

CONSIDER – CONSIDERATIONS OF NEPHROLOGISTS WHEN SUGGESTING DIALYSIS IN ELDERLY PATIENTS WITH RENAL FAILURE: A DISCRETE CHOICE EXPERIMENT



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Background

- Patients aged ≥ 75 account for 21.6% of patients commencing renal replacement therapy¹ and are the fastest growing dialysis group²
- Treatment decisions with respect to dialysis versus supportive (non-dialysis) care are challenging due to uncertainty around survival benefit and the considerable treatment burden
- Treatment decisions are usually made with input from both nephrologists and patients
- European nephrologists recommended 'non-dialysis' management in 10% of patients (interquartile range 5-20%) in a recent survey³
- Little is known about the factors and trade-offs that nephrologists consider when recommending dialysis, particularly in the elderly and in Australasia

Aims

- 1) To determine nephrologist preferences for recommending dialysis to elderly patients
- 2) To determine the trade-offs nephrologists make between patient characteristics

Methods

- 1) We conducted a discrete choice experiment (DCE) of Australasian nephrologists.
- 2) The DCE design was informed by :
 - a ranking exercise of characteristics derived from the literature
 - a pilot DCE of 30 nephrologists
- 3) We assessed the influence of patient characteristics on nephrologists' preferences for dialysis recommendation
- 4) The online DCE consisted of 12 scenarios, each with two elderly patients described in terms of 10 characteristics
- 5) Nephrologists were asked which of the hypothetical patients, they would prefer to recommend dialysis to or whether they would recommend dialysis to neither patient (Figure 1)
- 6) Respondent socio-demographic factors were also collected
- 7) Analysis used a random parameters logit model with results presented as the odds of recommending dialysis over no dialysis

Figure 1. Example of a scenario

Results

- 159 of 415 (38%) of all nephrologists in Australasia participated
- One third were aged between 40-49years, 62% were male and 69% were Caucasian

Nephrologist preferences

- Nephrologists preferred to recommend 'non-dialysis' management in 57% of scenarios
- All patient characteristics other than gender significantly affected the likelihood of dialysis recommendation (Figure 2)
- Nephrologists were more likely to recommend dialysis for patients with:
 - preserved cognition
 - lower comorbidity
 - increased life expectancy
 - high current quality of life (QOL)
 - higher social support
- Patient and family inclination for dialysis favoured dialysis recommendation
- Nephrologists were less likely to recommend dialysis:
 - with each additional year of age
 - when dialysis was expected to decrease QOL.

Effect of nephrologist characteristics

- Nephrologists aged >65 were almost 12 times more likely to recommend dialysis compared with younger counterparts
- Other nephrologist socio-demographic factors had no effect on preferences

Trade-offs

- Nephrologists were willing to forgo 12 months of patient dialysis survival in order to avoid a substantial decrease in patient QOL with dialysis initiation

Variable	OR (95%CI)
Patient age (per additional year)	0.20 (0.15-0.27)
Gender (females vs males)	1.37 (0.95 -1.96)
Cognition severely impaired	(referent)
Cognition normal	68.32 (33.35-139.95)
Cognition impaired	17.50 (8.95-34.22)
Comorbidity CAD, PVD, CVD	(referent)
Comorbidity DM	2.13 (1.11-4.09)
Comorbidity DM or DM + CAD	1.36 (0.75-2.48)
Life expectancy (per additional year)	2.80 (2.14-3.65)
Patient's current QOL (per move to next category)	2.76 (2.01-3.80)
QOL maintained with dialysis	(referent)
QOL improved with dialysis	2.05 (1.04-4.05)
QOL decreased with dialysis	0.35 (0.22-0.54)
Social support for dialysis (per move to next category)	1.43 (1.13-1.82)
Patient disinclined to dialyse	(referent)
Patient inclined to dialyse	27.53 (16.18-46.83)
Patient undecided about dialysis	11.44 (6.88-19.05)
Family disinclined for dialysis	(referent)
Family inclined for dialysis	2.04 (1.28-3.26)
Family undecided about dialysis	1.72 (1.17-2.52)
Respondent nephrologist age >65 years (compared to <65 years)	11.74 (1.78-77.23)

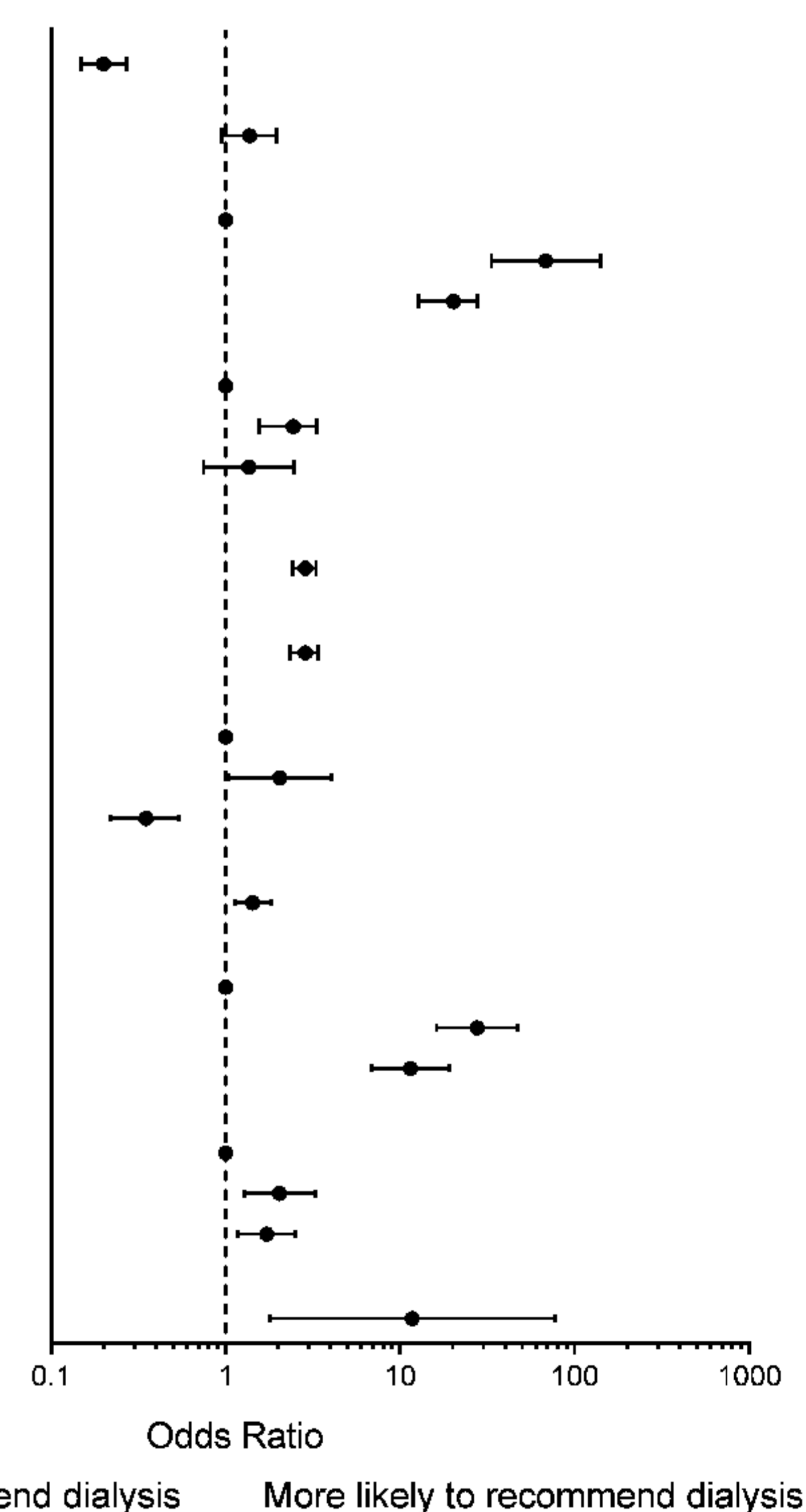


Figure 2. Nephrologist preferences for dialysis recommendation in elderly patients

Conclusions

- Cognitive state, patient preference and QOL were the most influential factors when nephrologists recommended dialysis to elderly patients
- Formal and longitudinal assessments of cognitive function and QOL should take place so that recommendations for dialysis can be based on objective data
- More than half of elderly patients in our study were recommended for 'non-dialysis' management suggesting a need for expanded supportive 'non-dialysis' care services

Please email cfoote@georgeinstitute.org.au for more information

References

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