

The Therapeutic Goal of Proper Medical Care for Atherosclerotic Disease: Glucose Goal

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摘要：Diabetes is associated with a reduced lifespan, mostly because of cardiovascular complications. Epidemiological studies have clearly shown a direct relationship between the levels of glycaemia and the complications of diabetes. However, results of recent clinical trials examining the benefits of pharmacological glucose lowering have been counter-intuitive and, at times, disturbing. Explanations for these disturbing findings are 3-fold. First, the benefit of glucose-lowering with regard to cardiovascular complications usually became apparent several years (>8 years) after the start of treatment. On the other hand, the benefit of glucose-lowering with regard to microvascular complications is always immediately obvious. Second, unexpected fatal episodes of hypoglycemia occurring without prior warning could happen in patients who were struggling to improve poor glycemic control using intensive glucose-lowering therapies. Third, all these trials were operating in a relatively flat part of the curve (HbA1c 6.5-7.0%) relating cardiovascular risk to glycemia.

Recent consensus suggests that the target HbA1c should remain at <7.0% and the main justification for this has been the benefits of reduced risk of microvascular complications associated with lower HbA1c levels. This target would be appropriate for patients with short duration of diabetes, long life expectancy, and no significant cardiovascular disease. A higher HbA1c target would be appropriate for those with a history of severe hypoglycaemia, limited life expectancy, advanced microvascular or macrovascular complications, or extensive co-morbid conditions and those with longstanding diabetes. However, if patients were tolerable to the 7% goal, gradual reduction to the target of 6.5% might confer further benefits for diabetic patients, particularly those at high risk for cardiovascular diseases. In this lecture, I will try to integrate findings from these trials and provide a clear answer to what should be the therapeutic target on an individual basis.