

## Acceptability of alternate day dialysis regimes to patients on in-centre maintenance dialysis: a multi-centre survey

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### BACKGROUND

Although the majority of patients on in-centre haemodialysis(HD) dialyse thrice weekly, using existing infrastructure alternate day HD would be possible with patients dialysing over a two-week cycle, avoiding the need for a long weekend break without dialysis. This break is associated with increased mortality and excess deaths. Organisational change is required for such a regime to be adopted and it is unclear whether alternate day HD would be acceptable to patients.

### METHODS

We conducted a multi-centre patient survey exploring willingness to dialyse on alternate days, or to participate in a research study. This survey explored factors identified in a separate qualitative analysis as important in patients' decision making regarding alternate day dialysis.

We compared patients more willing versus less willing to undergo alternate day dialysis based on an overall score out of 10 for willingness to undertake alternate day HD (score 0-3 versus 4-10). We explored demographic and patient opinion differences in these groups to determine factors influencing decision making in both univariate and multivariate analyses.

### RESULTS

224 in-centre patients of mean age 62 years were recruited across 4 centres. 64.3% of patients reported low willingness to undertake alternate day HD (score 0-3), 13% a medium score (4-6) and 22.9% a high score (7-10). We compared the low scoring group to those with medium/high scores.

Compared to low scoring patients, those more willing to consider alternate day HD were younger (mean 65 v 58 years,  $p=0.002$ ) and had higher inter-dialytic weight gains after both weekday and weekend breaks without dialysis (1.9L v 1.5 L  $p=0.01$  and 2.2L v 1.8L  $p=0.003$ ). Those more willing to consider alternate day HD reported worse scores of post-dialysis and post-weekend break symptoms ( $p<0.001$  for both). They were more likely to disagree that dialysis addressed their symptoms ( $p=0.046$ ) and that dialysing on the same day each week was important to them ( $p=0.002$ ). This group also scored the potential health benefits as of greater importance than patients less willing to consider alternate day HD ( $p<0.001$  for all). Potential health benefits of alternate day HD assigned highest scores by patients willing to consider alternate day HD were: potential for shorter HD sessions, reduced symptoms, faster recovery time. Both groups reported similar levels of participation in weekend activities social activities. Patient participation in self-care tasks was not associated with willingness to undergo alternate day HD.

Of patients less willing to undergo alternate day HD 84% disagreed or strongly disagreed that they would consider participating in a research study of alternate day HD compared to 16.3% of those more willing to undergo alternate day HD.

### CONCLUSION

Alternate day HD seems to be of interest to approximately one third of patients who more frequently report dialysis-related symptoms and higher inter-dialytic weight gains. Social weekend activities were not a major factor in dialysis schedule choices. A research study of alternate day HD could be undertaken with careful patient selection and should be targeted at patients most likely to benefit from such a regime using information from this study.