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P277 -Impact of patient educational level on the prevalence of complications amongst haemodialysis patients.

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Introduction:

In order to optimise haemodialysis treatment for Chronic Kidney Disease (CKD), patients are advised to adhere to strict fluid and dietary restrictions. Adherence with recommended lifestyle advice has significant influence on long-term prognosis for these patients and incidence of complications whilst on haemodialysis. Therefore, ensuring patient understanding and adherence to medical advice is a critical component in treatment of patients with CKD.

Healthcare inequalities exist within multicultural communities due to the varying levels of understanding of medical advice. Educational level (level of academic qualifications) and the comprehension of English language are two key factors for this phenomenon and it is hypothesised that they affect the ability of patients to follow lifestyle advice whilst on haemodialysis.^{1,2}

Our aim was to determine if demographics, such as educational level and comprehension of English language had significant effects on compliance with recommended lifestyle advice and development of complications in haemodialysis patients.

Methods:

This investigation was registered as a quality improvement project and data was collected from 89 patients undergoing haemodialysis at one London hospital over a period of 6 months. Patients were given a three-part, 40-item questionnaire to ascertain their understanding of haemodialysis and lifestyle advice provided, adherence to dietary and fluid restrictions and prevalence of complications. We also collected demographic information and objective data from blood tests in order to subanalyse our data. Data was then subsequently input and analysed using Microsoft Excel.

Results:

Demographic data indicated that of all 89 patients questioned, 20.0% of the total population questioned had qualifications at primary school level or lower and 28.2% of participants did not speak English as their first language.

76.1% of the entire patient cohort complained of complications during or after their haemodialysis sessions, 35.8% of which had a history infection due to haemodialysis (MPD = 40.3%, $P < 0.05$). Patients with qualifications at primary school level or lower experienced an increased incidence of complications between dialysis sessions (88.2%) than those with a higher level of education (72.1%) (Mean Percentage Difference (MPD) = 16.1%, $P < 0.05$). In addition, there was increased prevalence of infection amongst patients with lower educational levels, with 35.3% of this cohort suffering infection compared to 26.5% in those with educational levels of GCSE/O-Level/BTEC and above.

Furthermore, of the 20.0% of patients who did not speak English as their first language, 83.3% suffered from complications during or after haemodialysis sessions compared to 76.2% from the population where English was their first language (MPD = 7.1%, $P < 0.05$).

Conclusions:

In summary, our results suggest that patient educational levels and comprehension of English language are statistically significant factors in generating complications during or after haemodialysis sessions. It is important to note that 36 patients were excluded from this study as they were unable to complete the survey. This was due to inadequate English language or literacy hence the problem may be greater than our results suggest. Strategies to fabricate educational materials more accessible and suited for all demographics should be considered to ensure unnecessary complications and barriers to treatment are mitigated.