

Supporting Patient Choice: An Intervention to Support Home-Based Dialysis



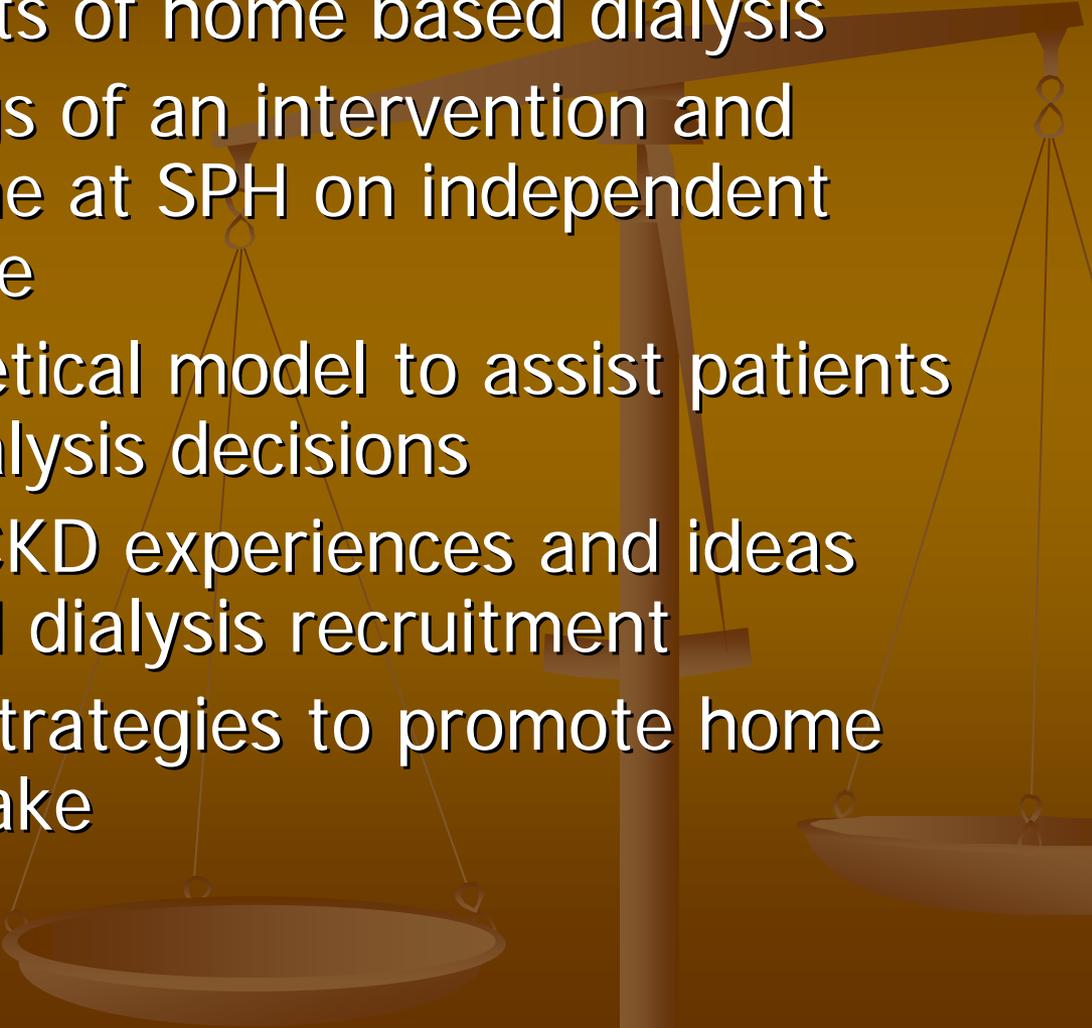
BCND

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Objectives

- Discuss the benefits of home based dialysis
 - Review the findings of an intervention and design project done at SPH on independent dialysis (ID) uptake
 - Introduce a theoretical model to assist patients in making their dialysis decisions
 - Discuss patient's CKD experiences and ideas about home based dialysis recruitment
 - Discuss program strategies to promote home based dialysis uptake
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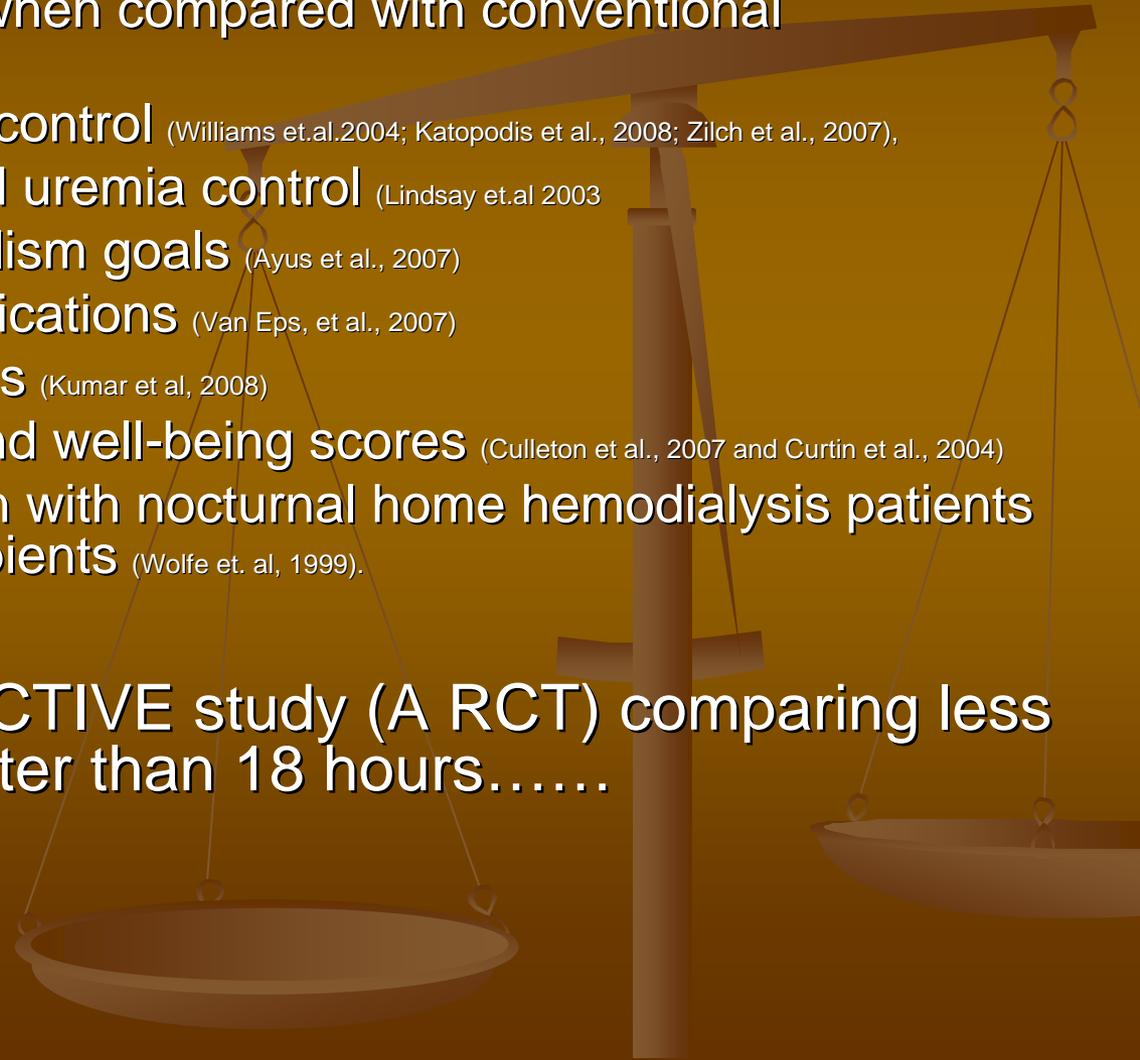
Literature review PD benefits

- PD is well known to preserve residual renal function better than hemodialysis (Karkar & Abdelrahman, 2011)
- Preserving residual renal function can improve survival in dialysis patients (van der Wal et.al., 2010)
- PD has reduced cardiac related hospitalizations (Trespalacios, Taylor, Agodoa, Bakris, & Abbot, 2003)
- Many studies have demonstrated higher quality of life and higher patient satisfaction scores compared with CHD (Fructuoso, Castro, Oliveira, Prata, & Morgado, 2011; Darrett, Darmody, Williams, Rutherford, Schollum & Walker, 2010)
- PD patients **do not** spend any more days in hospital for infections than hemodialysis patients (Williams et. al, 2010).
- Many centers are now recommending PD as a first therapy before Hemodialysis (Chaudhary et.al, 2011)

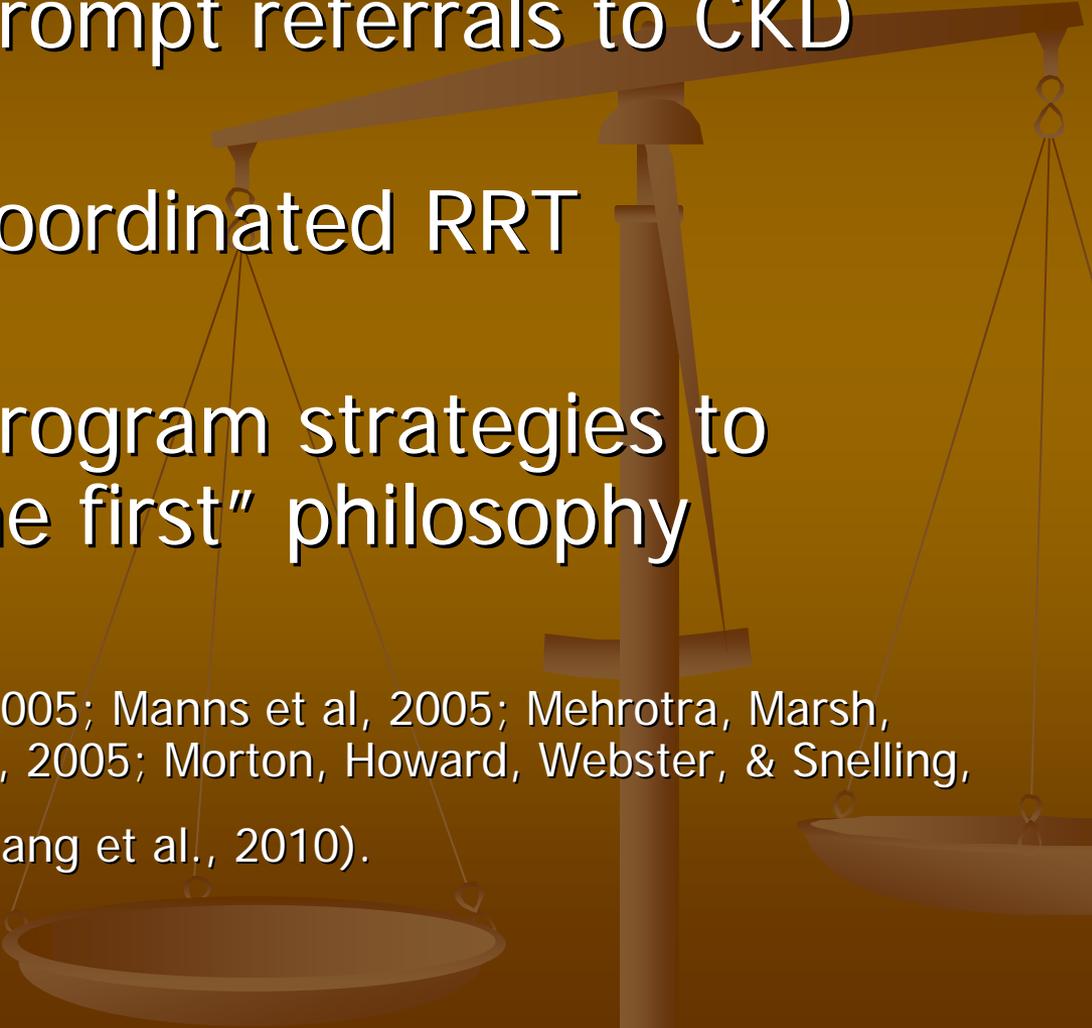
Literature review HHD benefits

Improved clinical outcomes when compared with conventional hemodialysis (CHD).

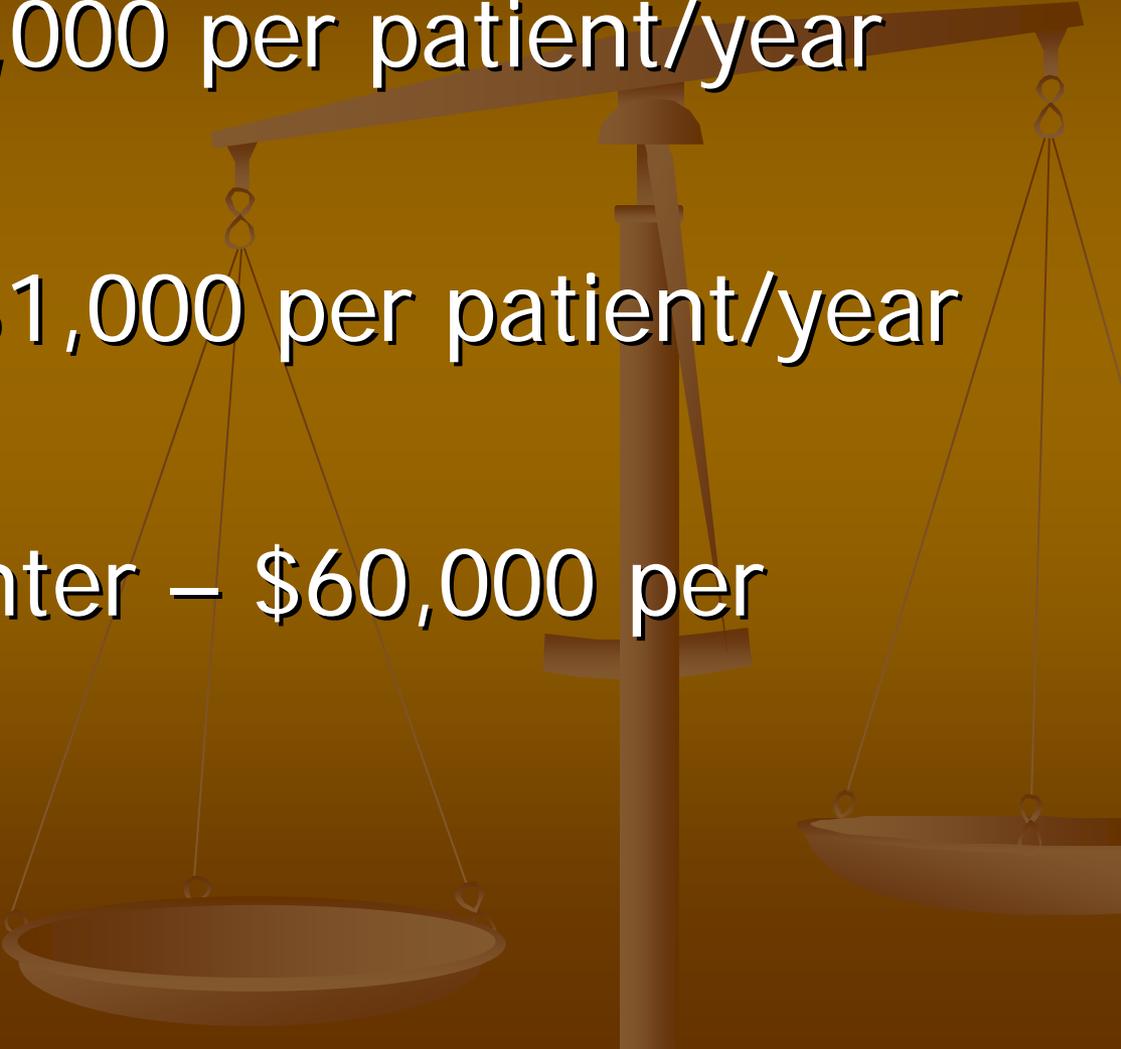
- Improved blood pressure control (Williams et.al.2004; Katopodis et al., 2008; Zilch et al., 2007),
 - Improved phosphorus and uremia control (Lindsay et.al 2003)
 - Improved mineral metabolism goals (Ayus et al., 2007)
 - Decreased vascular calcifications (Van Eps, et al., 2007)
 - Decreased hospitalizations (Kumar et al, 2008)
 - Increased quality of life and well-being scores (Culleton et al., 2007 and Curtin et al., 2004)
 - Similar survival rates seen with nocturnal home hemodialysis patients and deceased donor recipients (Wolfe et. al, 1999).
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- Research to come: ACTIVE study (A RCT) comparing less than 15 hours to greater than 18 hours.....



Literature review – ID uptake

- Dependent on prompt referrals to CKD clinics
 - Dependent on coordinated RRT counselling
 - Dependent on program strategies to promote a “home first” philosophy
 - (Goovaerts, Jadoul, Goffin, 2005; Manns et al, 2005; Mehrotra, Marsh, Vonesh, Peters, & Nissenson, 2005; Morton, Howard, Webster, & Snelling, 2010; Piccoli et al., 2005; Zhang et al., 2010).
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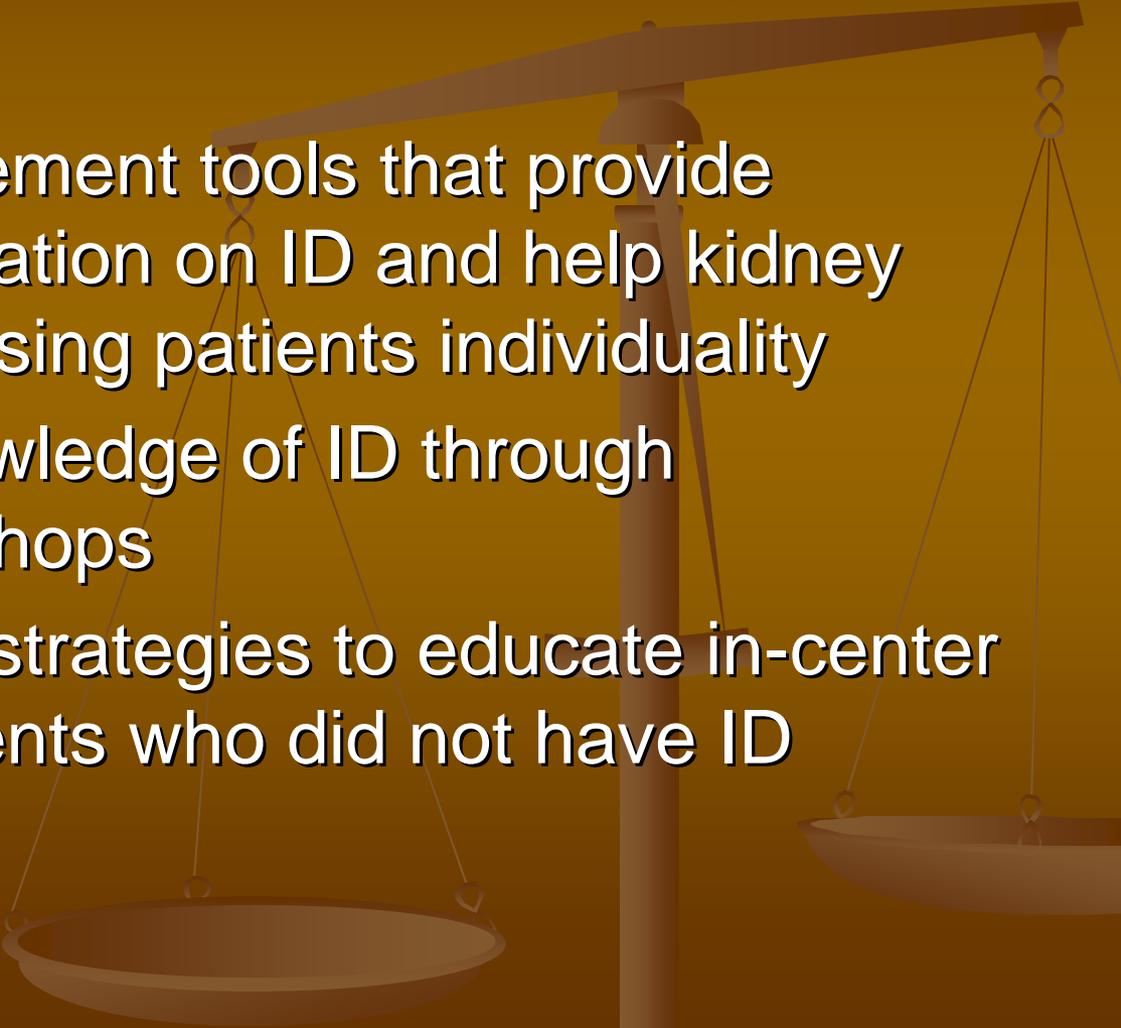
Cost of PD and HHD vs. CHD

- PD cost – \$30,000 per patient/year
 - HHD cost – \$31,000 per patient/year
 - Hospital in-center – \$60,000 per patient/year
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2009-2010 Intervention and Design project

Goal: Improve ID uptake at St. Paul's Hospital

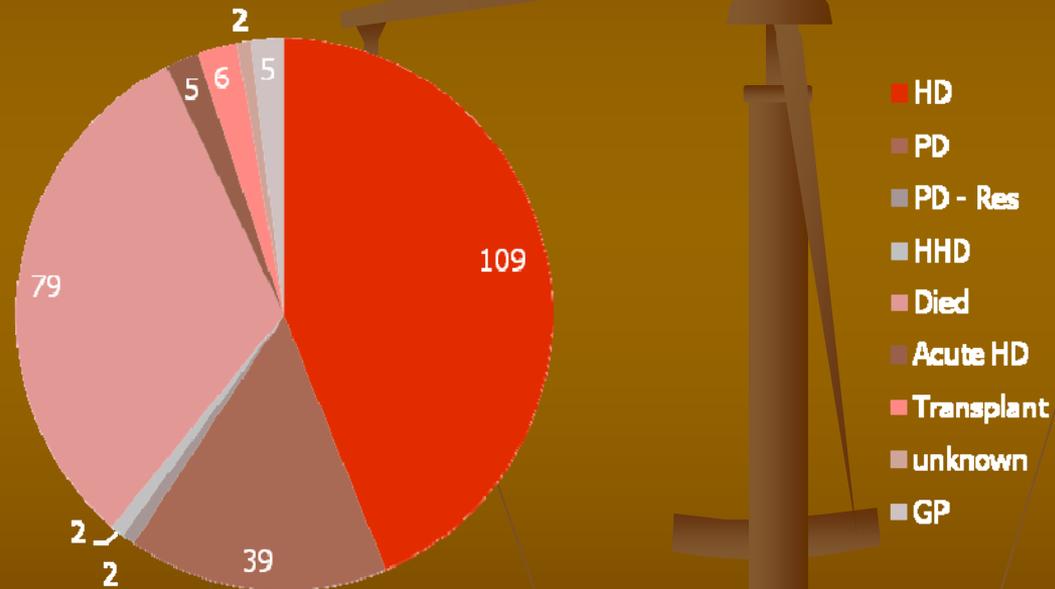
Objectives:

- 1) Develop and implement tools that provide patients with education on ID and help kidney providers in assessing patients individuality
 - 2) Increase staff knowledge of ID through educational workshops
 - 3) Develop program strategies to educate in-center hemodialysis patients who did not have ID orientation
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St. Paul's hospital exits

CKD	CKD Exits
HD	109
PD	39
PD - Res	2
HHD	2
Died	79
Acute HD	5
Transplant	6
unknown	2
GP	5

CKD Exits in 2009 n=255



Interesting stats: 30% of patients died before going on to RRT
Out of 255 patients 158 go on to RRT

Follow-up to RRT stats

Table 1: Number of patients who started dialysis or received a pre-emptive transplantation in 2009 and number of RRT orientations

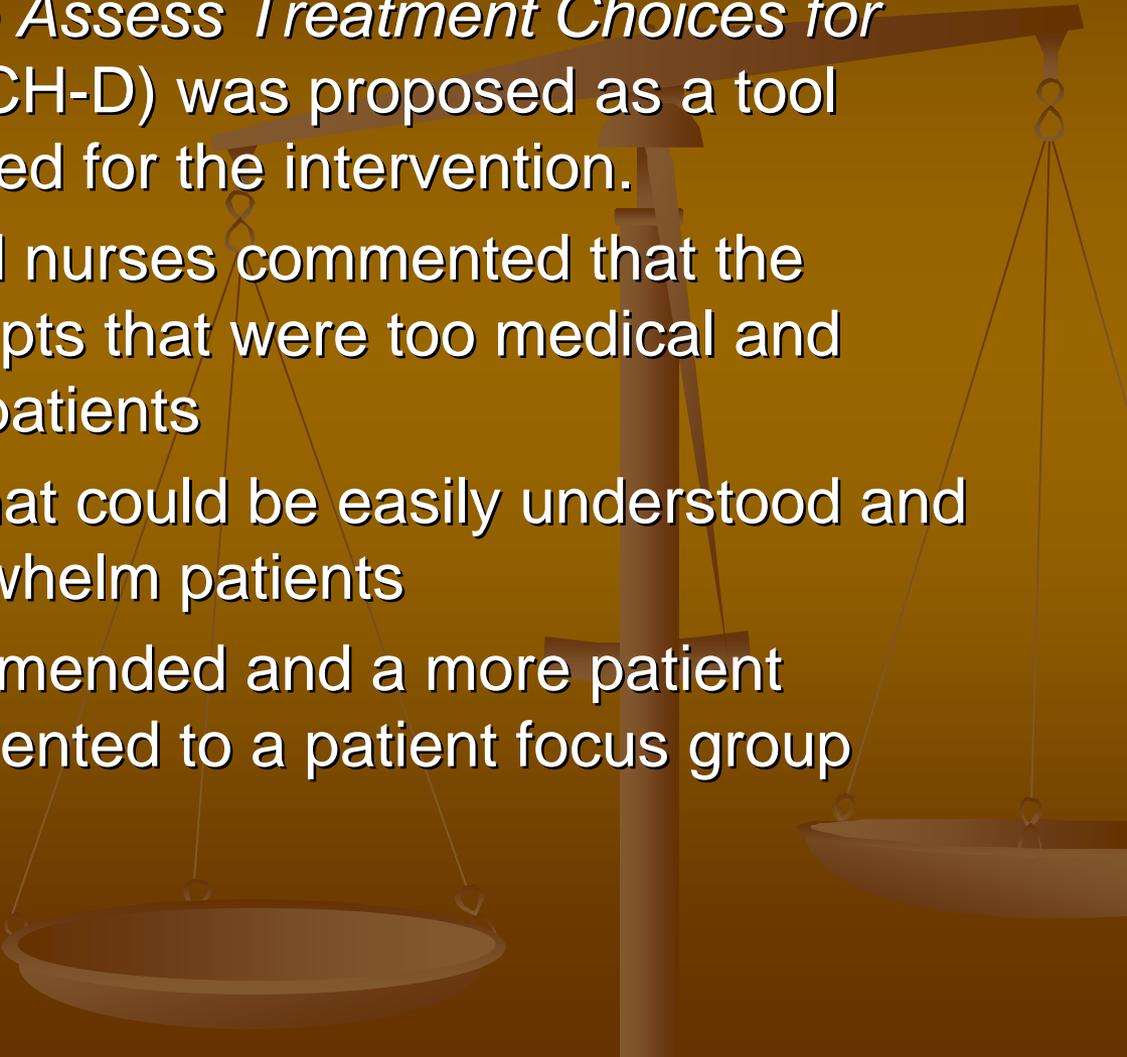
Follow-up status	Clinic n=65	Office n=53	Office + Allied n=16	N/A n=24	Total n=158
Mean age in years	63.5	72.4	62.0	61.4	65.9
Renal replacement orientation given (Yes)	57 (88%)	36 (68%)	12 (75%)	11(46%)	116 (73%)
Conventional Hemodialysis	37 (57%)	42 (79%)	10 (63%)	20 (83%)	109(69%)
Peritoneal Dialysis	21(32%)	10 (19%)	6 (38%)	4 (17%)	41(26%)
Home Hemodialysis	2 (3%)	0	0	0	2 (1%)
Pre-emptive transplant	5 (8%)	1(2%)	0	0	6 (4%)

Model of Patient's Decision Making Process of Dialysis Options



Note: Adapted from the "Interaction Model of Client Health Behavior" by C Cox, 1982, *Advances in Nursing Science*, 10, 41-56.

Patient and nurses focus groups



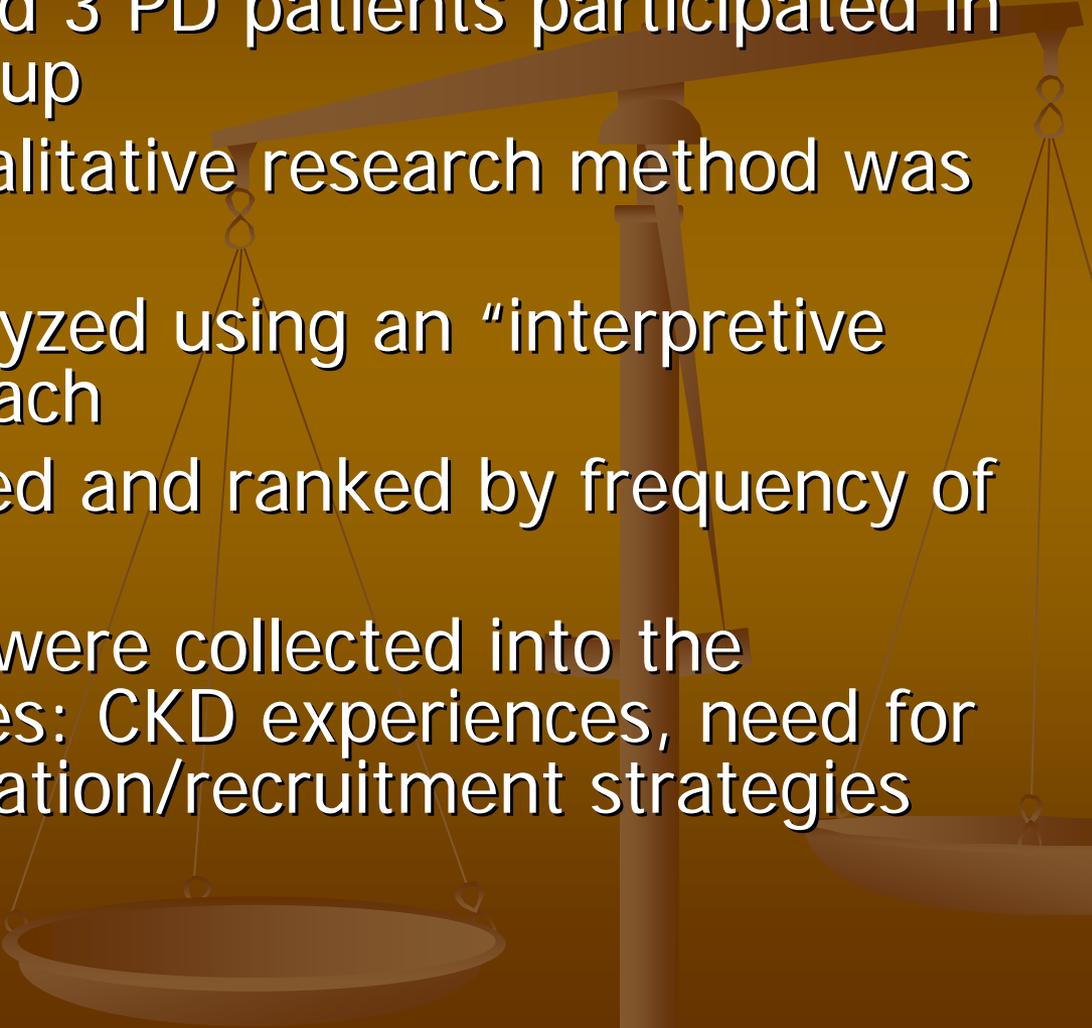
- Initially the *Method to Assess Treatment Choices for Home Dialysis* (MATCH-D) was proposed as a tool which could be adapted for the intervention.

BUT....The patients and nurses commented that the MATCH-D had concepts that were too medical and would be difficult for patients

- They wanted a tool that could be easily understood and one that did not overwhelm patients

....the MATCH-D was amended and a more patient specific tool was presented to a patient focus group

Patient focus group

- 3 HHD patients and 3 PD patients participated in a 2 hour focus group
 - An exploratory qualitative research method was used
 - Themes were analyzed using an “interpretive descriptive” approach
 - Themes were tallied and ranked by frequency of identified themes
 - The main themes were collected into the following categories: CKD experiences, need for support, and education/recruitment strategies
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1. Pre-dialysis experiences

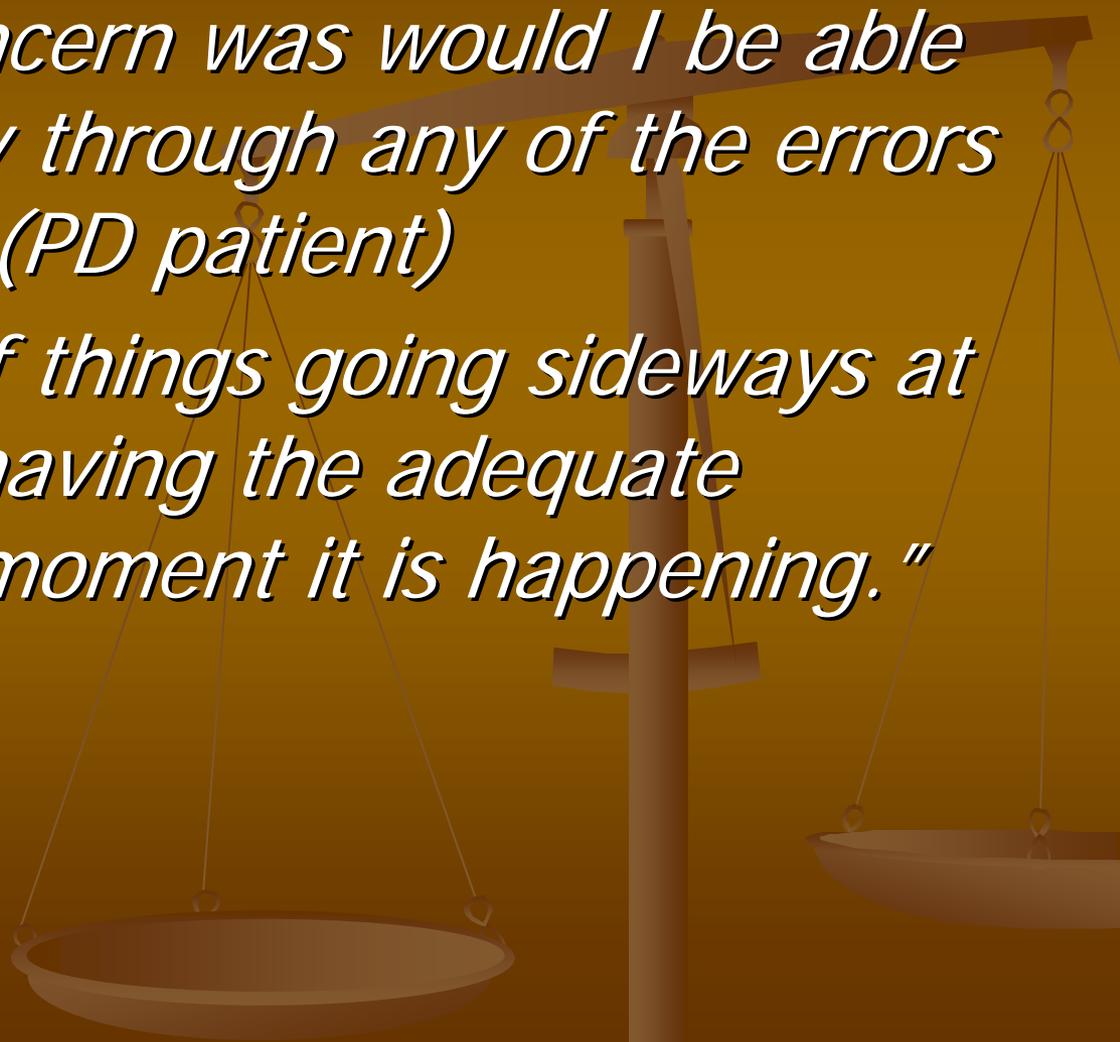
- *I went home horrified (after a pre-dialysis orientation session). I said, "Okay, is this it? For the rest of my life? (HHD patient)*
- *When they (the nephrologists) tell you that you have lost your kidneys and that is it and that you have to go and start dialysis, I highly doubt that anyone would have in their mind...you know, 'if I lose my kidneys this is what I am going to do'....you never think this is going to happen to you. It just happens and when it happens, it is so sudden. (HHD patient)*

The need for support

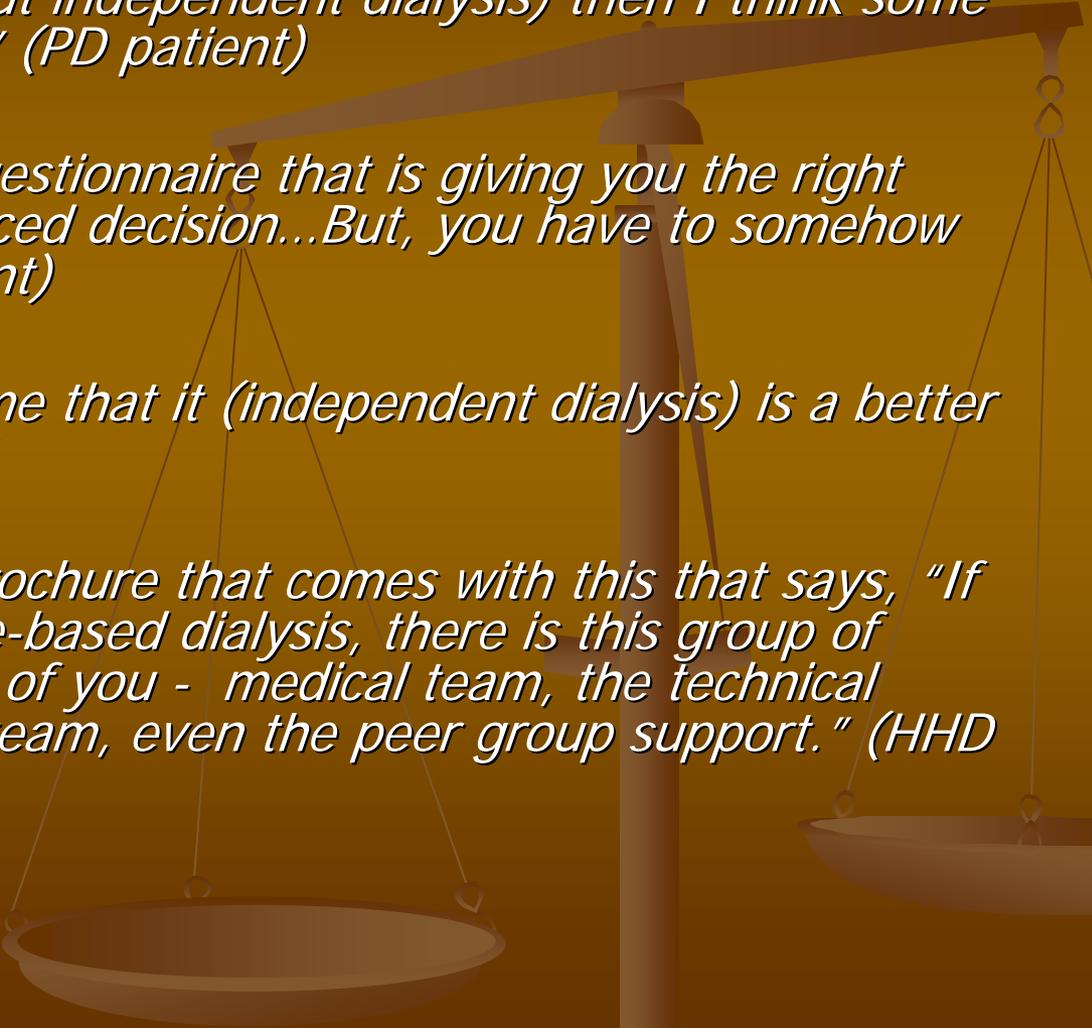
- *You need somebody to talk to that knows, right at that point, who can get you out of that depression.... And say, "No, your life is not over. No, you are not going to die. We can make you better and this is how you can do it." (PD patient)*
- *"At the end of the day, the person you are listening to and the view point you are going to make a decision on is the doctor who is sending you to dialysis "(HHD patient)*
- *"I think part of that is something that we can do in that we can talk to people about it. People who are not on dialysis even. The more informed they are about how it works and you can live a normal life at home."*

Need for support at home

- *“My biggest concern was would I be able to work my way through any of the errors that came up.” (PD patient)*
- *“It is the fear of things going sideways at home and not having the adequate support at the moment it is happening.” (HHD patient)*



Patient education/ Recruitment strategies

- *"If the info gets out (about independent dialysis) then I think some of this fear will dissipate." (PD patient)*
 - *"As we said, a positive questionnaire that is giving you the right choices and have a balanced decision...But, you have to somehow sell me that." (HHD patient)*
 - *"So, you have to inform me that it (independent dialysis) is a better choice than the hospital."*
 - *"That is part of your ... brochure that comes with this that says, "If you are considering home-based dialysis, there is this group of people that will take care of you - medical team, the technical team, the supply people team, even the peer group support." (HHD patient)*
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Home Based Dialysis Questionnaire

Name _____

Age _____ Phone number _____

Email: _____

How long have you known you had

Kidney Disease? _____

Home and Lifestyle

Where do you live? _____

Do you own your home?

- Yes
- No I rent
- I do not have stable housing

What is the approximate size of your home?

- Small studio
- 1 bedroom apartment or suite
- 2-3 bedroom apartment or suite
- House with 2 or more bedrooms

Work

Do you work or attend school?

- Yes
- No

If yes what type of work or school program are you in _____

What are your hours of work/school? _____

Water and sewage

Is your water supply from a

- City water supply
- Well
- Other source or not sure

Is your water supply metered?

- Yes
- No or not sure

How is your sewage system managed?

- City
- Septic
- Other _____

Social support

Does anyone live with you?

- Yes, I live with _____
- No

Who can you count on for support? _____

Do you have a pet?

- Yes, I have a _____
- No

Do you manage your own cooking, cleaning and bathing?

- Yes
- No I need help from _____

Travel/Leisure

Do you travel?

- Yes, if yes where and how do you typically travel? _____

- No

What do you do for recreation _____

Do you use a home computer?

- Yes
- No

Do you drink alcohol?

- Yes, I drink _____ (number) of drinks per week
- No

Do you use recreational drugs?

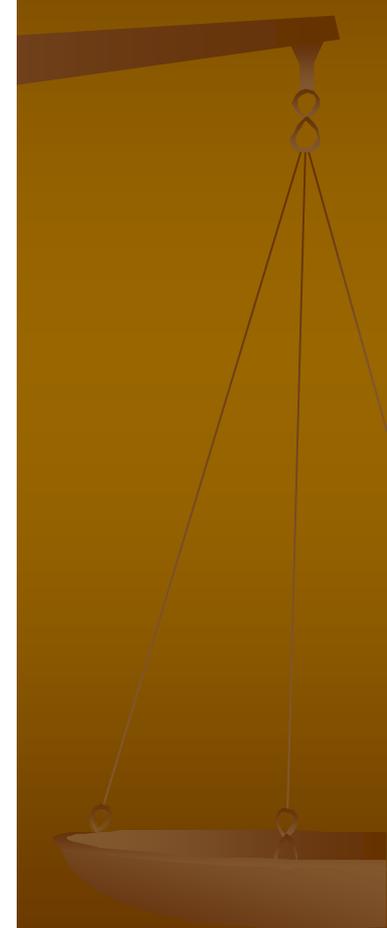
- Yes, I use (type) _____
- No

Medical

Do you manage your own medication?

- Yes
- No _____ helps me

Other than your kidney disease do you have medical or social issues you are concerned about? _____



Home Based Dialysis Options



Peritoneal Dialysis

- ✓ Preserves remaining kidney function
- ✓ No fluid restrictions
- ✓ Can dialyze during the day (4x day) with a simple procedure (takes 30 min) OR overnight which allow free days and a flexible schedule
- ✓ Can travel
- ✓ No need to come to a hospital or clinic 3 x week for treatment (no commuting , parking or waiting)
- ✓ It is easy to set up and take down (20 min to set up and 10 min to clean up)
- ✓ One on one training with a nurse (1-2 weeks)
- ✓ Easy to learn
- ✓ 24 hour machine and nursing telephone support
- ✓ Full medical support including:
Nephrologists, Nurses, Dieticians, Social Workers, Pharmacists – Clinic visits every 1-3 months
- ✓ Excellent delivery service of dialysis supplies



Home Hemodialysis

- ✓ Use less medications
- ✓ People feel better with more dialysis
- ✓ Unrestricted diet (when dialyzing >24 hours/week)
- ✓ No fluid restrictions
- ✓ Can dialyze overnight or on your own schedule (3-6 treatments/week)
- ✓ No need to come to a hospital or clinic 3 x week for treatment (no commuting, parking or waiting)
- ✓ Control of needling using buttonhole techniques (no or little pain)
- ✓ Typical set-up/take down time (up to 1 hour to set up and 30 min to clean up)
- ✓ Can swim or bathe with AVF (Arteriovenous fistula)
- ✓ One on one training with a nurse (3 days a week for 6-8 weeks)
- ✓ 16 hours /day machine and nursing telephone support
- ✓ Full medical support including:
Nephrologists, Nurses, Dieticians, Social Workers, Pharmacists – Clinic visits every 1-3 months
- ✓ Excellent delivery service of dialysis supplies

Home Based Dialysis Options

Things to consider about Peritoneal Dialysis

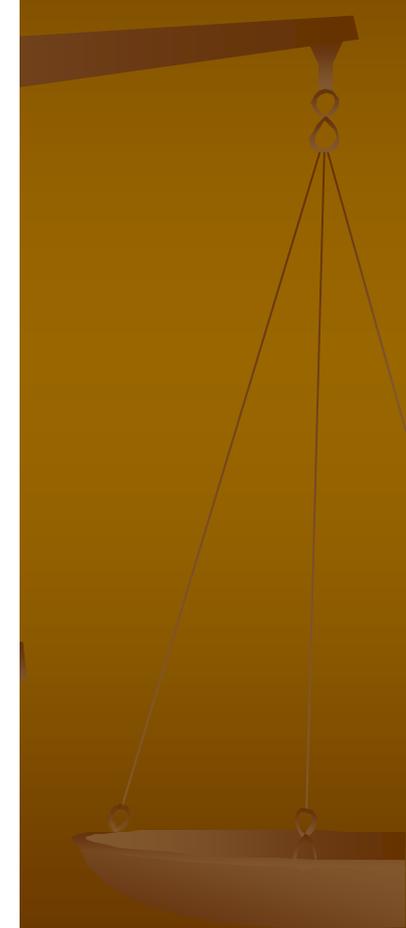
- Will need convenient storage space (50 boxes)
- Will need to have clean technique to prevent infections
- Ability to lift supplies (5-12 lbs)
- Some dietary limitations (salt and phosphorus foods)
- Extra garbage
- If a machine breaks down it will be replaced in 24 hours
- Swimming or taking a bath is not advisable
- Some restrictions on travel will need 2 months notice

Things to consider about Home Hemodialysis

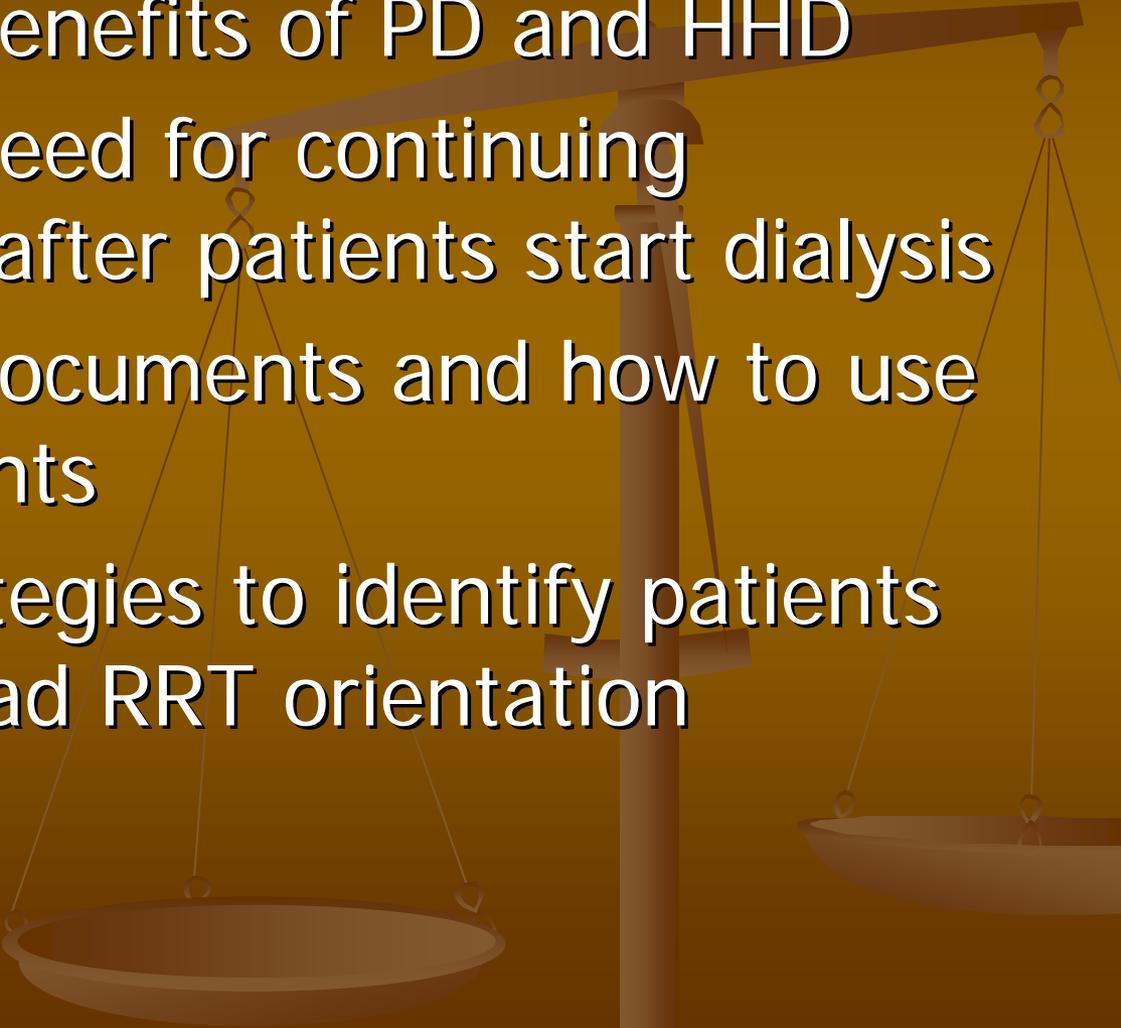
- Will need convenient storage space (10-15 boxes)
- More complicated than Peritoneal dialysis
- Will need to have clean technique to prevent infections
- Ability to lift supplies (5-10 lbs)
- Traveling for long periods (more than a weekend) is challenging
- Some dietary limitations (salt)
- If the machine breaks down it will be repaired in 24 hours
- Extra garbage and recycling
- Some additional costs: Electricity and water bills (20 -50 dollars a month - can write off on taxes)

More information regarding home based dialysis therapies can be found from the BC renal agency at: www.bcrenalagency.ca

The Kidney foundation has peer support groups and can be found at: www.kidney.ca

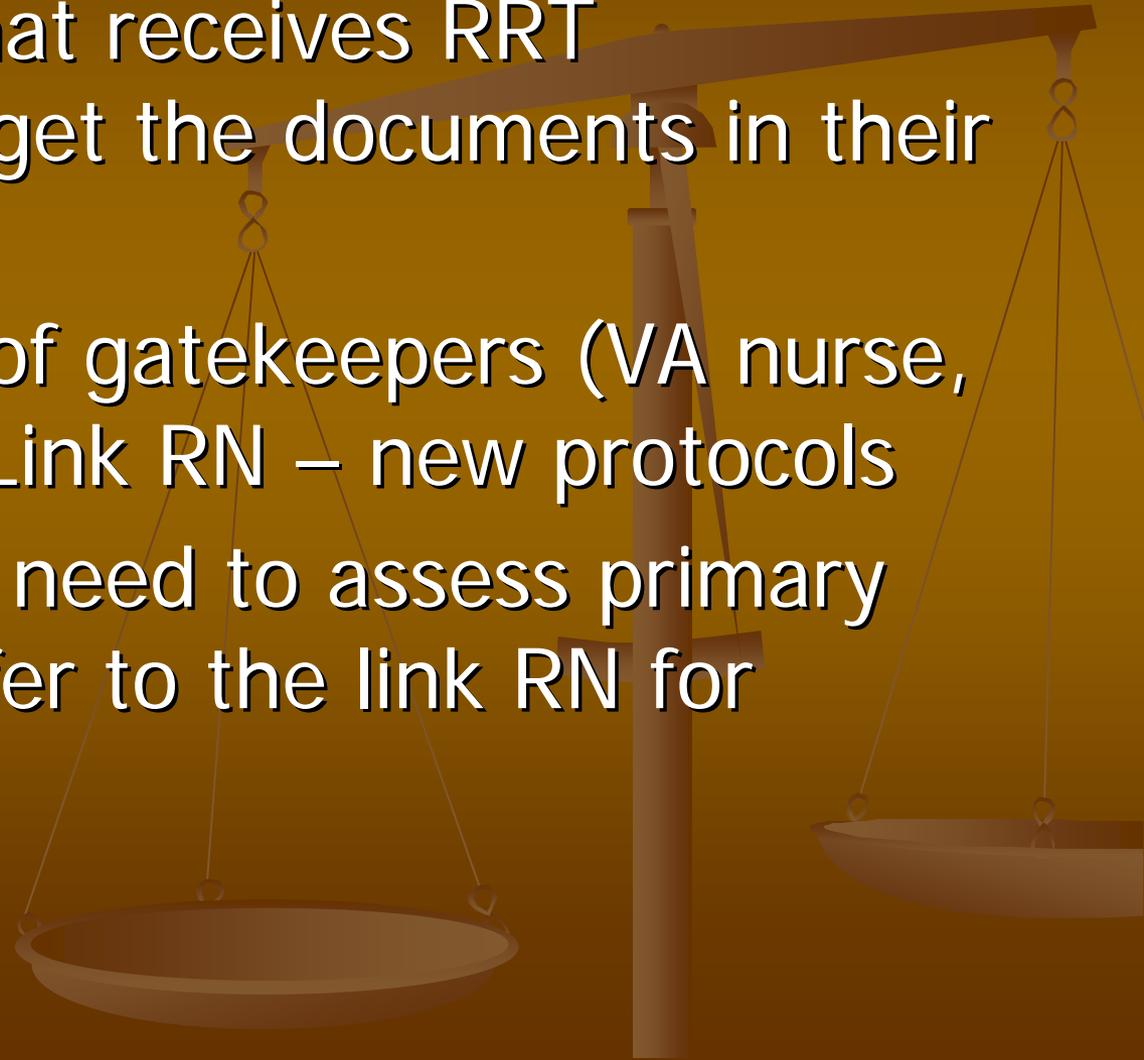


Nurses Educational sessions

- Explaining the benefits of PD and HHD
 - Explaining the need for continuing education even after patients start dialysis
 - Explaining the documents and how to use them with patients
 - Developing strategies to identify patients who have not had RRT orientation
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The Plan

- Every patient that receives RRT orientation will get the documents in their package
- Establishment of gatekeepers (VA nurse, NP) to refer to Link RN – new protocols
- Dialysis nurses need to assess primary patients and refer to the link RN for orientation



The Results.....

- Still to come.....

