Treatment of established osteoporosis: a systematic review and cost-utility analysis
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Record Status
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Citation

Authors' objectives
A variety of agents are available for the treatment of osteoporosis. This review examines the evidence for their efficacy, and their cost-effectiveness is modelled.

Authors' conclusions
Cost-effective scenarios for several interventions in the management of established osteoporosis were identified. Cost-effectiveness ratios decrease with age. At age 50 years, only HRT and calcium plus vitamin D were cost-effective (assuming that the agent would decrease the risk of appendicular fractures at this age). At age 80 years, HRT, calcium with or without vitamin D, alfacalcidol, alendronate and bisphosphonate were all cost-effective.

The conclusions derived are conservative, mainly because of the assumptions made in the absence of sufficient data. The conservative assumptions included the following:

(i) not all osteoporotic fractures are included (ii) not all vertebral fractures are included (iii) base-case scenarios are modelled at the threshold for osteoporosis (iv) risks of re-fracture in the few years after a fracture are likely to be underestimated (v) vertebral fracture incurs no reversible mortality (vi) long-term effects of osteoporotic fractures on utilities are ignored.

Thus conclusions that treatments are cost-effective are reasonably secure. In contrast, scenarios shown to be cost-ineffective are less secure. As information in these areas becomes available, the implications on cost-effectiveness of interventions should be reappraised.

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