

My mother was saved from hip fracture by treatment for osteoporosis, but will I be?—Implications on risk estimates from successful osteoporosis treatment

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Recently, the question of the validity of FRAX measurements [1] in individuals treated with osteoporosis pharmacotherapy has been discussed [2]. I would like to highlight the theoretical impact of the fracture protective therapies introduced and widely used in the recent 15 years in terms of current fracture risk estimates for the offspring of the treated individuals.

In a theoretical 60-year old Swedish woman 165 cm, 70 kg without any other risk factors the FRAX 10 year probability for major osteoporotic fracture is 7.3 % and for hip fracture 1.1 %. However, with a parent hip fracture, the probabilities rise to 14 and 1.5 %. Anti-osteoporotic treatment in postmenopausal women with bisphosphonates reduces hip fracture risk with approximately 40 % in RCTs [3] and has been used for almost 15 years in Sweden. Many hip fractures have been avoided resulting in too conservative FRAX probabilities for the offspring of the individuals in which a hip fracture was avoided by pharmacotherapy.

With this in mind, it might be interesting to explore the possibility to include parental treatment for osteoporosis in

the algorithm. Apart from addressing the described problem, this would also be of interest as the genetic predisposition for osteoporosis would be accounted for, maybe most interesting for FRAX estimates without DXA measurements.

Conflicts of interest None.

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