

## An Overview of Preoperative Glucose Evaluation, Management, and Perioperative Impact

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### Abstract

Perioperative hyperglycemia is a common phenomenon affecting patients both with and without a known prior history of diabetes. Despite an exponential rise in publications and studies of inpatient hyperglycemia over the last decade, many questions still exist as to what defines optimal care of these patients. Initial enthusiasm for tight glycemic control has waned as the unanticipated reality of hypoglycemia and mortality has been realized in some prospective studies. The recent dramatic modification of national practice guidelines to endorse more modest inpatient glycemic targets highlights the dynamic nature of current knowledge as the next decade approaches. This review discusses perioperative hyperglycemia and the categories of patients affected by it. It reviews current recommendations for ambulatory diabetes screening and its importance in preoperative patient care. Finally, it concludes with a review of current practice guidelines, as well as a discussion of future direction and goals for inpatient perioperative glycemic control.

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**Abbreviations:** (AACE) American Association of Clinical Endocrinologists, (ACCORD) Action to Control Cardiovascular Risk in Diabetes Study Group, (ADA) American Diabetes Association, (GDM) gestational diabetes mellitus, (ICU) intensive care unit, (IFG) impaired fasting glucose, (IGT) impaired glucose tolerance, (HbA1c) hemoglobin A1c, (NHANES) National Health and Nutrition Examination Survey, (NICE-SUGAR) Normoglycemia in Intensive Care Evaluation and Survival Using Glucose Algorithm Regulation, (SIH) stress-induced hyperglycemia, (TGC) tight glycemic control, (USPSTF) United States Preventive Services Task Force

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