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An Overview of Glycemic Control in the Coronary Care Unit with Recommendations for Clinical Management

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Abstract

The observation that elevated glucose occurs frequently in the setting of acute myocardial infarction was made decades ago. Since then numerous studies have documented that hyperglycemia is a powerful risk factor for increased mortality and in-hospital complications in patients with acute coronary syndromes. While some questions in this field have been answered in prior investigations, many critical gaps in knowledge continue to exist and remain subjects of intense debate. This review summarizes what is known about the relationship between hyperglycemia, glucose control, and outcomes in critically ill patients with acute coronary syndromes, addresses the gaps in knowledge and controversies, and offers general recommendations regarding glucose management in the coronary care unit.

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Abbreviations: (AMI) acute myocardial infarction, (CREATE-ECLA) Clinical Trial of Reviparin and Metabolic Modulation in Acute Myocardial Infarction Treatment Evaluation–Estudios Cardiologicos Latin America, (DIGAMI) Diabetes Mellitus Insulin Glucose Infusion in Acute Myocardial Infarction, (GIK) glucose–insulin–potassium, (HF) heart failure, (NICE-SUGAR) Normoglycemia in Intensive Care Evaluation and Survival Using Glucose Algorithm Regulation, (POL-GIK) Polish Glucose-Insulin-Potassium

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