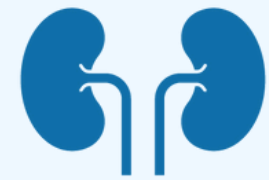


EXPAND



Expanding and Promoting Alternative
Care and Knowledge in Decision-making
Expanding choice for people with kidney disease

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 **WVU**Medicine

Active Medical Care for Older Adults with Kidney Disease

Evidence Base
for Clinicians



Last updated January 8, 2025

What are patients' reasons for choosing active medical care (AMC) over dialysis?

Headline

Patients choose AMC to:

- maintain their current quality of life and autonomy
- avoid the practical burdens of dialysis.
- achieve graceful life completion



Evidence

Sakthivel et al, 2024

- Systematic review | 23 articles | 2012-2024
- patients choosing AMC expressed a sense of “life completion” and less anxiety about death, preferring a “dignified life closure”

Jongejan et al, 2024

- Scoping review | 20 studies | 2005-2023
- Reasons for choosing AMC: quality of life, autonomy
- Reasons against dialysis: time investment, treatment burden

Hussain et al, 2015

- Systematic review | 12 studies | 1985-2014
- Weighing quality of life against survival advantage was a personal judgment. For many, good quality of life outweighed a “long life”

Morton et al, 2012

- Single study | 105 patients
- Patients willing to forgo 7 months life expectancy to reduce hospitalizations, 15 months to increase ability to travel.

How does survival compare between AMC and dialysis for older adults?

Headline

For older and frail patients, dialysis offers little to no survival advantage. Applies to:

- Patients >75 yrs with high comorbidities
- Patients >80 yrs

Survival advantage varies from days to weeks or months



Buur et al, 2021 | Voorend et al, 2022 | Wongrakpanich et al, 2017 | 3 systematic reviews

- Dialysis survival advantage reduced/eliminated for older, sicker patients

Chou et al, 2022 | Narrative review of 18 studies

- Wide range of median survival and survival rates, partly due to different population selection criteria
 - From eGFR <15, median survival range for AMC: 18 – 45 months
 - 1 yr survival rate for AMC: 29%-82%

Montez-Rath et al, 2024 | Veterans Affairs study

- Found bigger survival advantage in older group than most other studies
- Intention to treat analysis (AMC in first 30 days, but may have switched to dialysis later)
 - 65-79 years: 16.6 day (CI, 9.4 to 42.6 days) dialysis survival advantage
 - 80+ years: 60.0 day advantage (CI, 3.5 to 108.8 days)
- Per protocol group analysis (dialysis compared to never dialysis)
 - 65-79 years: 10.7 day (CI, 8.3 to 29.5 days) dialysis survival advantage
 - 85+ years; 118.0 day (CI, 79.6 to 146.8 days)

Evidence critique

- Observational studies only
(prospective or retrospective cohorts, no randomized trials)
- Potential selection bias
- Lead time bias from different initial selection points
- "No dialysis" \neq structured supportive care

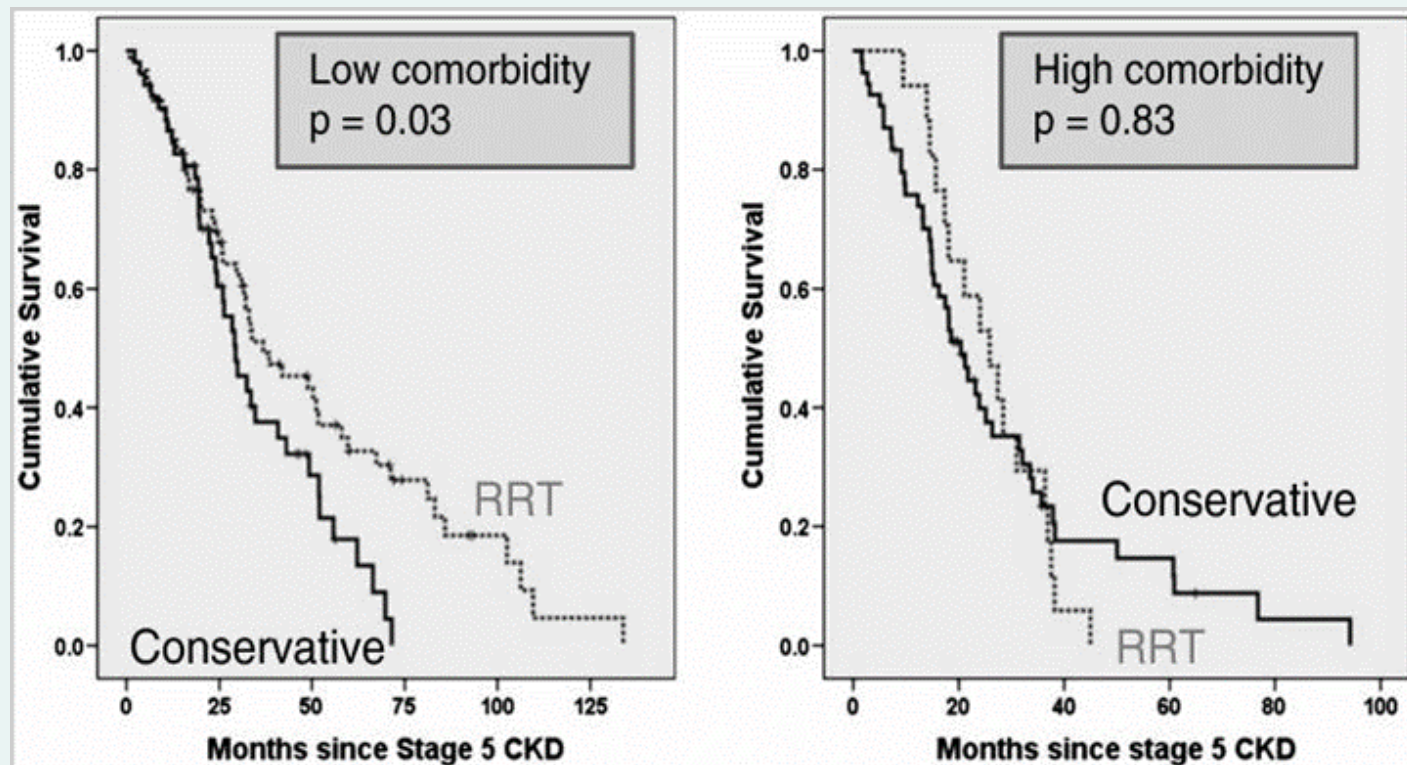
Despite methodological shortcomings, weight of evidence points to only modest survival advantage (weeks to months) from dialysis for older comorbid and frail patients

Evidence

How does survival compare between AMC and dialysis in older patients?

High Comorbidity eliminates any survival advantage in patients over 75 years

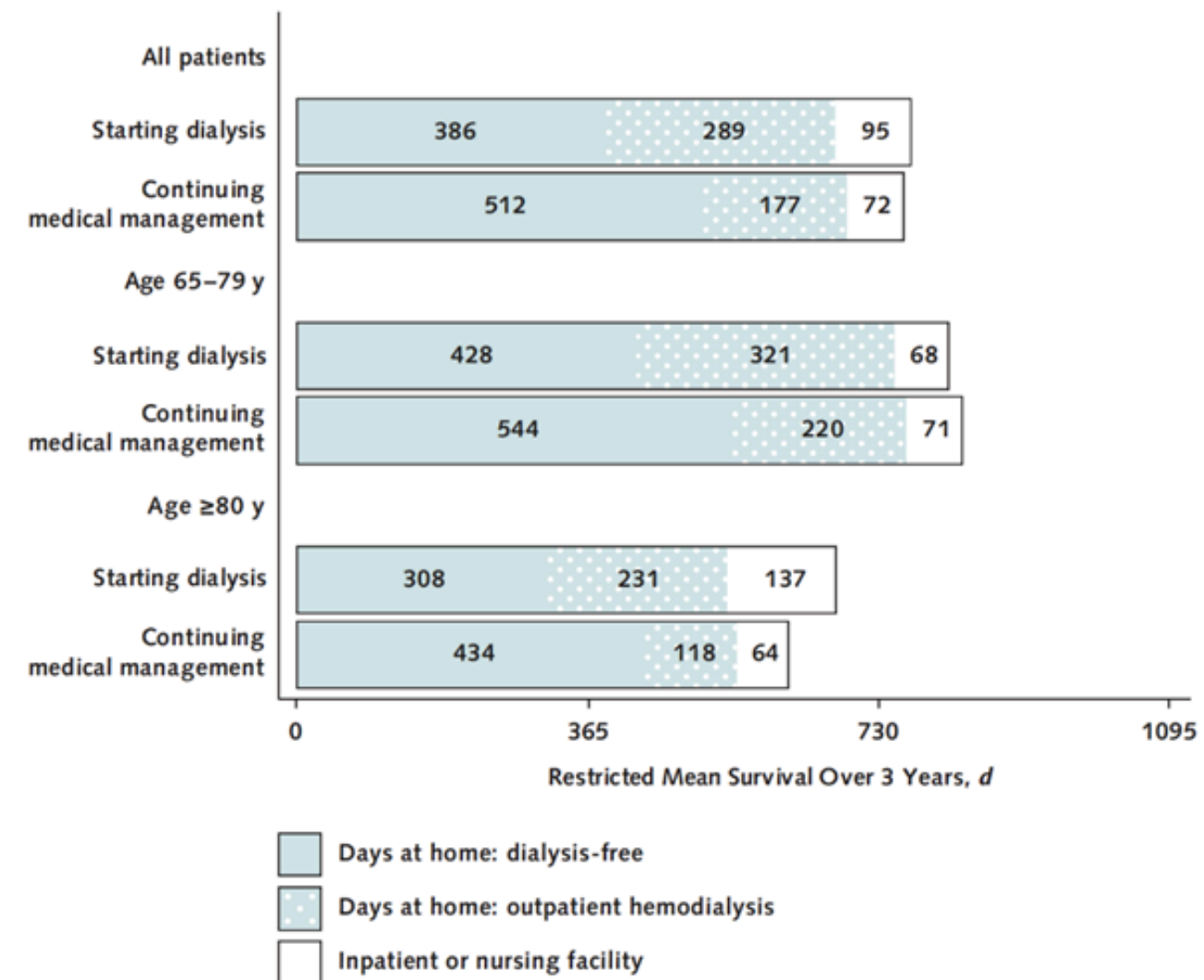
Kaplan–Meier survival curves by modality (RRT (n=106) vs conservative kidney management (n=77)) in patients >75 years by comorbidity.



Source: Chandna SM. Survival of elderly patients with stage 5 CKD: Comparison of conservative management and RRT. *Nephrol Dial Transplant*. 2011;26(5):1608-1614. doi: 10.1093/ndt/gfq630

For Veterans Administration older patients, dialysis added 9 additional days over 3 years

Figure 1. Mean survival time, in days, for older adults with eGFR <12 mL/min/1.73 m² starting thrice-weekly hemodialysis within 30 d and older adults who continued medical management, partitioned by dialysis-free days at home, outpatient hemodialysis days, and inpatient or nursing facility days.

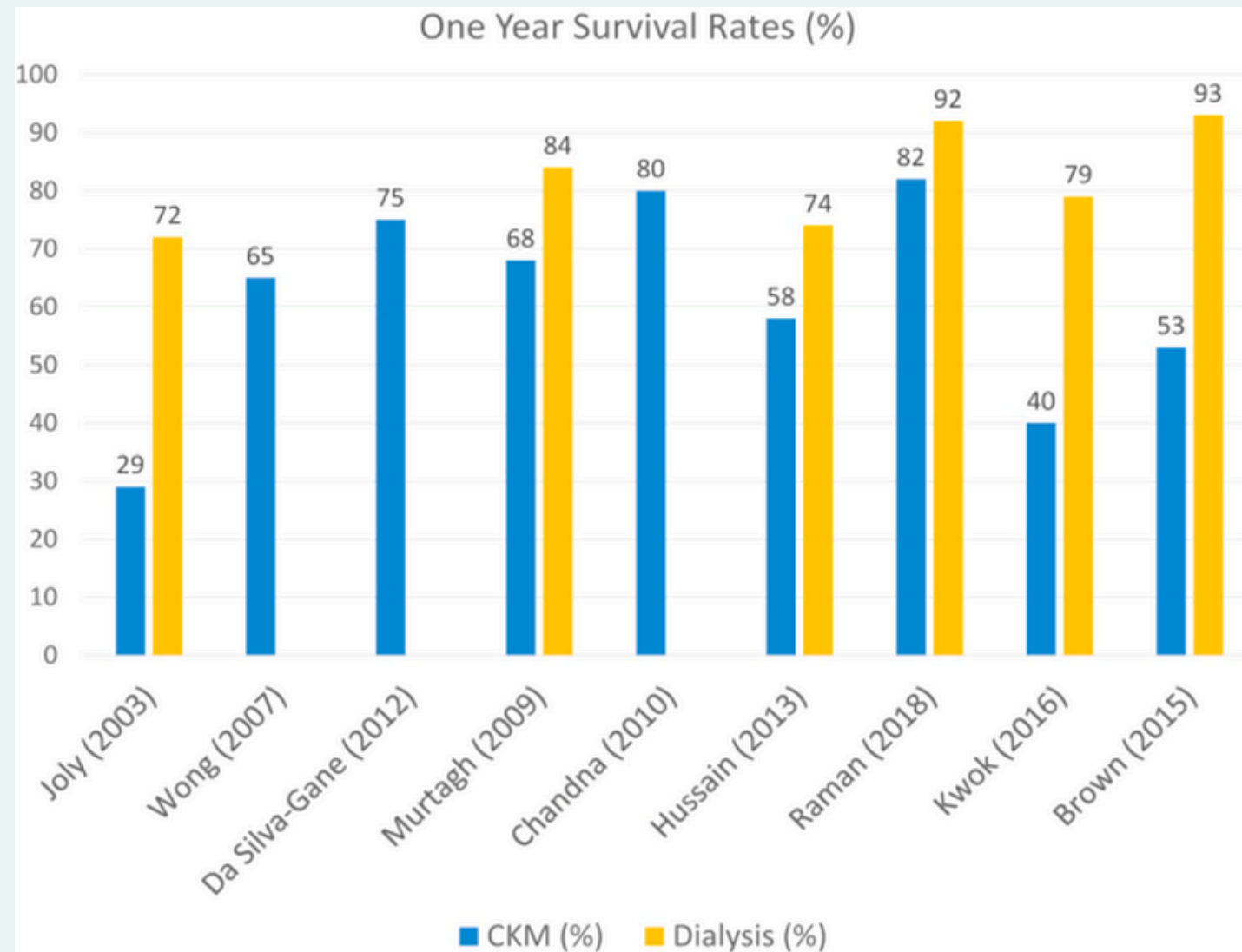


In the analogue of an intention-to-treat analysis, there may be crossover from medical management to dialysis after 30 d. The estimates assume that 3/7 of days at home are outpatient hemodialysis treatment days. eGFR = estimated glomerular filtration rate.

Source: Montez-Rath et al, 2024

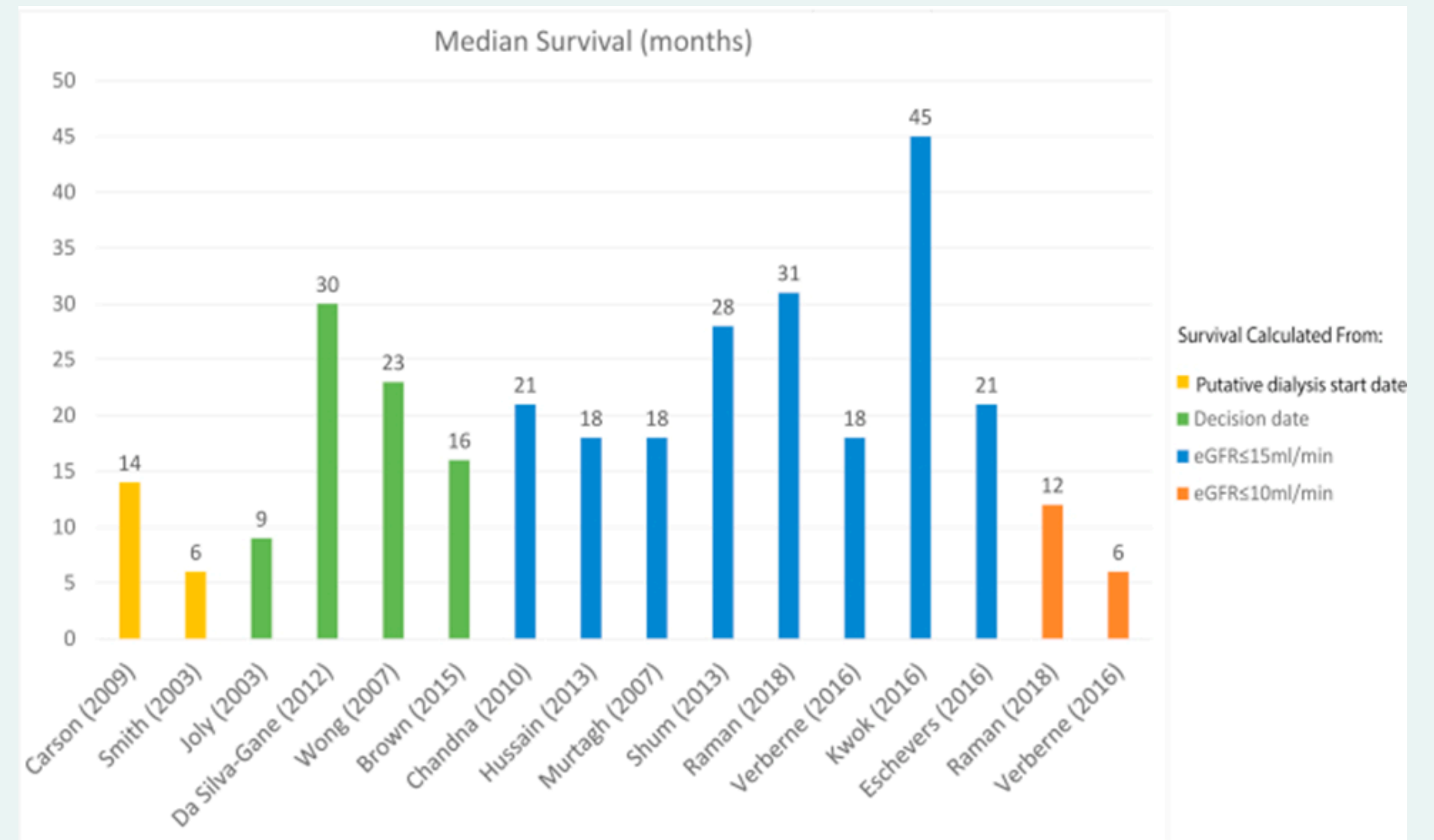
How does survival compare between AMC and dialysis?

Reported 1-year survival rates for conservative kidney management (CKM) patients



Source: Chou 2022(Chou et al., 2022)

Median survival of conservative kidney management patients



Source: Chou 2022(Chou et al., 2022)

How does time in hospital and other healthcare settings compare between AMC and dialysis?

Headline

For older patients, dialysis is associated with more frequent hospital admissions, longer hospital stays, and more time in nursing homes.



Evidence

Buur et al, 2021

- systematic review | 6 studies
 - 4 studies: dialysis patients had more hospital admissions
 - 1 study: no difference
 - 1 study: fewer hospital days for peritoneal dialysis compared to no dialysis

OptumLabs® Data Warehouse

309,188 patients, 2007-2020

- For patients not on dialysis:
 - lower hospitalization rates across all groups (Rhee et al, 2023; You et al, 2022)
 - shorter hospital stays (You et al, 2022)

Montez-Rath et al, 2024

20,440 Veterans Administration patients, 2010-2018

- For patients not on dialysis:
 - more dialysis free days at home

Wong et al, 2022

- systematic review (AMC cohorts only) | 10 studies
 - 9 studies: 1-2 hospital admissions, 6-16 in-hospital days, 7-8 clinic visits, 2 ED visits per person-year
 - 1 study: 4 hospital visits, 38 hospital days per person-year

How does symptom burden compare between AMC and dialysis?

Headline

The type of symptoms experienced differ between AMC and dialysis, but dialysis does not consistently reduce overall symptom burden in either the physical or mental health domains compared to AMC.

There is some evidence for improvement in cognition after dialysis start.



Evidence

Buur et al, 2021 | Systematic review

- 2 cross-sectional studies: higher symptom burden for dialysis patients
- 1 cross-sectional study: overlapping symptom prevalence, intensity
- 1 prospective study: decrease in symptoms with commencement of dialysis
- 1 prospective study: no difference between dialysis, no dialysis

Verberne et al, 2021 | Systematic review

- Similar trajectories of physical and mental health over 12-36 months for both AMC and dialysis groups.
- AMC patient symptoms: More dyspnea, drowsiness, poor mobility
- Dialysis patient symptoms: More pruritus, skin changes, halitosis, sexual problems, bloating, limb numbness
- Some improvement in cognitive functions reported after dialysis start

How does quality of life compare between AMC and dialysis?

Headline

For older or frail patients, dialysis does not improve quality of life on most measures and may increase burden of disease.



Evidence

Burr et al, 2021 | Systematic review

- 1 prospective cohort study: Higher quality of life for AMC at 6 months
- 5 studies (various types): No difference in quality of life over time
- 1 study: Results varied by quality of life measurement tool

Verberne et al, 2021 | Systematic review

- AMC patients scored better or higher than dialysis patients on:
 - effects of kidney disease on daily life
 - burden of kidney disease

Wong et al, 2022 | Systematic review (AMC cohorts only)

- 8 observational studies followed AMC patients 8-24 months
 - improved mental well-being
 - stable physical well-being and overall quality of life until late in course of illness

How does end of life compare between AMC and dialysis?

Headline

AMC is associated with higher hospice use and lower hospitalization at time of death.

Evidence

Burr et al, 2021 | Systematic review

- AMC patients died at home or in hospice more often than patients on dialysis, who more often died in hospital.

OptumLabs® Data Warehouse | Narasaki et al, 2023

- AMC patient had:
 - Higher rate of hospice use
 - Lower rate of palliative care referral



Clinical Indicators to Identify People Who Might Benefit from Active Medical Care

Patient values and goals elicited through shared decision-making should guide all treatment choices, including Active Medical Care.

Indicators to help identify people with kidney failure who might benefit from Conservative Kidney Management (CKM)

- Poor quality of life, including irremediable physical or psychosocial suffering, where dialysis may extend life, but prolong suffering
- Frailty: cognitive and physical domains with poor functional status
- High comorbidity, especially if severe heart failure and/or advanced age (>80 years)
- Severe malnutrition
- Clinician's response of "No, I would not be surprised" to the question ("Would I be surprised if this patient died in the next year?")
- Those whose medical condition precludes the technical process of dialysis because the patient is:
 - Unable to cooperate (e.g., advanced dementia)
 - Unstable medically (e.g., profound hypotension)
- Experiencing another life-limiting illness (e.g., advanced stage cancer)

Davison et al, 2024



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