

# NEWS in Brief

## INTENSIVE GLUCOSE CONTROL APPEARS TO LOWER RISK OF MI, BUT NOT STROKE OR MORTALITY

A meta-analysis from Strangeways Research Lab (Cambridge, England) of 5 studies found that tight glucose control in type 2 diabetics reduces the risk of non-fatal myocardial infarction (MI) by 17%, and coronary heart disease events by 15%; but had no effect on stroke or all-cause mortality.

The researchers noted that there have been conflicting reports on the effectiveness of intensive glucose control in reducing macro-vascular events and all-cause mortality in type 2 diabetics. They felt that this was due to under-powered trials. They thus conducted a meta-analysis of five prospective trials (including ADVANCE and ACCORD) involving 33,040 patients.

There were 1,497 non-fatal MI events, 2,318 coronary heart disease events, 1,127 fatal and non-fatal stroke events, and 2,892 deaths from any cause. There were 2.3 fewer MI's and 2.9 fewer coronary heart disease events for every 200 patients on intensive glucose control treatment for 5 years. This translated to a number-needed-to-treat of 87 and 69, respectively. This benefit was much less than the benefit from a per-mmol/L reduction in LDL cholesterol or from a 4-mm Hg decrease in blood pressure.

Intensive glycaemic control resulted in a 17% decrease in non-fatal MI events (OR 0.83, 95% CI 0.75 to 0.93) and a 15% decrease in coronary heart disease events (OR 0.85, 95% CI 0.77 to 0.93). There was no significant effect on stroke or

all-cause mortality. Almost twice as many patients on intensive glycaemic control had a hypoglycemic episode as those on standard treatment. Those on intensive control also gained more weight (on average 2.5 kg more than those on standard treatment).

The main limitations of the meta-analysis was it depended on the rigour of the studies, the inability to assess the effects of intensive glycaemic control among different patient sub-groups, and the inability to assess different treatment regimens. **SMA**

Source: Ray KK et al. Effect of intensive control of glucose on cardiovascular outcomes and death in patients with diabetes mellitus: a meta-analysis of randomized controlled trials. *Lancet* 2009; 373: 765-72.

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