

OSTEOSCOOP

News on current events in osteoporosis and rheumatology

Effect of osteoporosis treatment on mortality

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Fragility fractures cause significant morbidity and mortality. Effective osteoporosis treatment can reduce fracture incidence, but it is not clear whether it reduces mortality. The aim of this meta-analysis study [1] was to determine whether effective osteoporosis treatment reduces mortality. The authors searched Medline and the Cochrane Central Register of Trials prior to September 2008, as well as 2000–2008 American Society for Bone and Mineral Research conference abstracts. Eligible studies were randomized placebo-controlled trials of approved doses of medications with proven efficacy in preventing both vertebral and nonvertebral fractures, in which the study duration was longer than 12 months and there were more than 10 deaths. Trials of estrogen and selective estrogen receptor modulators were specifically excluded. Data were extracted from the text of the retrieved articles, published meta-analyses, or the Food and Drug Administration web site.

Eight eligible studies of four agents (risedronate, strontium ranelate, zoledronic acid, and denosumab) were included in the primary analysis. During two alendronate studies, the treatment dose changed, and those studies were only included in secondary analyses. In the primary analysis, treatment was associated with an 11% reduction in mortality (relative risk, 0.89; $P < 0.036$). In the secondary analysis, the results were similar (relative risk, 0.90; $P < 0.044$). Mortality reduction was not related to age or incidence of hip or nonvertebral fracture, but was greatest in trials conducted in populations with higher mortality rates.

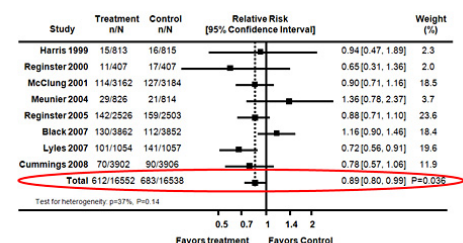
In conclusion, treatments for osteoporosis with established vertebral and nonvertebral fracture efficacy reduce mortality in older, frailer individuals with osteoporosis who are at high risk of fracture.

1. Bolland MJ et al. *J Clin Endocrinol Metab.* 2010;95:1174-1181.

Effect of osteoporosis treatment on mortality

Effective osteoporosis treatment can reduce fracture incidence, but it is not clear whether it reduces mortality. This meta-analysis of randomized placebo-controlled trials evidences that osteoporosis treatment significantly reduces mortality in older, frailer individuals with osteoporosis who are at high risk of fracture.

The effect of treatment of osteoporosis on mortality in eight randomized placebo-controlled trials



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