporting of performance by the LTC home to the CKD program will assure PD quality of care is provided by the LTC home. CKD programs and LTC homes should outline the details of the data sets to be collected and reported in their Memorandum of Understanding.

In February 2006, surveys of CKD programs and LTC homes supporting dialysis patients were conducted by the Provincial PD Coordinating Committee. Results of the survey indicated that common issues and barriers to increasing access to or establishing more LTC homes providing PD services included:

- Limitations of the current LTC home funding models
- Resource constraints (notably human resources, particularly registered staff)
- Physical lay out of homes to support the needs of PD patients e.g. proximity of bathrooms, the availability of storage area for PD supplies.
- Unknown/inconsistent training supports and other resource availabilities e.g. CKD programs provision of PD equipment and supplies.
- Access to PD education and training for LTC home staff.
- Inconsistent availability of clinical support for LTC home staff providing PD services.
- Ability to maintain PD skill sets of LTC home personnel in established programs.

Further stakeholder input revealed that, under the current service delivery model, some partnerships between LTC homes and their CKD regional program have created barriers for cross regional patient referrals. In many instances, upon placement of a patient into a LTC home providing PD services, the care of this patient is transferred to the partnered CKD program from the CKD program where this patient was originally managed. However, PD patients will often not accept placement in a LTC home supported by another CKD program, as many patients have long-standing relationships with their nephrologists and their multidisciplinary team at one CKD centre. Both the patient and the multidisciplinary nephrology team do not wish to break this relationship and disrupt the continuity of care. In many cases, these patients choose to go on to HD (despite their suitability for PD and it being a better dialysis option for them) to maintain their relationship with one CKD centre's team.

As part of the Provincial PD Coordinating Committee and on behalf of the LTC sector, a LTC Working Group was formed to identify opportunities to facilitate the use of PD in Ontario in LTC homes.

In analyzing the outcomes of the survey and in discussions with LTC stakeholders, a number of opportunities to improve service delivery in LTC homes were identified. They included:

- Establish formal partnerships between LTC homes and CKD programs with recommended eligibility criteria
- Define required resource levels including identifying a funding sources to enable LTC homes to provide PD services to any residents.
- Identify and meet staff training and educational needs required to develop the skill sets and knowledge to provide PD services within the LTC home.
- Outline a consistent process for management of PD patients placed within LTC homes to enable standardization in the provision of PD care.

In creating strategies to enable these opportunities to occur, the following actions and recommendations were developed in partnership with the LTC working group and the Provincial PD Coordinating Committee to increase the capacity in LTC to provide PD services. They include:

- **Planning for Increased PD Utilization:**

In order to reduce costs associated with inefficient use of resources across all sectors, to provide more consistent access, and to ensure that PD treatment is a viable choice for this segment of the population, partnerships between LTC homes and respective CKD programs need to occur.

Table 2 (pages 84-86) identifies the LHIN areas where partnerships between LTC homes and CKD Regional programs currently exist. It is important that the volume of PD patients needing LTC home placement be determined and that the process of establishing potential partnerships be coordinated by the CKD Regional Program(s) within their respective LHINs.

D1) A minimum of one LTC home partnered with a CKD Regional Dialysis program be established to ensure the availability of PD support in LTC homes is consistent throughout Ontario.

D2) The volume of PD patients needing LTC home placement be determined by the CKD Regional Centre, with the support of CCACs and that the process of establishing potential partnerships be coordinated by the CKD Regional Programs within their respective LHINs; determination of LTC home eligibility must take into account the legislated requirements for LTC admission.

Criteria for partnerships

There are over 600 LTC homes in Ontario. The amount of CKD program resources to train and support all these LTC homes would be unsustainable; therefore, there is a need to define criteria to select which LTC homes are best positioned to meet the needs of PD patients.

D3) That LTC homes must demonstrate their organizations' suitability to establish partnerships with CKD Regional programs.

In analyzing the characteristics and questioning existing LTC homes that currently support PD patients, the following are a list of potential criteria that CKD Centres can use to select appropriate LTC home partners for CKD programs.

- LTC homes with staffing levels to support residents with heavier care needs e.g. under the Alberta Levels of Classification System, a Case Mix Index (CMI) of 100 or more.
- No significant outstanding compliance issues that would prevent the LTC home from meeting the standard of care established by the CKD Regional Dialysis Program.
- Proximity to a Regional CKD program
- Suitability of the physical environment e.g. storage space for PD supplies
- Availability of existing staff with PD experience or staff willing to be trained in PD practices

**TABLE 2: LTC HOMES BY LHIN, CKD
REGIONAL CENTRE AND CCAC**

LHIN	REGIONAL CENTRE	AFFILIATED CCAC(s)	LTC Homes doing PD
Erie-St. Clair	Windsor Hotel-Dieu Grace	Community Care Access Centre Chatham-Kent Community Care Access Centre Sarnia-Lambton County Windsor/Essex Community Care Access Centre	Copper Terrace
South West	London Health Sciences Centre	Community Care Access Centre Grey-Bruce Community Care Access Centre Elgin County Community Care Access Centre Huron County Community Care Access Centre London-Middlesex County Community Care Access Centre Oxford County Community Care Access Centre Perth County	Knollcrest Lodge Parkview Manor Health Care Centre Valleyview H F A
Waterloo Wellington	Kitchener Grand River	Community Care Access Centre Of Waterloo Region Community Care Access Centre Of Wellington-Dufferin	
Hamilton Niagara Haldimand Brant	Niagara Health System (St. Catherines)	Brant Community Care Access Centre	Extendicare-St. Catherines
	St. Joseph's Health Care System Hamilton	C C A C Haldimand-Norfolk Community Care Access Centre Of Halton Hamilton Community Care Access Centre Community Care Access Centre Niagara	
Central West		Community Care Access Centre Of Peel	
Mississauga	Credit Valley	East York Access Centre For Community Services	
	Halton Health Care		

Provincial PD Joint Initiative: Position Paper on the delivery of PD in Ontario

Toronto Central	St. Michael's Hospital	East York Toronto Toronto C C A C Toronto	O'Neill Centre (The) Drs. John and Paul Re kai
	Sunnybrook & Women's		West Park
	University Health Network		
	St. Joseph's Toronto		
Central	Humber River Regional	Access Centre Community Care Access Centre Of York Region	
	York Central		Mon Sheong-Richmond Hill
Central East	Lakeridge Health Corporation	Durham Access To Care Haliburton Northumberland And Victoria Long Term Care Access Centre Peterborough Community Care Access Centre Scarborough Community Care Access Centre	Hillsdale Estates
	Peterborough Regional		
	The Scarborough Hospital		Mon Sheong Scarborough Long Term Care Centre Yee Hong Centre-Scarborough Finch
South East	Kingston General	Community Care Access Centre Kingston Frontenac Lennox & Addington Access Centre For Hastings & Prince Edward Counties Access Centre For Community Care In Lanark Leeds & Grenville	

Provincial PD Joint Initiative: Position Paper on the delivery of PD in Ontario

Champlain	The Ottawa Hospital	Ottawa Community Care Access Centre Community Care Access Centre For The Eastern Counties	
	Renfrew Victoria	Renfrew County Community	
North Simcoe Muskoka	Orillia Soldier's Memorial	Muskoka-East Parry Sound CCAC (Huntsville District Memorial Hospital) Community Care Access Centre Simcoe County	
North East	Sudbury Regional	Algoma Community Care Access Centre Cochrane District Community Care Access Centre	
	Sault Area Hospital	Near North Community Care Access Centre	
	Timmins & District	C C A C West Parry Sound Health Ctr	
	North Bay General	Manitoulin-Sudbury Community Care Access Centre Community Care Access Centre Timiskaming	
North West	Thunder Bay Regional	Community Care Access Centre For Kenora & Rainy River Districts Community Care Access Centre Of The District Of Thunder Bay	

It should be noted that many LTC homes have been innovative in establishing specialized care for their residents despite not having all of the listed criteria. Therefore, LTC homes interested in providing PD care should be encouraged to establish partnerships with CKD programs. It is, however, ultimately the decision of the CKD Regional Program to determine which LTC homes meet the criteria for successful partnerships to provide PD care.

D4) CKD Programs work collaboratively with LTC homes to assist in enabling LTC homes to meet recommended partnership criteria.

Preparing LTC homes to handle the increased demand for placement of PD residents and to support their care requires not only human resources but also the assurance that the physical environment of the home contains key elements for successful support and provision of PD care to residents. These elements include but are not limited to:

1) LTC homes should be able to:

- accommodate PD patients in the same room or area to facilitate efficiencies in utilization of space, resources, and provision of care.

2) These areas should be:

- in close proximity to a “dirty” utility room or washroom to facilitate the drainage of dialysate effluent from used/drained PD solutions.

3) Patient rooms should be equipped with:

- electrical outlets and side tables to support the automated PD cyclers (if one is used),
- and adequate supply/ storage areas should be accessible and large enough to be able to house the PD solutions and other materials needed to provide PD care.

D5) It is recommended that the areas where PD patients reside within the LTC home be able to support and contain the elements outlined above.

In addition to the physical set up of the PD resident’s area in the LTC home, wherever possible, LTC homes participating in partnerships with CKD programs should be in close proximity to CKD centres to support CKD visits as required.

This will provide an opportunity for both partners’ teams to be accustomed to treating the resident in the LTC home and ensure that the physical space is established for the benefit of the staff and the PD resident.

D6) It is recommended that staff of the partnered CKD program physically visit the LTC home to ensure that the resident space is conducive to effective and safe treatment and, that the CKD program observes how the LTC staff perform PD treatment within the allocated space to assess the LTC home staff comfort and effectiveness in providing treatment. In order for this to occur, LTC homes should be in close proximity to the partnered CKD centre.

• **Establish Resource Needs:**

Some LTC homes are interested in supporting PD patients but are unable, given the current funding models and the sector-wide availability of health care providers in LTC homes. Increasing knowledge among LTC homes about available resources and operational support for PD care through CKD programs will assist LTC homes in assessing the feasibility of developing PD programs.

Phase I of the Provincial PD Joint Initiative implementation plan focuses on establishing improvements within existing resources and the current service delivery structure. Before any additional resources can be allocated, there is need to make attempts in generating improvements using existing resources. The collection of data that demonstrates current processes, abilities, and outcomes will help to objectively support any additional resource requests across all sectors which can be included in the work in Phase II.

Provincial PD Joint Initiative: Position Paper on the delivery of PD in Ontario

Within the current system, the following outlines available resources and potential roles and responsibilities of each partner.

CKD Programs

The CKD Model of Care, Expectations document outlines the service delivery model for CKD in Ontario. Within this document, the Regional CKD program is accountable for the standard of care within its respective region. To support this role, the ministry funds CKD programs to provide the necessary services, equipment, and supplies to provide care to CKD patients within its region.

The CKD program has the following resources available to LTC homes to support them in providing PD care to PD residents:

- Equipment and supplies needed to provide PD treatment i.e. PD solutions, PD cyclor, etc.
- Multidisciplinary team consultation and clinical support
- Follow up care (every six weeks) to the PD resident
- Medical and nursing support 24/7 through telephone consultation
- Training and education for LTC home staff providing PD care from the CKD centre plays a key role in ensuring this service is available to residents.
- Coordination of other services required by the LTC home pertaining to the provision of PD care. E.g. ordering of PD supplies and other dialysis vendor related needs.

LTC Homes

In partnership between CKD programs and LTC homes, LTC homes are required to provide nursing services to administer, assess, support, and monitor PD patients' care needs. PD care requires additional direct and indirect incremental costs associated with caring for PD residents. There is need to identify the costs of these additional resources. There are recommended data sets included on page 92 & 93 that will enable this identification. It is acknowledged that many LTC homes are unable to provide the staffing levels required to support the care of PD patients; however, there are a number of homes (see Table 1, Pg.80) who have been able to provide on-site PD care using innovative approaches within their partnerships with their respective CKD Centres.

LTC Homes, CKD programs, and hospitals are encouraged to create innovative approaches to manage the care of PD patients outside of the acute care setting in phase I of the initiative.

There are other potential opportunities that would enable management of care in LTC homes. For example the use of CCACs to provide nursing support for PD patients in LTC homes is an option that can be considered; recognizing that currently legislation does not allow this and to support this consideration would require much change. There is need for innovative thinking and establishing new models of care that include efficient use of existing resources.

D7) It is recommended that in Phase I of the PD Initiative, LTC homes interested in providing PD services make attempts at establishing this service in partnership with CKD programs and devise innovative service models supported by existing available resources to enable PD care.

- **Support of education, training and maintenance of standards of care**

As previously mentioned, the Regional CKD centre is accountable for the standard of CKD care provided within its respective region. To support this accountability role, coordination of education requirements across the care continuum including patients, informal care givers, care provider agencies contracted through CCACs and LTC home staff is required.

To promote transparent expectations and the understanding of partners' roles in ensuring standards of PD care are met, ongoing quality monitoring and improvement activities that are supported by formal partnership agreements are required.

D8) It is recommended that a memorandum of understanding (MOU) between partnered LTC homes and the respective CKD Regional Program be established and signed.

D9) Terms of the MOU should include:

- ***Processes for monitoring LTC home performance to ensure staff competence.***
- ***A risk management plan for resolution of care and service issues should be available.***

It is recognized that PD patients may be residents in their own home or residents of a LTC home with support being provided by the employees of the LTC home. This necessitates an approach to education that recognizes the varying needs of learners who are both regulated professionals and non-regulated and recognizes the need for different levels of education and competency in caregivers to ensure quality and safe care (See section D, pg. 53). In order to support LTC homes in maintaining staff PD training and education competencies:

D10) CKD programs are encouraged to cluster patients (place patients within the same LTC home) where possible to:

- ***Encourage the development of local expertise***
- ***Predict resource demand on the Regional CKD centre for education.***
- ***Ensure appropriate care requirements can be measured***

Once education has been provided by the regional centre to staff within the community including LTC homes, it is the responsibility of the employer of these staff in collaboration with the CKD

program to assess and maintain ongoing competence in order to ensure safe and effective provision of PD services. The terms of ensuring updates and ongoing competence should be outlined in the recommended process of establishing a MOU between LTC homes and CKD regional programs as recommended above.

Part of facilitating good partnerships between LTC homes and CKD programs is defining the roles to be played by each partner in the provision of PD care. The Provincial PD Coordinating Committee has established standards of PD practice and has outlined Clinical Guidelines to ensure consistency of PD care.

D11) PD care provision within LTC homes is consistent with the provincial standard of care.

Establishing the responsibilities and expectations of members within the partnership to provide PD care will also contribute to fostering standardized processes and consistent practices. This will also form the basis for collaborative approaches to the management of PD patients throughout the continuum of care.

D12) It is recommended that the following roles be included in the established MOUs and that the processes required to support these roles be defined.

Role of the CKD Programs:

- ***To provide follow up care and assessment to the PD residents in the partnered LTC home.***
- ***To provide the LTC home with access to the following for PD-related needs:***
 - ***Medical care and support***
 - ***Nursing consultation***
 - ***After-hours troubleshooting support***
 - ***Acute care PD needs***

Role of the LTC homes:

- ***Daily PD assessment of the PD resident***
- ***Daily administration of PD treatment***
- ***Weekly reports to the CKD program (maintain communication with CKD program)***

- **Improving PD Patient Access to LTC Homes Providing PD Care**

In Phase I of the PD initiative, CCAC staff and hospital social work or discharge planning staff as well as clinicians working with PD patients, must be better informed of which LTC homes are currently providing on-site PD services.

However, in Phase II of the program, to support the clustering of PD care needs in certain homes and increased choice for potential residents by offering priority access to LTC homes providing PD service, legislative and policy changes would be required. Under current placement coordination legislation, there is no priority assigned to those seeking LTC home placement based on specific medical needs who would benefit from placement in LTC homes with specialized programs. Should any future change in placement regulations be considered, all resident choice, including those with PD requirements, must be respected.

D13) PD patients assessed as LTC home eligible and their family members/caregivers must be better informed about LTC homes currently offering on-site PD services and the implications for their quality of life when choosing HD over PD (when both are clinically appropriate).

D14) Where possible, barriers that prevent the “clustering” of residents requiring PD care within LTC homes providing on-site PD services be addressed.

To ensure that LTC homes with PD capacity maintain consistent admission levels of residents with PD needs and staff skill sets, barriers to cross-regional transfers between CKD programs and other barriers must be addressed.

D15) CKD regional centres work with LTC homes to create admission processes that involve not having to transfer the care of placed patients while ensuring that the standards of PD practice, support and maintenance are not affected.

- **Performance Measures:**

Collecting data sets that drive key indicators will enable LTC homes and CKD programs to continually develop and improve the care provided to PD residents. These indicators will also allow identification of resource needs and provide the data required to support the business case as part of Phase II of the implementation plan of the Provincial PD Joint Initiative.

D16) It is recommended that the data sets and process for collection and reporting be established in the memorandum of understanding (MOU) between partnered CKD programs and LTC homes to enable measurement of performance and establish prediction of future resources.

Measure	Data Set	Indicator
Peritonitis Rate	Peritonitis incidences in LTC homes Date of occurrence Organism causing peritonitis	<ul style="list-style-type: none"> • Total # of peritonitis incidents • Total # of patients
Wait times for placement	Date of referral to LTC home Date placed into LTC home LTC home name	<ul style="list-style-type: none"> • Total # of days wait for a PD patient requesting a bed in a LTC home with on-site PD services • Total # of dialysis patients needing LTC
Average length of stay in LTC home	Date of patient admission Date of patient discharge Reason for discharge	<ul style="list-style-type: none"> • Total # of patient months in LTC home • Total # of patients
Average PD patient admission rate	# of PD patients admitted to LTC home # of admissions	<ul style="list-style-type: none"> • Total # of PD pts. placed in LTC home within the year • Total # of admissions
Mortality rate	# deaths in LTC home Reason for death Total number of residents	<ul style="list-style-type: none"> • Total # of deaths • Total number of residents

D17) In addition to the data sets outlined in recommendation D16, it is recommended that the additional data sets be collected to support and create the Phase II business case for resources and/or policy change.

This could include, but are not limited to, the following:

- # of ESRD patients on PD currently requesting LTC home placement
- # of new ESRD patients needing LTC home placement
- # HD patients in LTC homes
- # PD patients in LTC homes
- #LTC homes providing on-site PD services gathered annually
- LOS/ALC costs to the system associated with limited PD capacity in LTC homes
- LOS for PD ALC patients assessed as LTC home eligible

Provincial PD Joint Initiative: Position Paper on the delivery of PD in Ontario

- Baseline for referrals to LTC homes of PD patients
- # of additional PD bed in LTC home required to meet current demand by LHIN area and the 30% increase, over how many years to establish annual targets
- Incremental direct and indirect service costs for the care of PD residents in LTC
- Home vs. hospital setting.
- # of staff being trained to provide the services
- # of trained staff leaving the LTC home

DATA MANAGEMENT

In order to determine the progress and achievement of the Provincial PD Initiative's goal of 30% use of PD in Ontario by 2007/2008, a Data Management Framework containing key macro and micro outcomes indicators has been created. (See Figure 4-1.) The Data Management Framework will assist all stakeholders to monitor progress in meeting the initiative's goal.

The Provincial PD Coordinating Committee recognizes the myriad of variables, situations, and unique issues specific to particular areas; as well as the differences in patient populations being managed by various PD stakeholders throughout the province. For this reason, a list of recommended outcome indicators have been developed to enable PD stakeholders to collect data that will help explain their progress in achieving PD growth; while also providing insight into changes that may be required to further advance PD growth in circumstances where PD growth does not occur.

To facilitate this, attendees at the Provincial PD Coordinating Committee's implementation planning event held on September 27th, 2006 agreed to embark upon a gap analysis exercise as a beginning to putting action to the implementation plan (See implementation plan, pg. 10)

The outcome indicators that have been established provide a framework in which to monitor the progression and success of achieving the Provincial PD Initiative. The components of the Data Management Framework include:

- **Three Core Elements:** Recruitment, Maintenance, and Retention which are key to achieving the Provincial PD target.
- **Levels of Core Element Outcome Indicators:** Dashboard, and Drill Down Outcome Indicators. The Dashboard and Drill Down Indicators are organized under each of the Core Elements noted above. Together they 'roll up' to the overall Provincial PD Initiative Goal to increase use of PD to 30% by 2007/2008.

The following provides details of the Data Management Framework:

1. Three Core Elements of the Provincial PD Initiative

Core Elements are defined as *Identified elements that must be achieved to meet the goal of the initiative.*

- **Recruitment** – programs must have mechanisms in place to recruit more patients to PD (i.e. timely referral to Pre Dialysis etc.).
- **Maintenance** – programs must have systems in place to maintain patients on PD (i.e. staff and patient education, sufficient staff, community support etc.).
- **Retention** – programs must have processes in place to retain patients on PD (i.e. decrease incidence of peritonitis, catheter failures etc.).

2. Drivers of the Core Elements

Drivers of the Core Elements are defined as a *condition that must exist to move the core elements of the initiative forward.* For example four key drivers for Retention on PD include low peritonitis rates, low catheter failures, good ultra filtration and adequacy etc.

3. Outcome Indicators

Levels of Outcome Indicators for each Core Element:

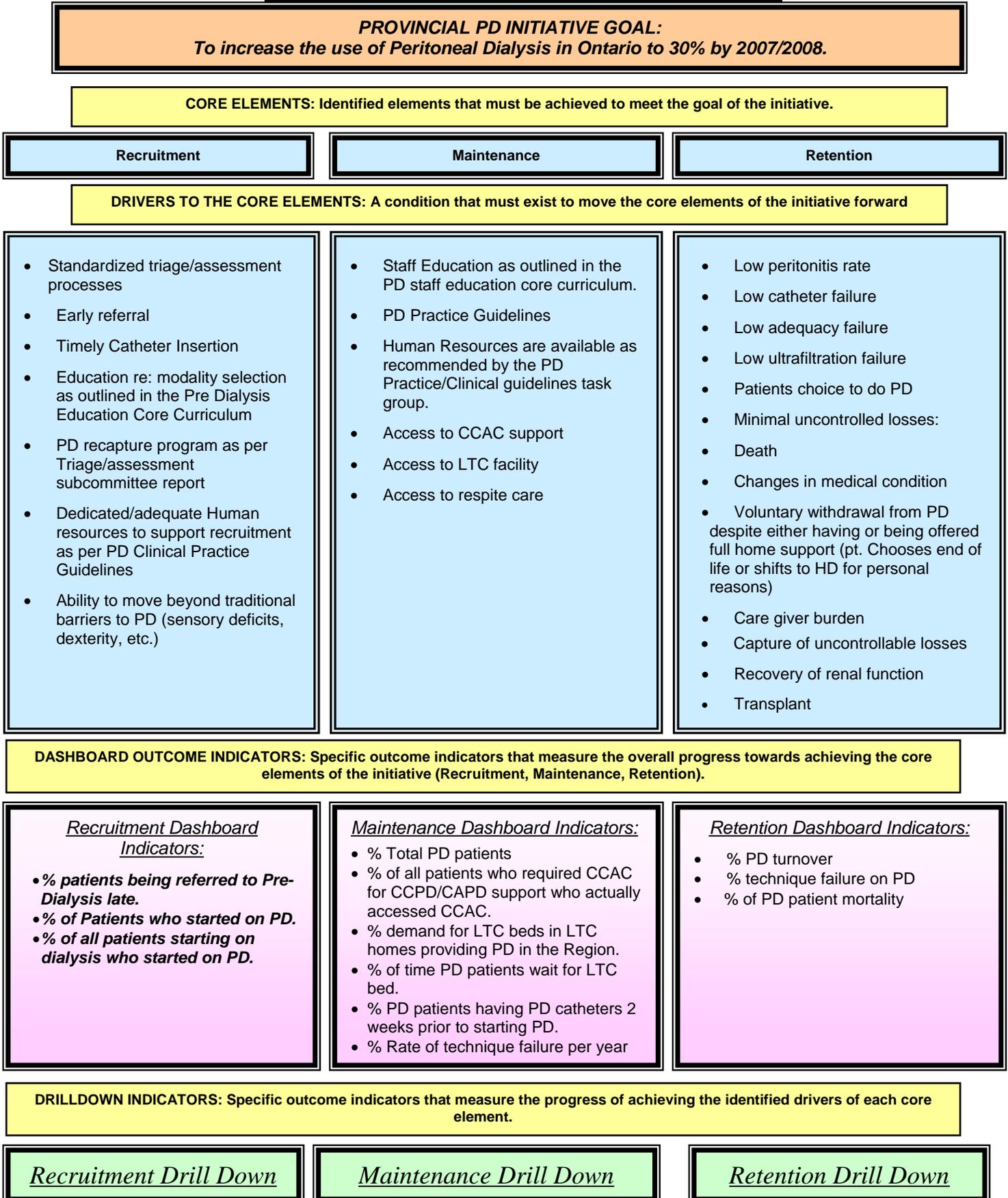
1. **Goal Outcome Indicator** is the High level Initiative goal that documents the PD growth in Ontario.
2. **Dashboard Outcome Indicators** are defined as ‘Specific outcome indicators that measure the overall progress towards achieving the overall goal of the Core Elements of the initiative’ (Recruitment, maintenance, retention). Dashboard Outcome Indicators will be of interest to the newly formed LHIN’s.
3. **Drill Down Outcome Indicators** are defined as ‘Specific outcome indicators that measure the progress of achieving the identified drivers of each core element that together influence the higher level dashboard outcome indicators’. These indicators are very micro level indicators that the CCAC, LTC Homes or CKD programs should track as appropriate.

These outcome indicators will assist each organization to analyze why they are not meeting some or a number of the identified benchmarks for the goal and dashboard Outcome Indicator for each Core Element. Outcome Indicators that identify areas that are meeting benchmarks help to assure continued practice.

As an example, if the benchmark for the Goal Outcome Indicator for Recruitment (50% of all new dialysis patients start on PD) is not being met, the CKD program can examine and analyze the Dashboard and Drill Down Outcome Indicators to determine which of the drivers for Recruitment are not being met.

Figure 4-1.

DATA MANAGEMENT FRAMEWORK



DASHBOARD INDICATOR

A specific indicator that will measure the progress towards achieving the core elements of the initiative. (recruitment, maintenance, retention).

DASHBOARD INDICATOR

RECRUITMENT

INDICATOR	WHAT IT IS MEASURING	TARGET	DATA SETS (Quarterly)	Source
<p><u>Total # of ESRD patients starting on PD</u> Total # of new dialysis patient starts</p>	Measures the % of all patients starting on dialysis who started on PD	50% of all patients starting on dialysis start on PD. (PPDCC, 2006)	<ul style="list-style-type: none"> ▪ # of Patients starting and/or converting to PD. • # of Patients starting on Dialysis within the same time period (including urgent starts) 	CKD program
<p>Total # of new patients seen by a Nephrologist <4 <u>months prior to starting dialysis</u> Total # of new dialysis patient starts on dialysis (patients on chronic dialysis > 3 months)</p>	Measures the % of patients being referred to Pre Dialysis late.	Less than 20% of Patients are seen in Pre Dialysis <4 months prior to starting dialysis. (PPDCC, 2006)	<ul style="list-style-type: none"> ▪ # of patients followed in Pre Dialysis < 4 months prior to starting dialysis ▪ Total number of patients starting dialysis 	CKD program
<p><u>Total # of PD starts from Pre Dialysis</u> Total # of all patients starting dialysis from Pre Dialysis</p>	Measures the % of Pre Dialysis patients who started on PD	50% of all Pre Dialysis patients start on PD. (PPDCC, 2006)	<ul style="list-style-type: none"> ▪ # of PD starts from Pre Dialysis ▪ Total # of Patients starting on Dialysis from Pre Dialysis 	CKD program

*PPDCC= Provincial Peritoneal Dialysis Coordinating Committee

Provincial PD Joint Initiative: Position Paper on the delivery of PD in Ontario

DASHBOARD INDICATOR

MAINTENANCE

<p><u>Total # of PD patients</u> Total # of chronic dialysis patients</p>	<p>Measures the percent total of PD patients</p>	<ul style="list-style-type: none"> • 30% of dialysis patients to be on PD. • A total of 40% of dialysis patients on home therapies (HHD & PD) for CKD programs that have HHD programs) 	<ul style="list-style-type: none"> • # of PD patients • # of chronic dialysis patients 	<p>CKD program</p>
<p><u># PD failures within the year*</u> Total # of PD patients within the year</p>	<p>% annual rate of technique failure</p>	<ul style="list-style-type: none"> • ≤ 10% rate of technique failure occurring per year (* Death and Transplantation censored) 	<ul style="list-style-type: none"> • # of PD failures within the year* • Total # of PD patients 	<p>CKD program</p>
<p>Total # PD patients receiving CCAC support <u>for dialysis</u> Total # of PD patients</p>	<p>Measures the % PD patients receiving CCAC</p>	<ul style="list-style-type: none"> • Targets based on individual region's allocations. 	<ul style="list-style-type: none"> • # PD patients receiving CCAC support for dialysis • Total # of PD patients 	
<p><u>Total # of PD patients requiring LTC bed</u> Total # of PD patients</p>	<p>Measures the % demand for LTC beds in LTC homes providing PD in the Region.</p>	<p>N/A</p>	<ul style="list-style-type: none"> • Total # of PD patients who have completed an application and are deemed eligible for LTC placement. • Total # of PD patients 	<p>CCAC LTC CKD program</p>
<p>Total average # of days wait for PD patient <u>needing LTC bed</u> Total average # of days wait for all non PD patients needing LTC bed</p>	<p>Measure % of time PD patients wait for LTC bed above or below the wait time for all non PD patients waiting for LTC bed</p>	<ul style="list-style-type: none"> • PD patients to be placed within LTC homes providing PD within 30 days of request 	<ul style="list-style-type: none"> • Total average # of days wait for PD patient needing LTC bed • Total average # of days wait for all non PD patients needing LTC bed 	<p>CCAC</p>
<p>Total # of PD patients having PD catheter inserted 2 weeks prior to dialysis <u>start.</u> Total # of new PD patients 98</p>	<p>Measures the % PD patients having catheters 2 weeks prior to starting PD.</p>	<ul style="list-style-type: none"> • 80% of PD patients to have PD catheters inserted 2 weeks prior to dialysis start. (PDCC,2006) 	<ul style="list-style-type: none"> • Total # of PD patients having PD catheters inserted 2 weeks prior to dialysis start • Total # of new PD patients 	<p>CKD program</p>

* Measured by fiscal year i.e. March 31st/06-April 1st/07

DASHBOARD INDICATOR
MAINTENANCE (Cont'd)

INDICATOR	WHAT IT IS MEASURING	TARGET	DATA SETS (Collected quarterly)	SOURCES
<u>Total annual amount spent on CAPD</u> Total # of CAPD patients	Measures the average annual cost per patients (CAPD)	<ul style="list-style-type: none"> • TBD 	<ul style="list-style-type: none"> • Total amount spent on CAPD • Total # of CAPD patients 	CKD program
<u>Total annual amount spent on CCPD</u> Total # of CCPD patients	Measures the average annual cost per patients (CCPD)	<ul style="list-style-type: none"> • TBD 	<ul style="list-style-type: none"> • Total amount spent on CCPD • Total # of CCPD patients 	CKD program

DASHBOARD INDICATOR
RETENTION

INDICATOR	WHAT IT IS MEASURING	TARGET	DATA SETS (Collected Monthly or quarterly)
<p>Current Y/E total of chronic PD patients – <u>Previous Y/E total of chronic PD patients</u> Previous Y/E total of chronic PD patients</p>	<p>Measures year over year growth of PD patients</p>	<ul style="list-style-type: none"> • 30% of dialysis patients to be on PD. • A total of 40% of dialysis patients on home therapies (HHD & PD) for CKD programs that have HHD programs) 	<ul style="list-style-type: none"> • Year end total chronic PD patients • Previous year end total of chronic PD patients
<p>Calculated based on collected data sets. Transplantation and death censored (captured as part of reasons for discharge)</p>	<p>Survival rate of PD patients.</p>	<ul style="list-style-type: none"> • Not less than 75% at 2 years. 	<ul style="list-style-type: none"> • Start date on PD • End date on PD • Reasons for discharge
<p><u>Total # of deaths of PD patients per year</u> Total # of PD patients</p>	<p>Measures the % of PD patient mortality</p>	<ul style="list-style-type: none"> • ≤ 10% PD patient mortality per year for Non-Diabetics • ≤ 15% per year for elderly and diabetics 	<ul style="list-style-type: none"> • # of PD patient deaths per year • Total # of PD patients
<p>Calculated based on collected data sets. Transplantation and death censored (captured as part of reasons for discharge)</p>	<p>Measures catheter survival rate</p>	<ul style="list-style-type: none"> • 2 Year PD catheter survival rate of at least 80% 	<ul style="list-style-type: none"> • Date PD catheter implanted • Date PD catheter failed • Reasons for PD catheter failure • Indication of whether failed PD catheter was replaced or manipulated.

DRILL DOWN INDICATOR

A specific indicator that measures the progress of achieving the identified drivers of each core element that overall influence the dashboard indicators

DRILL DOWN INDICATORS

RETENTION

RECRUITMENT

% Patients referred from family MD

Total # referred patients from family MDs
Total # of patients referred

% patients switched to PD from HD

Total # of HD starts
that switch to PD
Total # of dialysis starts

% Acute HD starts gone to PD

Total # of Urgent/Acute HD starts
that switch to PD
Total # of urgent/Acute dialysis starts

% Dialysis patients not referred to PD due to contraindications

of PD pts not referred to PD due to
Absolute/Medical/Social
Contraindications
of Pre Dialysis clients referred to dialysis

MAINTENANCE

% Referred PD patients accepted by CCAC for CCPD

Total # of patients accepted by CCAC
for CCPD support
Total # of patients referred to CCAC for CCPD support

% Referred PD patients accepted by CCAC for CAPD

Total # of patients accepted by CCAC
for CAPD support
Total # of patients referred to CCAC for CAPD support

% PD patients placed in LTC homes

Total # of PD patients placed in LTC homes
Total # of dialysis patients needing LTC home placement

% Patients leaving PD (and reasons)

Total # PD patients leaving dialysis
(note reasons)

Total # of dialysis patients

Peritonitis Rates

of patient PD months
of incidents of peritonitis

of PD clients with peritonitis living in LTC home
of PD clients living in LTC home

of PD clients with Peritonitis receiving PD care through CCAC
of PD clients receiving PD care through CCAC

#of months to first episode of peritonitis
of pts who had their first incidence of peritonitis

In the event of high peritonitis rates, a PD program should review their use of assistive devices and connectology design use.

Catheter Failures

of PD catheter failures
of clients with PD catheters

When a PD program loses patients to HD due to adequacy and ultrafiltration failure, the program is encouraged to review its use of specialty solutions as it relates to the CSN adequacy guidelines

pts on specialty solutions
of PD patients

Minimal uncontrolled losses of all pts on PD:

% Death
% changes in medical condition
% voluntary withdrawal from PD despite either having or being offered full home support (Pt. chooses end of life or shifts to HD for personal reasons)
% who left PD due to care giver burden

Capture of uncontrollable losses of all patients on PD:

% Recovery of renal function
% Transplant

DRILL DOWN QUESTIONS DIRECTING ANALYSIS OR OUTCOMES

RECRUITMENT

1. Does your program follow the Standardized Assessment and Triage process as per the Assessment and Triage Task Group Algorithm? (See page 15)
2. Does your program provide pre dialysis education as per the Core Curriculum established by the Pre Dialysis Education Task Group? (See page 41)
3. Does your program have the recommended human resources to support recruitment? (See page 22)
4. Has your program developed partnerships with community supports i.e. CCAC & LTC homes to assist in moving beyond traditional barriers to PD? (See sections 3a & 3b)

MAINTENANCE

1. Does your program provide pre dialysis education as per the Core Curriculum established by the Pre Dialysis Education Task Group? (See page 41.)
2. Does your PD program provide Community/LTC Staff Education as outlined in the Core Curriculum established by the PD Training and Education Task Group? (See page 53)
3. Does your program have the recommended human resources to support recruitment? (See page 22)
4. Has your program developed partnerships with community supports i.e. CCAC & LTC homes to assist in moving beyond traditional barriers to PD? (See sections 3a & 3b)

RETENTION

1. In the event of high Peritonitis rates a PD Program should review their use of assist devices and connectology technology use
2. When a PD program is losing patients to HD due to adequacy and ultra filtration failure the program is encouraged to review its use of Specialty Solutions as it relates to The Canadian Society of Nephrology adequacy guidelines

Provincial PD Joint Initiative: Position Paper on the delivery of PD in Ontario

The following outlines the implementation plan that was agreed upon by the field to move the initiative forward. The following expectations were established:

Expectations of <i>CKD Programs</i>	Timeline
<p>1. Chronic Kidney Disease (CKD) Programs to complete a gap analysis/self assessment of their programs utilizing the CKD Care Map, the standards and recommendations made by the Provincial PD Coordinating Committee. A gap analysis/self assessment tool has been attached for direction of this process.</p>	<p>January 22nd, 2007</p>
<p>2. Implementation of the 4 key processes developed by the committee to establish consistency in practice and management of CKD care. These include:</p> <ul style="list-style-type: none"> • Standardized content/elements of a triage and assessment process • Use of the core curriculum for pre-dialysis education • Use of the core curriculum for PD staff & patient training and education • Use of the standardized clinical pathway for care of CKD patients. (CKD Care Map). 	<p>March 31st, 2007</p>
<p>3. Root causes for delay in PD catheter implantation identified and one-time funding allocated towards study sites to run pilots that seek to address these root causes and expedite implantation of PD catheters.</p>	<p>Immediately</p>
<p>4. Collection of data sets required to drive the performance indicators developed by the committee (see indicators above)</p>	<p>Immediately</p>
<p>5. If not already done, CKD programs to establish their Regional Steering Committee (as outlined in the CKD Model of Care document, section 2.2) to facilitate discussions and coordinating of care in support of this initiative through community partners. It is recommended that CCACs and partnered LTC homes be included as members of this Regional Steering Committee.</p>	<p>Immediately</p>

Provincial PD Joint Initiative: Position Paper on the delivery of PD in Ontario

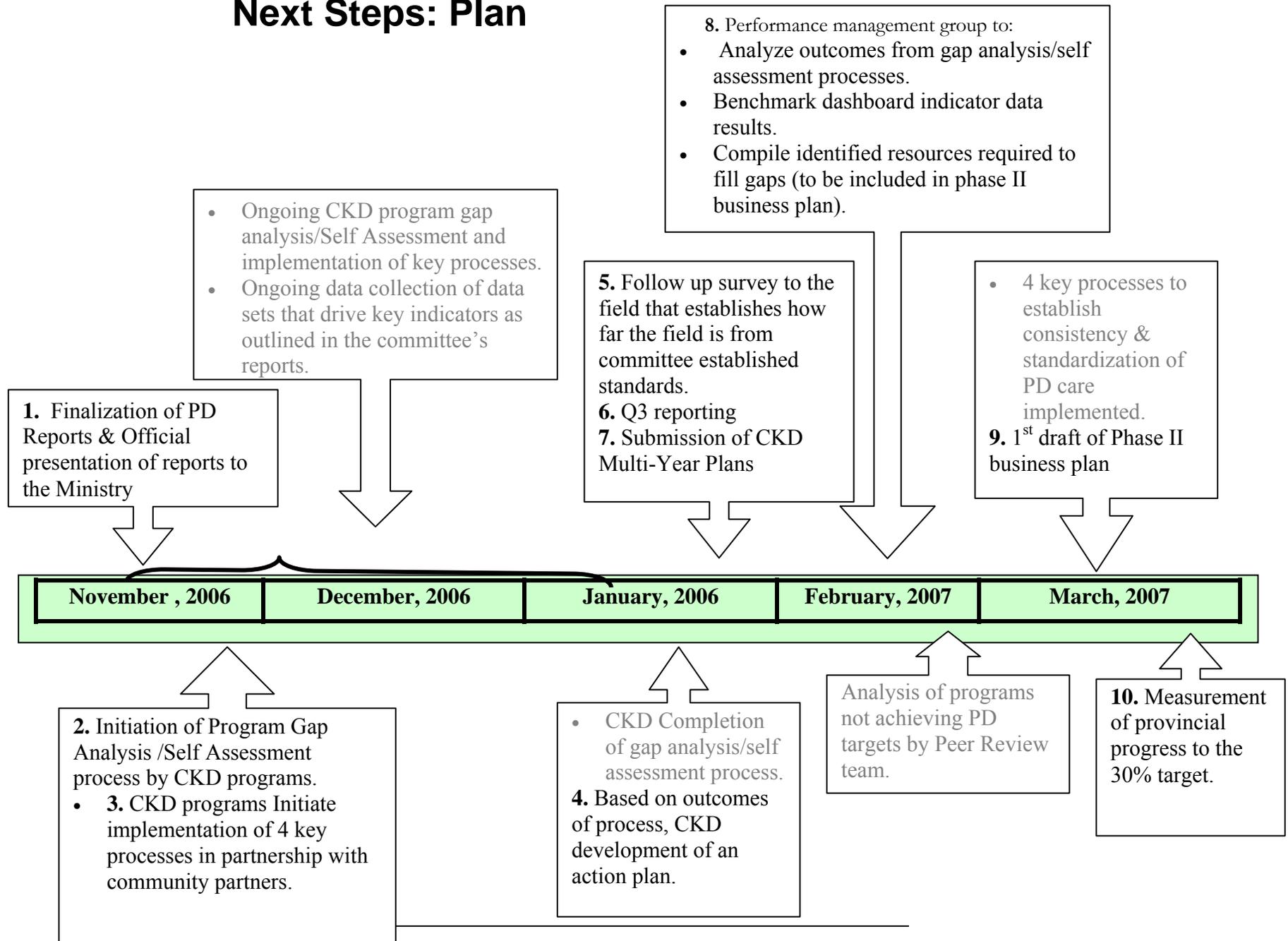
Expectations of <i>Community Care Access Centres (CCAC)</i>	Timeline
1. As outlined in detail in the Provincial PD Coordinating Committee's Resource Manual, CCACs be prepared to provide a minimum of 2 visits per day for short stay, respite and long stay PD clients deemed applicable for this level of PD support (See Section 3a). This would require that ALL CCACs and their service providers have the training and capabilities to provide PD care to clients with PD care needs.	Immediately
2. If not already established, formal partnerships be created between CCACs and Chronic Kidney Disease (CKD) Regional Programs to facilitate regional planning for coordinating of care and support for PD clients.	January 31 st , 2007
3. Collection of data sets required to drive the performance indicators developed by the committee. (see above)	Immediately

Expectations of <i>Long-Term Care (LTC) Homes</i>	Timeline
1. Homes that are interested in establishing the ability to accept and care for PD patients to establish contact with their respective CKD centres to explore opportunities for partnership and support the goal of establishing a minimum of 1 LTC home per CKD Regional Program.	Immediately
2. Collection of data sets required to drive the performance indicators developed by the committee. (See section 3b and indicators listed above)	Immediately
3. Homes interested in sitting on the Provincial PD Coordinating Committee LTC working group contact the Provincial PD Initiative's Project Advisor.	Immediately

In order to move forward with the implementation of this Provincial PD Initiative, the following deliverables and timelines compose our plan (see timeline below).

Timeline: Peritoneal Dialysis Initiative

Next Steps: Plan



The key deliverables as we move towards Phase II of the initiative include:

1. The finalization of the Provincial PD Coordinating Committee Reports and presentation to the Ministry.
2. CKD Program Gap Analysis/Self Assessment
3. Development of CKD Program Action Plan
4. Follow Up field Survey.
5. Quarter 3 reporting
6. Submission of CKD Multi-Year Plans
7. Analysis of performance indicators and measurement of initiative's impact on PD delivery of care.
8. Implementation of the 4 key processes established by the committee to facilitate consistency and standardization in PD practice.
9. 1st draft of phase II business plan
10. Measurement of the provincial progress to the 30% target.

The timeline highlights these key deliverables in relation to the time and planned progress in moving the initiative forward.

- 1) The process of finalization of the Provincial PD Coordinating Committee reports and the presentation to the Ministry is due to be completed by mid-November, 2006. Feedback, edits, and recommendations submitted to the committee have been considered for incorporation into the revised version of the reports. The draft has been finalized by the committee and signed off as the official report by the committee co-chairs. It has been presented by the Committee Co-chairs as the final report from the committee to the ministry.
- 2) CKD programs determined the need to conduct a gap analysis process/self assessment prior to the implementation of the 4 key processes developed by the Provincial PD Coordinating Committee. CKD programs identified a need to compare how their programs are currently running compared to the recommended standards posed by the Provincial PD Coordinating Committee. From this process, areas within their programs that require improvements and/or changes to establish the recommended standard and the approach and resources needed can be determined. This process is to include the analysis of PD catheter implementation needs. As well, practices of excellence and strength that support best practices should also be identified through this process to assure sustained and continued practice.
- 3) Based on the outcomes of the gap analysis/self assessment, CKD programs are to create their action plan that identifies how they are to address the identified gaps. These action plans are to include plans for data collection to drive key indicators for measurement of performance and measure progress of PD growth. These plans are to be submitted to the PD Coordinating Committee's Data Management group who will analyze the results.
- 4) A follow up survey is to be conducted at the end of January, 2007. It will serve as a tool to collect and enable reporting of the outcomes from the gap analysis/self assessment processes

Provincial PD Joint Initiative: Report on the delivery of PD in Ontario

conducted by all Regional CKD Programs. In addition, this survey will enable collection of data elements not collected/reported in existing systems. This survey of all stakeholder groups (CKD programs, CCACs, & LTC homes), will enable the committee to collect information on the identified gaps and resource needs required for stakeholders to achieve the established committee standards and to identify resource needs to be included in the Phase II business case.

- 5) January, 2007 is considered the 3rd quarter of the fiscal year. During this time, hospitals submit their Q3 data, 06/07 actuals, their year end projections for 07/08 and their 08/09 plans. Included in this reporting are data elements used by the ministry for CKD funding. These data elements also drive some of the established committee indicators and will be reviewed as part of the analysis and benchmarking exercise of the data management group.
- 6) The information gathered by the CKD program in conducting their gap analysis/self assessment and their action plans, should be applied to development of their CKD multi-year plans which are to include a plan on growing their PD/home dialysis programs. These multi-year plans are to be submitted to the ministry by the end of January, 2007.
- 7) Throughout the timeline, programs are to collect data elements that are to drive the key indicators developed by the Committee. The process of collection, reporting and analysis is outlined in more detail in the revised Committee user manual. The data management group will undertake a performance management role and will analyze, benchmark and compile submitted data elements included in the various generated field reports i.e. survey, etc. This analysis will drive the need for Peer Review Teams to work with programs unable to meet their PD targets.
- 8) The 4 key processes developed by the Provincial PD Coordinating Committee are to be implemented in partnership with CCACs and LTC homes by end of this fiscal year to start to establish standardization in these focused areas of the CKD care map. This will enable facilitation of determining the impact and outcomes these elements have on the overall goal of increasing PD use in Ontario and improving PD care delivery.
- 9) As part of carrying out the above processes, programs will be identifying resource needs required to support the growth of their PD/home dialysis programs. Through the various submissions, these needs will be extracted and included in the phase II business plan that seeks to justify and acquire the identified resources needed to support this initiative.
- 10) On an annual basis, the progress of the initiative in achieving its goal to grow PD to 30% in Ontario will be evaluated.

As the above expectations are given action, the processes in delivering these expectations will become useful for all stakeholders in determining areas of potential improvement, areas of excellence, and aid in the overall planning for the provision and support of PD throughout Ontario.

Based on the work done by the Data Management Task Group, the Task Group is putting forward the following recommendations:

4-1) As detailed in the proposed Data Management Framework, all CKD Programs, CCAC and LTC Homes:

- ***Collect and report the Dashboard Level Indicators on a quarterly basis***
- ***Collect and analyze Drill Down Outcome Indicators on a monthly basis.***

4-2) That there be a central electronic repository for the submission of the recommended Goal and Dashboard Outcome Indicators that can be accessed by all members of the three branches of the MoHLTC.

Section

5

OUTSTANDING ELEMENTS

It is acknowledged that many of the recommendations made by the Provincial PD coordinating committee may not thoroughly address the unique issues and barriers that are specific to rural areas, Northern Ontario, Aboriginal, and pediatric populations.

Although, the recommendations derived from this Coordinating Committee have encompassed the large majority of PD patients in Ontario, there is a need for further recommendations and more analysis of these issues and barriers that do not necessarily affect the majority of the PD population in Ontario.

In a videoconference meeting held with stakeholders in the North, a number of unique issues were identified that prevented growth of PD. They included:

- Challenges of service delivery stemming from coverage of large geographical regions and limited human resources available to deliver care
- Extensive time requirements for staff travel
- Difficult access to patient areas to deliver care, supplies, and education
- Challenges of disseminating staff training and education to acquire and maintain PD skills.
- Need for different staffing ratios compared to urban areas to meet these challenges and to assure standards of delivery are met.
- Costs of service delivery are more expensive in the North but yet funding is standardized throughout the province.
- Community service resources such as CCAC and LTC are very scarce in some areas of the North and access is very difficult.
- Inconsistencies in service support especially allied health between PD and HD (more allocated towards HD)

It was felt that a CKD Northern network was required to create a different PD service delivery model than that of Urban Ontario that would better meet the needs and approaches to PD delivery to increase use of PD in the North. Suggestions from this group to have resources allocated towards facilitating regular CKD Northern Network meetings to promote communication, development and planning were made. In addition, it was recognized that extending the network to include other

providers involved with other chronic diseases i.e. Diabetes, may be of benefit to better understand health care resources already in place within the North. It was felt that increasing awareness of resources within this community and successful approaches may be of benefit in creating a service delivery model for the North that would increase PD use.

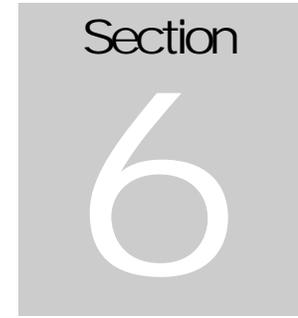
If the Provincial PD Joint Branch Initiative is to meet the needs of all PD patients in Ontario and ensure the same and equal ready access to patients, the Provincial PD Coordinating Committee supports these recommendations of the North.

There is need to meet with other special PD population groups to include their suggestions and recommendations towards the approach to overcome and address their specific issues and barriers preventing growth of PD in Ontario.

5-1) A CKD Northern network is required to create a different PD service delivery model than that of Urban Ontario that would better meet the needs and approaches to PD delivery to increase use of PD in the North.

5-2) There is need to meet with other special PD population groups to include their suggestions and recommendations towards the approach to overcome and address their specific issues and barriers preventing growth of PD in Ontario.

It is acknowledged that there are some outstanding elements within this initiative that have not been addressed. Although, the recommendations derived from the Committee have encompassed the large majority of PD patients in Ontario, there is a need for further recommendations and more analysis of issues and barriers that do not necessarily affect the majority of the PD population in Ontario. i.e. Northern issues, Aboriginal issues, pediatrics, etc



CONCLUSION

Although the events that have contributed to the decline in growth of PD in Ontario are well documented, little has been done to gain an understanding of which approaches have worked in the past to increase and sustain PD use in Ontario.

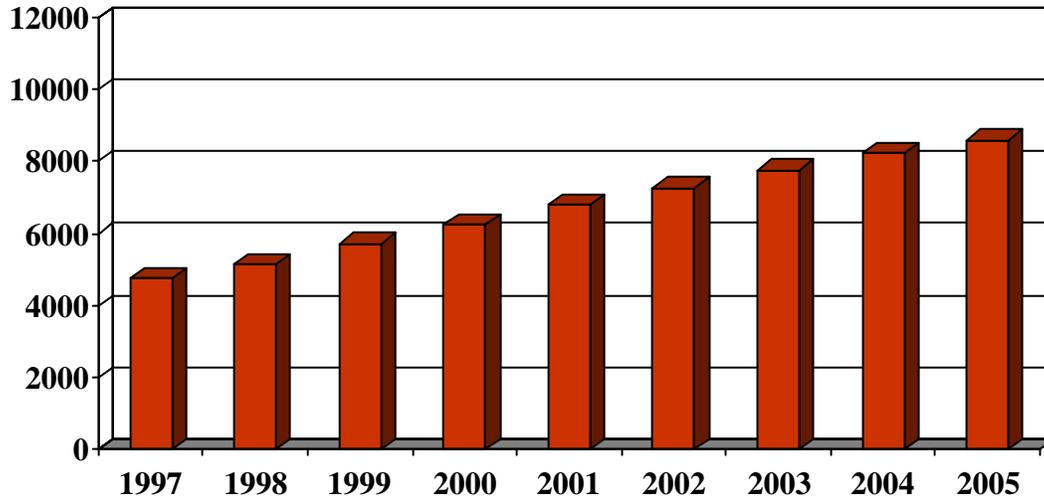
The existing manner of delivering ESRD care is untenable and is in need of change. The position of the Provincial PD Coordinating Committee on the delivery of PD services in Ontario is that a coordinated, quality, cost efficient and accessible system is required to meet the care needs to CKD patients. Through the implementation of the recommendations, standards, and tools developed by the various task groups of the Provincial PD Coordinating Committee; through resulting consistency of practice and enhanced collaboration between acute care and community care; an integrated PD service delivery system can be achieved. The provincial target of 30% of all dialysis modalities being PD is both a plausible and reachable goal for Ontario.

As programs strive to reach this target, what is of importance are the lessons to be learned from the changes and implemented actions that will not only result in potential growth of PD and contribute towards changing the provincial PD trend, but also the enabling of programs, through the application of new efforts, to identify needs and processes required to facilitate growth of home HD as well.

APPENDICES

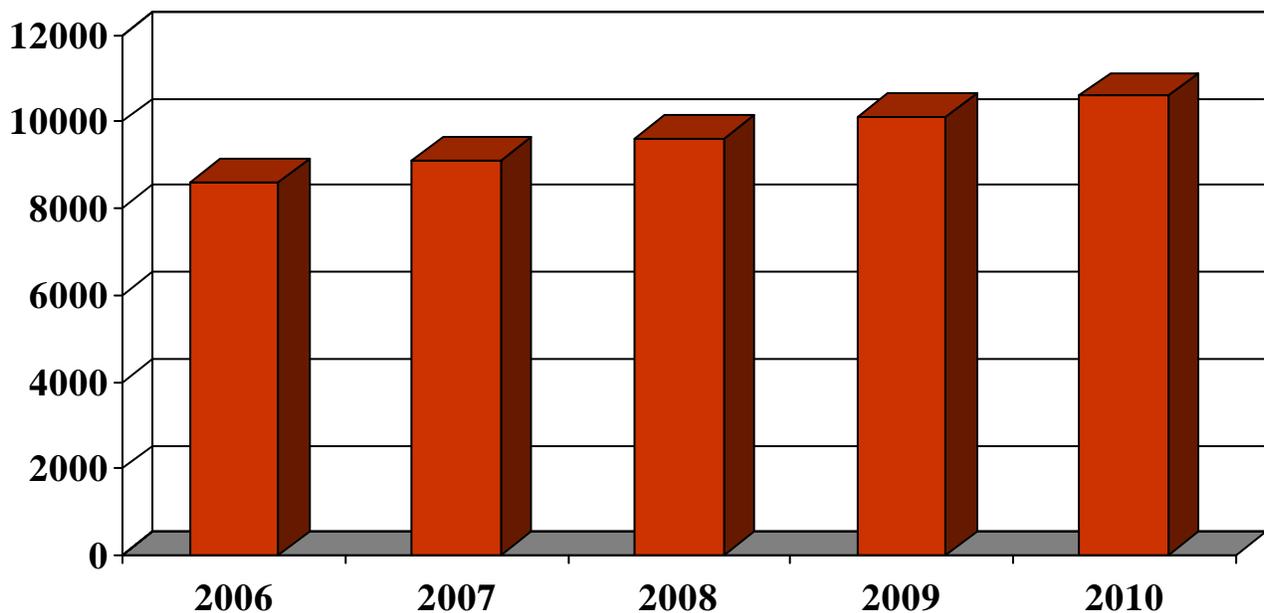
APPENDIX A: TREND GRAPHS

Growth



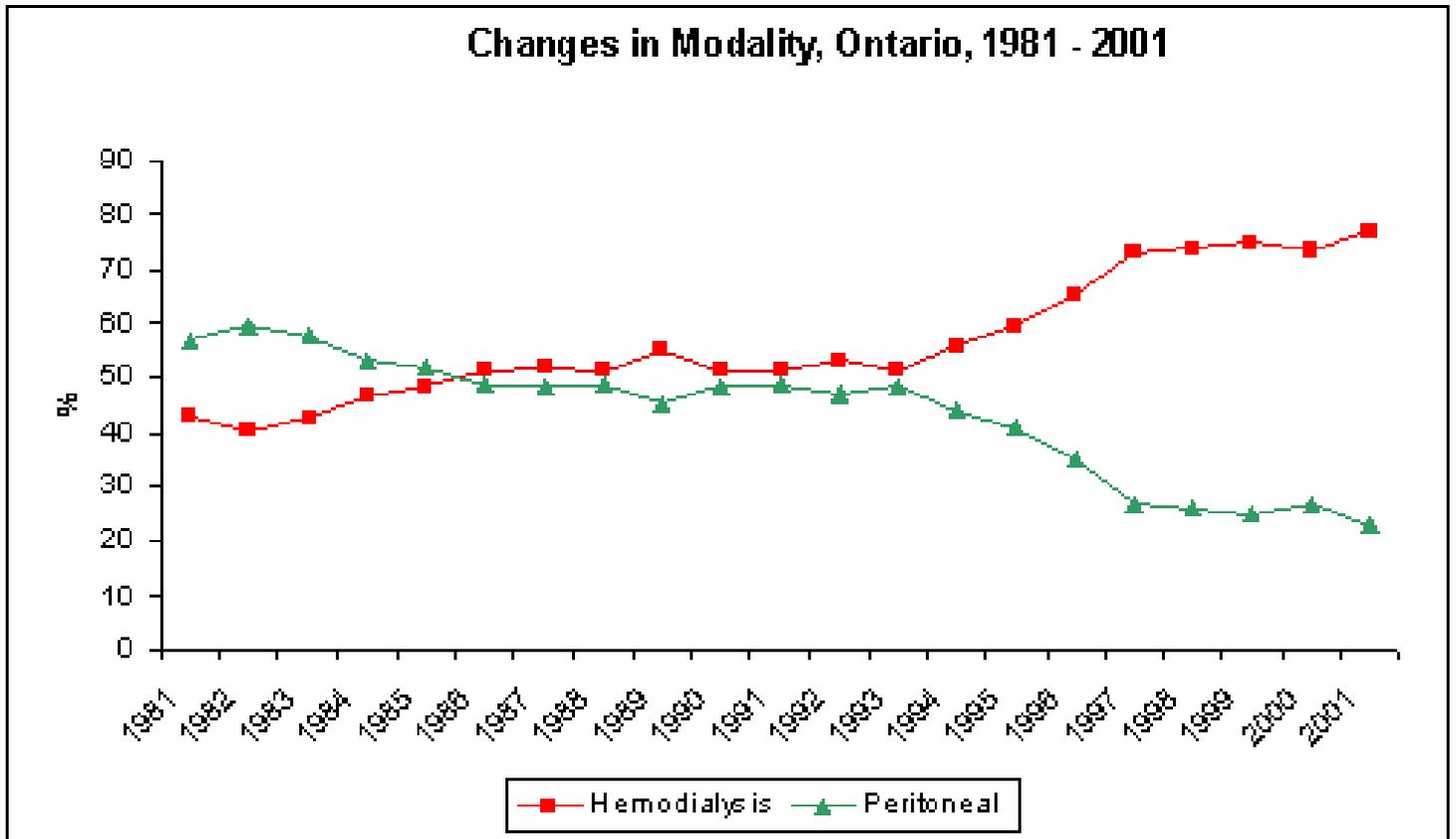
Source: CORR Data for Years 1997-2001;
MOHLTC 2002-2005 Year/End Hospital.

Projected Demand



- Average, annual rate of approximately 6.2% per year.
- Number in excess of 10,000 patients by 2010.
(Source: 2006 ICES Report)

APPENDIX B—HD:PD RATIO IN ONTARIO



Canadian Institute for Health Information, Canadian Organ Replacement Registry

APPENDIX C: TERMS OF REFERENCE

Background

The incidence of end-stage renal disease (ESRD) continues to rise in Canada and while there are provincial variations in new client/patient rates, Ontario has its challenge to meet the demands. In Ontario, the number of clients/patients with ESRD continues to grow at an average annual growth of 10% for the past 10 years. There is no evidence that the increasing need for dialysis resources year after year will plateau in the near future.

Ontario is reaching a saturation point for in-centre hemodialysis while experiencing capital and operating pressures. Increasing home dialysis will assist the health care system to better accommodate the annual growth of ESRD without expensive capital investment and treating client/patient in his home environment. Peritoneal Dialysis (PD) is as effective as Hemodialysis for clients/patients for whom it is clinically indicated.

The Ministry of Health and Long-Term Care (MOHLTC) encourages and supports all forms of home dialysis therapies. Various MOHLTC Task Groups and Committees are in place and are working on initiatives that support home dialysis therapies. This Provincial Peritoneal Dialysis Joint Initiative Coordinating Committee will focus on increasing PD use in Ontario.

Peritoneal Dialysis (PD) in Ontario has decreased from 40% to 18% in Ontario over the last 10 years (Canadian Organ Replacement Registry – 2000 Report). At 2004/05 Year/End, total volume of PD clients is 1,438, approximately 18% of all dialysis clients/patients. Of this PD population, 896 clients/patients receive Continuous Cycler Assisted Peritoneal Dialysis (CCPD) treatment.

Feedback from the Nephrology field has indicated that there are gaps in the process of being able to transfer elderly dialysis clients/patients into LTC Homes that are able or willing to support their special dialysis needs.

In partnership with the MOHLTC Community Care Access Centres (CCAC) and Long Term Care (LTC) divisions, the Chronic Kidney Disease Program (CKD), Hospitals Branch will aim to overcome the barriers and support best practices that promote the use of Home Peritoneal Dialysis services through this Provincial PD Joint Initiative.

Goal

The Peritoneal Dialysis (PD) Joint Initiative is intended to enhance and expand the availability of PD services in Ontario, with a focus on in-home PD service delivery, moving towards 30% of dialyzed patients/clients to be on PD by 2007/08.

Objectives

Comprised of clinical and administrative leaders from Chronic Kidney Disease (CKD) services (Acute services) and Community services, including Community Care Access Centres (CCAC), and Long Term Care Home (LTCH) services, the Peritoneal Dialysis Joint Initiative Coordinating Committee will:

1. Review the current PD service delivery model across the health care service delivery continuum;
2. Design and create a PD service delivery model that includes provincial clinical practice guidelines and an accountability framework, based on evidence-based practice or best practice;

Provincial PD Joint Initiative: Report on the delivery of PD in Ontario

3. Create an implementation plan that incorporates a standard and consistent approach to deliver PD services in the home, with the focus of reaching the goal of 30% of individuals on dialysis to use PD in the home;
4. Monitor the implementation plan to further enhance and expand PD services in Ontario;
5. Provide evidence based programmatic and clinical advice, including advising on clinical and program standards;
6. Identify data sets that will act as indicators for benchmarking and measurement of progress of this joint initiative; and
7. Create a communication plan that will be used as the framework to disseminate information from the Committee.

Membership

The Peritoneal Dialysis Joint Initiative Coordinating Committee shall consist of thirty-two (32) members representing clinical and administrative leaders from Chronic Kidney Disease (CKD) services (Acute services) and Community services, including Community Care Access Centres (CCAC), and Long Term Care Home (LTC) services, and Ministry of Health and Long-Term Care:

Co-Chairs: CKD Community Care Access Centre and Chronic Kidney Disease Program Representative (2)

Chronic Kidney Disease Program Representatives (9)

CCAC Representatives (10)

Long-Term Care Home Representative (2)

Institute for Clinical Evaluative Sciences (ICES) Representative (1)

Kidney Foundation of Canada (1)

Ontario Association of Nephrologists (OAN) (2)

Ministry of Health and Long-Term (MoH-LTC) Care Representatives (4) – CKD Program, CCAC, and LTC

MOHLTC Project Manager for PD Initiative (1)

Reporting Relationship

The Peritoneal Dialysis Joint Initiative Coordinating Committee will provide advice and report to the Ministry of Health and Long-Term Care through the Project Manager of the PD Initiative.

The Assistant Deputy Minister (ADM) of the MoH-LTC Acute Services Division and the ADM of the Community Services will be accountable for the outcomes generated by the Provincial PD Joint Initiative Coordinating Committee.

Reporting to the Peritoneal Dialysis Joint Initiative Coordinating Committee are the following 6 Task Groups:

- ◆ Initial Assessment & Triage Task Group
- ◆ Pre-Dialysis Education Task Group

Provincial PD Joint Initiative: Report on the delivery of PD in Ontario

- ◆ PD Practice Guidelines & Clinical Pathway Task Group
- ◆ PD staff training & education Task Group
- ◆ Data Management Task Group
- ◆ Retention Task Group

Term

The term of the Coordinating Committee will be for two years. The Committee's scope of activity, deliverables and structure will be reviewed as required.

The Coordinating Committee will meet monthly for the first three months, and quarterly thereafter, or as required.

Committee Support

The MOHLTC Project Manager for the PD Initiative will provide committee support as required.

APPENDIX D: Membership

CO-CHAIRS: Dr. D. Oreopoulos (UHN CKD Program) & **Sandra Coleman** (London CCAC)

Peritoneal Dialysis Task Group Membership				
Initial Assessment / Triage (Multidisciplinary) Task Group	Pre-Dialysis Education Task Group	PD Practice Guidelines/Clinical Pathway Task Group	PD Training/Staff Education Task Group	Data Management Task Group
<p>CHAIR: <i>Dr. Matthew Oliver</i> Dialysis Director Sunnybrook & Women's College Health Sciences Centre, Toronto</p>	<p>Co-CHAIRS: <i>Sharon White</i> Director, Regional Renal Program London Health Sciences Centre</p> <p><i>Denise LeBlanc</i> Home Dialysis Manager The Scarborough Hospital</p>	<p>Co-CHAIRS: <i>Sharron Izatt</i> PD Manager University Health Network</p> <p><i>Karen Roosen</i> Director Client Services Renfrew-CCAC</p>	<p>Co-CHAIRS: <i>Nancy Kelly</i> Vice President Patient Care Services Renfrew Victoria Hospital</p> <p><i>Lucie Cayen-Houle</i> Manager Client Services Ottawa CCAC</p>	<p>Tri-CHAIRS: <i>Ainsley Gillespie</i> Director York Central</p> <p><i>Sally Davis</i> Director Client Services Durham-CCAC</p> <p><i>Helen Brenner</i> Director Regional Nephrology System Lakeridge Health Corporation</p>
MEMBERS				
<p>Members: Deb Johnson Program Manager Chatham/Kent CCAC</p>	<p>Members: Dr. Brendan McCormick Nephrologist The Ottawa Hospital</p>	<p>Members: Betty Kelman Nurse Practitioner University Health Network, Toronto</p>	<p>Members: Carol Philbin-Joliette Director of Client Services Near North CCAC</p>	<p>Members: Marek Fluder Quality Coordinator St. Joseph's Healthcare Hamilton</p>
<p>Karen Prine Program Director St. Joseph's Healthcare Hamilton</p>	<p>Suzanne Lebeau Program Manager North Bay</p>	<p>Laura Devereaux Social Worker Thunder Bay Hospital</p>	<p>Laurie Dube Program Director Grand River Hospital, Kitchener</p>	<p>Dr. Paul Tam Medical Director The Scarborough Hospital, Scarborough</p>
<p>Judy Ellis Director of Renal Program Hotel-Dieu Grace Hospital - Windsor</p>	<p>Amy Canter Social Worker Sunnybrook & Women's College Health Sciences Centre</p>	<p>Julia Salomon Manager Thunder Bay Regional Health Sciences Centre</p>	<p>Dr. Sanjay Pandaya Nephrologist Halton Healthcare Services Corporation</p>	<p>Brian Pollard Project Manager CKD Information Management</p>
<p>Kim Fagerros Manager Credit Valley Hospital, Mississauga</p>	<p>Susan Mintz Director of Programs – Kidney Foundation</p>	<p>Beth Richardson Research Coordinator Sunnybrook Health Sciences Centre</p>	<p>Alison Thomas Clinical Nurse Specialist St. Michael's Hospital, Toronto</p>	<p>Dr. Matthew Oliver Dialysis Director Sunnybrook Health Sciences Centre</p>

Provincial PD Joint Initiative: Report on the delivery of PD in Ontario

Initial Assessment / Triage (Multidisciplinary) Task Group	Pre-Dialysis Education Task Group	PD Practice Guidelines/Clinical Pathway Task Group	PD Training/Staff Education Task Group	Data Management Task Group
Members:	Members:	Members:	Members:	Members:
Gillian Brunier Nurse Practitioner Sunnybrook & Women's College Health Sciences Centre	Debbie Hodgins Social Worker Hotel-Dieu Grace, Windsor	Carolyn Bowman Program Manager Orillia Soldier's Memorial Hospital, Orillia	Barb Gray Pre Dialysis York Central Hospital	Bill Classen Manager Dialysis Prog. Peterborough
Marg VanDusen Program Leader Lakeridge Health Corporation, Oshawa	Wilma Cohrs Manager, Kingston General Hospital	Dawn C. Best Manager-Quality & Risk Waterloo CCAC	Debra Appleton TGH Nephrology Clinical Instructor, UHN and O'Neill Centre, Toronto	Maureen Laughren Medical Program Manager Timmins & District Hospital
Diane Watson Nurse Practitioner, Nephrology UHN, Toronto		Kay McGarvey Clinical Resource Nurse St. Elizabeth Health Care	Aldene Rankin Director of Programs CCAC for Kenora and Rainy River Districts	Fran David Renal Nurse Clinician Timmins & District Hospital
Janet Bick Director, Government and Professional Relations		Dr. Vincent Cheung Nephrologist Peterborough Regional Health Centre	Nadine Smith Director Clinical Programs Bayshore Healthcare Mississauga	Jane Cornelius Manager Niagara Health System
Ruth McArthur Renal Program Manager Royal Victoria Hospital Barrie Ontario		Marion Ebner-Godoy Director of Nursing O'Neill Centre, Toronto	Janice North Executive Director Victoria Order of Nurses Hamilton	Dr. Jan Hux Senior Scientist ICES, Toronto
Anne Jones Clinical Nurse Specialist St. Michael's Hospital, Toronto		Joy Bevan Manager, PD & CKD Program London Health Science Centre	Margaret Paan Client Service Manager CCAC of Halton	Helen Brenner Director Regional Nephrology System Lakeridge Health Corporation

Provincial PD Joint Initiative: Report on the delivery of PD in Ontario

Initial Assessment / Triage (Multidisciplinary) Task Group	Pre-Dialysis Education Task Group	PD Practice Guidelines/Clinical Pathway Task Group	PD Training/Staff Education Task Group	Data Management Task Group
Members:	Members:	Members:	Members:	Members:
Dr. Vanita Jassal Nephrologist University Health Network Toronto		Fatima Benjamin-Wong Clinical Coordinator-Home Dialysis Unit Humber River Regional, Etobicoke		Carol DeMille Team Leader, Adult Program CCAC-North Simcoe Muskoka
		Dr. Esther Szaky Nephrologist, York Central Hospital		
		Maureen Kitson Hamilton CCAC		
		Emily Harrison Clinical Educator Lakeridge Health Corporation, Oshawa		
		Susan Roberts Director of Community Services Lanark Leeds Grenville CCAC , Southeast LHIN		
		Louise Marcil Community Care Manager, CCAC services Thunder Bay		
		Lori Byerly Social Worker for the Renal Service Thunder Bay Regional Health Sciences Centre		

Provincial PD Joint Initiative: Report on the delivery of PD in Ontario

Retention Committee				
CHAIR: Dr. Brendan McCormick Nephrologist The Ottawa Hospital				
Members (rep from each of the task groups)				
Initial Assessment / Triage (Multidisciplinary) Task Group	Pre-Dialysis Education Task Group	PD Practice Guidelines/Clinical Pathway Task Group	PD Training/Staff Education Task Group	Data Management Task Group
<i>Debbie Johnson</i> Program Manager Chatham/Kent CCAC	<i>Denise LeBlanc</i> Home Dialysis Manager The Scarborough Hospital	<i>Emily Harrison</i> Clinical Educator Lakeridge Health Corporation, Oshawa	<i>Debra Appleton</i> TGH Nephrology Clinical Instructor, UHN and O'Neill Centre, Toronto	<i>Fran David</i> Renal Nurse Clinician Timmins & District Hospital
	<i>Debbie Hodgins</i> Social Worker Hotel-Dieu Grace, Windsor	<i>Sharron Izatt</i> PD Manager University Health Network		
		<i>Dr. Esther Szaky</i> Nephrologist-York Central Hospital		

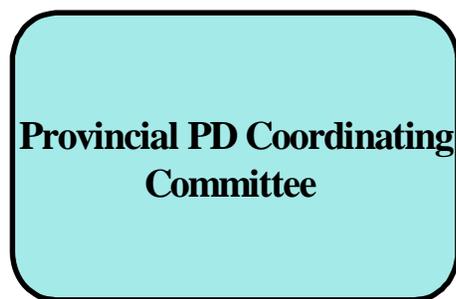
Other Provincial Peritoneal Dialysis Co-ordinating Committee Members				
Community Care Access Centre (7)	Long Term Care Representative (2)	Kidney Foundation of Canada – Ontario Chapter (1)	Ministry of Health and Long-Term Care (3)	Institute for Clinical Evaluative Services (1)
Jennifer Scott Client Services Manager North York CCAC	Stella Au-Yeung Leung Administrator Mon Sheong Scarborough Long Term Care Centre OANHSS Representative	Janet Bick Director, Government and Professional Relations	Ginette Daigle Program Consultant, Priority Programs Hospitals Branch, Acute Services Division	Dr. Jan Hux Senior Scientist
Cathy Hecimovich Halton CCAC, Mississauga Halton LHIN	Krista Robinson-Holt Director Health Planning Research OLTCA		Ethel Doyle Special Project Advisor Project Manager: Provincial PD Initiative	
Susan Roberts Director of Community Services Lanark Leeds Grenville CCAC , Southeast LHIN			Natalie Diduch Program Consultant Home Care and Community Support Services	
Joan MacIntosh from Peel CCAC, Central West LHIN			Susan Furino Program Consultant Long-Term Care Homes Branch	
Maureen Kitson Manager Operations Hamilton CCAC	Ontario Association of Nephrologists (OAN) (1)		Julie Girard Program Supervisor LTC	
Aldene Rankin Director of Programs Kenora and Rainy River North West CCAC	Dr. Brendan McCormick Nephrologist The Ottawa Hospital		Carole Alexander Senior Policy Analyst Long-Term Care Homes Branch	
	Dr. Bharat Nathoo Clinical Director Dialysis Program York Central Hospital			

APPENDIX E: FRAMEWORK

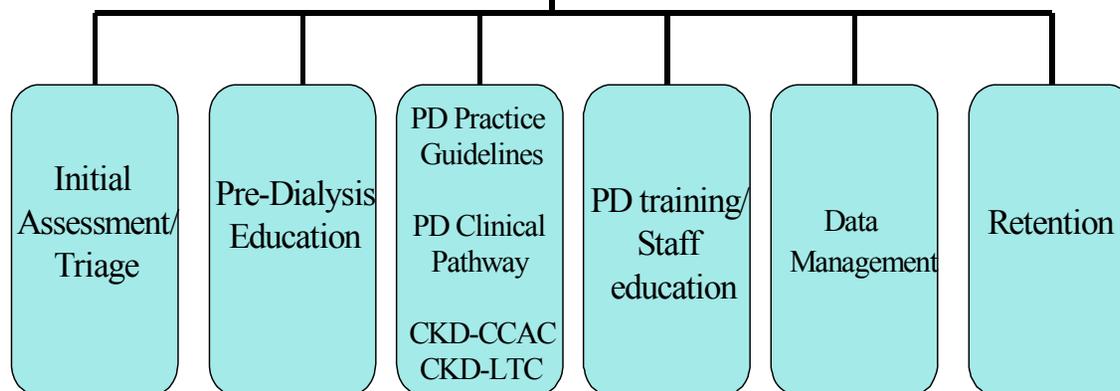
Provincial Peritoneal Dialysis (PD) Joint Initiative Framework

◆ Comprised of diverse, cross sectional collaborative members of clinical and administrative leaders from CKD services and community stakeholders.

- Provincial CKD Programs
- Ontario Association of Non-Profit Homes & Services for Seniors (OANHSS)
- Ontario Long Term Care Association (OLTCA)
- Ontario Association of Community Care Access Centres (OACCAC)



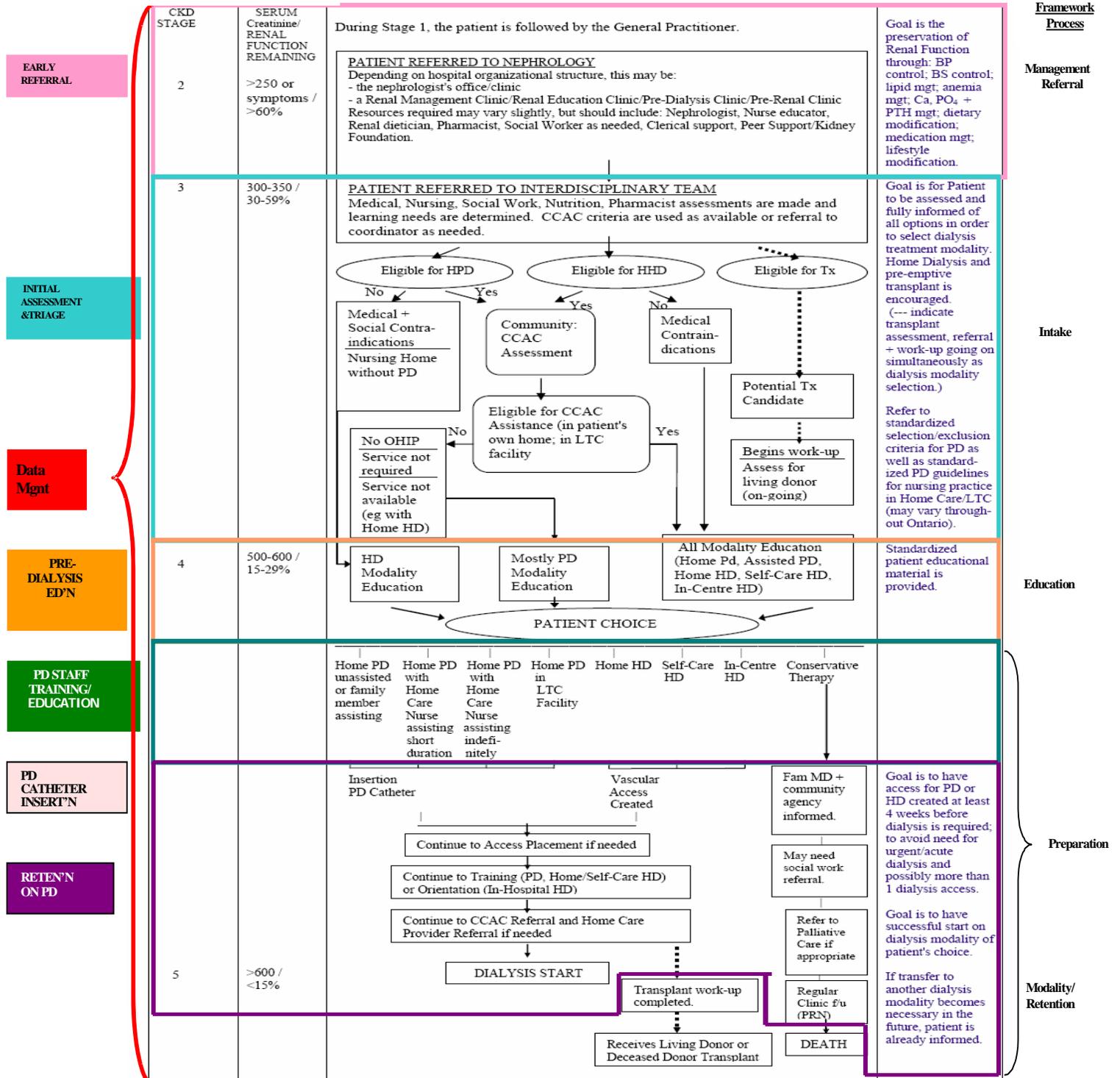
- Kidney Foundation of Canada - Ontario Chapter.
- Institute for Clinical Evaluative Services
- Ontario Association of Nephrologists (OAN)
- Renal Administrative Leaders Network of Ontario (RALNO)
- City Wide PD Interest Group (CWPDIG)



APPENDIX F: CKD CARE PATHWAY

PD Service Initiatives

DIALYSIS SELECTION CKD CARE MAP



References: Hamilton CCAC, Humber River Regional Hospital, Lakeridge Health Centre; London Health Sciences Centre, Soldiers Memorial Hospital (Orillia), Sunnybrook + Women's College Health Sciences Centre -- January 2006
 Legend: CKD-Chronic Kidney Disease; CCAC-Community Care Access Centre; PD-Peritoneal Dialysis; HPD-Home Peritoneal Dialysis; HD-Hemodialysis; HHD-Home Hemodialysis; Tx-Transplant; LTC-Long Term Care

APPENDIX G: BIBLIOGRAPHY & REFERENCE LIST

Establishing Evidence-Based Practice in the Care of Peritoneal Dialysis Patients ANNA: Session 213, April 4 2006.

Campbell, M.K., Daly, C., Wallace, S.A., Cody, J., Donaldson, C. et al. (2000). Evidence-based medicine in nephrology: identifying and critically appraising the literature. [Electronic Version]. *Nephrol Dial Transplant* Vol 15 (12). Retrieved December 28 2005 from <http://ndt.oxfordjournals.org/cgi/content/full/15/12/1950> .

DiCenso, A., Cullum, N., Ciliska, D. (1998). Implementing evidence-based nursing : some misconceptions. *Evid Based Nurs.* 1, 38-39. Retrieved December 29 2005 from <http://www.bmjournals.com> .

European Best Practice Guideline Working Group on Peritoneal Dialysis (2005). European best practice guidelines for peritoneal dialysis. [Electronic version] *Nephrol Dial Transplant* 20 (Supp 9). Retrieved January 7 2006 from ndt.oupjournals.org .

Evans, D. (2000). Appraising systematic reviews. [Electronic Version]. *Evidence Based Practice Information Sheets for Health Professionals*, Supplement 1, 2000. Retrieved December 28 2005 from <http://www.joannabriggs.edu.au>.

Evans, D. (2000). An introduction to systematic reviews. [Electronic Version]. *Evidence Based Practice Information Sheets for Health Professionals*, Supplement 1, 2001. Retrieved December 28 2005 from <http://www.joannabriggs.edu.au> .

Flemming, K. (1998). Asking answerable questions. [Electronic Version] *Evid. Based Nurs.* 1, 36-37. Retrieved December 29, 2005.

Furthe, S.L., Powe, N.R., Hwang, W., Neu, A.M., Fivush, B.A. (1997). Does greater pediatric experience influence treatment choices in chronic disease management? *Arch Pediatr Adolesc Med* 151, 545-550.

Haynes, R.B., Hayward, R.S.A., Lomas, J. (1995). Bridges between health care research evidence and clinical practice. *JAMA* 2, 342-350.

Keeping, L.M., English, L.M. (2001) Informal and incidental learning with patients who use continuous ambulatory peritoneal dialysis. *Nephrol Nurs. J.* 28 (3), 319-322.

Kelly-Powell, M.L. (1997) Personalizing Choices: Patients' experience with making treatment decisions. *Research in Nursing and Health*, Vol 20 (3), 219-227.

Lockwood, C., Page, T., Hodgkinson, B. (2004). Clinical effectiveness of different approaches to peritoneal dialysis catheter exit-site care. *Evidence Based Practice Information Sheets for Health Professionals*, Volume 8 (1). Retrieved December 29 2005 from <http://www.joannabriggs.edu.au> .

Provincial PD Joint Initiative: Report on the delivery of PD in Ontario

- MacLeod, A., Grant, A., Donaldson, C., Khan, I., Campbell, M., Daly, C. et al. (1998). Effectiveness and efficiency of methods of dialysis therapy for end-stage renal disease: systematic reviews. [Electronic Version] *Health Technology Assessment 1998* Vol 2(5). Retrieved December 30 2005 from <http://www.nchta.org/execsumm/summ205.htm> .
- National Kidney Foundation. Dialysis Patients' Bill of Rights and Responsibilities
- Lomas, J. (2000). Connecting research and policy. *Isuma* Spring. Printemps 2000. Retrieved December 27 from <http://www.isuma.net> .
- Nhs Centre for Reviews and Dissemination, University of York. (1999). Effective health care: getting evidence into practice. Retrieved December 27 2005 from www.york.ac.uk/inst/crd .
- Oxman, A.D., Thomson, M.A., Davis, D.A., Haynes, B. (1995). No magic bullets: a systematic review of 102 trials of interventions to improve professional practice. *Canadian Medical Association Journal* 153, 1423-1431.
- Rubin, H.R., Fink, N.E., Plantinga, L.C., Sadler, J.H., Kliger, A.S., Powe, N.R. (2004). Patient ratings of dialysis care with peritoneal dialysis vs hemodialysis. *JAMA* 291 (6), 697-703.
- Russell, C.K., Gregory, D.M. (2003). Evaluation of qualitative research studies. [Electronic Version]. *Evid. Based Nurs.* 6, 36-40. Retrieved December 29, 2005.
- Strippoli, G.F., Tong, A., Johnson, D., Schena, F.P., Craig, J.C. (2004). Antimicrobial agents to prevent peritonitis in peritoneal dialysis: a systematic review of randomized controlled trials. *Am J Kidney Dis* 44(4), 591-603.
- Strippoli, G.F., Tong, A., Johnson, D., Schena, F.P., Craig, J.C. (2004). Catheter-related interventions to prevent peritonitis in peritoneal dialysis: a systematic review of randomized controlled trials. *J Am Soc Nephrol* 15, 2735-2746.
- Strippoli, G.F., Tong, A., Johnson, D., Schena, F.P., Craig, J.C. (2005). Catheter type, placement and insertion techniques for preventing peritonitis in peritoneal dialysis patients [Review]. *The Cochrane Database of Systematic Reviews*. Retrieved December 30 2005.
- Sugarman, J.R., Frederick, P.R., Frankenfield, D.L., Owen, W.F. Jr., McClellan, W.M.; Dialysis Outcomes Quality Initiative Clinical Practice Guidelines. (2003). Developing clinical performance measures based on the Dialysis Outcomes Quality Initiative Clinical Practice Guidelines: process, outcomes and implications. *Am J Kidney Dis* 42(4), 8-6-812.
- Thompson, C., Cullum, N., McCaughan, D., Sheldon, T., Raynor, P. (2004) Nurses, information use, and clinical decision making --- the real world potential for evidence-based decisions in nursing. [Electronic Version]. *Evid. Based Nurs* 7, 68-72. Retrieved December 29, 2005 from www.evidencebasednursing.com

Provincial PD Joint Initiative: Report on the delivery of PD in Ontario

Thorne, S. (2000). Data analysis in qualitative research.[Electronic Version] *Evid.Based Nurs.* 3, 68-70. Retrieved December 29, 2005 from www.evidencebasednursing.com

Vale, L., Donaldson, C., Daly, C., Campbell, M., Cody, J., Grant, A. et al. (2000). Evidence-based medicine and health economics: a case study of end stage renal disease. *Health Econ.* 9, 337-351.

Wiggins, K.J., Craig, J.C. , Johnson, D., Strippoli, G.F. (2005). Treatment for peritoneal dialysis-associated peritonitis. *The Cochrane Database of Systematic Reviews.* Volume (4) 2005. Retrieved December 30 2005.

APPENDIX H: FOOTNOTES

1. American J Kidney Disease. 2001 Jan;37(1):22-29. What do American Nephrologists think about dialysis modality selection?
2. Nephrology Dial Transplant. 2002 Mar;17(3):474-7. *Attitudes of British Isles Nephrologists towards dialysis modality selection: a questionnaire study.*
3. Kidney International, 2005; 68, 1777–1783 *The Impact of Education According to Kidney Disease Patients' Plans to initiate Dialysis with Self-Care Dialysis: A Randomized Trial*
4. Kidney International, 2005; Jul;68(1): 378-90 *Patient education and access of ESRD patients to renal replacement therapies beyond in-centre hemodialysis.*
5. TBD: Peritoneal Dialysis International, 2005: Feb; 25 Suppl 3: s56-9 *Analysis of Patient Flow into Dialysis: Role of Education in choice of dialysis modality.*
6. Ministry of Health, 2006
7. Nephrology Dialysis Transplantation, 19, pp. 1808-1814, 2004.
8. CMAJ 1999; 161: 413-417 (Endorsed by the Canadian Society of Nephrology (CSN))
9. CMAJ 1999; 161: 413-417 (Endorsed by the Canadian Society of Nephrology (CSN))
10. Nephrology Dialysis Transplantation, 19, pp. 1808-1814, 2004.
11. KDOQI CKD Guideline 12, Association of Level of GFR with indices of functioning and well-being, 2000
12. eGFR is a mathematical calculation based on several readily available parameters that measures Glomerular Filtration Rate (kidney function).
13. Informal survey conducted on several Ontario Nephrologists.
14. Robinson, W. and Murphy-Burke (1998). Staffing Guidelines for Renal Social workers. *BC Provincial Renal Agency*.p.10,
15. Reid, R. (1999). Dietician Staffing Guidelines for Renal Centres in British Columbia, *BC Provincial Renal Agency*. p.9.
16. PD Program size = Small (0-45) and Medium (45-90) and large PD programs (90-200)
17. Kidney International, 1995: 15 [Suppl]: S38-S40
18. American Journal of Kidney Disease, 1998; 32[Suppl 1]: S67-S85
19. Technique failure is the probability of a patient discontinuing his initial dialysis modality. Dr. D. Oreopoulos.
20. Flanigan M, Gokal R. Peritoneal catheters and exit site practices towards optimum peritoneal access: a review of current developments. *Perit Dial Int* 2005; 25:132-139
21. Piraino B, et al. Peritoneal dialysis-related infections recommendations: 2005 update. *Perit Dial Int* 2005;25:107-131
22. Long-Term Care High Intensity Needs Fund (HINF), 2004