



## Initiating a clinical phenotype for cachexia in chronic kidney disease: A medical Experiment

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### Abstract:

Surveys using traditional measures of nutritional status indicate that muscle wasting is common among persons with end-stage kidney disease (ESKD). Up to 75% of adults undergoing maintenance dialysis show some evidence of muscle wasting. ESKD is associated with an increase in inflammatory cytokines and can result in cachexia, with the loss of muscle and fat stores. At present, only limited data are available on the classification of wasting experienced by persons with ESKD. Individuals with ESKD often exhibit symptoms of anorexia, loss of lean muscle mass and altered energy expenditure. These symptoms are consistent with the syndrome of cachexia observed in other chronic diseases, such as cancer, heart failure, and acquired immune deficiency syndrome. While definitions of cachexia have been developed for some diseases, such as cardiac failure and cancer, no specific cachexia definition has been established for chronic kidney disease. The importance of developing a definition of cachexia in a population with ESKD is underscored by the negative impact that symptoms of cachexia have on quality of life and the association of cachexia with a substantially increased risk of premature mortality. The aim of this study is to determine the clinical phenotype of cachexia specific to individuals with ESKD.

**Methods:** A longitudinal study which will recruit adult patients with ESKD receiving haemodialysis attending a Regional Nephrology Unit within the United Kingdom. Patients will be followed 2 monthly over 12 months and measurements of weight; lean muscle mass (bioelectrical impedance, mid upper arm muscle circumference and triceps skin fold thickness); muscle strength (hand held dynamometer), fatigue, anorexia and quality of life collected. We will determine if they experience (and to what degree) the known characteristics associated with cachexia.



### Discussion

Cachexia is a debilitating condition associated with an extremely poor outcome. Definitions of cachexia in chronic illnesses are required to reflect specific nuances associated with each disease. These discrete cachexia definitions help with the precision of research and the subsequent clinical interventions to improve outcomes for patients suffering from cachexia. The absence of a definition for cachexia in an ESKD population makes it particularly difficult to study the incidence of cachexia or potential treatments, as there are no standardised inclusion criteria for patients with ESKD who have cachexia. Outcomes from this study will provide much needed data to inform development and testing of potential treatment modalities, aimed at enhancing current clinical practice, policy and education.

Cardiac surgery, Acute kidney injury, Perioperative complications, Prediction, Prevention, Therapy

### Biography:

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