

Patient Knowledge, Control and Experiences of Intradialytic Fluid Management: A Comparison of In-centre and Home Haemodialysis Patients

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Introduction

There is increasing worldwide interest in home haemodialysis, alongside growing evidence that this modality can improve patient outcomes¹. Patient engagement is an important factor in determining the success of home haemodialysis, as patients will encompass several responsibilities largely independently, including tackling issues such as becoming fluid overloaded². Nevertheless, in-centre patients can also be engaged in their treatment and may even enrol in shared-care programmes³.

Fluid management is a fundamental part of haemodialysis and is strongly linked to outcomes. Poor long-term fluid management is associated with myocardial stunning⁴, left ventricular hypertrophy⁵, an accelerated loss of residual renal functioning and an increased risk of fistula failure⁶. Despite this, there is limited research examining patient perceptions of intradialytic fluid management. At UKKW 2019 we reported on a multicentre, cross-sectional, questionnaire study with in-centre haemodialysis patients regarding their knowledge, perception of control and experiences of intradialytic fluid management. The present research extends this by comparing in-centre and home haemodialysis patients' intradialytic fluid management perceptions.

Methodology

An adapted version of a previously validated questionnaire was developed for home haemodialysis patients. Differences between groups was assessed by chi-squared tests, Fisher's exact tests, Mann-Whitney U tests and t-tests.

Results

98 home haemodialysis patients across 6 NHS Trusts completed the questionnaire. Home patients were significantly more likely to be white (white vs. BAME) and have higher education (up to high school vs. post-high school). Patients' upper limit regarding how much fluid they would remove in a session were similar, although home haemodialysis patients were less willing to remain slightly fluid overloaded in order to finish treatment early.

Home patients felt significantly more in control of their fluid management, and reported significantly better subjective knowledge of the long-term effects of regularly not removing enough fluid. However, there were no group differences within subjective knowledge of the long-term effects of regularly removing too much fluid. Home patients demonstrated significantly better objective knowledge of common symptoms relating to fluid management, with the median number of correct answers being 4/9 (44%) for in-centre patients and 6/9 (67%) for home patients.

Discussion

Patients who have haemodialysis at home appeared to feel more in control of their fluid management, consistent with previous research⁷, and have better objective knowledge of whether common symptoms could be a result of removing too much or too little fluid. Whilst this may be expected due to their typically

greater involvement in their own care, it is worth noting that home patients were more highly educated and this characteristic has previously been associated with better patient knowledge of kidney disease⁸.

Nevertheless, subjective and objective fluid management knowledge was relatively poor in all patients suggesting a need for greater patient education.

Home haemodialysis patients are keener to achieve target ultrafiltration volumes reflecting greater treatment adherence and also feel more in control of, and have better knowledge of, intradialytic fluid management. One explanation for this could be patient selection and training for home haemodialysis programmes.