



Thiazides best first choice for hypertension

Clinical question

What are the most effective first-line antihypertensive drugs?

Bottom line

First-line low-dose thiazides (eg, hydrochlorothiazide <50mg) are more effective than first-line high-dose thiazides (eg, hydrochlorothiazide 50mg or more) and first-line beta-blockers, in reducing mortality and morbidity (stroke, myocardial infarction and heart failure). For total cardiovascular events over 5 years, the NNT* is 20 in moderate to severe hypertension (>160/100mmHg) and the NNT is 120 in mild hypertension (140–160/90–100mmHg). Evidence for first-line ACE inhibitors is similar to low-dose thiazides but less robust, and ACE inhibitors are more expensive than thiazides. Evidence for first-line calcium channel blockers is insufficient.

*NNT = number needed to treat to benefit 1 individual.

Caveat

Over 72% of participants in this review represent a primary prevention population. There are no randomised controlled trials comparing first-line use of other classes of drugs, such as angiotensin receptor blockers or alpha blockers.

Context

One of the major decisions involved in the management of patients with elevated blood pressure is which drug to choose first. The decision should be informed by the best available evidence of reduction of the outcomes that are important to the patient, ie, the ability of the drug to reduce the adverse health outcomes associated with elevated blood pressure (stroke, myocardial infarction and mortality).

Cochrane Systematic Review

Wright JM and Musini VM. First-line drugs for hypertension. Cochrane Reviews 2009, Issue 3. Article No. CD001841. DOI: 10.1002/14651858.CD001841.pub2.

This review contains 57 studies involving 58,040 participants.

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