DIABETES

No clear advantage for intensive blood pressure control in T2DM

Intensive blood pressure control offers little additional benefit to standard blood pressure control in patients with hypertension and type 2 diabetes mellitus (T2DM), and might increase the risk of serious adverse events, according to the results of a new systematic review and meta-analysis. “Increasingly stringent blood pressure targets will probably result in diminishing returns,” McBrien and colleagues’ report concludes.

The researchers analysed data from five randomized controlled studies, including 7,312 patients, that compared the effects of antihypertensive therapy using prespecified intensive (<130/80 mmHg) and standard (<140–160/85–100 mmHg) blood pressure targets in patients with T2DM. The risks of death and myocardial infarction were no different in patients assigned to intensive or standard antihypertensive treatment. Although the risk of stroke was lower in patients receiving intensive blood pressure control than in those managed according

to standard blood pressure targets (relative risk 0.65; 95% CI 0.48–0.86), the absolute difference in risk between the two groups was very small. “Moreover ... for some groups of patients, intensive blood pressure targets may not confer any benefit and may in fact be harmful,” McBrien *et al.* write. Although only the largest of the five studies (ACCORD-BP, which included 4,733 patients) reported adverse events, in this study intensive blood pressure control was associated with significantly increased rates of serious adverse events (life-threatening, disabling or requiring hospitalization), including hypotension, bradycardia, arrhythmias and hyperkalaemia.

In two previous meta-analyses, patients receiving intensive antihypertensive treatment had a significantly reduced risk of stroke, death and myocardial infarction when compared with historical cohorts, but these analyses grouped patients according to their achieved blood pressure levels rather than prespecified treatment

targets. “It is possible that the benefit of antihypertensive therapy may relate more to baseline systolic blood pressure than to the chosen target,” McBrien *et al.* write.

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Original article McBrien, K. *et al.* Intensive and standard blood pressure targets in patients with type 2 diabetes mellitus: systematic review and meta-analysis. *Arch. Intern. Med.* doi:10.1001/archinternmed.2012.3147