

## Hypoglycemia in hospitalized patients -Is it a marker or cause of death?

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Glucose, a highly regulated fuel is maintained within a very narrow circulating glycemic range in healthy individuals but dysglycemia is frequent in hospitalized patients. Hypoglycemia is particularly common in the elderly and/or ill individual with or without diabetes and associated with multiple adverse outcomes including longer hospital stay and higher mortality rate both during and after hospitalization. Compilation of data from large clinical trials in hospitalized as well as in non-hospitalized patients showed favorable outcomes in the intensively treated arms in spite of causing more hypoglycemia. None of the inpatient studies, mostly done in acutely ill individuals without diabetes, have shown causation of hypoglycemia-induced mortality. In these studies iatrogenic hypoglycemia is associated with more hypoglycemia but with less mortality than spontaneous hypoglycemia. When multivariate adjustments for comorbidities are done the association between hypoglycemia and mortality disappears, suggesting that hypoglycemia is just a biomarker and not a cause of death. Nonetheless, fear of iatrogenic hypoglycemia remains an obstacle to glycemic control. Diagnosis requires careful assessment of the patient for the presence of mediating drugs or predisposing illness and/or organ failure. Management includes avoiding iatrogenic hypoglycemia by using a patient-centered approach with more liberal glycemic goals in the high risk patient. When hypoglycemia is detected, it is necessary to relieve neuroglycopenic symptoms by restoring plasma glucose and addressing the underlying causes. The clinician needs to stop fearing iatrogenic hypoglycemia as a cause of death and use it as a biomarker of poor prognosis.

### Biography

Joel Zonszein MD, CDE, ACP, ACE, Professor of Clinical Medicine at the Albert Einstein College of Medicine, Director of the Clinical Diabetes Center at the University Hospital of the Albert Einstein College of Medicine, a Division of Montefiore Medical Center. He is certified by the American Boards of Internal Medicine, Endocrinology and Metabolism, and Nuclear Medicine. He was involved in several landmark trials such as the DCCT, DPP and BARI2D, and has created many educational programs particularly for the ethnically diverse populations. He has published broadly, lectures extensively, and is recipient of many honors and awards.

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