

Symptom Management in PD

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Disclosure Information

- ▶ Baxter Healthcare Corp. : Honoraria, Grants, Consulting
- ▶ Davita: Honoraria, Consulting
- ▶ Sanofi-Genzyme: Consulting, Honoraria Grants
- ▶ NxStage- Consulting
- ▶ Idorsia-Clinical Trial
- ▶ Protalix- Consulting

Inherent Suffering
 Experienced even if care is delivered perfectly

Avoidable Suffering
 Arising from Defects in Care and Service

Avoidable Suffering
 Caused by defects in the approach to deliver care

OUR GOAL:
 Alleviate this suffering by responding to Inherent Patient Needs.

OUR GOAL:
 Prevent this suffering for patients by optimizing care delivery.

Dr. Thomas Lee

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Patient/Caregiver Centered Outcomes

- ▶ Australia, Hong Kong, United States
- ▶ 126 participants
- ▶ 81 patients/ 45 caregivers
- ▶ Workshop to discuss outcomes that mattered most to them

Manera et al. CJASN, 1/2019

The ten highest patient and care-giver ranked outcomes were...

10. Effect on family
9. Ability to Work
8. Sleep
7. Ability to Travel
6. PD Failure
5. Blood pressure
4. Flexibility with Time
3. Fatigue
2. Mortality (Ranked 1st in Hong Kong and Australia, 15th in US)
1. PD infection

Manera et al. CJASN, 1/2019

Suffering from the Diagnosis

Suffering from the Diagnosis

- 2. Mortality
- 3. Fatigue
- 5. Blood pressure
- 8. Sleep

2. Mortality

vol 2 Figure 5.1 Adjusted all-cause mortality by treatment modality (a) overall, dialysis, and transplant, and (b) hemodialysis and peritoneal dialysis, for period-prevalent patients, 2001-2016

(b) Hemodialysis and peritoneal dialysis

Year	HD (per 1,000 patient-years)	PD (per 1,000 patient-years)
2001	200	250
2005	180	180
2010	160	160
2015	150	150
2016	150	150

USRDS 2018 Annual Data Report
Volume 2, ESRD, Chapter 5

PD Mortality is Improving

vol 2 Figure 5.2 Adjusted all-cause mortality by treatment modality, cohort (year of ESRD onset), and number of years after start of dialysis among incident (a) hemodialysis patients and (b) peritoneal dialysis patients, 1997, 2002, 2007, and 2012

(a) Hemodialysis patients

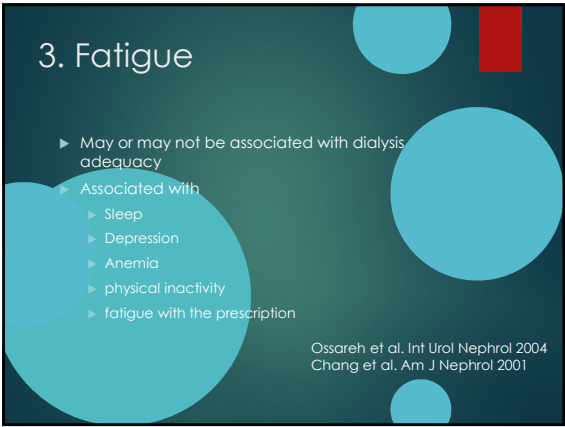
Years after start of dialysis	1997	2002	2007	2012
0	80	70	60	50
4	90	80	70	60
8	70	60	50	40
12	60	50	40	30
16	50	40	30	20

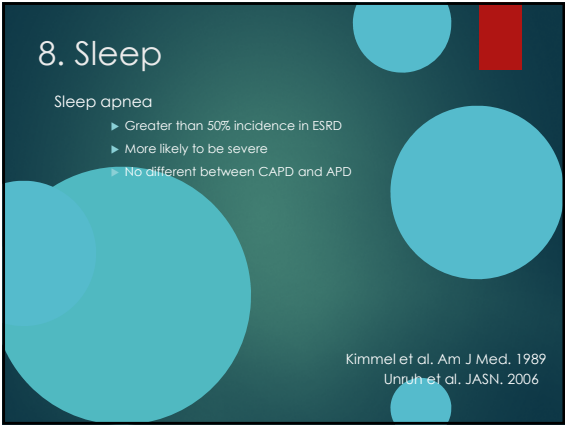
(b) Peritoneal dialysis patients

Years after start of dialysis	1997	2002	2007	2012
0	60	50	40	30
4	70	60	50	40
8	50	40	30	20
12	40	30	20	10
16	30	20	10	0

USRDS 2018 Annual Data Report
Volume 2, ESRD, Chapter 5







Sleep

- ▶ Restless leg syndrome
 - ▶ More common in ESRD (20% incidence)
 - ▶ Associations
 - ▶ Anemia, Iron Deficiency, Hypercalcemia, Uremia
 - ▶ TCA, alcohol, caffeine, SSRI's
 - ▶ Tx-
 - ▶ Evaluate PD prescription
 - ▶ Exercise
 - ▶ Dopamine Agonists

Winkelman et al. Am J Kid Dis. 1996

5. Blood pressure

- ▶ Volume Control
 - ▶ Drinking control
 - ▶ Diuretics
 - ▶ Particular attention to absorbing of last fill
- ▶ Antihypertensives
 - ▶ Lisinopril
 - ▶ Spironolactone
- ▶ Remote patient monitoring
 - ▶ Improves blood pressure for 1 year after intervention

Margolis et al. Jama Ntw Open 2018
Omboni et al. Hypertens 2013

Suffering from the Treatment

<ul style="list-style-type: none"> 1. PD infection 4. Flexibility with time 6. PD failure 7. Ability to travel 9. Ability to work 	<p>Quality of Care</p> <ul style="list-style-type: none"> 1. PD infection 6. PD failure <p>Quality of Life</p> <ul style="list-style-type: none"> 4. Flexibility with time 7. Ability to travel 9. Ability to work
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Quality of Care

- ▶ 1. PD Infection rates
 - ▶ Peritonitis Surveillance
 - ▶ Hand washing training
 - ▶ Over and over and over again
 - ▶ Retraining after every peritonitis episode
 - ▶ Incremental PD

- ▶ 6. PD Failure—also fear of hemodialysis
 - ▶ Do not make patient's feel afraid of hemodialysis
 - ▶ Incidence of true Peritoneal membrane failure is low
 - ▶ Transfer to hemodialysis rates can reach as high as 27% in the first year
 - ▶ Tx.
 - ▶ Learn to trouble shoot
 - ▶ Decrease tonicity of bags using fluid restriction

Sandrini J. Nephrol 2016
 Pulliam et al. AJKD 2014
 Mujais Kidney Int Supp. 2006

Quality of Life

4. Flexibility with time...7. Ability to travel ...9. Ability to work

- 1. Increase Home Dialysis
 - a. Increase home dialysis education
 - b. Increase Peer-to-peer mentoring
 - c. Improve operations of PD management
- 2. Incremental Peritoneal Dialysis
 - a. Less peritonitis 1/135 vs 1/50
 - b. Less hospitalizations
 - c. More freedom
 - d. No benefit to doing daily if minimum weekly Kt/V met

Sandrini et al 2016

**Suffering from Defects in Care and Service
or
Alleviated by Improving Care Delivery**

- 1. PD infection
- 3. Fatigue
- 4. Flexibility with time
- 5. Blood pressure
- 7. Ability to travel
- 9. Ability to work
- 10. Effect on family

Slide 16

WEL1 Wallace, Eric L, 02/28/2019

Approach

1. PD infection – Incremental PD, peritonitis surveillance
3. Fatigue – **Spending all my free time with doctors**
4. Flexibility with time – **Having to go to the doctor**
5. Blood pressure – **Having to write down my flowsheet**
7. Ability to travel – **Having to go to the doctor**
9. Ability to work – **Having to go to the doctor**
10. Effect on family – **Having to have my family drive me to the doctor**
Economics of family missing work to care for me

- ▶ Telehealth
- ▶ Incremental Dialysis
- ▶ Assisted PD (Future)

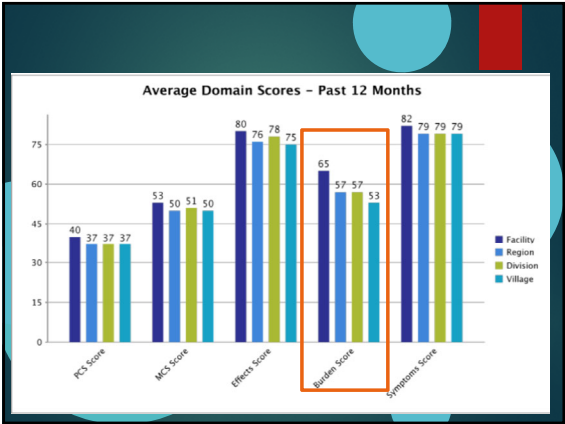
Telehealth

- ▶ Multiple studies have shown that we cannot dialyze someone to health, i.e. More dialysis over the minimum does not translate into more life
- ▶ The average annual number of physician visits for an individual with diagnosed kidney disease is 10.28 -- second only to cancer.¹
- ▶ Why shouldn't we focus on making people's lives better.

Schneider KM, O'Donnell BE, Dean D. Health Qual Life Outcomes. 2009 Sep 8; 7:82.

Benefits

- ▶ Reduced burden of disease
 - ▶ Less driving to get care
 - ▶ Less reliance on family members
- ▶ The patient doesn't feel like a burden to family members who have to drive to get their care
- ▶ Decreased financial burden to patient paying for gas



Billing

- ▶ Originating Sites
 - ▶ Medical Facility (Not a dialysis unit)
 - ▶ Patient's Home
- ▶ Changes as of Jan 1, 2019
 - ▶ Medical Facility can be located in rural or urban area for home dialysis
 - ▶ Patient can be in their home at the time of the visit.
- ▶ Medicare will Reimburse
 - ▶ Commercial payers is state-by-state

Assisted PD

- ▶ Similar Hospitalization rates
- ▶ Satisfaction with treatment higher in assisted PD vs In-center hemodialysis
- ▶ Less burden on care-givers

Oliver et al. CJASN. 2016
Isavere et al. CJASN 2016

Pitfalls

- ▶ If we as nephrologists, use telehealth, and patient's have worse outcomes. We will have ruined it for others
- ▶ Practice telehealth by the guidelines.
- ▶ If needed, bring the patient in person.
- ▶ Do a thorough exam, and bill appropriately for visits rendered.

Other Rankings

1. Diabetes (23) Glucose (37)
2. Diet (25)

Conclusions

- ▶ Patient reported outcomes specific to PD are now available
- ▶ Attention to these symptoms can improve patient outcomes
- ▶ All things being equal we stand to make the most impact on patient quality of life with currently available interventions and approaches using telehealth, incremental, assisted PD
