EVALUATING NUTRITIONAL ADEQUACY OF DIETETIC PATIENTS WITH CHRONIC DISEASES, PAEDIATRIC CHRONIC KIDNEY DISEASE AND CROHN’S DISEASE, FOCUSSING ON DIETARY FIBRE

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Aims
Background Nutritional adequacy is a major concern in chronic kidney disease (CKD) and Crohn’s disease. Both require dietary modifications; in Crohn’s disease this may be due to disease triggers and poorer absorption and digestion of nutrients. In CKD, renal impairment impacts nutrient metabolism and excretion. Fibre maintains gut microbiota diversity which is essential for reducing inflammation. There are concerns of suboptimal fibre intake within the general population and in chronic disease.

This service evaluation aimed to assess the nutritional adequacy of diets in paediatric chronic kidney disease and adult Crohn’s disease patients under dietetic care at University Hospital Southampton.

Methods Data were collected from paediatric renal patients and adult Crohn’s disease patients in remission using Nutritics, a digital nutrition analysis software. Individuals were assessed for dietary adequacy by comparing these data against UK dietary reference values. Also, these were compared to intakes of the general population using data from the National Diet and Nutrition Survey. Definitions of inadequacy were set as <80% of the reference nutrient intake (RNI), <100% of the lower reference nutrient intake (LRNI) and >200% of the RNI.

Results For CKD (n=35), the average percentage intake of the RNI was <80% for energy, vitamin A (70%), vitamin D (11%), riboflavin (69%), folate (69%), potassium (57%), calcium (57%), magnesium (62%), iron (56%), iodine (36%), selenium (50%), zinc (52%) and copper (72%). The average percentage intake was <100% of the LRNI for magnesium (98%), iodine (73%), selenium (90%) and zinc (74%). For CD (n=50), the average percentage intake of the RNI was <80% for energy, vitamin A (63%), vitamin D (77%), potassium (52%), folate (58%), selenium (39%), zinc (74%) and copper (66%). The average percentage intake was <100% of the LRNI for potassium (91%) and selenium (69%).

Three out of 35 patients in the CKD group and two out of 50 patients with CD met or exceeded their recommended fibre intakes.

*Estimated energy requirement not RNI
**Recommended intake not RNI

Conclusion This service evaluation highlighted the risk of dietary inadequacy in chronic disease, specifically low fibre intakes. However, this risk needs regular assessment and review, to prevent an increased risk of deficiency and malnutrition.

Abstract 347 Figure 1 Muhammad SN et al. (2022). Point of Care Education (POCE) Pathway for CKD Patients between Primary and Secondary Care. Educational Support Surrounded Chronic Kidney Disease – A Qualitative Enquiry, Archives of Disease in Childhood