

Dietetic Practice and Education

Comprehension of the low phosphate diet in dialysis patients at Sault Area Hospital (SAH)

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Introduction: Primary strategies to manage elevated serum phosphorus in Chronic Kidney Disease (CKD) patients include hemodialysis (HD), dietary restriction, and the use of oral phosphate binders. Dietary compliance is often challenging; estimated adherence is 15%.

Objective: To determine the comprehension of the low phosphate diet among HD patients at SAH to inform registered dietitian (RD) professional practice and dietary education strategies.

Methods: A 10-item knowledge-based paper questionnaire was adapted with permission from two similar studies. Eligible participants were determined by the Primary Investigator using study inclusion criteria. Thirty-seven HD patients with previous low phosphate diet teaching from a RD and prescribed phosphate binders were invited to participate. During routine dialysis treatments in February 2021, recruited participants provided verbal responses which were recorded, coded and entered into Excel[®], and quantitatively analyzed.

Results: Of the 31 consenting patients, 84% understood factors that support optimal serum phosphorus (HD, diet, oral phosphate binders); 81% understood the importance of restricting phosphorus to prevent bone damage; and 77% understood a common symptom of high serum phosphorus levels. Yet when asked if the kidneys can properly clear phosphorus for individuals who require dialysis, 32% stated they did not know. When asked whether fruits such as apples and strawberries were high in phosphorus, 35% provided an incorrect response and 23% did not know. Almost half (42%) would like more advice regarding their diet and 10% were unsure whether they required more advice.

Conclusions: Results suggest most patients understood the rationale behind the low phosphorus diet, however food concepts remain unclear. Findings will be used to inform RD patient care and education.

Significance: The education provided by RDs help patients comprehend their prescribed renal diet and medications. Refined patient self-management support will enhance RD competency in providing high quality care, and encourage improved health outcomes for people with CKD.