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Project: Sex and gender differences in patient outcomes in individuals living with chronic kidney disease



Background

More than 40,000 Canadians live with kidney failure and require life-sustaining kidney replacement therapy, in the form of dialysis. The prevalence of dialysis has increased on average 1.6% annually, with the majority initiating in-centre hemodialysis compared to home-based dialysis (home hemodialysis and peritoneal dialysis). Despite dialysis being a life-sustaining treatment, patients have poorer outcomes compared to the general population. For example, patients receiving conventional hemodialysis experience lower quality of life and increased risk of mortality and morbidity.

Further, patient outcomes differ

by sex with females experiencing worse quality of life on hemodialysis compared to males. Females may be receiving inadequate dialysis with the standard prescription, as a higher dialysis is associated with decreased mortality. Although more women have chronic kidney disease, more men initiate dialysis while women choose conservative care. The type of dialysis individuals initiate is an important factor for improved outcomes, specifically

with home-based dialysis. Home-based therapies have the potential to improve quality of life and decrease risk of mortality. Additionally, home-based dialysis is less expensive compared to in-centre. Despite the benefits of home-based dialysis, 75% of individuals living with kidney failure initiate in-centre hemodialysis as their first kidney replacement therapy. Overall, many factors may be predictors of poor outcomes in this population such as dialysis dose, dialysis adequacy, and type of dialysis. However, it remains unknown if these differences can be explained by sex (biological) and/or gender (sociocultural). This proposal aims to determine sex and gender differences in patient outcomes in individuals living with chronic kidney disease. An improved understanding of sex and gender differences will inform future clinical care and better address the needs of patients.