Non-Dialytic Management of End-Stage Renal Disease:
What Every Geriatrician Should Know

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What’s it like to die from kidney failure?
What’s it like to die from kidney failure?

• A “good” death?

• A “peaceful” death?
Medical Myths of ESRD??

- 88 year old man with progressive renal failure (unknown etiology)
- PMHx: coronary artery disease/peripheral vascular disease
- Prognosis:
  - 1 year or less with dialysis
  - 3 months without dialysis
- Elected “conservative management”
  - No assurance quality of life would improve with dialysis
  - Idea of thrice weekly hemodialysis was unacceptable
- Planned to go home and “die peacefully” with hospice care
“Once he was home, I visited Dad daily and helped Mom with his care. It was the first time I had observed firsthand the impact of this disease on the life of a patient and his caregivers at home. I expected Dad to gradually become lethargic as his uremia... worsened. But he remained fully alert and began to experience a new and unpleasant symptom every couple of days, not replacing but adding to those that preceded it. He complained of being constantly cold. He had body aches. He had increasing difficulty getting out of bed. He became short of breath with very little exertion. He developed mouth sores and had difficulty swallowing. As a result, he did not wish to eat, much to the chagrin of my mother. He developed a painful sacral ulcer that defied meticulous wound care...”

“Hand tremors and episodic body jerks soon followed, along with headaches, anxiety attacks, itching, difficulty urinating, constant nausea and indigestion symptoms. He became wan and withdrawn, and lost all interest in the newspaper, Sudoku, sports or Johnny Cash.”
“In retrospect, neither my dad, my mother, nor I had adequately prepared ourselves for the journey that ensued after his release from the hospital. I, along with his medical team, had overestimated the “calming” power of uremia. Many online resources available to patients with end-stage kidney disease, and their families, do the same. Statements such as, “Usually, death from kidney failure is relatively peaceful” ... or “knowing that death can be pain-free and peaceful for the person with end stage renal disease, helps ease family members’ fears” ... are not uncommon. These claims also often fail to distinguish the relatively brief average life expectancy of patients with end-stage kidney disease who begin and then cease dialysis, which could be a matter of days, versus the much longer life expectancy and possibly heavier symptom burden of those who never receive dialysis in the first place, which data show could be a matter of weeks or months.”

Objectives

• Review epidemiology of renal failure in older adults
• Define comprehensive conservative management of progressive renal failure and who may benefit
• Explore how best to provide supportive care for patients managed conservatively
Older adults are the fastest growing population with ESRD in the U.S.

- Adjusted prevalence since 2000:
  - Age 65-74, increased 31%
  - Age 75+, increased 48%

Patients with ESRD have a high mortality rate
Many older patients may not benefit from dialysis

Many older patients may not benefit from dialysis

CKD in Elderly Patients Managed without Dialysis: Survival, Symptoms, and Quality of Life

Mark A. Brown, Gemma K. Collett, Elizabeth A. Josland, Celine Foote, Qiang Li, and Frank P. Brennan

<table>
<thead>
<tr>
<th></th>
<th>Renal Supportive Care Without Dialysis (RSC-NFD) n = 122</th>
<th>Pre-dialysis n = 273</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (mean) years</td>
<td>82</td>
<td>67</td>
</tr>
<tr>
<td>eGFR (mean) mL/min</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Women</td>
<td>45%</td>
<td>33%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>53%</td>
<td>52%</td>
</tr>
<tr>
<td>3 or more comorbidities</td>
<td>38%</td>
<td>13%</td>
</tr>
<tr>
<td>Caucasian</td>
<td>90%</td>
<td>75%</td>
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But...

- In patients 75 and older and with ≥ 2 comorbidities, including IHD and/or CHF, survival benefit of dialysis is lost

- HR for death for dialysis group (n = 18) compared to RSC pathway (n = 52) was 0.48 (95% CI 0.21-1.09, p=0.08)
Summary

• Older patients are the fastest growing incident dialysis population

• Mortality rates of older ESRD patients are high

• Dialysis is unlikely to improve functional status in frail older patients

Summary

• Dialysis may not improve survival in many older patients with comorbidities
  • 75 + with 2+ comorbidities (including ischemic heart disease and/or CHF)

• Prognosis: unadjusted observed survival from eGFR 15
  • Dialysis pathway: mean 20 months
  • Renal Supportive Care pathway: mean 13 months
Summary

Prognosis:

• Renal Supportive Care pathway: mean 13 months
  ***not hospice eligible at time decision is made

What should non-dialytic management of patients with ESRD look like?
Comprehensive Conservative Care

Holistic, patient-centered care for patients with CKD IV-V that includes the following:

- Interventions to delay progression of kidney disease and minimize risk of adverse events or outcomes
- Shared decision-making
- Active symptom management
- Advance care planning
- Psychological support
- Social and family support
- Cultural and spiritual domains of care

Treatment of End-stage Kidney Failure without Renal Replacement Therapy: KDIGO Framework


Comprehensive Conservative Care: Nephrology Provider Model

Aggressively treat symptoms

Kidney Disease Education

CKD Management:
BP, Anemia, BMD, Electrolyte Disorders

Support patient/family:
Interdisciplinary Team + Palliative Care/Primary Care

Do not abandon the patient!
How do we know this is the best model?

Early Palliative Care for Patients with Metastatic Non–Small-Cell Lung Cancer


Temel et al, NEJM 363;8, Aug 2010
• Fewer patients in early palliative care group received aggressive end-of-life care (33% versus 54%)

• Median survival receiving early palliative care was longer (11.6 months versus 8.9 months).
That’s great but... how do we do that in CKD and ESRD?

Case: Mr. P.G.

• 83 year old AA man with CKD IV requests appointment to see you
• CKD from DN (eGFR 15-20), DMII, HTN, mild dementia, CAD, diastolic HF, prior alcohol dependence
• 4 family members are in attendance in clinic today
• CC: “My kidneys are failing and I need to decide whether to do dialysis.”
• Values:
  • Enjoys watching television, going on walks
  • Prefers to be “left alone”
  • Wants to stay at home as long as possible, avoid hospitalizations/doctor visits
Case: Mr. P.G.

You make a recommendation to NOT pursue dialysis.

He and his family agree.

Shared Decision-Making

<table>
<thead>
<tr>
<th>Roles</th>
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<tbody>
<tr>
<td><strong>Patient/family:</strong></td>
<td>patient values and preferences</td>
</tr>
<tr>
<td><strong>Clinician:</strong></td>
<td>treatments that are indicated</td>
</tr>
</tbody>
</table>

Carlet, Intensive Care Med 2004; 30:770
The “Right Approach” to Decision-Making: Parentalism vs. Autonomy

Default Starting Place

Parentalism or Doctor Decides  
 Shared Decision Making  
 Autonomy or “Informed Choice”

Curtis/White, Chest, 2008; 134:835
Curtis/Vincent, Lancet, 2010; 375:1347

Don’t initiate chronic dialysis without ensuring a shared decision-making process between patients, their families, and their physicians.

The decision to initiate chronic dialysis should be part of an individualized, shared decision-making process between patients, their families, and their physicians. This process includes eliciting individual patient goals and preferences and providing information on prognosis and expected benefits and harms of dialysis within the context of these goals and preferences. Limited observational data suggest that survival may not differ substantially for older adults with a high burden of comorbidity who initiate chronic dialysis versus those managed conservatively.
Case example: Mr. P.G.

• Alternate visits q 2-3 months with CKD provider (or more frequent if needed)

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• Things addressed in clinic visits
  • Advance Care Planning
  • Symptoms
  • How things are going at home (Need more support? Safety?)
  • Support of caregiver
Case example: Mr. P.G.

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Advance Care Planning

- What to expect in the future and how we will help
  - Prognosis
  - Illness Trajectory
  - Upcoming decisions
- Advance Directive
  - Identification of medical surrogate
  - Living will
- Discuss code status and document preferences
  - e.g., MOST form
Causes of death in incident dialysis patients, 2009-2011, first 180 days

Figure 4.1 (Volume 2)
Why is Advance Care Planning (ACP) important?

• 420 patients on dialysis, 20 dialysis centers

• Randomized to ACP intervention versus usual care
  • 2 visits with nurse trained in ACP

• Outcomes (6 and 12 months)
  • Surrogate decision-making confidence
  • Congruence of decisions
  • Surrogate depression, anxiety after death
Why is Advance Care Planning (ACP) important?

ACP intervention:

- Improved surrogate decision-maker confidence
- Improved concordance between patient and surrogate decision-makers
- Decreased depression, anxiety, and PTSD among surrogates after patient death.

Song et al, AJKD. 2015;66(5):813-822

Case: Mr. P.G.

- Alternate visits q 2-3 months with CKD provider (or more frequent if needed)

- Things addressed in clinic visits
  - Advance Care Planning
  - Symptoms
  - How things are going at home (Need more support? Safety?)
  - Support of caregiver
What are the two most prevalent symptoms in patients with ESRD (both CM and RRT)?

1. Dyspnea and Fatigue
2. Anorexia and Dyspnea
3. Pruritus and Fatigue
4. Pruritus and Anorexia
Symptom Prevalence: ESRD on dialysis and conservative management

Dialysis

- Depression
- Restless legs
- Nausea
- Dyspnea
- Anxiety
- Sleep...
- Pain
- Anorexia
- Constipation
- Pruritus
- Fatigue

Conservative

- Depression
- Restless legs
- Nausea
- Dyspnea
- Anxiety
- Sleep disturbance
- Pain
- Anorexia
- Constipation
- Pruritus
- Fatigue

Fliss, Adv Chronic Kid Dis, 2007
Brennan, Progress pall care, 2015

“Current evidence is sufficient to support the development of clinical guidelines to aid in the stepwise approach to uremic pruritus, sleep disturbances, restless legs, pain, and depression in CKD”
Case: Mr. P.G.

- Mr. G arrives to clinic a few weeks later with his daughter, who reports that he is up all night scratching.
- She says that she has tried aggressive moisturization and has been avoiding drying soap, but the itching has only marginally improved.

What do you recommend to Mr. G?

A. Start loratadine (renal dose) at 5 mg q 48h
B. Tell him to start nightly oatmeal baths
C. Prescribe hydroxyzine for him to take as needed
D. Refer him to an allergist
E. Start gabapentin (renal dose) at 50 mg qHS
Uremic Pruritus

- Generalized (diffuse and symmetric) in 50%
- Limited – back, face, fistula/graft arm
- 40-85% prevalence
- Associated with decreased quality of life and depression
- Independent predictor of mortality
- Amplifies other symptoms that impair quality of life (e.g., poor sleep)

Mettang, Kidney Int, 2014

Uremic Pruritus

Etiology unknown – hypotheses:
- Parathyroid hormone (no)
- Histamine (no)
- Ca, Mg salts (no)
- Neuropathic receptor dysfunction
- Inflammation
- Opioid receptor activation?
Optimize elements of CKD care most relevant to pruritus:
• Dialysis adequacy
• Correct hyperparathyroidism and serum phosphorus and calcium levels
• Patient education on importance of avoiding or minimizing scratching

Aggressive skin moisturization

If pruritus localized to a limited area of skin, consider trial of topical capsaicin

Gabapentin (100 mg 3x weekly after dialysis or 50-100 mg daily for CM)

If intolerant of gabapentin, consider trial of pregabalin

Opioid receptor modulator (e.g., naltrexone)

Acupuncture

UVB phototherapy

Combs, Semin Nephrol, 2015

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- Tag on visits q 2-3 months with CKD provider (or more frequent if needed)

- Things addressed in clinic visits
  - Advance Care Planning
  - Symptoms
  - How things are going at home (Need more support? Safety?)
  - Support of caregiver

Case example: Mr. P.G.

- 8 months later, Mr. G’s daughter calls to report he is sleeping more and his functional status has declined.

- She’s wondering whether it’s time for hospice.
What are hospice criteria for CKD?

Must have #1 and at least one other criterion

1. The patient is not seeking dialysis or renal transplant; or is discontinuing dialysis

2. Creatinine clearance <10 cc/min (<15 cc/min for diabetics)
3. Serum creatinine >8.0 mg/dL (6.0 mg/dL for diabetics)
4. Signs and symptoms of renal failure
   • “Intractable hyperkalemia, uremic pericarditis, uremia, HRS, intractable fluid overload”
Summary

• Patients with ESRD have a high mortality and large symptom burden

• Many patients dying from ESRD will *not* have a “peaceful” or rapid death

• Patients electing non-dialytic management of CKD require intensive support

Summary

• Comprehensive conservative management of ESRD includes
  
  • High-quality CKD management by nephrology providers
  
  • Symptom management
    • There are reasonable data to guide the treatment of pruritus, impaired sleep, RLS, pain, and depression in ESRD patients
  
  • Advance Care Planning
  
  • Support of patient and caregivers
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