ACCORD data: Reason to examine our raisons d'être?

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People with type 2 diabetes die from CVD at rates of 2–4 times higher than populations of similar demographic characteristics without diabetes. They also experience increased rates of nonfatal myocardial infarction and stroke. Since the publication of the DCCT and UKPDS blood glucose lowering data we, diabetes specialists, have been doing just that in order to lower the risk of future complications. I therefore find the reason for the blood glucose lowering arm of the Action to Control Cardiovascular Risk in Diabetes (ACCORD) trial being stopped a worry.

The ACCORD trial was launched in the US in 2003 to investigate the best approaches to lowering the risk of heart disease and stroke in adults with type 2 diabetes. The study was sponsored by the National Heart, Lung and Blood Institute (NHLBI – part of the National Institutes of Health) and aimed to address the following three questions:

- Does a therapeutic strategy aimed at lowering HbA_{1c} to <6.0% reduce the rate of CV events more than a strategy with an HbA_{1c} target of 7.0–7.9%?
- In the context of good glycaemic control, does a therapeutic strategy that uses a fibrate to raise HDL-c and lower triglyceride levels, and uses a statin to lower LDL-c reduce the rate of CV events compared to a strategy that uses only a statin?
- In the context of good glycaemic control, does a therapeutic strategy targeted at lowering systolic blood pressure (SBP) to <120mmHg reduce the rate of CV events compared to a strategy with an SBP target of <140mmHg?

The primary outcome measure of the ACCORD trial was the first occurrence of a major cardiovascular disease event, specifically nonfatal myocardial infarction, nonfatal stroke, or cardiovascular death.

In February this year the NHLBI announced that it was stopping one treatment arm 18 months early due to safety concerns following a review of the available data. Intensively lowering blood glucose levels to below 6.0% increased the risk of death compared with a less intensive standard treatment strategy. Study participants receiving intensive blood-glucose lowering treatment will now receive the less-intensive standard treatment (fewer OHAs and fewer insulin injections [if required]). The intensive treatment group had a target HbA_{1c} <6.0% and the standard treatment group aimed for a target of 7.0–7.9% and lower than at study entry.

The ACCORD study enrolled 10 251 people with diabetes at high risk of CVD. Of these, 257 in the intensive treatment group died, compared with 203 in the standard treatment group. This is a difference of 54 deaths, or 3 per 1000 participants each year, over an average of almost 4 years of treatment; however, the death rates in both groups were lower than seen in similar populations in other studies. Despite ceasing the intensive treatment arm of the study (HbA_{1c}<6.0%) the trial investigators are continuing to monitor the health of all participants to seek the underlying causes for the increased death rate and carry on with other important research within the study (lipids and blood pressure).

Following this announcement, Diabetes UK has been quick to advise that, despite the results of the ACCORD trial, people with diabetes should continue to strive for good blood glucose control as the importance of this in diabetes is firmly established and people with diabetes should not alter their treatment without first consulting their healthcare team.

With this sort of evidence beginning to emerge it may now be reassuring that, here in the UK, we are struggling to reach the IDF, EASD and ADA target of an HbA_{1c} <6.5% in all people with diabetes. It appears that for some this now may not be an appropriate target. Does this mean that we, as specialist nurses in diabetes, should be re-examining our raisons d'être? ■

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