



Loop diuretics have modest efficacy in hypertension

Clinical question

How effective are loop diuretics in the treatment of primary hypertension?

Bottom line

Based on the limited number of published randomised controlled trials, the blood pressure (BP) lowering effect of loop diuretics is modest (-8/-4mmHg) compared with placebo. There was no clinically meaningful BP lowering differences between the 5 different loop diuretics (furosemide, cicletanine, piretanide, indacrinone and etozolin). The dose ranging effects of the diuretics could not be evaluated. There was no significant difference in withdrawals due to adverse effects and serum biochemical changes between loop diuretics and placebo.

Caveat

The BP lowering effect is likely to be an overestimate due to the high risk of bias in the included studies. The review did not provide a good estimate of the incidence of associated harms because of the short duration of the trials (mean duration of 8.8 weeks) and the lack of reporting of adverse effects in many of the trials.

Context

Antihypertensive drugs from the thiazide diuretic drug class have been shown to reduce mortality and cardiovascular morbidity. Loop diuretics are indicated and used as antihypertensive drugs but a systematic review of their blood pressure lowering efficacy or effectiveness in terms of reducing cardiovascular mortality or morbidity from randomised controlled trial evidence has not been conducted.

Cochrane Systematic Review

Musini VM et al. Blood pressure lowering efficacy of loop diuretics for primary hypertension. *Cochrane Reviews* 2009, Issue 4. Article No. CD003825. DOI: 10.1002/14651858.CD003825.pub2. *This review contains 9 studies involving 460 participants.*

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