

AN AUDIT OF THE NUTRITIONAL STATUS OF PATIENTS ON PERITONEAL DIALYSIS

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PROBLEM: Patients on peritoneal dialysis (PD) are at risk of developing central obesity due to the glucose in the dialysis fluid, and may be chronically fluid overloaded masking malnutrition. It is commonly accepted that malnutrition is a risk factor for morbidity and mortality, and patients on dialysis need their nutritional status (NS) monitored such that appropriate dietetic advice and support is given.

In 2007, only 40% of PD patients reported they had been reviewed by a dietitian in the previous year. At the time, our referral system relied on nursing and medical staff referring those patients they perceived as requiring dietetic intervention. We decided to audit the NS of this patient population and seek ways to improve our service.

PURPOSE: To obtain baseline measures of NS of patients on PD, and to determine means of improving the provision of dietetic care.

DESIGN: One dietitian prospectively collected data from 50% (n = 62) of the PD population over a 7 month period.

Inclusion criteria: adults over 18 years on PD for over 90 days.

Exclusion criteria: those with frank fluid overload, acute illness, infection, inpatients.

Data collected included anthropometrics, blood biochemistry, PD adequacy, target weights, use of specialist dialysis fluid.

RESULTS: We report here on results from the anthropometric data.

- *Body mass index (BMI):* 56% of patients ≥ 25.1 , 41% ≥ 18.5 to 25, 3% ≤ 18.5
- *Mid upper arm circumference (MUAC):* 60% $\leq 50^{\text{th}}$ centile for age and gender
- *Grip strength(GS):* 79% $< 85^{\text{th}}$ of the normal value for their age and gender
- *Weight change over 3 months:* 14% unintentionally lost $> 5\%$ of their body weight

CONCLUSIONS: More than 50% of patients were defined as “overweight” using BMI as the indicator.

1. Additional anthropometric measures (MUAC and GS) suggested that up to 80% may have protein energy wasting.
2. Fluid status was difficult to determine and appeared to mask fluctuations in weight due to changes in fatty tissue and /or lean body mass.

RECOMMENDATIONS:

1. Ensure PD patients are screened for malnutrition regularly – annually at a minimum.
2. Baseline anthropometry be carried out on all new PD patients – at the start of their PD career and, if possible, after 90days.
3. To explore the use of bioelectrical impedance as a means of assessing fluid status.
4. Improve the recording of target weights together with the date of any adjustments.
5. Any changes of body weight, MUAC and GS to be assessed by the dietitian and acted upon if required.

RELEVANCE: Dietetic input for patients on PD has increased using body weight, grip strength and mid arm circumference to screen and monitor nutritional status. Interventions occur earlier as a result of this change in practice.