

## Blood Pressure Control in Patients with Diabetes and Coronary Artery Disease

*No benefit for lowering BP to <130/80 mm Hg*

Several organizations recommend a blood pressure (BP) goal of <130/80 mm Hg for patients with diabetes. To determine whether this goal is appropriate for patients with diabetes and known coronary artery disease (CAD), researchers conducted a secondary analysis of data from the INVEST study, a randomized trial in which hypertensive patients with CAD received  $\beta$ -blocker-based or calcium-channel blocker-based regimens ([JW Gen Med Dec 23 2003](#)). Researchers reported previously that overly aggressive BP lowering in these patients was associated with excess risk for adverse cardiovascular events ([JW Gen Med Aug 10 2006](#)); now, they focus on subset of 6400 INVEST patients with diabetes.

Patients were divided into three groups according to their average systolic BP during the trial: tight control (<130 mm Hg), usual control (130–139 mm Hg), or uncontrolled (>139 mm Hg). During median follow-up of 3 years, the primary outcome (all-cause mortality or nonfatal myocardial infarction or stroke) occurred in 12.7% of the tight-control group, in 12.6% of the usual-control group, and in 19.8% of the uncontrolled group. In adjusted analyses that included secondary outcomes, researchers found no difference between tight and usual control. After an additional 5-year follow-up, all-cause mortality was higher in the tight-control group than in the usual-control group (22.8% vs. 21.8%;  $P=0.04$ ).

**Comment:** Because this was a post hoc analysis of observational data from patients who weren't randomized to different BP targets, confounding factors could have influenced the findings. However, in the recently published ACCORD BP trial, high-risk patients with diabetes were randomized to one of two systolic BP targets (120 mm Hg or 140 mm Hg), and researchers found no difference in adverse cardiovascular events between the groups ([JW Cardiol Mar 14 2010](#)). Taken together, INVEST and ACCORD suggest that a systolic BP goal in the 130s is reasonable for hypertensive diabetic patients with CAD or multiple cardiovascular risk factors.

— [Thomas L. Schwenk, MD](#)

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### CITATION(S):

Cooper-DeHoff RM et al. Tight blood pressure control and cardiovascular outcomes among hypertensive patients with diabetes and coronary artery disease. *JAMA* 2010 Jul 7; 304:61. (<http://dx.doi.org/10.1001/jama.2010.884>)