

THE ROLE OF NUTRITIONAL FACTORS IN RENAL INSUFFICIENCY

ABSTRACT

Chronic renal insufficiency (CRI), or decreased kidney excretory function, affects 3-10 million Americans and is characterized by progression over time and development of cardiovascular disease. In addition, poor nutritional status is frequently seen as CRI progresses and may have adverse morbidity and cost implications.

The CRI Cohort Study, a 5-year multicenter prospective cohort study of 3000 subjects, will examine risk factors for progression and for development of cardiovascular disease. The establishment of this cohort makes it possible to address other important issues with modest additional resources.

The current application proposes to examine nutritional factors in a subcohort of 900 subjects from three study sites. Specifically, we propose to determine the effect of CRI progression on nutritional status, the morbidity and cost implications of nutritional status decline, dietary risk factors for cardiovascular disease, and nutritional barriers in CRI. Baseline and annual evaluation of subjects will include multiple nutritional markers (albumin, body composition, dietary intake, calorie and protein expenditure, subjective global assessment) as well as potential nutritional barriers (e.g. poor appetite). To address our specific aims, we will merge our nutritional data with data from the CRI Cohort Study on renal function, hospitalizations, health care costs, functional status, quality of life, and cardiovascular events.

The proposed project will determine when nutritional status declines, the implications of nutritional factors, and the most important barriers to adequate nutritional status. These findings may lead to interventions that will not only preserve nutritional status but also minimize patient morbidity, maintain functional status and quality of life, and decrease health care costs.