

Ibandronic acid unlikely choice for IBD-related fracture prevention

German decision-makers would be "very unlikely" to consider adding ibandronic acid to calcium for prophylaxis against fractures in patients with osteopenia or osteoporosis related to inflammatory bowel disease (IBD), according to a Markov model. Moreover, calcium monotherapy economically dominated calcium plus fluoride in this study.

Taking a societal perspective, the long-term cost effectiveness of these three treatments was compared by applying bone mineral density (BMD) data from a randomised controlled trial to a standardised population; direct medical costs and indirect fracture costs (2004 values) were included, and costs and effects were discounted at 5%.

BMD increases were higher with calcium/colecalciferol monotherapy than with additional sodium fluoride treatment, which comes at an extra cost, resulting in monotherapy being economically dominant. Moreover, in Monte Carlo simulations, a positive incremental cost-effectiveness ratio (ICER) for fluoride versus monotherapy was only possible with very extreme and improbable combinations.

The ICERs for adjunctive ibandronic acid versus calcium monotherapy in the different scenarios (comprising different ages, sexes and disease types [osteopenia vs osteoporosis]), ranged from €407 375 to about €6.5 million per QALY gained; the probability of attaining an ICER of < €50 000 per QALY gained was never more than 20.2% in Monte Carlo simulations.

The study researchers comment that "too few fractures occur in young populations to make ibandronate cost effective, even if the subjects are osteoporotic".

Kreck S, et al. Cost effectiveness of ibandronate for the prevention of fractures in inflammatory bowel disease-related osteoporosis: cost-utility analysis using a Markov model. *Pharmacoeconomics* 26: 311-328, No. 4, Jan 2008 801006359