

ACCORD: Blood Pressure and Lipid Results

For older diabetic patients, a systolic BP target in the 130s probably is best.

The ACCORD trial is best known for its findings, published in 2008, on the effect of glycemic control on macrovascular endpoints. Older patients (mean age, 62) with longstanding type 2 diabetes (average duration, 10 years) received either intensive or standard glucose-lowering therapy, resulting in mean glycosylated hemoglobin (HbA_{1c}) levels of 6.4% and 7.5%, respectively. The trial was halted after about 4 years of follow-up, during which overall mortality actually was higher with intensive glycemic control, and the primary endpoint (myocardial infarction, stroke, or cardiovascular death) occurred with similar frequency in the two groups ([JW Gen Med Jun 6 2008](#)). Many ACCORD patients also were randomized to various intensities of blood pressure (BP) and lipid control; these results were published in 2010.

In the ACCORD BP study, patients received either intensive control (target systolic BP, <120 mm Hg) or standard control (target systolic BP, <140 mm Hg). Average achieved systolic BP was about 119 mm Hg in the intensive group and 133 mm Hg in the standard group. During 5 years of follow-up, rates of adverse cardiovascular events did not differ significantly in the two groups. Moreover, the intensively treated group had more medication-related side effects ([JW Cardiol Mar 14 2010](#)).

The ACCORD lipid study addressed whether a fibrate, added to a statin, would result in better clinical outcomes. Patients who already were receiving statins (with average baseline LDL cholesterol, HDL cholesterol, and triglyceride levels of 101, 38, and 162 mg/dL, respectively) also received either fenofibrate (TriCor) or placebo. During 5 years of follow-up, the frequency of adverse cardiovascular endpoints was similar in the fenofibrate and placebo groups ([JW Cardiol Mar 14 2010](#)).

These two substudies are incredibly important, reminding us that presumably favorable changes in surrogate endpoints (e.g., BP and lipids) do not in themselves guarantee better clinical outcomes. We now have an adequately powered randomized trial that explicitly addresses the appropriate BP target in older patients with longstanding type 2 diabetes: ACCORD advises us that we need not push systolic BP below the 130s in such patients.

The lipid substudy tells us that fenofibrate should not be used for cardiovascular risk amelioration in type 2 diabetic patients who already are taking statins. Some people have pointed to a subgroup of ACCORD participants with triglyceride levels >204 mg/dL and HDL cholesterol levels <34 mg/dL, in which fenofibrate recipients had better outcomes than placebo recipients. However, this nonsignificant result should only be considered as hypothesis-generating for subsequent research. Indeed, those who are drawn to subgroup analyses should note that female ACCORD participants had significantly worse outcomes with fenofibrate than with placebo.

— [Allan S. Brett, MD](#)

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