HD OR NOT for the older patient

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Disclosures

- Speaker fees: Baxter Healthcare, Fresenius Medical Care
- Advisory board: Fresenius Medical Care, Vivance, iRen Medical

Edward Munch: Selvportrett mellom klokken og sengen
(Between the Clock and the Bed) 1940-42

Implications of advanced kidney disease: older patient perspective

- Likely to have other long term conditions
  - multiple hospital / clinic visits
  - multiple symptoms
  - polypharmacy
- Accelerated ageing
  - increased likelihood of frailty
  - higher risk of falls
  - higher risk of cognitive impairment and more rapid deterioration
- Impact on other medical problems and procedures
  - Need for awareness of prognosis and shared decision-making round medical interventions, end of life management

HD OR NOT: outline of talk

- Why the question (and why in capital letters)?
  - —Being on HD: patient viewpoint
  - —Outcomes on HD for older and frail people
- What are the alternatives to in-centre HD?
  - —PD
  - —Home HD
  - —Transplant
  - —Conservative care

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HD in older people: patient perspective

ADVANTAGES

- Hospital based treatment so independent of housing quality
- No medical supplies at home
- Not dependent on patient ability for self-care
- Can provide social structure for frail elderly

DISADGANTAGES

- Transport (journey and waiting time) needs to be added into treatment time
- Often feel washed out for hours after HD session
- Interferes with social and family life
- Repeated surgery may be needed for vascular access
- Difficult to travel for holidays or visiting family

HD in older people: healthcare perspective

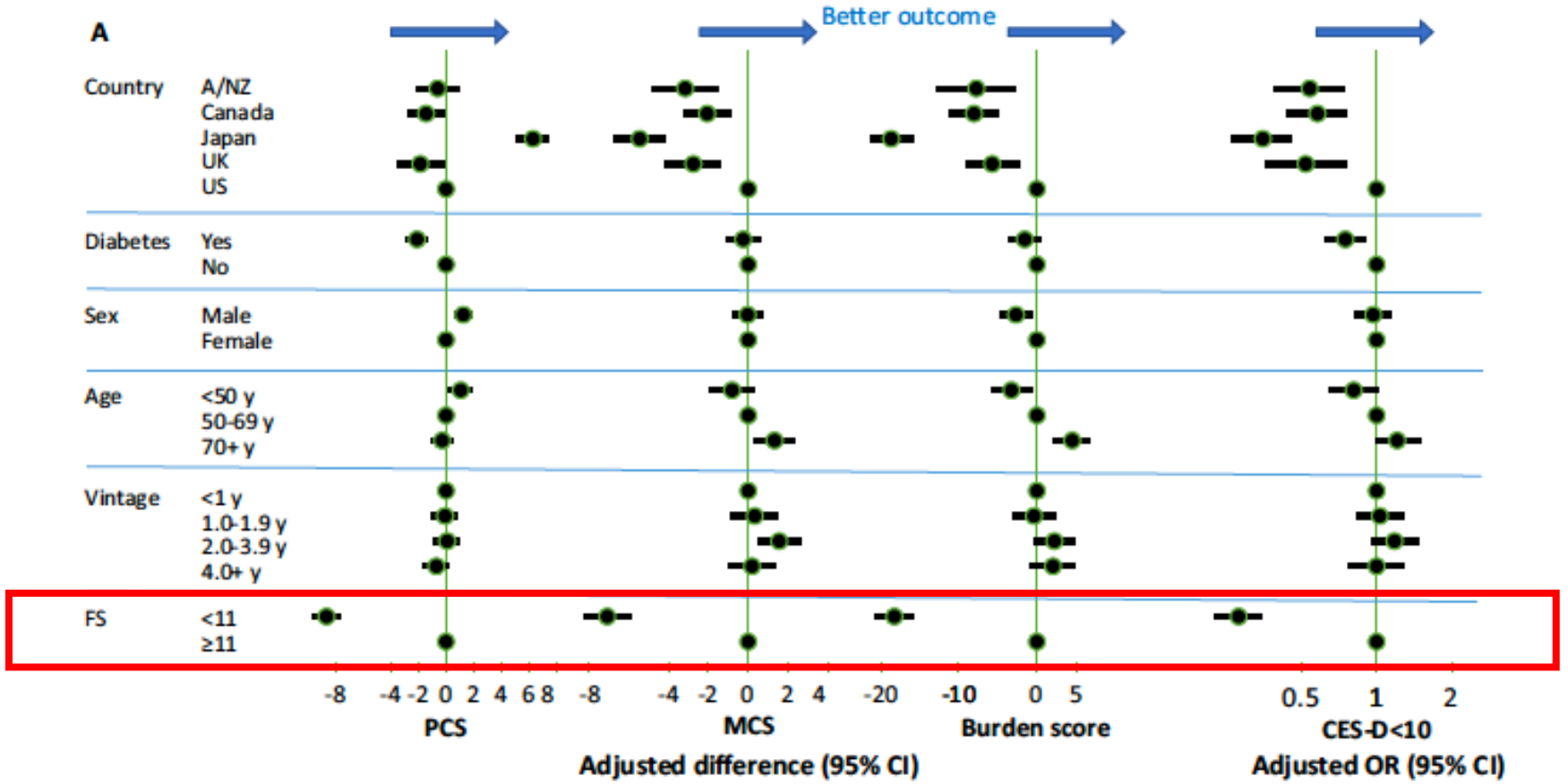
ADVANTAGES

- Often default dialysis modality so easy to organise with standard pathways
- Treatment managed by nurses and technicians
- Limited amount of time spent on educating patients
- Frequent visits enables close monitoring
- Can avoid complexity of home dialysis and often requirement of assistance

DISADGANTAGES

- Transport (journey and waiting time) needs to be added into treatment time and cost
- Haemodynamic consequences
  - loss of residual kidney function
  - accelerated cognitive decline
- Infection transmission
  - blood borne viruses
  - respiratory infections
- Vascular access complications
- Higher environmental impact than other kidney replacement treatments

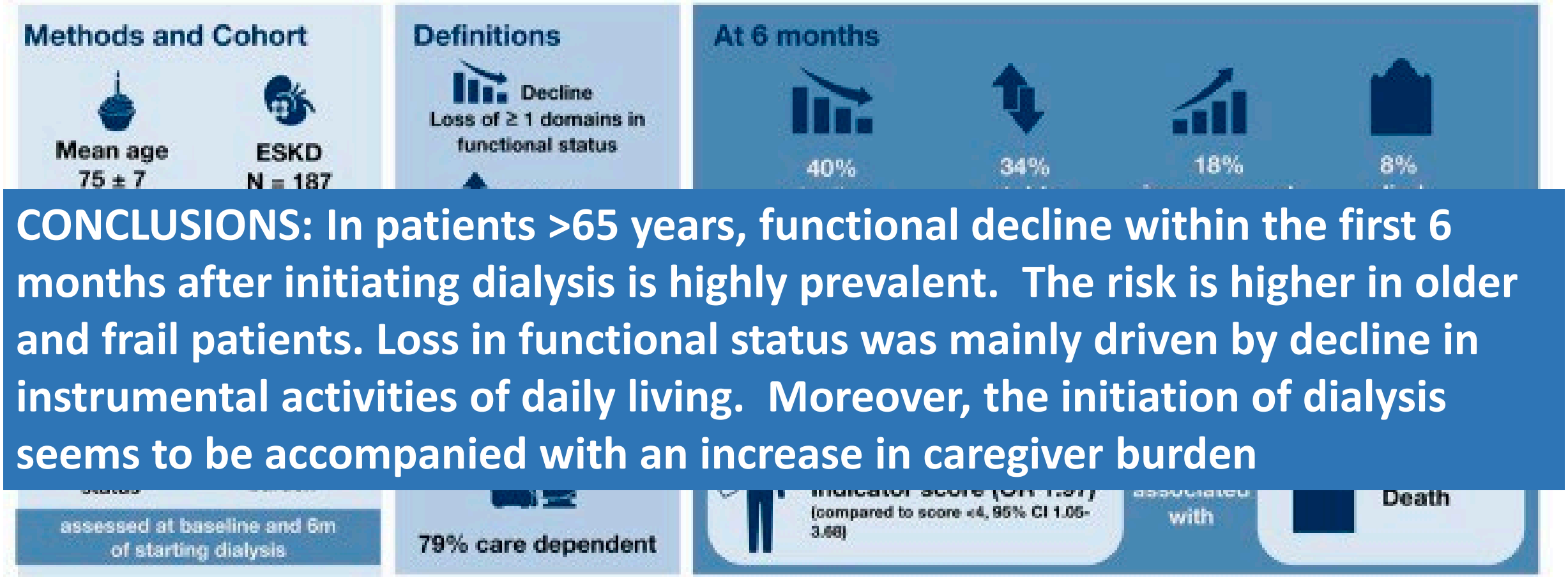
Impact of functional status on patient outcomes: DOPPS/PDOPPS data



Brown EA et al: AJKD 2021; 78: 489-500

How is functional status and caregiver burden affected by initiation of maintenance dialysis?

CJASN
Clinical Journal of American Society of Nephrology



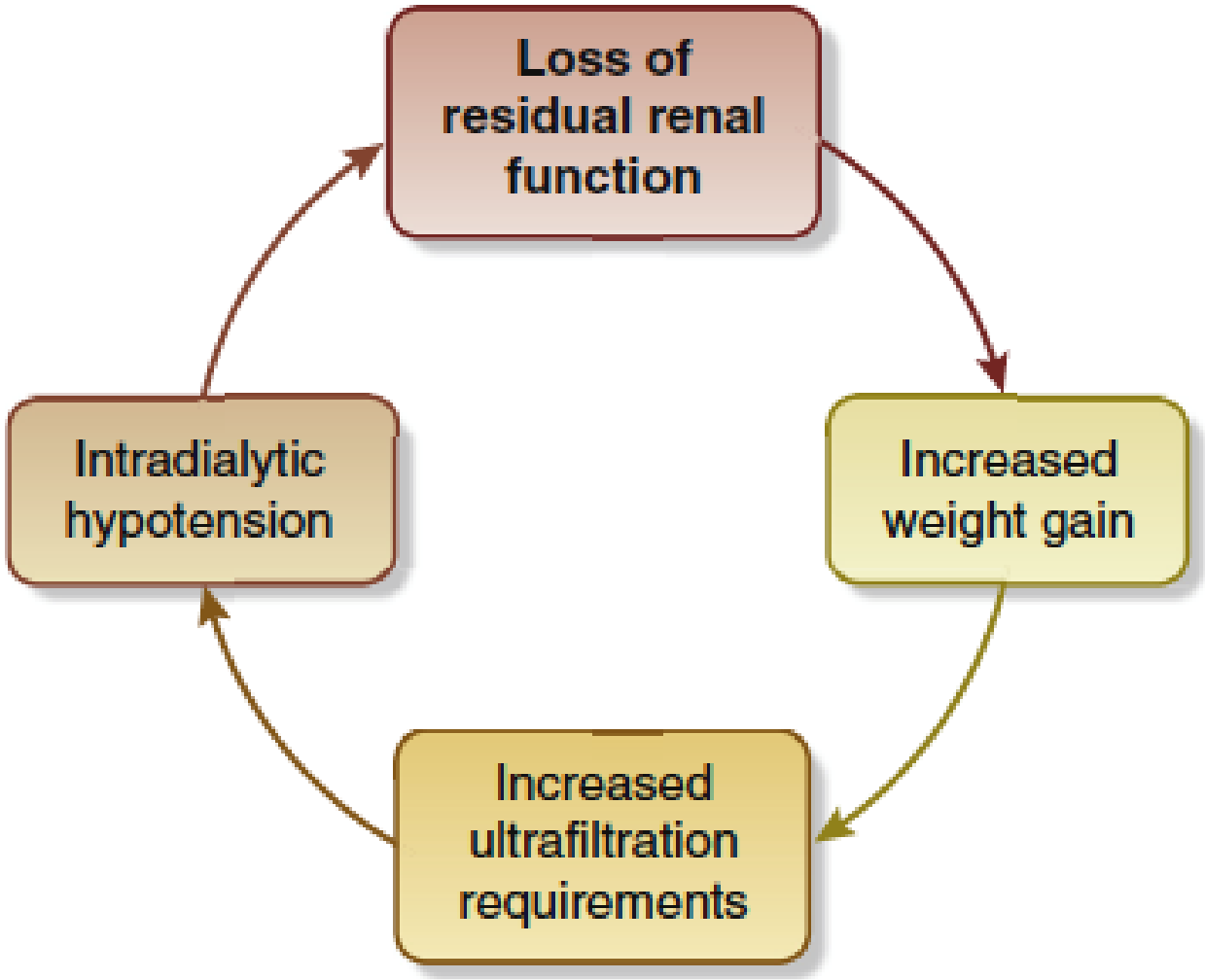
CONCLUSIONS: In patients >65 years, functional decline within the first 6 months after initiating dialysis is highly prevalent. The risk is higher in older and frail patients. Loss in functional status was mainly driven by decline in instrumental activities of daily living. Moreover, the initiation of dialysis seems to be accompanied with an increase in caregiver burden

Conclusions In patients >65 years, functional decline within the first 6 months after initiating dialysis is highly prevalent. The risk is higher in older and frail patients. Loss in functional status was mainly driven by decline in instrumental activities of daily living. Moreover, the initiation of dialysis seems to be accompanied with an increase in

N.A. Goto, L.N. van Loon, F.T.J. Boereboom, M.H. Emmelot-Vonk, et al. ***Association of Initiation of Maintenance Dialysis With Functional Status and Caregiver Burden.*** CJASN doi: 10.2215/CJN.13131118. **Visual Abstract by Michelle Lim, MBChB**

Goto NA et al. Clin J Am Soc Nephrol. 2019;14:1039-1047.

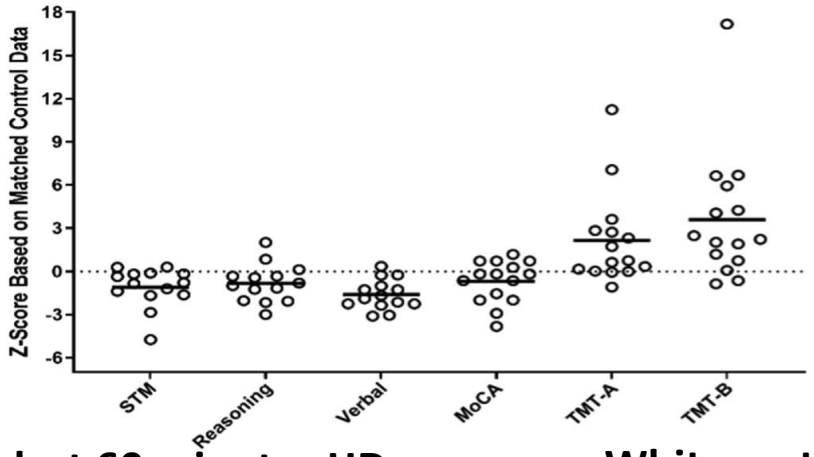
HD: ultrafiltration and loss of residual renal function - a vicious cycle



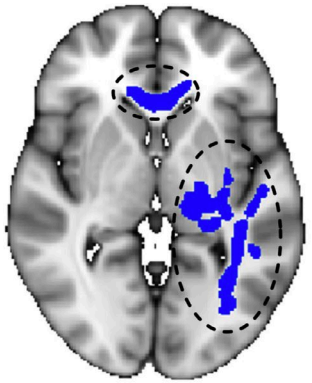
Brown EA et al, Kidney International 2017; 91: 294-303

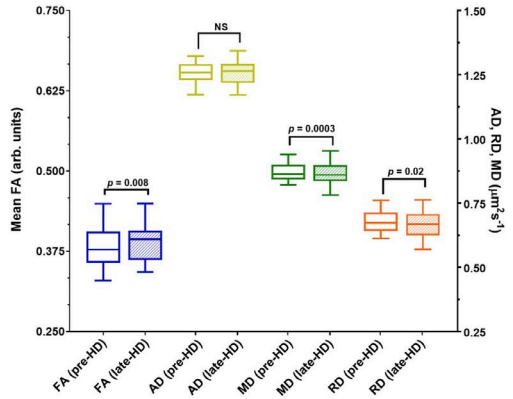
HD related acute brain injury last 60 minutes of dialysis session: 17 patients

Neurocognitive scores demonstrate cognitive impairment



White matter changes during last 60 minutes HD





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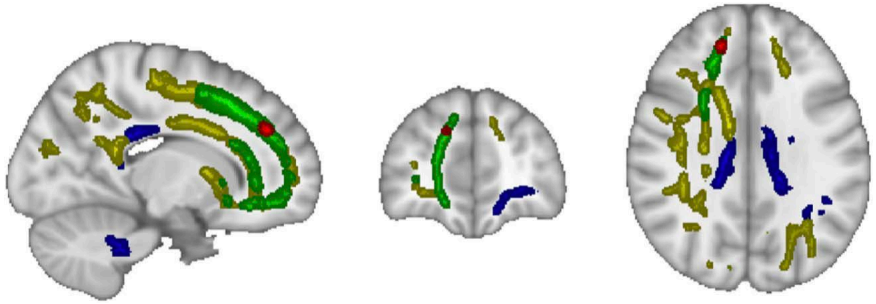
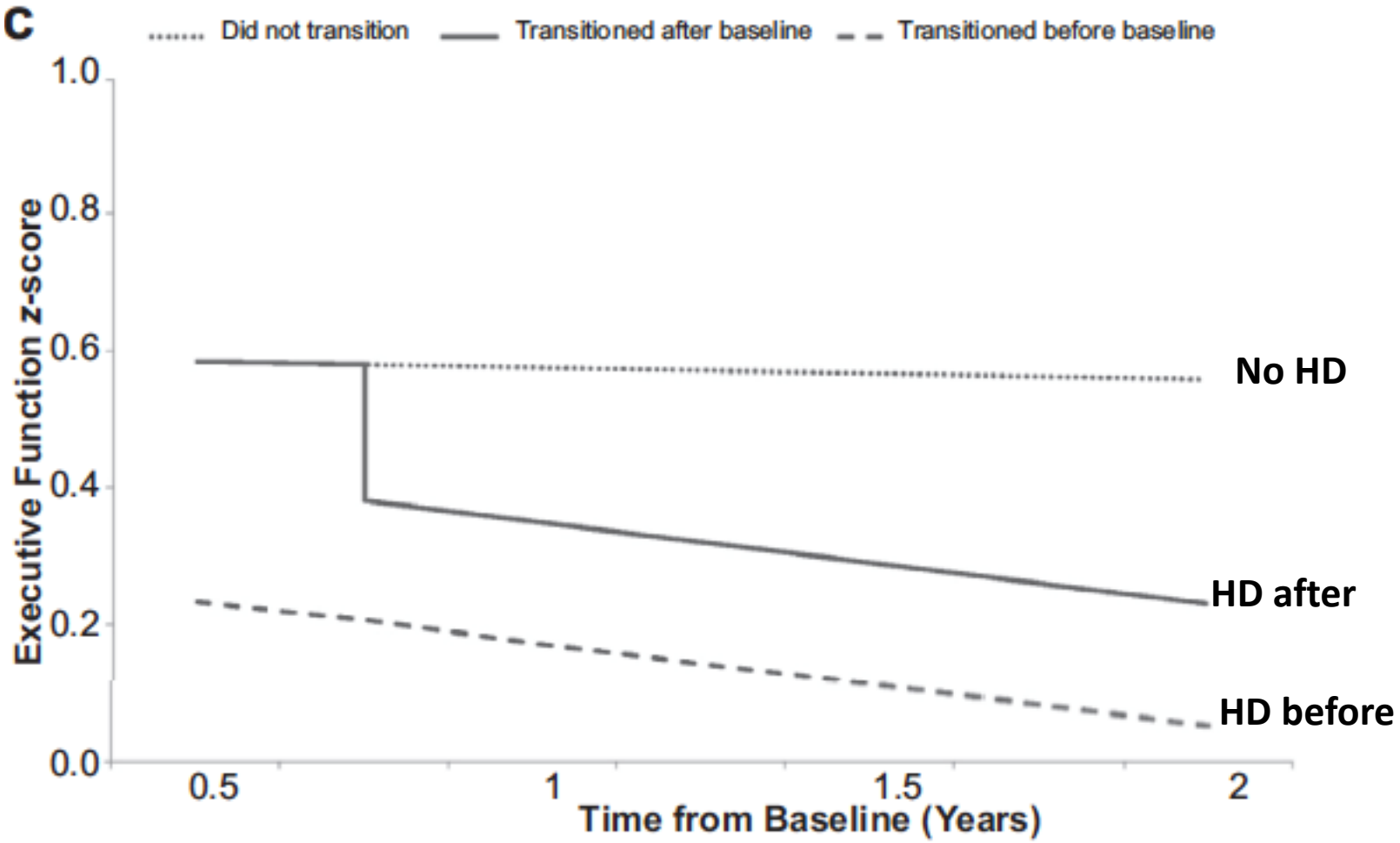


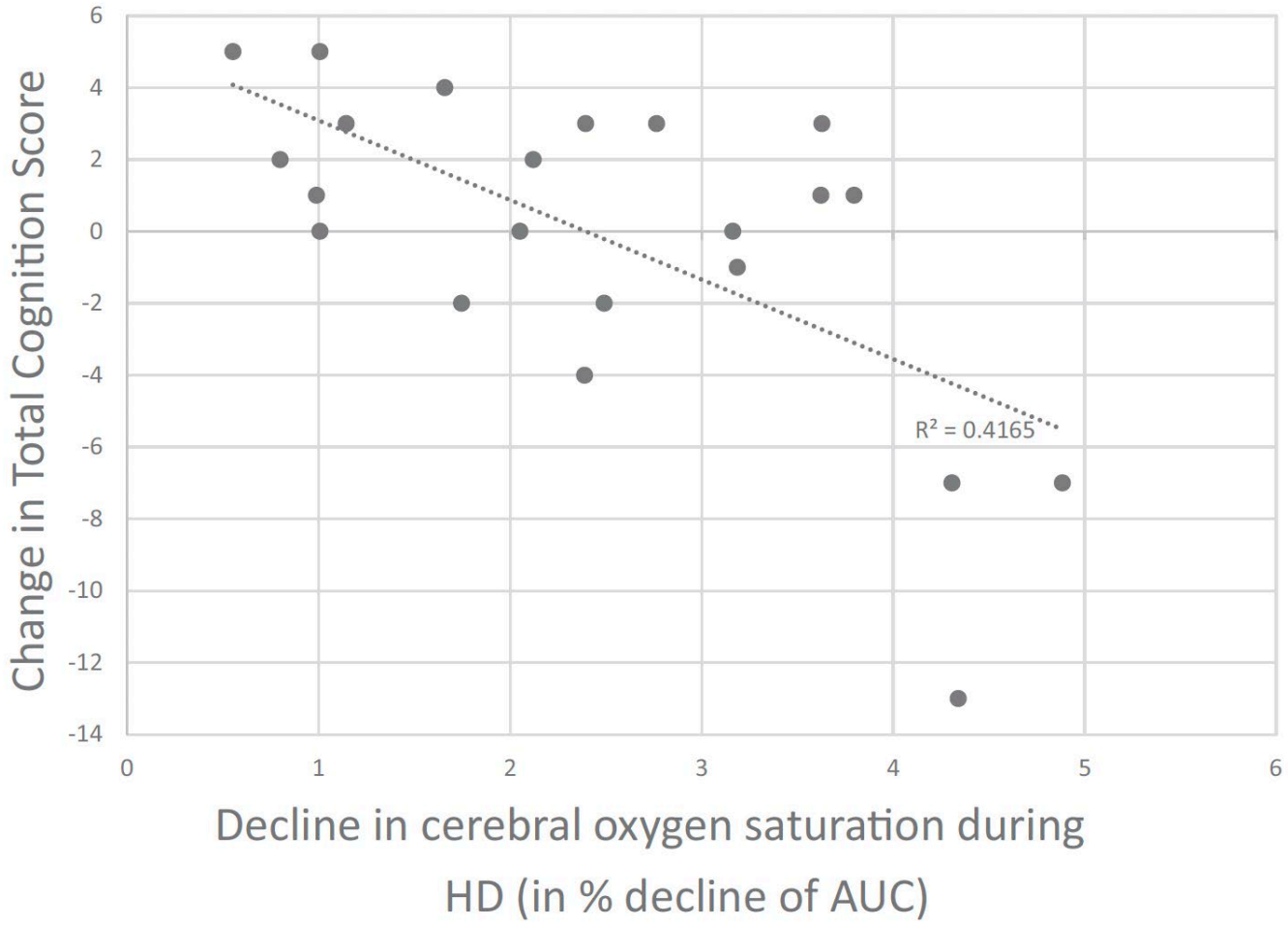
Anazodo AC et al. J Am Soc Nephrol. 2023;34:1090-1104.

Trajectories of executive function (GFR<20) – started HD before baseline (n=52), after baseline (n=37), did not start(n=123)



Kurella Tamura et al. Kidney Int. 2017; 91: 948-953

Decrease in cerebral oxygen saturation experienced during HD is associated with worsening cognition



Wolfgram DF et al. Nephrol Dial Transplant. 2024;39:1526-1528

The New York Times

https://www.nytimes.com/2024/09/01/health/dialysis-seniors-kidneys.html

THE NEW OLD AGE

Dialysis May Prolong Life for Older Patients. But Not by Much.

In one recent study, the challenging regimen added 77 days of life after three years. Often, kidney disease can be managed in other ways.

Elenia Beretta

Published 1st September 2024

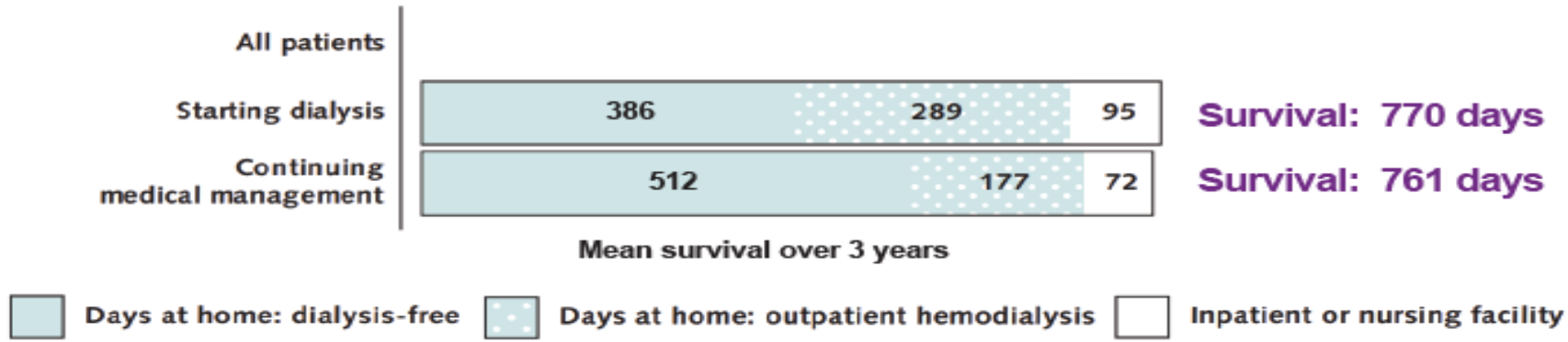
For older adults with kidney failure, how do survival and time spent at home compare between those who start dialysis at eGFR <12 mL/min/1.73 m^2 and those who continue medical management?

Veterans Affairs Health System
20 440 adults ≥65 years
Chronic kidney failure with eGFR <12 mL/min/1.73 m^2
Not referred for transplant

Trial emulation

Dialysis within 30 days of meeting eligibility

Continue medical management



Annals of Internal Medicine

Montez-Rath ME, Thomas IC, Charu V, et al. Effect of starting dialysis versus continuing medical management on survival and home time in older adults with kidney failure. A target trial emulation study. Ann Intern Med. 20 August 2024. [Epub ahead of print]. doi: 10.7326/M23-3028
http://acpjournals.org/doi/10.7326/M23-3028

Starting Dialysis Versus Forgoing Dialysis and Continuing Medical Management at GFR<12; age >65 years

- Starting dialysis associated with improved survival (hazard ratio, 0.74 [CI, 0.71 to 0.79])

Montez-Rath ME et al Ann Int Med 2024;177:1233-1243

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BUT

- Gain in overall survival of 77.6 days (CI, 62.8 to 91.1 days)
- 14.7 fewer days spent at home (CI, 11.2 to 16.5 fewer days at home).

Montez-Rath ME et al Ann Int Med 2024;177:1233-1243

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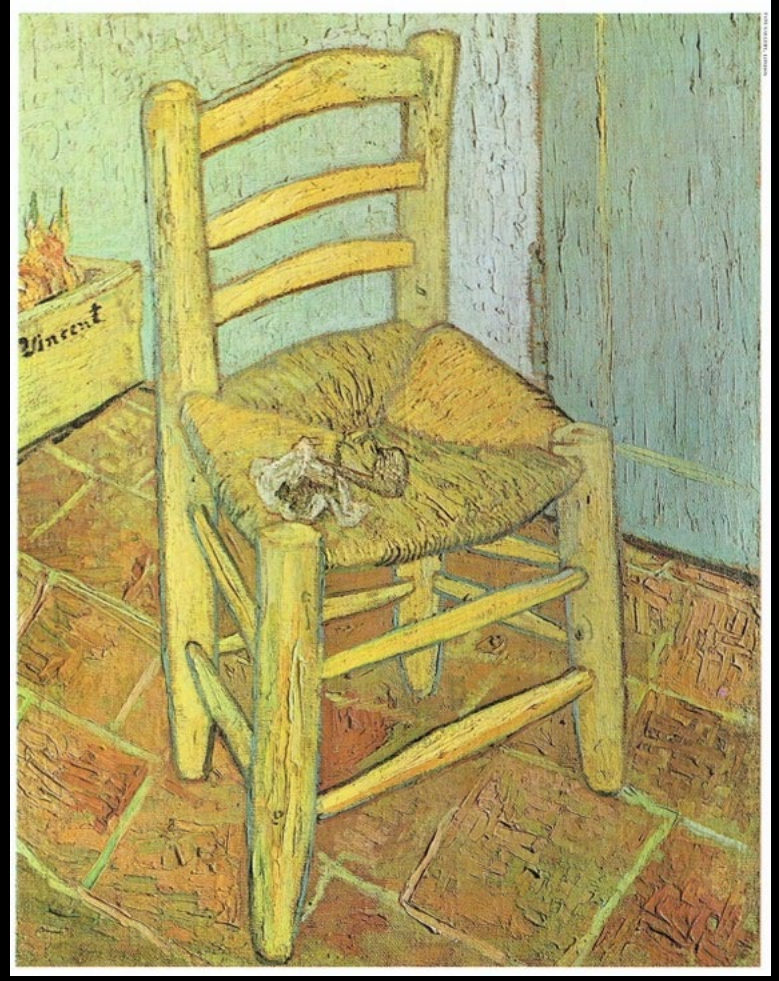
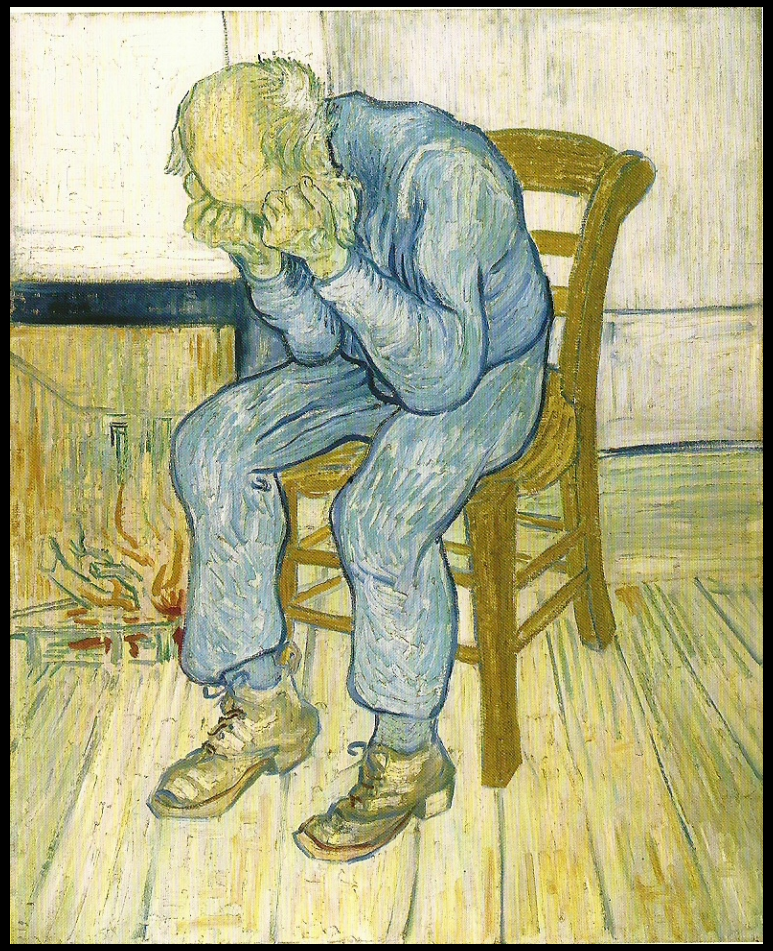


Van Gogh's Chair, 1888



Van Gogh: Sorrowing Old Man ('At Eternity's Gates'

Pablo Picasso: The Old Guitarist

A choice experiment of older patients' preferences for kidney failure treatments.

kidney INTERNATIONAL

ISN INTERNATIONAL SOCIETY OF NEPHROLOGY

We aimed to quantify the treatment preferences of older UK adults with advanced chronic kidney disease deciding between treatments for kidney failure.

- UK patients
- Aged >65
- eGFR ≤20mls/min/1.73m2
- Under nephrology care
- Not dialysed or transplanted

Choice experiment developed using qualitative techniques:

'A specialised survey to quantify preferences for kidney failure treatments'

- Paper administration
- 327 participants
- Median age 77 years
- Median eGFR 14mls/min/1.73m2
- Participants selected from pairs of alternative treatments, differing in…

Overall, participants…

Were willing to relinquish 13% absolute survival benefit at two years to prevent a halving of their ability to do the things that were important to them.

Required a 16% increase in absolute survival at two years to accept a three-times a week hospital-based dialysis regimen.

Had greater preferences for survival if partnered, but lesser preferences for survival if they expected to lose their ability to do the things that were important to them.

Fell into three groups with disparate preferences for location of care and willingness to trade-off survival to preserve their ability to do. However, only planned treatment predicted which group a person was likely to be in.

Hole et al., 2024
barnaby.hole@bristol.ac.uk

Living longer is not the sole determinant of older peoples' decisions: patients favour higher chances of survival, but only if their capability is preserved and the location and frequency of care are acceptable.

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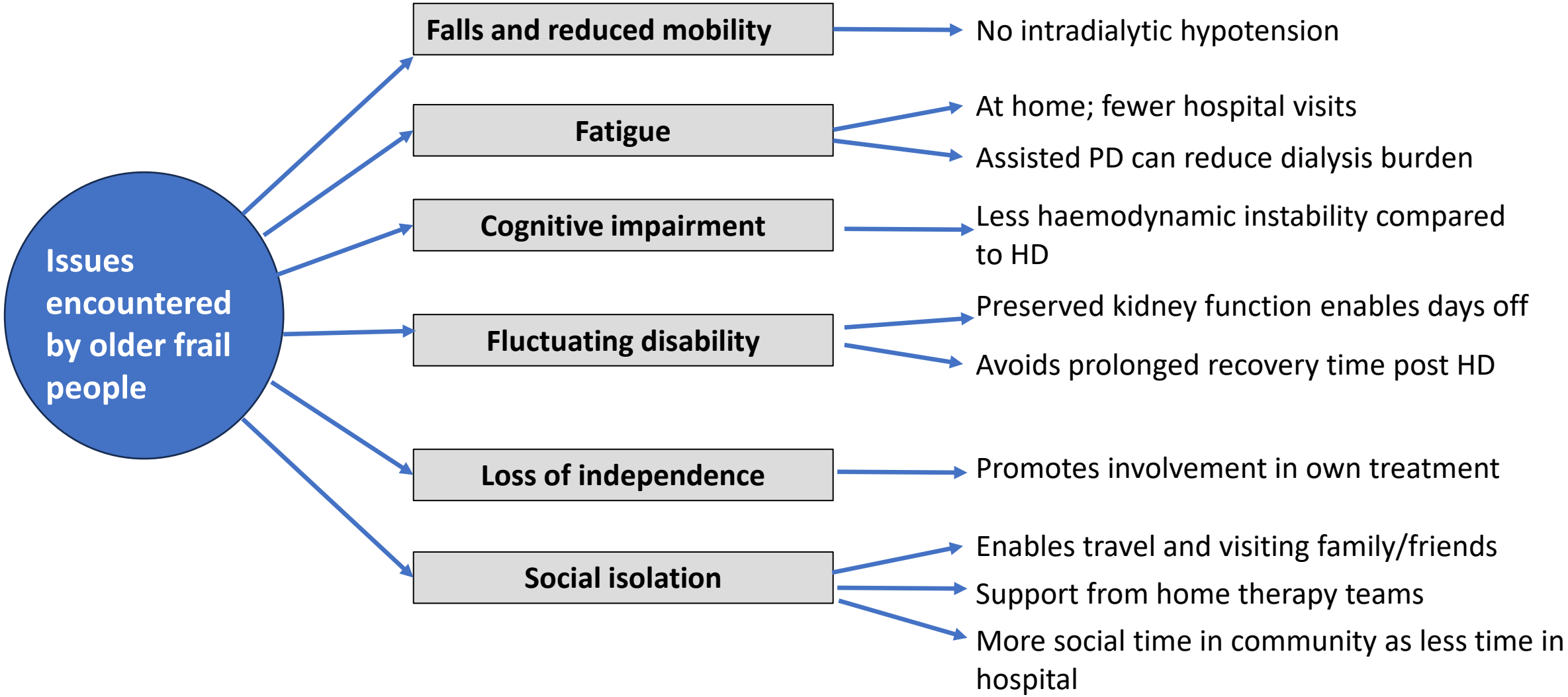
Hole B et al. Kidney Int. 2025;107:130-142

How PD may address problems encountered by older frail people



Home HD in older person

- Can be done but sparse literature
- More complex than PD
- Support from relative or carer often needed
- Frequent low flow HD may have less haemodynamic consequences than in-centre 3/week HD – but no evidence
- Healthcare supported assisted home HD would need to be made available to support many patients

Transplant: not always a get out of jail card

ARTICLE IN PRESS

KI REPORTS
KIReports.org

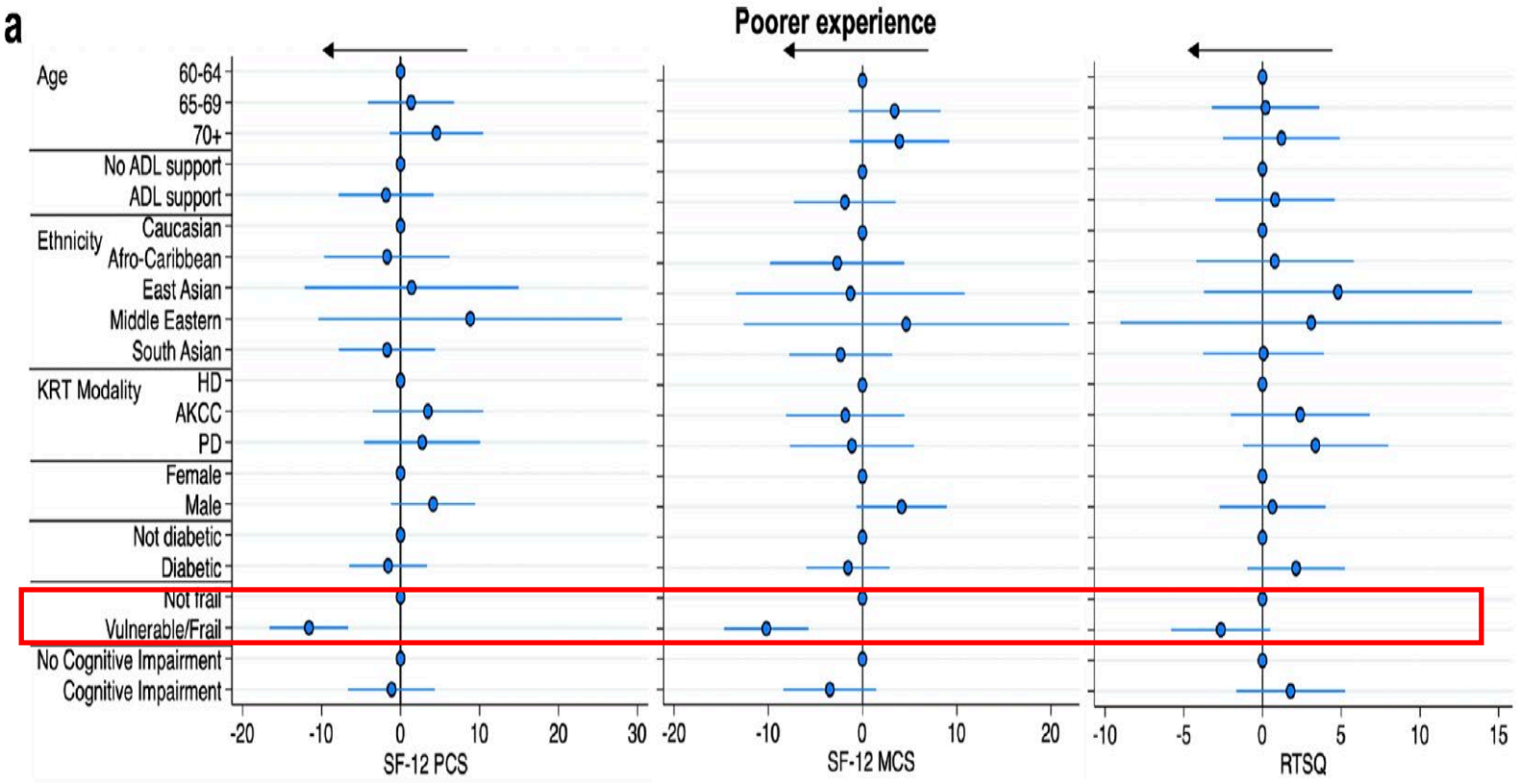
CLINICAL RESEARCH

Frailty Impact on Kidney Transplantation in Older People

Amarpreet K. Thind[1,2], Michelle Willicombe[1,2], Frank J.M.F. Dor[3,4], Lina Johansson[2,5], Nicola Thomas[6], Annabel Rule[2,7], Dawn Goodall[2], Shuli Levy[2], Sarah Brice[2], David Ospalla[8], David Wellsted[9] and Edwina A. Brown[1,2]

Thind A et al. BMC Nephrology 2022; 23:283

Association of clinical characteristics on questionnaire scores 1 year after kidney transplantation.



At 1-year post-transplant, frailty at the time of recruitment was independently associated with:

↓Physical HR-QoL

↓Mental HR-QoL

↓Treatment Satisfaction

Kidney Research UK

Thind A et al. Kidney Int Rep 2025; https://doi.org/10.1016/j.ekir.2025.08.007

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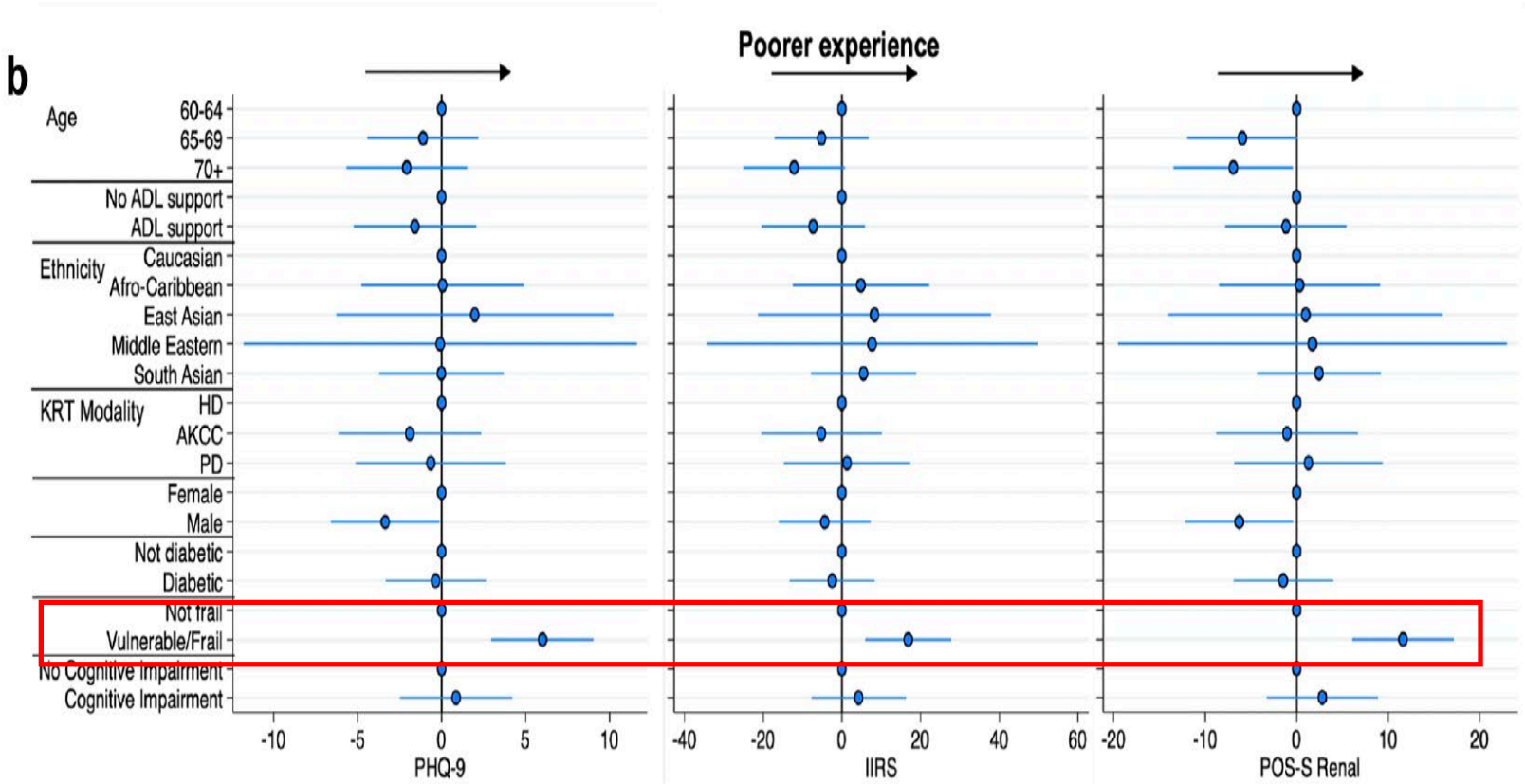


At 1-year post-transplant, frailty at the time of recruitment was independently associated with:

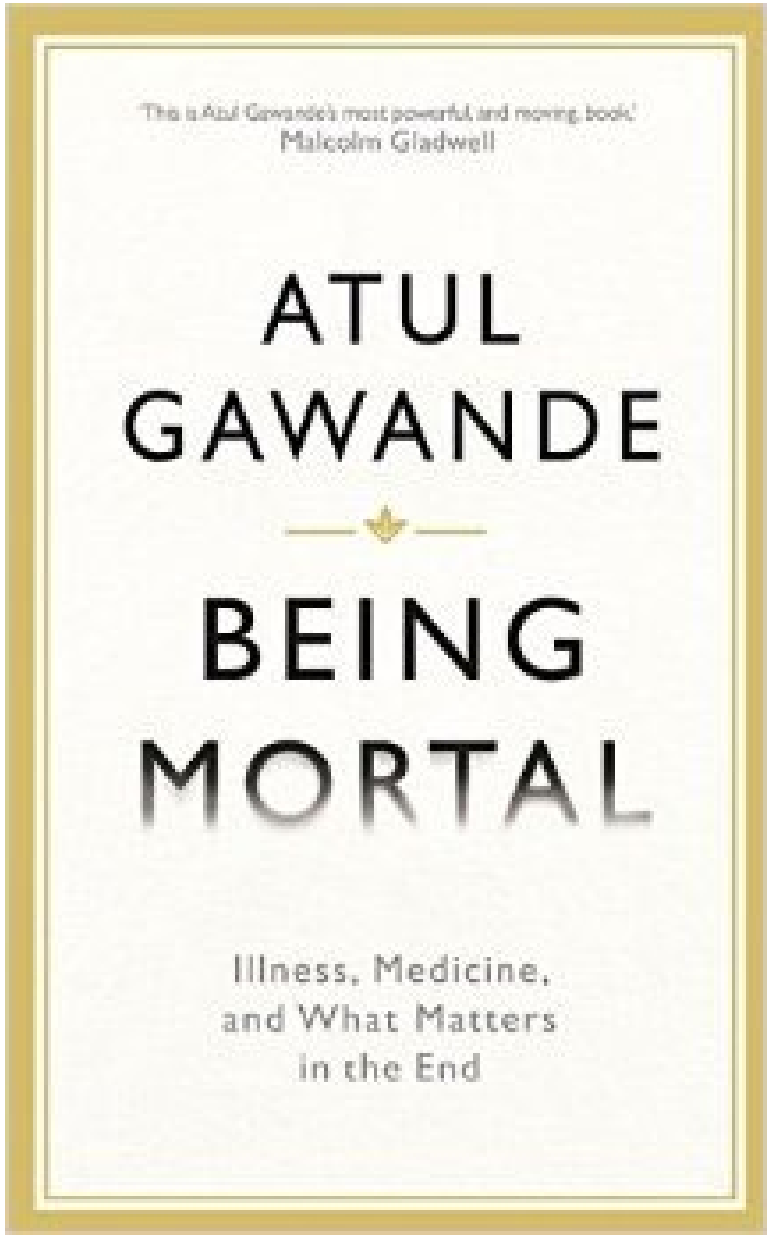
↑ Depression

↑Symptom Burden

↑ Illness intrusion

Kidney Research UK

Thind A et al. Kidney Int Rep 2025; https://doi.org/10.1016/j.ekir.2025.08.007



"Medicine's focus is narrow. Medical professionals concentrate on repair of health, not sustenance of the soul…..For more than half a century, we have treated the trials of sickness, aging and mortality as medical concerns…That experiment has failed"

Published July 2015

Executive summary of the KDIGO Controversies Conference on Supportive Care in Chronic Kidney Disease: developing a roadmap to improving quality care

Sara N. Davison[1], Adeera Levin[2], Alvin H. Moss[3], Vivekanand Jha[4,5], Edwina A. Brown[6], Frank Brennan[7], Fliss E.M. Murtagh[8], Saraladevi Naicker[9], Michael J. Germain[10], Donal J. O'Donoghue[11], Rachael L. Morton[12,13] and Gregorio T. Obrador[14]

Definition of Comprehensive Conservative Care – an alternative to dialysis

- 'Comprehensive conservative care' is planned holistic patient-centred care for patients CKD 5 that includes
  - Interventions to delay progression of kidney disease and minimize risk of adverse events or complications
  - Shared decision making
  - Active symptom management
  - Detailed communication, including advance care planning
  - Psychological support
  - Social and family support
  - Cultural and spiritual domains of care
- Comprehensive conservative care does not include dialysis.

Kidney Int 2015; 88: 447-59

The New York Times

https://www.nytimes.com/2024/09/01/health/dialysis-seniors-kidneys.html

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Lucas van Valckenborch: Double Portrait of an Elderly Couple