

An economic evaluation of strontium ranelate in the treatment of osteoporosis in a Swedish setting: based on the results of the SOTI and TROPOS trials.

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INTRODUCTION: Strontium ranelate is a new therapy for the treatment and prevention of osteoporosis that has been shown in [two phase III clinical trials](#) (the Spinal Osteoporosis Therapeutic Intervention [**SOTI**] and the Treatment Of Peripheral Osteoporosis Study [**TROPOS**] trials) to reduce the risk of osteoporotic fractures at the vertebral, non-vertebral and hip level in postmenopausal women. The aim of this study was to estimate the potential cost-effectiveness of strontium ranelate in the treatment of osteoporosis in postmenopausal Swedish patients.

METHODS: A Markov cohort model was adapted to fit patients corresponding to the patients in the SOTI and TROPOS clinical trials. The model was populated with Swedish cost and epidemiological data. [In the base case, the cost-effectiveness was estimated for 69-year old women with low bone mineral density \(BMD\) and prevalent vertebral fractures \(SOTI\) and for 77-year old women with low BMD \(TROPOS\).](#) The cost-effectiveness analysis had a societal perspective.

RESULTS: In the base case analysis, the cost per quality-adjusted life years (QALY) gained of strontium ranelate patients compared to no treatment patients was estimated at SEK 472,586 and SEK 259,643, including costs in added life years, based on the SOTI and the TROPOS trials, respectively. Excluding cost in added life years, the cost per QALY gained was estimated at SEK 336,420 (SOTI) and SEK 165,680 (TROPOS). In subgroup analyses, in patients 74 years and older with a T-score lower than -2.4 and patients older than 80 years of age, strontium ranelate was found to be cost saving compared to no treatment.

CONCLUSIONS: The results in the base case analyses and the sensitivity analyses of this study **indicate that**, compared to no treatment, **strontium ranelate is cost-effective in the treatment of postmenopausal women with low BMD.**

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