

Economic evaluation of an osteoporosis screening campaign using FRAX

April 3 2014

In new research presented at the World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases today, investigators showed that an osteoporosis screening strategy using FRAX as a pre-screening tool is cost-effective if the follow up of the screening and medication adherence are optimized. FRAX (WHO Fracture Risk Assessment Tool) is a widely used algorithm to determine 10-year risk of fracture based on an individual's risk factors.

Researchers from the University of Maastricht and the University of Liège evaluated the cost-effectiveness of an osteoporosis screening campaign in the Province of Liège (Belgium). A previously validated microsimulation model was used to estimate the incremental cost-effectiveness ratio (ICER), expressed in costs (in €) per quality-adjusted life-year gained (QALY) gained, of the screening/treatment strategy versus no intervention. The screening/treatment strategy consisted of pre-screening using FRAX, followed by a bone densitometry for patients with a positive FRAX result and combined with a 5-year branded alendronate therapy for women diagnosed with osteoporosis ([bone mineral density](#) (BMD) T-score \leq -2.5).

The ICER for the screening/treatment strategy versus no intervention in the whole population (mean age=60 years) was estimated at €66,665 and €39,504 per QALY gained assuming real-world and full [adherence](#) respectively. ICERs decreased to €55,517 and €28,520 in the population aged over 60 years (mean age= 65 years). The ICER of the screening strategy decreases when improving the follow-up of a positive

screening and when increasing fracture risk. Using the price of generic alendronate, the cost-effectiveness improved to €50,880 and €32,293 assuming real-world and full adherence, respectively.

The authors therefore conclude that the osteoporosis screening strategy is cost-effective if the follow up of the screening and [medication adherence](#) are optimized. Therefore, BMD should be performed in all individuals with positive FRAX score; individuals having a positive BMD diagnosis should be treated and adherence to therapy should be optimized.

Doctor Mickaël Hiligsmann, Assistant Professor in Health Economics and Health Technology Assessment at Maastricht University and Invited Professor at University of Liège, stated, "To further improve the cost-effectiveness of the screening strategy, we suggest targeting screening on women with one or more clinical [risk factors](#), or on women aged 65 years and older".

More information: OC 7 Economic evaluation of an osteoporosis screening campaign: using FRAX as a prescreening tool. M. Hiligsmann, W. Ben Sedrine, O. Bruyère, P. Jeholet, V. Misson, G. Pire, J.-Y. Reginster. *Osteoporos Int.* Vol 25, Suppl. 2, 2014

Provided by International Osteoporosis Foundation

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