

A team's approach to QOL in CKD patients

Edwin Fong MD FRCPC

Which Team?

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary



Beauty

- Symmetry

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary



Beauty defined

QOL Defined

RRT

Avoiding RRT

Other Rx

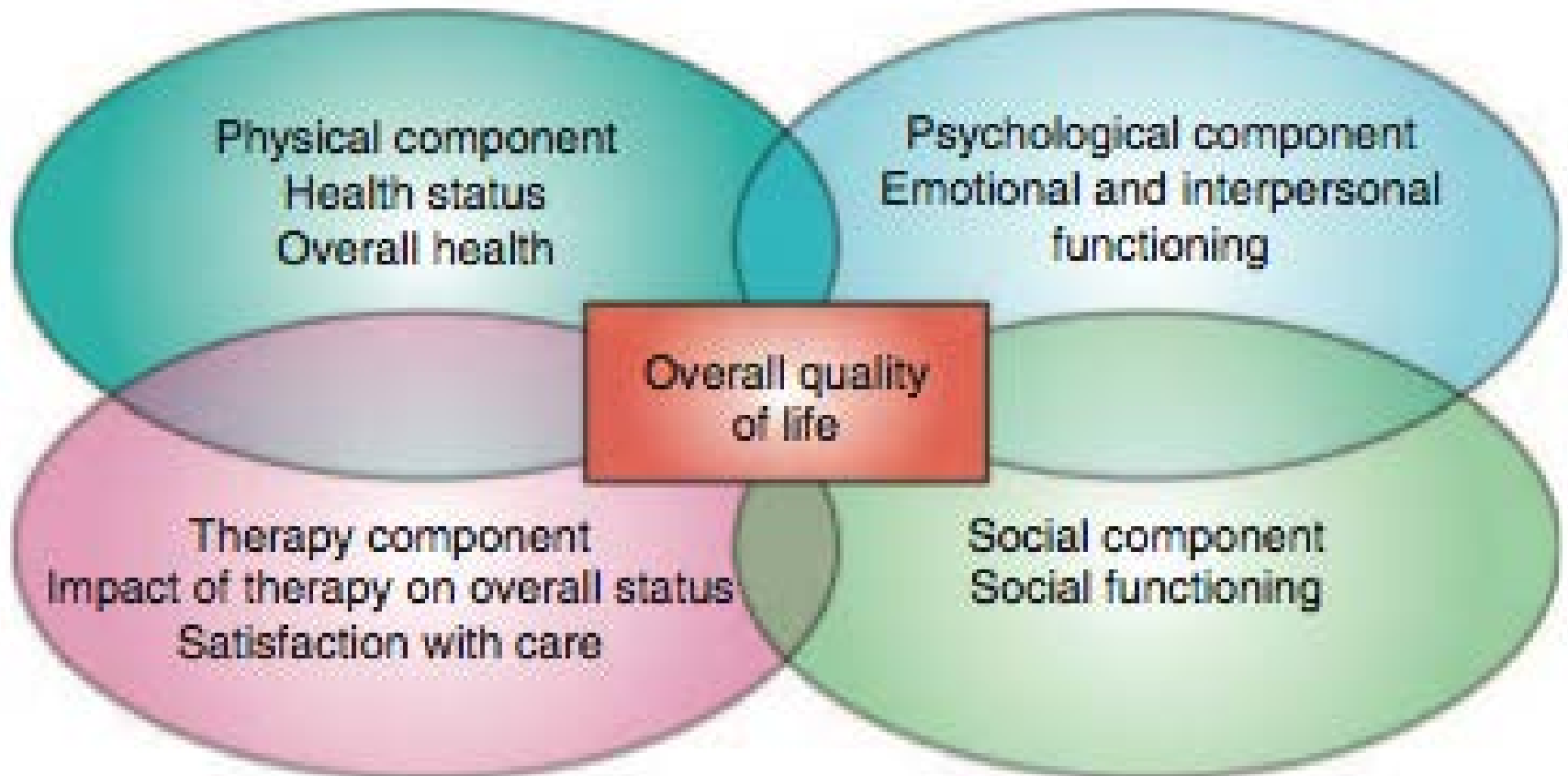
Non medical

Summary



- Suntanned
- Narrower face
- Less fat
- Fuller lips
- Bigger distance of eyes
- Darker eye brows
- Higher cheek bones...

What is QOL?



Why is QOL important?

QOL Defined

RRT

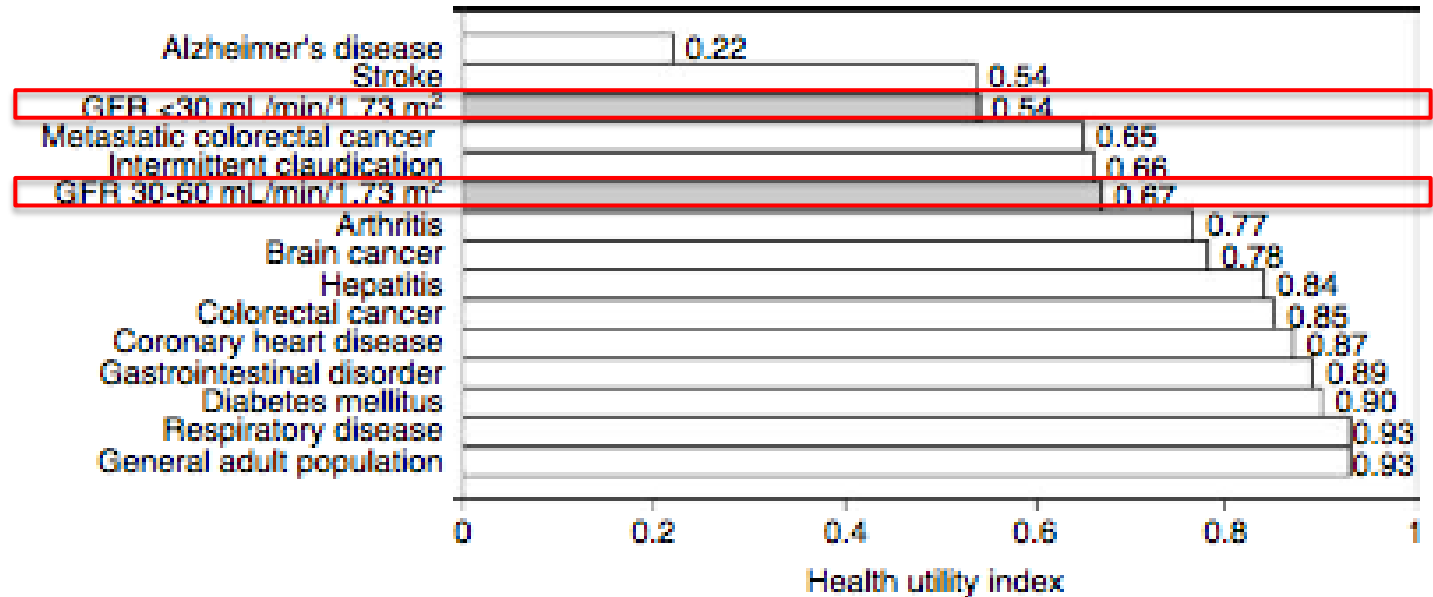
Avoiding RRT

Other Rx

Non medical

Summary

- Poor baseline in ESRD
 - Lots of room for improvement!



Why is QOL important?

40% Pts →

QOL Defined

RRT

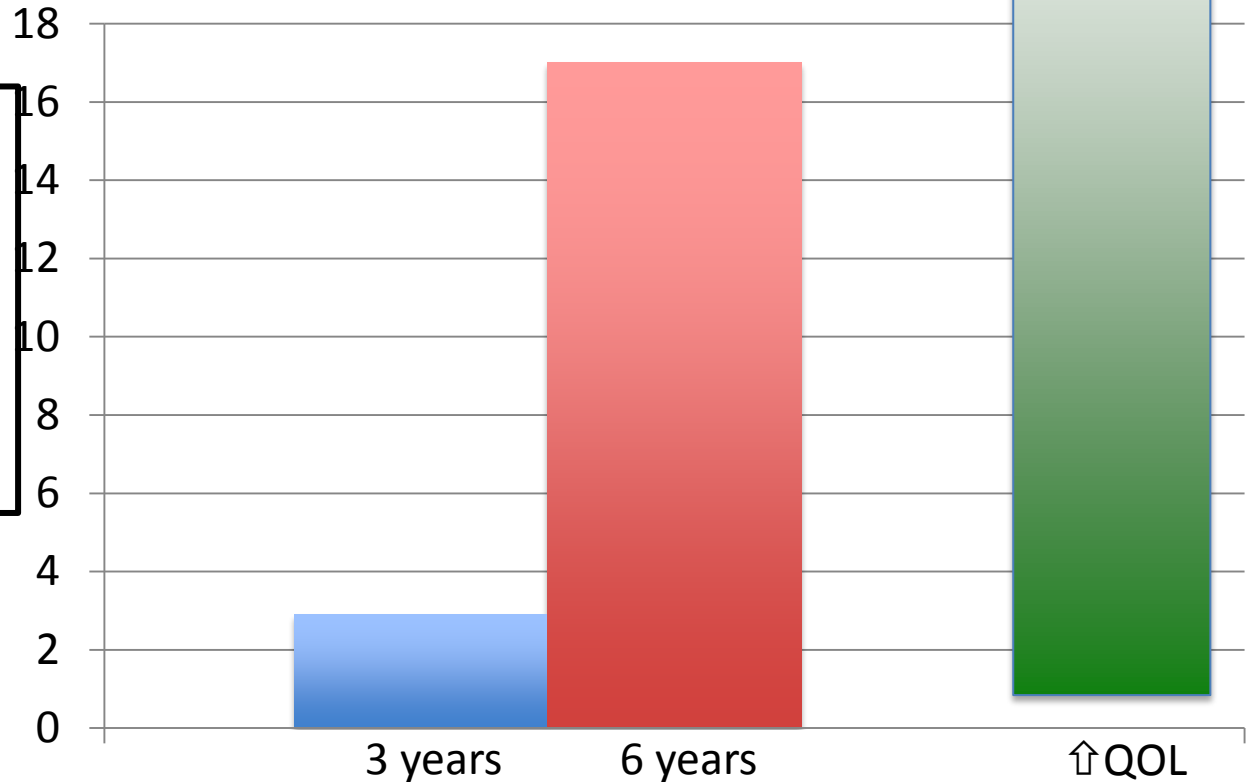
Avoiding RRT

Other Rx

Non medical

Summary

- Patients find this a priority



Why is QOL important?

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

- Physicians sometimes focus elsewhere.

Patient each fill out survey
-Identify symptoms (<7d)
-Describe severity (1-5)



After rounding, Physicians
also fill out similar survey.

Docs did not know which HD pts
were in the study

Why is QOL important?

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

- Physicians sometimes focus elsewhere.

Physicians poor	Physicians good
Pain	SOB
Depression	Leg swelling
Sleep problems	
Sexual function	

* Unaware of symptoms patients described as most severe.

* When did identify symptoms, severity commonly underestimated.

Weisbord SD. cJASN 2007; 2(5): 960-7

Green JA. J Palliative Med 2012; 15(2): 163-7

How to we quantify it?

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

- Survey Questionnaires

- KDQOL-36 (reliable, good validity)
- One size fits all
- Too frequent assessments can induce reporter fatigue.

Your Health

This survey includes a wide variety of questions about your health and your life. We are interested in how you feel about each of these issues.

1. In general, would you say your health is: [Mark an in the one box that best describes your answer.]

Excellent	Very good	Good	Fair	Poor
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Compared to one year ago, how would you rate your health in general now?

Much better now than one year ago	Somewhat better now than one year ago	About the same as one year ago	Somewhat worse now than one year ago	Much worse now than one year ago
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 1

3. The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much? [Mark an in a box on each line.]

	Yes, limited a lot	Yes, limited a little	No, not limited at all
Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting or carrying groceries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climbing several flights of stairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climbing one flight of stairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bending, kneeling, or stooping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walking more than a mile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walking several blocks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walking one block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bathing or dressing yourself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 2

Satisfaction With Care

23. Think about the care you receive for kidney dialysis. In terms of your satisfaction, how would you rate the friendliness and interest shown in you as a person?

Very poor	Poor	Fair	Good	Very good	Excellent	The Best
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

24. How true or false is each of the following statements?

	Definitely true	Mostly true	Don't know	Mostly false	Definitely false
Dialysis staff encourage me to be as independent as possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dialysis staff support me in coping with my kidney disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for completing these questions!

Page 15

.....

One simple question

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

- “How long does it take you to recover from a dialysis session?”

Time	N total 6000
<2 hrs	32%
2-6 hrs	41%
7-12hrs	17%
>12 hrs	10%

Longer Recovery:

Older, ↑HD
Vintage
↑BMI, DM2
Psychiatric disease
↑Fluid removal
↑Session length

↓QOL
(MCS/PCS)
Pruritus
Insomnia
Depressed
↓ADL

RRT: Just a matter of clearance?

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

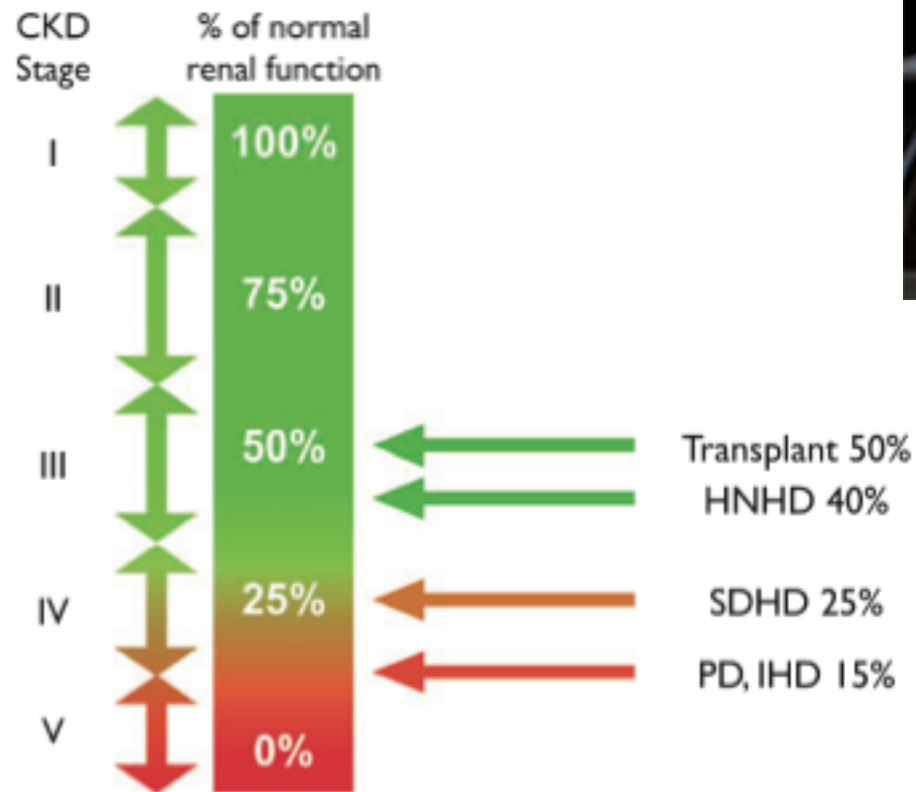


FIG. 2. Urea clearance with various forms of renal replacement therapy relative to urea clearance by kidney function.



Transplant

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

- Meta analysis 3267 studies found
 - Analyzed 61 articles
 - Transplant > IHD or CAPD
 - » CAPD > IHD *
 - » HHD > IHD

Old debate: PD vs HD

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

- Results not uniform/clear cut
- US Study

PD Better	HD Better
Body pain	Physical functioning
Diet restrictions	Sleep
Dialysis access	Body image
Travel	
Finances/work	
Psychological well being	

For PD

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

- PD has a learning curve (centre)
- Elderly
 - Comforts of home
 - Transportation more of an issue
 - Less intrusive



New debate: Home HD vs PD

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

Cross-Sectional Comparison of Quality of Life and Illness Intrusiveness in Patients Who Are Treated with Nocturnal Home Hemodialysis *versus* Peritoneal Dialysis

Edwin Fong, Joanne M. Bargman, and Christopher T. Chan

Toronto General Hospital–University Health Network, Toronto, Ontario, Canada

	NHD	PD
Age	49	62
Charlson index	1.14	1.82
Cr	503	800



HNHD vs PD

Table 3. Comparisons of KDQOL values between NHD and PD patients

Variable	NHD	PD	P
Symptom problem list	76.3 ± 2.5	71.9 ± 2.6	0.22
Effect of kidney disease	61.5 ± 3.7	60.7 ± 2.7	0.85
● Burden of kidney disease	37.0 ± 4.4	47.0 ± 3.8	0.092
Work status	48.6 ± 7.6	36.0 ± 5.4	0.17
Cognitive function	75.6 ± 4.8	81.4 ± 2.2	0.27
Quality of social interaction	73.5 ± 3.0	75.8 ± 2.3	0.55
● Sexual function	81.7 ± 5.4	61.8 ± 9.0	0.07
Sleep	52.8 ± 3.9	54.1 ± 2.7	0.79
Social support	65.7 ± 5.3	79.2 ± 2.8	0.027
Dialysis staff encouragement	89.2 ± 2.6	85.7 ± 2.8	0.37
Patient satisfaction	75.5 ± 4.3	79.2 ± 2.7	0.46
Physical component	55 +/- 2.3	52 +/- 1.8	0.35
Mental component	62 +/- 4.7	60 +/- 3.5	0.77

Non Dialytic Management

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

- NH residents initiating dialysis

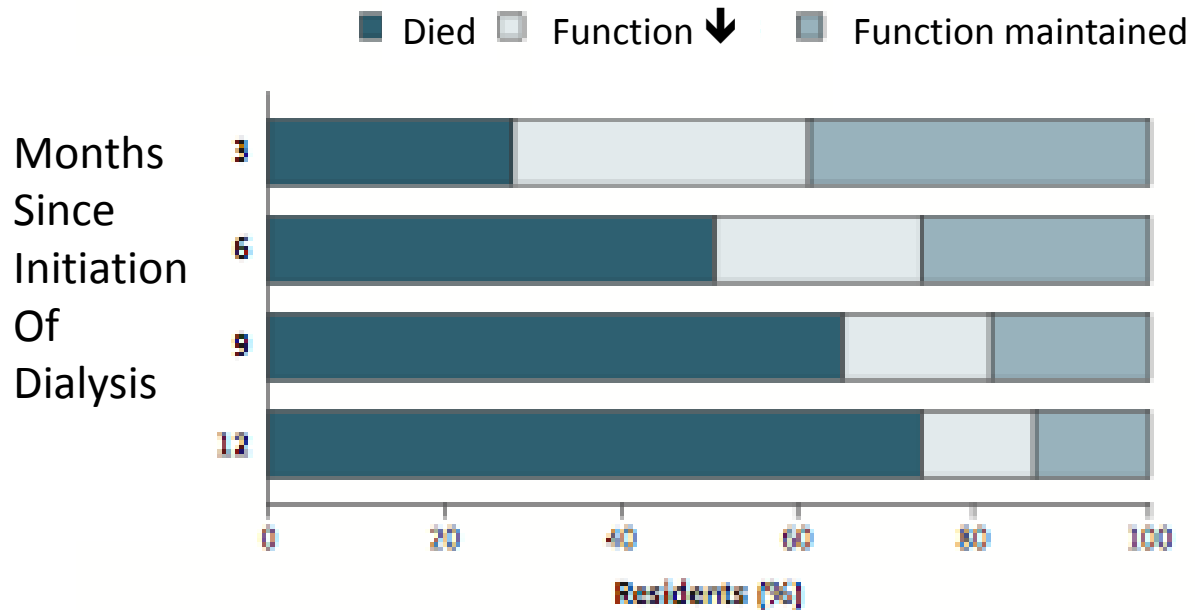


Figure 2. Change in Functional Status after Initiation of Dialysis.

Data were missing for 549 nursing home residents at 3 months, 696 residents at 6 months, 823 residents at 9 months, and 787 residents at 12 months from the full analytic cohort of 3702 residents.

Non Dialytic Mgt



QOL Defined

RRT

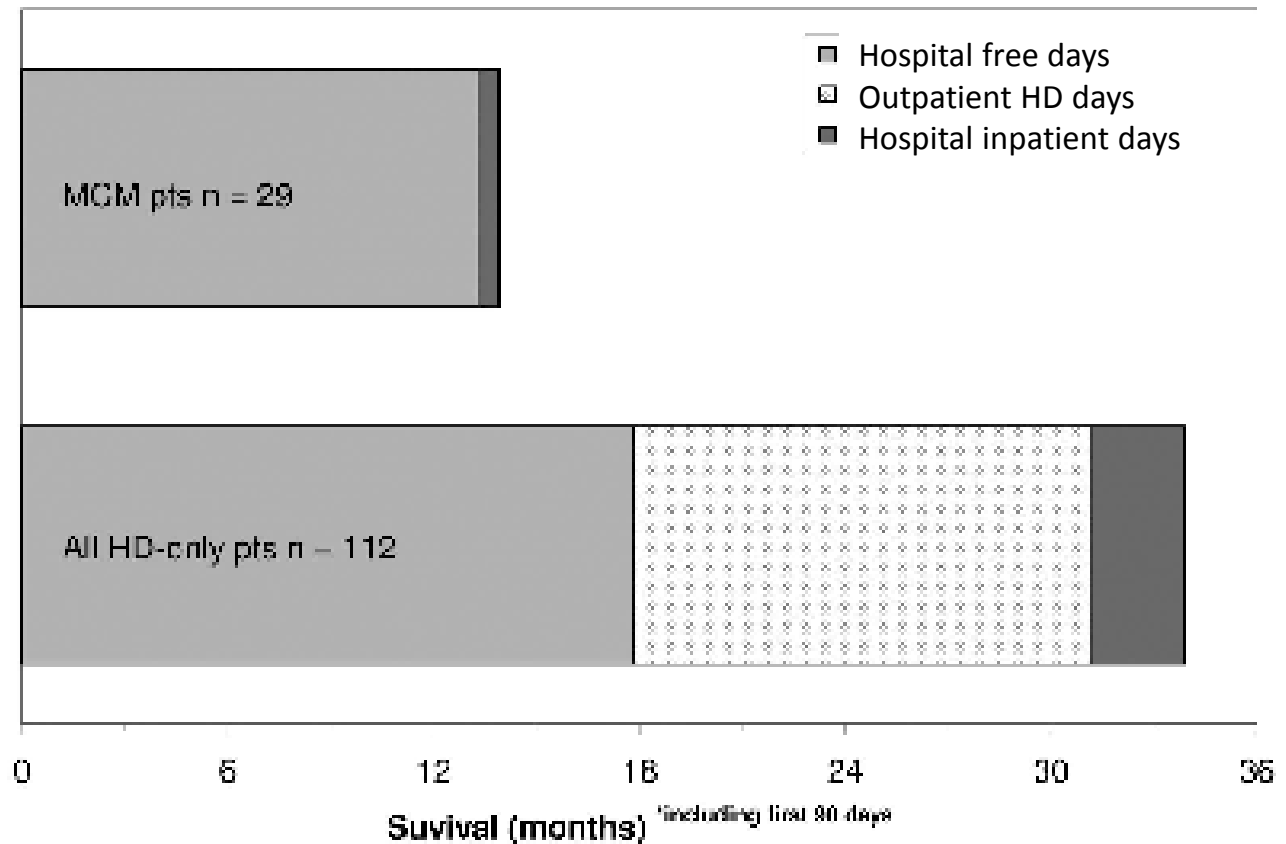
Avoiding RRT

Other Rx

Non medical

Summary

Distribution of Days Survived:
Hospital-free Days, Outpatient Hemodialysis Days
and Hospital Inpatient Days



Non Dialytic Management

- Trajectory of Functional decline in the last year of life

QOL Defined

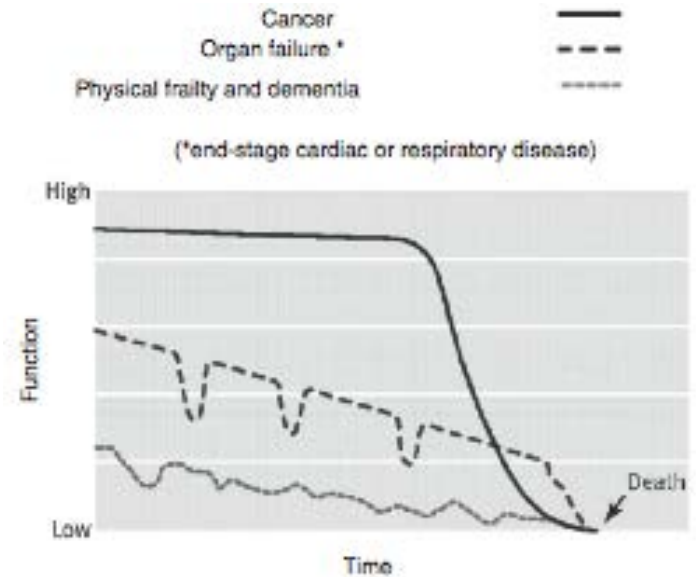
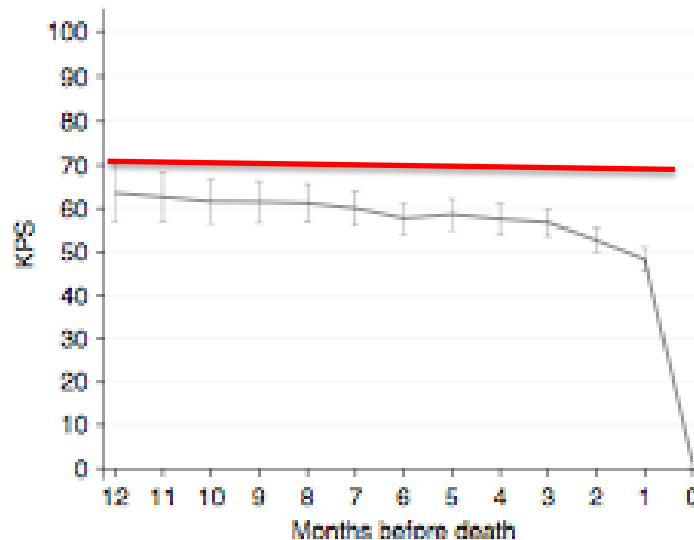
RRT

Avoiding RRT

Other Rx

Non medical

Summary



Anemia

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

- 1930's Dr Kolff invents Dialysis



- – Transfusions to keep borderline Hb
 - Infectious / Immune / Iron
- 1989: recombinant human EPO
 - Too much of a good thing (can kill you)

Leaf DE. KI 2009; 75: 15-24

Johansen KL. AJKD 2010; 55: 535-48

Kliger AS. CJASN 2012; 7: 354-7

Anemia

QOL Defined

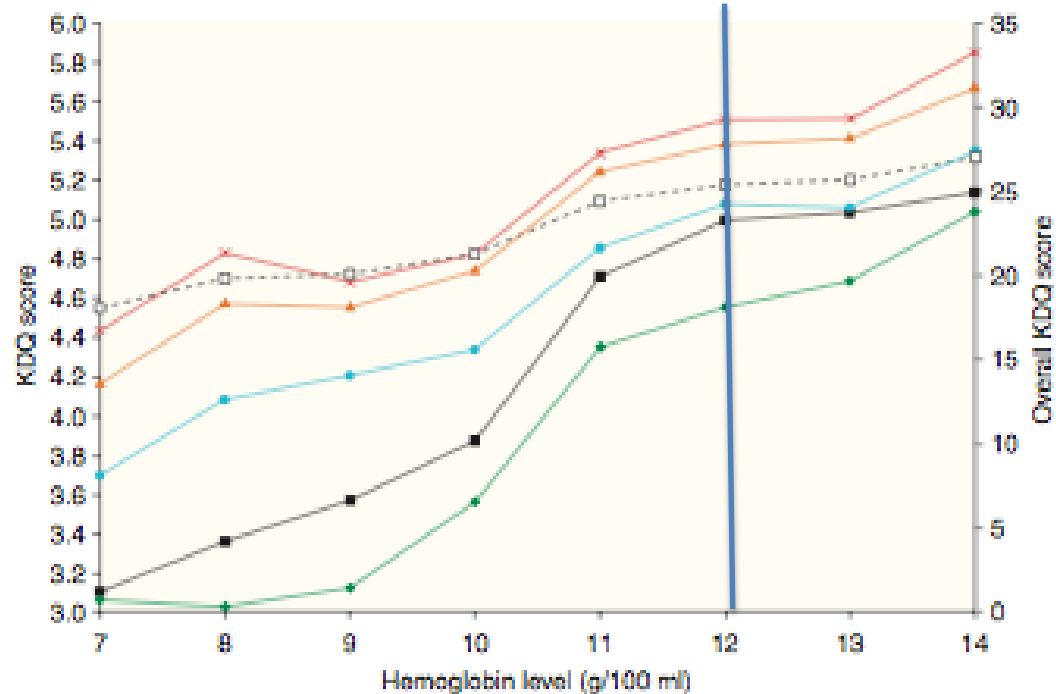
RRT

Avoiding RRT

Other Rx

Non medical

Summary



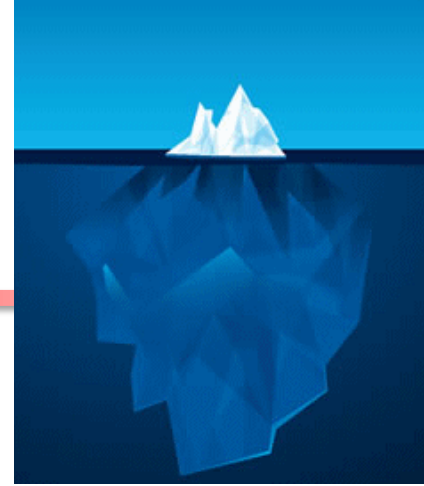
Key

- Physical symptoms
- Fatigue
- ▲ Depression
- Relationship with others
- × Frustration
- Overall KIDQ

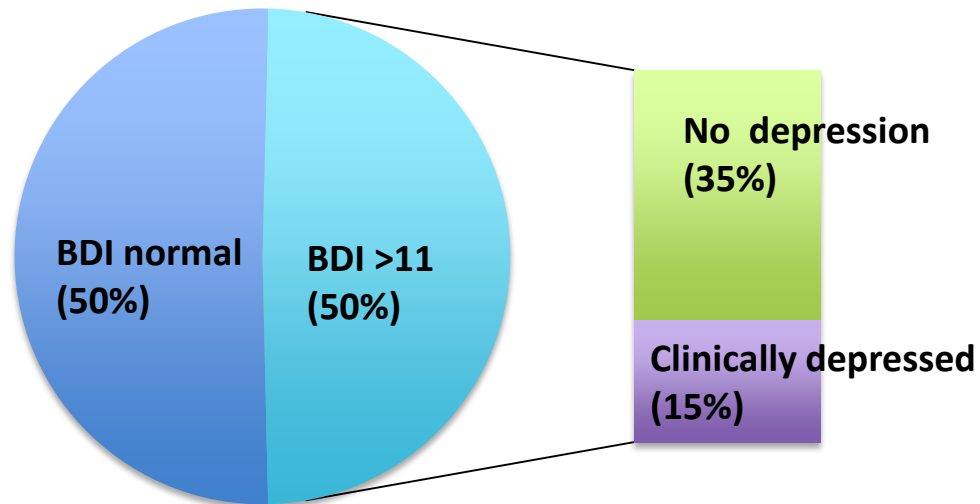
Spearman correlation coefficients:

- Physical symptoms $r = 0.46; P < 0.0001$
- Fatigue $r = 0.42; P < 0.0001$
- Depression $r = 0.24; P < 0.0001$
- Relationship with others $r = 0.29; P < 0.0001$
- Frustration $r = 0.21; P < 0.0001$
- Overall KIDQ $r = 0.38; P < 0.0001$

Depression



- Prevalence
 - 2-4% in gen pop. 20-40% in CKD
- Diagnosis/Screening
 - PD population Yale ~ 136 patients



QOL Defined

RRT

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Other Rx

Non medical

Summary

Depression

QOL Defined

RRT

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Other Rx

Non medical

Summary

- Pharmacological treatment
 - Limited data for efficacy in CKD
 - Patients can be reluctant to take more meds
 - drug interactions

Cognitive Behavioral Therapy



QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

Table 3. Intervention session content

Session	Content of the Intervention Sessions	
1-2	Assessment	Assess patient's motivation for change, goals for treatment, "stage of change"; evaluate need for patient to modify fluid intake, compliance with medical regimen
	Psychoeducation	Highlight similarities/differences between depression and medical illness
3-6	Behavioral intervention	Behavioral activation—increase participants' enjoyable activities
	Cognitive intervention	Train participants on the relationship between dysfunctional automatic thoughts and negative perceptions and outcomes
7-8		Teach and practice healthy living (compliance) skills in session Increase positive social contacts—initiating contact, building support network
9-10		Plan for termination of therapy—identify which interventions were helpful and which were not, relapse prevention

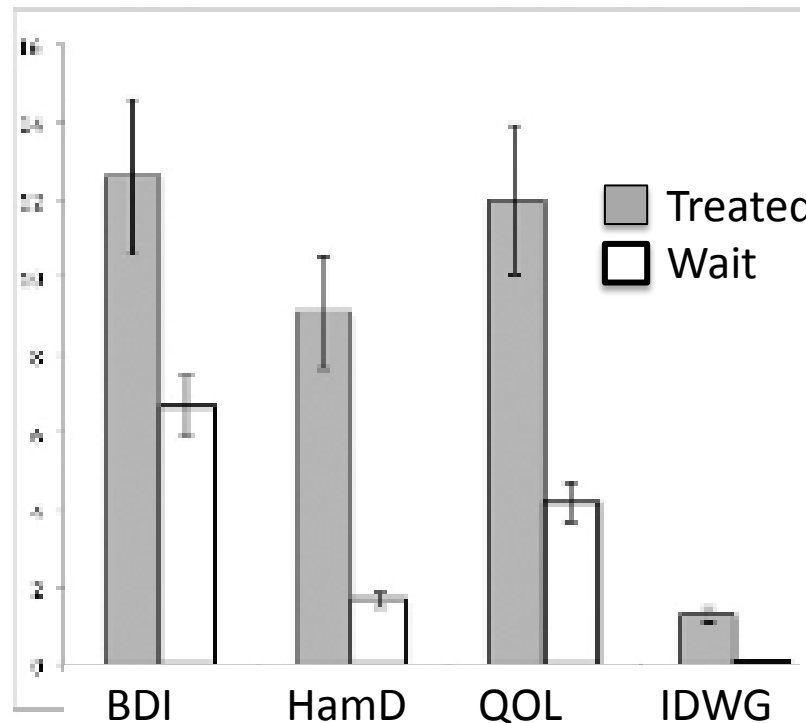
Cognitive Behavioural Therapy

Phase 1 (3mo)

Group A (Treatment)
Group B (Wait)

Phase 2 (3mo)

Group A (Follow up)
Group B (Treatment)



Treatment effect persisted
BDI
HamD
QOL

Effect did not last
IDWG

QOL Defined

RRT

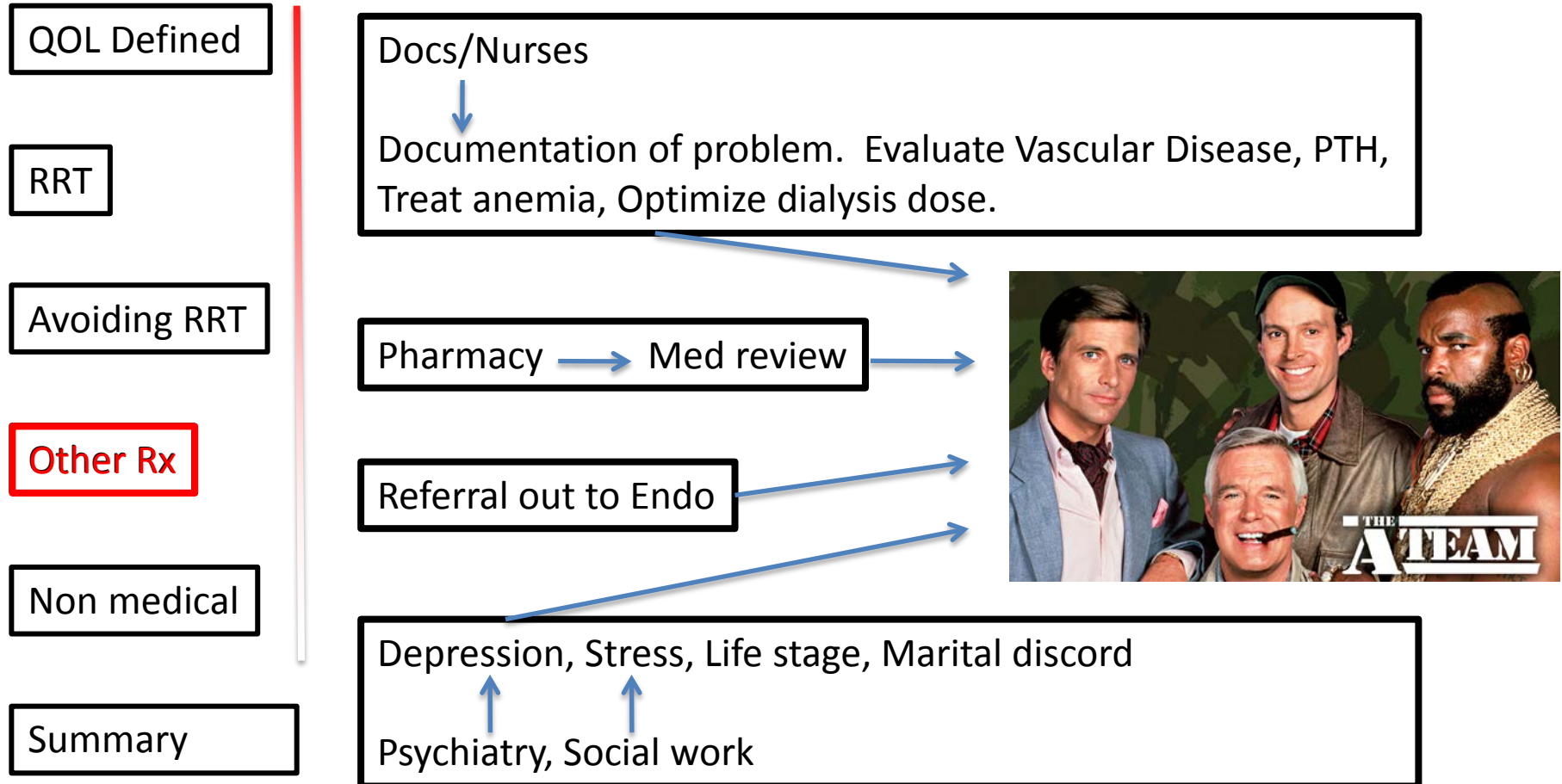
Avoiding RRT

Other Rx

Non medical

Summary

Sexual dysfunction



Sleep disorder

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

	Dialysis	Normal population
Insomnia	45-70%	28%
Restless legs	18%	1-5%
Nightmares	13%	2%
Sleep apnea	25-70%	4%
Daytime somnolence	12-70%	2.5%
Frequent awakening	70%	3%

* Evaluation should be with history, sleep diary, sleep study

Sleep apnea

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

General Treatment	Specific to dialysis
Treat Anatomic airway obstruction (tonsils, nasal obstruction, etc)	Nocturnal hemodialysis
Mild: weight loss, sleep position, avoid ETOH, sedatives oral device	Nocturnal PD
CPAP	

CKD and Exercise



- 2576 reports found
 - 32 high quality studies

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

Does High intensity exercise improve fitness?	?	
Does Low intensity exercise improve fitness?	?	
Does exercise improve walking capacity?	?	
Does supervised exercise improve fitness?	?	
Does Unsupervised exercise improve fitness?	?	
Does exercise improve QOL?	?	

Exercise good! Compliance bad.



QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

- While on the machine?

Advantages	Disadvantages
Better adherence	Dialysis related hypotension
HD sessions represent forced inactivity	
Exercise could improve efflux of urea and toxins into the vascular compartment	

Geriatric Rehab: A new hope?

QOL Defined

RRT

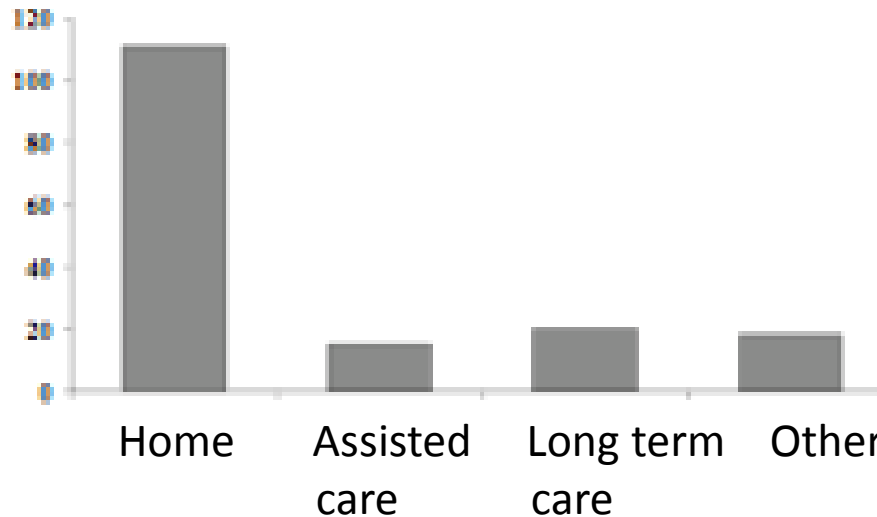
Avoiding RRT

Other Rx

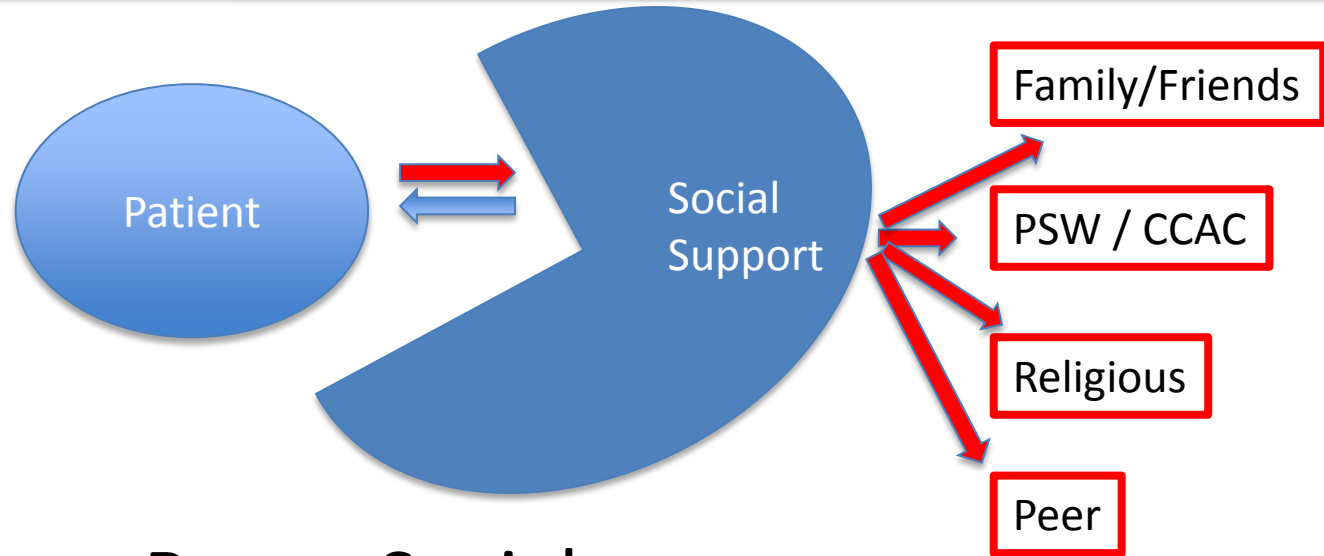
Non medical

Summary

Number of patients



Social support



- Better Social support
 - Increased QOL
 - More PD (vs IHD)
 - ↓ Hospitalization

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

Summary

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

- Why is QOL important?
 - Poor baseline in ESRD
 - Patients want quality > quantity
- RRT
 - Transplant first
- Avoiding RRT can be reasonable
- Treat anemia

Summary

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

- Don't overlook
 - Depression
 - Sexual dysfunction
 - Sleep disturbances
- Exercise is good
- Social supports are important (and need our guidance as well)

Questions? Comments

QOL Defined

RRT

Avoiding RRT

Other Rx

Non medical

Summary

- Mirror Mirror on the wall...
 - who has the most symmetrical face of them all?

