

How to Manage Diabetes in Dialysis Patients?

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Abstract

The incidence and prevalence of diabetes mellitus have grown significantly throughout the world, primarily due to the increased incidence of type-2 diabetes. This overall increase in the number of individuals with diabetes has had a major impact on development of diabetic kidney disease (DKD). Diabetic kidney disease (DKD) affects approximately 20-40% of diabetic patients prompting to ESRD, making it one of the major and increasing global public health issues. Managing diabetic patients on hemodialysis is challenging, as both uremia and dialysis can complicate glycemic control by affecting the secretion, clearance and peripheral tissue sensitivity of insulin. Moreover, dialysis patients are at increased risk of hypoglycemia due to decreased clearance of insulin, poor nutritional intake; decreased hepatic gluconeogenesis and altered pharmacokinetics of glucose-lowering drugs by kidney failure while the conventional methods of glycemic monitoring (as glycated hemoglobin (HbA1c), fructosamine and glycated albumin) are confounded by the laboratory abnormalities and co-morbidities related to ESRD. There are a number of controversies regarding the current management of diabetic patients maintained on hemodialysis. Generally, diabetes control should be optimized for each individual patient, in order to reduce diabetes-related complications, minimize adverse events and to increase survival rates among diabetic dialysis patients. However, the role of tight glycemic control in ameliorating the high mortality risk of diabetic dialysis patients is uncertain and does not appear to improve the outcomes in such population. Ultimately, many glucose-lowering drugs with their active metabolites are metabolized and excreted through the kidneys; hence require dose adjustment or avoidance in dialysis patients.

Received: April 07, 2022; **Accepted:** April 14, 2022; **Published:** April 21, 2022

Biography

Fakhriya Alalawi is a Senior Nephrologist in Dubai Hospital, Dubai Health Authority, UAE. She has received her Medical Bachelor's degree from Dubai Medical College and her Residency in Internal Medicine and Nephrology in Dubai, UAE. She has also obtained

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