

PEARLS Practical Evidence About Real Life Situations

ACE inhibitors have a modest blood pressure lowering effect

| Clinical question | How effective are angiotensin converting enzyme (ACE) inhibitors in lowering blood pressure (BP) in primary hypertension? |
|--|--|
| Bottom line | Compared to placebo, the BP lowering effect of ACE inhibitors is modest; the magnitude of trough BP lowering at one half the manufacturers' maximum recommended dose and above is -8mmHg for systolic BP and -5mmHg for diastolic BP. Furthermore, 60 to 70% of this trough BP lowering effect occurs with recommended starting doses. No ACE inhibitor appears to be any better or worse in terms of BP lowering ability. |
| Caveat | Due to lack of reporting and the short duration of these trials (3 to 12 weeks), this review did not provide a good estimate of the harms associated with this class of drugs. |
| Context | ACE inhibitors are commonly used for the treatment of elevated blood pressure. This class includes drugs such as ramipril, captopril, enalapril, fosinopril, lisinopril and quinapril. Despite over 20 years of research evidence and clinical use of ACE inhibitors, the dose-related BP lowering effect of this antihypertensive drug class is still not known. |
| Cochrane Systematic Review | Heran BS et al. Blood pressure lowering efficacy of angiotensin converting enzyme (ACE) inhibitors for primary hypertension. Cochrane Reviews 2008, Issue 4. Article No. CD003823. DOI: 10.1002/14651858.CD003823.pub2. This review contains 92 trials involving 14 different ACE inhibitors and 12,954 participants. |
| PEARLS 123, November 2008, written by Brian R McAvoy (first published in New Zealand Doctor, 28 January 2009) | |
| [References] | ARE FIELD |

PEARLS are succinct summaries of Cochrane Systematic Reviews for primary care practitioners. They are funded by the New Zealand Guidelines Group.

PEARLS provide guidance on whether a treatment is effective or ineffective. PEARLS are prepared as an educational resource and do not replace clinician judgement in the management of individual cases.

View PEARLS online at: