

The Home Hemodialysis Cannulation Assistance Program

from concept to reality....

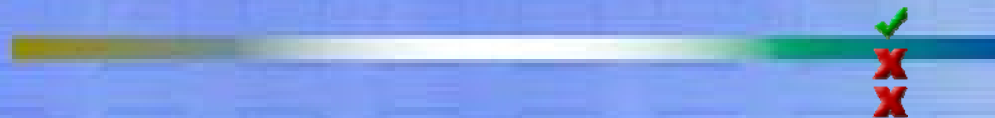
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[Poll the audience time!

How many of you have worked in
hemodialysis?]

- A. [I am, or I have worked in hemodialysis]
- B. [I have not worked in hemodialysis]



[Poll the audience time!
How long have you worked in
hemodialysis?]

- A. [0-2 years]
- B. [3-5 years]
- C. [6-10 years]
- D. [11+ years]



[Poll the audience time! Who remembers their very first day of hemodialysis training?]

- A. [I remember]
- B. [I don't remember]





[Poll the audience time! Who remembers the first time they had to cannulate a patient?]

- A. [I remember]
- B. [I don't remember]





‘Grow Home’ Strategies

How do we increase patient volumes to achieve:

- 30% of patient population on Home Peritoneal Dialysis
- 10% of patient population on Home Hemodialysis

Reduce identified barriers to patients enrolling in home therapies:

Suitable housing, co morbid conditions, social conditions, perceived burden on family members, **fear of self-cannulation**, fear of complications (the unknown), lack of self-efficacy

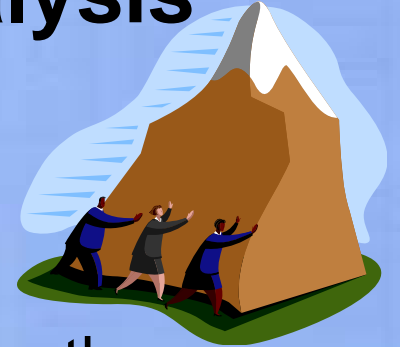
Joseph A. Cafazzo, Kevin Leonard, Anthony C. Easty, Peter G. Rossos, and Christopher T. Chan

Patient-Perceived Barriers to the Adoption of Nocturnal Home Hemodialysis

CJASN April 2009 4): (4) 784-789

Early Identification of Barriers that prevent a patient from choosing home dialysis

Each patient has 2 assessments:



1. Renal Home Therapy Assessment (based from the Home Dialysis Interest Group assessment form)
identifies needle phobic patients
2. Social Work assessment

Allows for a multi-disciplinary team approach to formulate action plans to act on strategies to alleviate the identified issues

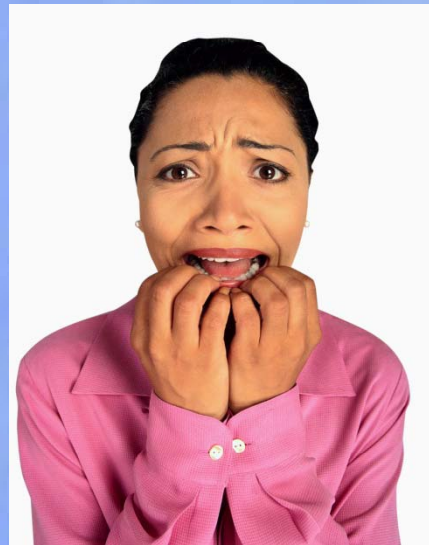
[Poll the audience time!]

Who has had or known of a patient who refused home hemodialysis because they would have to self-cannulate?

- A. Yes, I have
- B. No, I have not

Who identified fear of self-cannulation as
a barrier to home dialysis?

Cannulation phobia was identified at the Home
Dialysis Interest Group meetings as being
a common issue in all programs.....





So what can we do to
eliminate the obstacle
of 'needle phobia'?




....Along came 'buttonhole' cannulation

- Once the buttonhole sites are created the patient can self-cannulate with much less difficulty and fear of infiltrations
- Decreased perceived pain levels experienced with this technique
- No more sharp needles!

However it requires patients to adhere to a stringent preparation and cannulation procedure.

The Buttonhole vs. Rope Ladder Debate

- buttonhole technique may/may not reduce pain levels, but can affect cannulation difficulties experienced, etc. but recent studies have revealed it presents a **30-120 X greater risk of developing an access infection**
- Can we ethically continue to actively promote buttonhole cannulation given recent research results?

 But the rope ladder cannulation technique creates more phobia due to increased perceived pain levels and potential for cannulation difficulties



.....So how can we reduce the barrier of self-cannulation phobia in home hemodialysis????

At The Credit Valley Hospital and Trillium Health Centre

- In late 2010 a small evaluation of options education offered to the chronic hospital and satellite based patients (42 in total) revealed that 36% (15 out of 42) of patients stated they would not do home hemodialysis as they refused to self-cannulate.

So let's brainstorm-What can we do for these patients???





Let's offer community based
cannulation assistance to our
patients!

Cannulation Assistance....the concept

- Develop a partnership to offer cannulation assistance to these identified patients between The Credit Valley Hospital and Mississauga Halton Community Care Access Centre was proposed and accepted
- Cannulation will be offered to patients with grafts or fistulas, using either the sharp 'ladder', or dull 'buttonhole' techniques
- Patients can receive assistance for either a short or long duration of time based on their individual requirements (50/50)

Partnership Timeline.....



- **Summer 2010-** initial idea discussed internally between the Renal Patient Care Manager and the Program Director
- **Fall 2010-** idea discussed between MH CCAC Director of Client Services and the Renal Program Director
- **November 2010 -** Renal Improvement Lead hired and discussions begin regarding the partnership details with the Manager of Client Services for MH CCAC

Who will be the service provider?

Saint Elizabeth Health Care was...

- identified by CCAC as the agency that will provide cannulation to our patients.
- already providing assistance to the Home Peritoneal dialysis population at The Credit Valley Hospital and Trillium Health Centre

Partnership Timeline.....



- Several more meetings between CVH, MH CCAC and Saint Elizabeth to define partnership details and requirements
- **August 2011** - Initial partnership between CVH and MH CCAC formally finalized

Process for Initiating CCAC Cannulation Support for a Home Hemodialysis Patient

Possible patient identified in Kidney Care Clinic, by Home Hemodialysis nurses or via the Home Therapy Patient Assessment



Referral form sent to CCAC once patient has started Home Hemodialysis training



Patient assigned to Short Stay Case Manager



CCAC will forward copy of referral form to Saint Elizabeth Nursing once the date of initial service requirement is known



Client is assigned to Saint Elizabeth program nurses (service providers)



Saint Elizabeth Nurse meets the client along with Primary Home Hemodialysis nurse prior to initial home visit



Primary HH nurse and Saint Elizabeth Nurse review assistance required



Saint Elizabeth Nurse initiates home visits, cannulates patient using proper routine practice precautions, and current best practice procedure. They will stay until pt. is on dialysis and needles functioning well based on pt. direction
(visits will be scheduled prior to 2200 hours)



Each visit requires verbal and written communication **in the event of a complication, or difficult cannulation** to be sent via fax to Home Hemodialysis Program within 12 hours of visit



Procedures in place in the event patient is not able to dialyze, or cannulation complications occur



Back up support identified for CCAC service providers



Periodic re-evaluations of pt.'s required Q 3 months

The service provider training includes:

- overview of renal functions, renal disease, and renal failure
- treatment options focusing on hemodialysis
- vascular accesses, and access assessment
- cannulation for both rope ladder and buttonhole techniques
- cannulation difficulties
- access complications

The service provider training includes:

- Procedures for:
- ladder and buttonhole cannulation
 - needle infiltration
 - needle repositioning
 - unsuccessful cannulation
 - infected (or suspected infection) access
 - clotting access (dark blood return)
 - clotted access

***Cannulation procedures were created using
K/DOQI and Fistula First guidelines, research based and
approved by IPAC***

The service provider training includes:

- Numerous opportunities for cannulation practical experiences
- Documentation and communication requirements
- Cannulation training exam (must achieve 80% to pass)
- Cannulation competency assessment (checklist based on Fistula First)
- Service provider responsibility for maintaining competency

Saint Elizabeth Nurse Training

- three week training
- occurs in the hemodialysis unit at The Credit Valley Hospital site but may also include our satellite unit
- offers more access diversity and a larger patient population
- guided by the Vascular Access Coordinator, and the Renal Education Facilitator for the Home Dialysis programs
- nurse (service provider) competency must be achieved prior to providing service to Home Hemodialysis patients

Competency Assessment Checks

- maintaining aseptic technique
- assessing patients and accesses for changes such as signs and symptoms of infection
- proper cleaning and cannulation demonstrated consistently for both techniques
- proper assessment of correct needle placement
- properly securing needles
- how to troubleshoot access issues
- when and how to obtain medical advice
- proper reporting of visits and issues

Our first patient to enroll in the program!

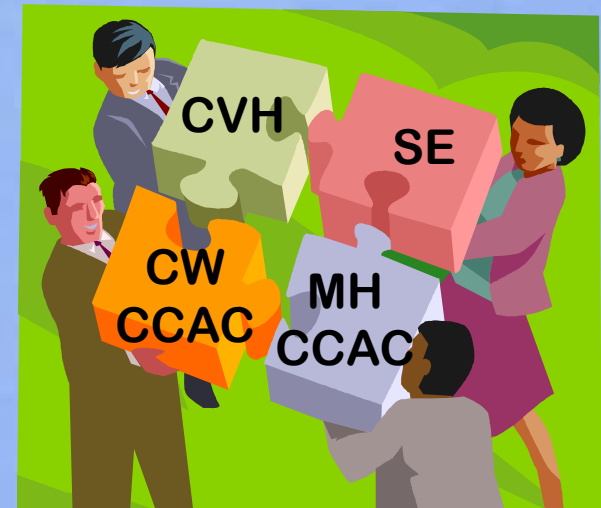
- female diagnosed with renal disease at the age of 13
- had 3 kidney transplants
- started in-centre hemodialysis in 2000, and has a severe needle phobia
- married and delivered a healthy baby boy (at 33 weeks, 4 days gestation) in 2004
- works full-time and wanted more time with her son
- started home hemodialysis training in August 2011
- “ **Mississauga address**” but later identified as living in the **Central West region** so.....



...a new partnership developed

September 2011: -Discussions for a partnership with Central West Community Care Access Centre started with support from Mississauga Halton Community Care Access Centre and Saint Elizabeth

January 2012: -partnership agreement signed, and service provider training began in early February



Service Provider Training to date...

September 2011: ➔ 2 service providers from the Mississauga Halton (MH) region completed training & one resigns in December 2011

February 2012: ➔ 1 service provider from MH and 2 from Central West (CW) completed training, the CW nurses began providing patient assistance immediately (3X/Wk.) and the provider from MH resigns from the program

March 2012: ➔ the remaining service provider from MH fails to meet specific patient cannulation competency, but will remain in the program for future consideration, maintains monthly cannulation competency reassessments

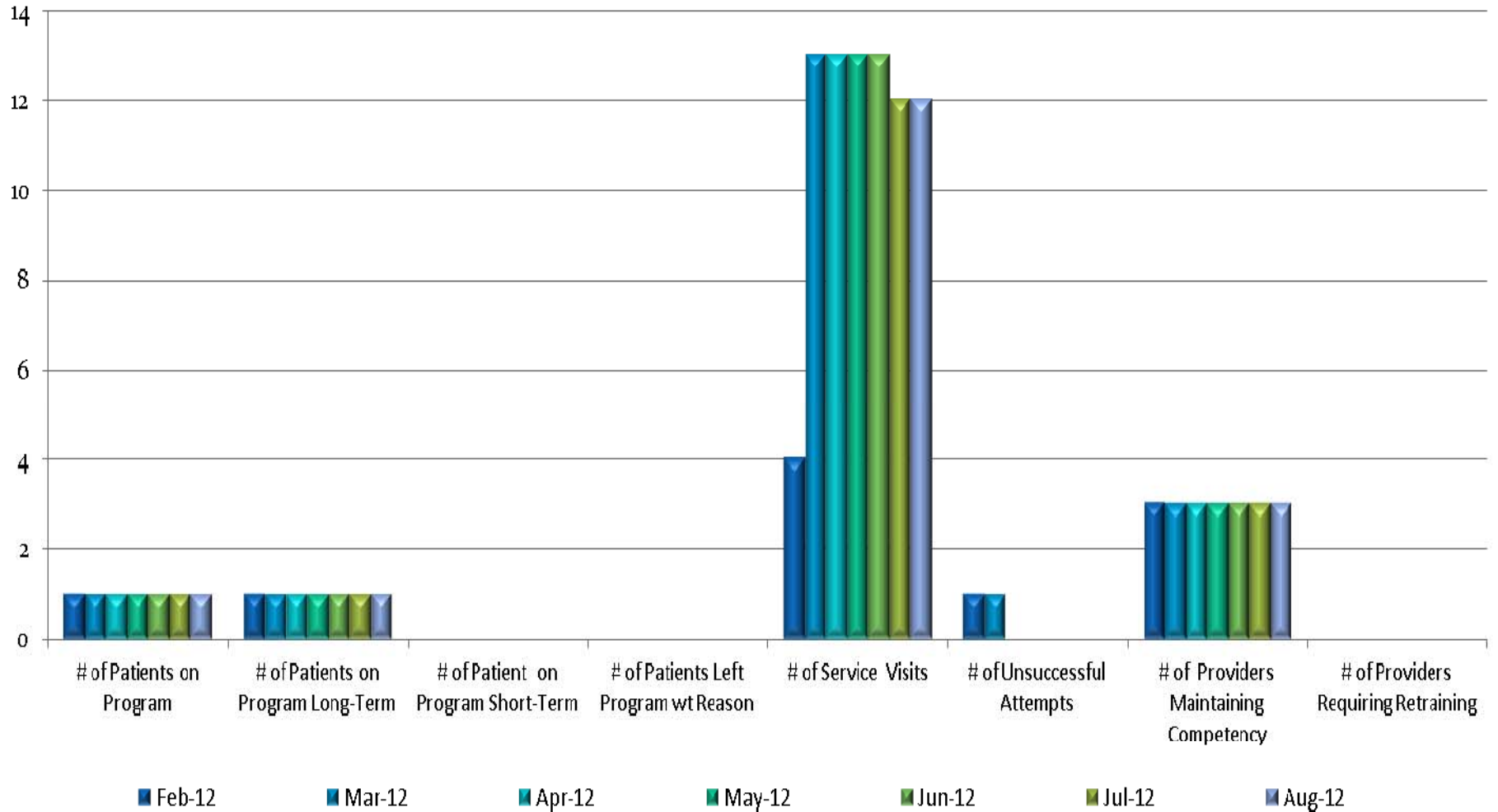
September 2012: ➔ 2 additional service providers from MH completed training and began to provide support to our second patient who resides in the Central West region (5X/Wk.)

...PROGRAM IS LAUNCHED IN THE COMMUNITY!

Cannulation assistance by Central West region service providers begins on February 21, 2012



Cannulation Assistance Program Statistics



Cannulation Assistance Program Statistics: Patient Feedback

1. How long have you been receiving cannulation assistance from the service provider?	Less than 3 months	Less than 6 months
2. Do the service providers arrive within the stated timeframe?	Always	Almost all the time
3. How would you rate the cannulation skills of your service provider(s)?	Good	Good
4. Do the service providers conduct themselves in a professional and courteous manner?	Always	Always
5. Did the service provider inform you of their emergency contact telephone number?	When you scheduled the first home visit	At the end of the first visit
6. Are you satisfied with the service provided to you?	Always	Always

Our Success to date

We now have 2 satisfied patients who would not be on home hemodialysis if not for this program.....and counting....



The Benefits of this Partnership

- Forging a stronger partnership with CCAC helps us to bridge the gap between in-centre hemodialysis and home hemodialysis
- Helps to build relations for even more partnerships in the future



Quality of Life Benefits of this Program

More patients are now able to experience the benefits home hemodialysis can offer:

- Longer gentler treatments
- Flexible scheduling (within limits)
- More liberal diet
- Less hospital visits
- More independence
- More energy



Program Benefits-Cost Analysis

An early estimated cost analysis showed that it is still saving money to have these patients on home hemodialysis AND receiving cannulation assistance vs. patients who are receiving comparable care on in-centre hemodialysis.



It is not all smooth sailing...

“The road to success is always under construction.” [Lily Tomlin](#)



Our Construction Delays....



- Our program enrolls patients from two regions, therefore we required two partnerships
- We trained two nurses (service providers) who ended up leaving the program
- We could not enroll one patient temporarily into the program due to a lack of resources to train the necessary service providers
- One service provider unable to achieve competency with one of the patients who then withdrew himself from the program

Changes we've made since we started this program....

- Service providers are now able to cross LHIN boundaries to provide service to all of our patients
- We are now promoting the rope ladder over the buttonhole technique to all patients in the program

More patients are joining home hemodialysis because of this program

We now have 4 more potential patients who may be joining the program within the next few months!



**Thanks for your attention
and any...**



**if not, then let's
do lunch**

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