AbSPⓇRU
Alberta SPOR SUPPORT Unit

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Project: *Evaluating and Treating Mild Cognitive Impairment and Dementia in Adults Treated with Dialysis*

Background

Chronic kidney disease (CKD) affects 10-15% of the global population and research related to kidney health and diseases is lagging behind other chronic diseases including heart disease, heart failure, stroke and cancer. High quality research including observational studies is needed to inform the care of patients across the spectrum of CKD including kidney failure and specifically dialysis.

It is known that kidney failure in patients is commonly associated with both mild cognitive impairment and dementia, which clinicians can screen for and measure with mental status scales. There are a variety of tests, with each one having its own unique design, duration of administration, and cognitive domains. The accuracy of instruments for the purpose of diagnosing mild cognitive impairment (MCI) and dementia have been studied extensively across a wide range of populations, but have not yet been summarized within the context of chronic kidney disease (CKD) and dialysis. By determining the most effective ones, clinicians can utilize the most accurate and efficient to diagnose CI with greater certainty. Diagnosis is important because it is critical that patients with actual MCI or dementia be appropriately

counselled, their families/caregivers informed, and effective treatments be initiated. Furthermore, how well medications to prevent cognitive decline actually work, and how safe they are for patients with MCI or dementia is unknown. This project will help inform the proper pharmacologic treatment of CI in CKD and dialysis which is common, underdiagnosed and associated with many adverse outcomes including hospitalizations, loss of independence, and death.

Given the strong aforementioned associations between CKD and dialysis with cognitive impairment (CI), our studies address these knowledge gaps by summarizing previous evidence for optimal screening instruments and generating new evidence from Alberta population-based databases. Ultimately, our research will help healthcare providers provide the best possible patient care by identifying and treating CI.