

Collecting Renal Dietetic Outcomes to Drive Service Improvement

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INTRODUCTION: Measuring outcomes of dietetic interventions is important for evaluating the effectiveness and efficacy of dietetic care and driving service improvement. The British Dietetic Association Renal Nutrition Group introduced the Renal Dietetic Outcomes Toolkit (RDOT) in 2016, with audit highlighting their value in demonstrating effectiveness of dietetic interventions for patients with later-stage chronic kidney disease (CKD). Our department introduced dietetic outcomes in 2017 using generic guidelines based on the RDOT. The introduction of electronic patient records for renal patients in 2019 enabled effective audit of their use. We aimed to assess recording and achievement of dietetic outcomes in a single-centre cohort of CKD outpatients.

METHODS: Data for all dietetic contacts between 1st July – 30th November 2019 were extracted from electronic renal patient records (VitalData®). Demographic data (age, gender, treatment modality, dialysis vintage), reason for dietetic contact, outcome set, completion and achievement of outcomes, and barriers for non-achievement, were analysed.

RESULTS: 1650 dietetic contacts were recorded (528 patients; mean age 65 years; 61% males). Patients attending low clearance clinic accounted for 17% contacts; in-centre haemodialysis 41.5%; peritoneal dialysis 11.0% and home haemodialysis 10.5%; with mean dialysis vintage 61 months. The most common reasons for referral were reduced nutritional status (22.2%), hyperkalaemia (16.6%), hyperphosphataemia (15.4%), and CKD – mineral and bone disorder (CKD-MBD) (15.0%). Dietetic outcomes were set for 80% of contacts overall (range 63.5 - 89.0% when analysed according to treatment modality and reason for referral). The most common outcomes set were optimising biochemistry (47.8%), increasing oral nutritional intake (15.6%), maintaining biochemistry (10.3%), maintaining anthropometric measurements (5.8%) and improving fluid balance (4.3%). However, outcomes were completed for only 27.7% of contacts (range 19.8 - 34.0% according to treatment modality and reason for referral). Where outcomes were set and completed, they were achieved for 62.9% consultations (range 37.5 - 78.6% according to reason for referral - Table 1). The main barriers for non-achievement of outcomes were low motivation to change (27.9%), poor adherence with supplements or medications (25.0%), inappropriate medication dose (10.3%), anorexia (8.8%) and delays in receiving supplements or medications (8.1%).

CONCLUSION: We have demonstrated reasonable success and consistency when setting dietetic outcomes for the majority of patients. Where outcomes were completed, dietetic intervention was most effective in optimising potassium levels, and least effective in achieving salt and fluid balance, and managing malnutrition. Where outcomes were not achieved, low patient motivation and poor adherence to treatment accounted for over 50% of barriers to effective treatment, which may explain why dietetic interventions for optimising salt and fluid balance and treating malnutrition are less successful, as patient engagement with treatment is paramount. There are similarities with our results and those reported in a previous multi-centre audit using the RDOT. We acknowledge that recording completed outcomes needs to improve in some areas, therefore we have adapted departmental guidelines to support this. We also intend to undertake further work comparing outcomes with changes in parameters used to measure nutritional status, biochemistry or clinical condition, enabling outcomes to be more useful in demonstrating dietetic effectiveness.