

options.



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Glycaemic control in acute coronary syndromes: prognostic value and therapeutic options

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Abstract

Type 2 diabetes and acute coronary syndromes (ACS) are widely interconnected. Individuals with type 2 diabetes are more likely than non-diabetic subjects to experience silent or manifest episodes of myocardial ischaemia as the first presentation of coronary artery disease. Insulin resistance, inflammation, microvascular disease, and a tendency to thrombosis are common in these patients. Intensive blood glucose control with intravenous insulin infusion has been demonstrated to significantly reduce morbidity and mortality in critically ill hyperglycaemic patients admitted to an intensive care unit (ICU). Direct glucose toxicity likely plays a crucial role in explaining the clinical benefits of intensive insulin therapy in such critical patients. However, the difficult implementation of nurse-driven protocols for insulin infusion able to lead to rapid and effective blood glucose control without significant episodes of hypoglycaemia has led to poor implementations of insulin infusion protocols in coronary care units, and cardiologists now to consider alternative drugs for this purpose. New intravenous or oral agents include the incretin glucagon-like peptide 1 (GLP1), its analogues, and dipeptidyl peptidase-4 inhibitors, which potentiate the activity of GLP1 and thus enhance glucose-dependent insulin secretion. Improved glycaemic control with protective effects on myocardial and vascular tissues, with lesser side effects and a better therapeutic compliance, may represent an important therapeutic potential for this class of drugs in acutely ill patients in general and patients with ACS in particular. Such drugs should be known by practicing cardiologists for their possible use in ICUs in the years to come.

Keywords: [Diabetes](#), [Acute coronary syndromes](#), [Glucose control](#), [Insulin](#), [Incretins](#),

Glucagon-like peptide 1

Topic:

acute coronary syndromes

myocardium

myocardial ischemia

insulin resistance

thrombosis

diabetes mellitus

hyperglycemia

hypoglycemia

cardiologists

inflammation

diabetes mellitus, type 2

glucose

coronary care units

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morbidity

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glucose control

glucagon-like peptide 1

incretin

dipeptidyl-peptidase iv inhibitors

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