Blood Glucose Levels of Diabetic Patients in the Immediate Post Acute Hemodialysis Period: An Exploratory Study

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The problem addressed by this study is the timing of blood glucose monitoring and management with diabetic patients in the post acute hemodialysis (AHD) period. Despite and exhaustive search of the literature and reaching out to other acute hemodialysis units (AHUs) in the area, the AHU nurses at a hospital system could find no evidence on which to standardize their practice across the two AHUs. The purpose of the study is to establish the necessary evidence on which to base procedures for immediate post-AHD monitoring and treatment of diabetic patients. This will be done with a descriptive, exploratory study to establish the normal fluctuations in glucose levels in adult diabetic patients from thirty minutes prior to the end of treatment to sixty minutes post treatment. All non-critical care adult patients receiving AHD who have orders for routine glucose monitoring and treatment are eligible for enrollment in the study. Critical care patients and those receiving continuous intravenous insulin are excluded as they are cared for under different protocols. Eligible patients will be approached during their first treatment and informed about the study. If they express interest in participating, a member of the study team will be contacted to provide further information, answer questions, and enroll patients. Nurses from the two AHU will obtain glucose levels (outcome variable) at four time-points, along with pertinent predictor variables to answer the primary research question, “How do blood glucose levels fluctuate in hospitalized, adult, diabetic patients in the immediate post-AHD period?” along with two secondary questions: 1) Are changes in blood glucose similar between patients with diagnosed Type I and Type II diabetes? 2) Are changes in blood glucose different depending on the reasons for acute care hospitalization, e.g. sepsis vs. surgery, vs. other diagnosis? Answers to these questions will be used to develop standard procedures for the post-AHD care of adult diabetic patients in EHC hospitals. Final sample size for this study has yet to be determined. The consulting statistician has requested a pilot study in order to provide a reasonable estimate of normal variations in glucose levels. This pilot has been completed and results are pending.

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