control study. Annual hospitalisation costs of benzodiazepine related fall injuries were based on the age-specific PARs and extrapolated to the European population using European data on accidents and demographic data of the EU. RESULTS: Fall injuries were significantly associated with benzodiazepine use (OR 1.6, CI 95% 1.4–1.7), especially in the age over 85 years (OR 3.6, CI 95% 2.9–4.5). The total annual admission costs in 2000 of fall related injuries attributable to benzodiazepine use were €1.8 billion (95% CI €1.5–2.2 billion) in the EU. CONCLUSIONS: The estimated costs of hospitalisations of fall injuries related to benzodiazepine use in the EU varied between €1.5 and €2.2 billion each year. More than 90% of these costs were related to accidental falls in the elderly, with hip fractures as the major contributor. Discontinuation of prescribing of benzodiazepines or substituting benzodiazepines with other drugs not associated with the risk of falls to the elderly will to a large extent prevent these accidents.

PAR17
COST-EFFECTIVENESS OF QUANTITATIVE ULTRASOUND AS A TECHNIQUE FOR SCREENING AND DIAGNOSING OSTEOPOROSIS AND SUBSEQUENTLY FOR THE PREVENTION OF OSTEOPOROTIC FRACTURES
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OBJECTIVES: Osteoporosis mainly concerns postmenopausal women, may cause fractures and can be treated. The diagnosis of osteoporosis covers the evaluation of bone density. Gold standard still is the dual x-ray absorptiometry (DXA) but the qualitative ultrasound (QUS) as a non-invasive and radiation-free technology is becoming more important. This rapid health economic health technology assessment (HTA) examines the cost-effectiveness of QUS as a technique for screening and diagnosing osteoporosis and subsequently for the prevention of osteoporotic fractures. METHODS: According to the methodological recommendations for rapid health economic HTA in Germany a systematic literature search was conducted. Quantitative and qualitative information synthesis was done. The incremental cost-effectiveness of a two-step proceeding (QUS for all women as a first step; in case of a positive QUS-test a DXA is performed as a second step) compared to a one-step proceeding (all women get an examination with DXA) as well as a comparison of the one step proceeding QUS alone versus DXA alone was calculated by the authors. RESULTS: Four publications dealt with the question of the cost-effectiveness of QUS as a screening instrument in a two-step proceeding. Despite the methodological weaknesses of the studies the reported cost could be used in the calculation of the incremental cost-effectiveness ratio. Depending on the considered studies a two-step proceeding is cost-effective as long as the costs of one QUS examination lie between 31% and 51% of costs of an examination with DXA. One diagnosed case in DXA rise additional €1000 compared to QUS. It has to be considered that QUS shows a higher amount of false positive cases that subsequently will increase costs. CONCLUSION: A priorisation of a two-step or a one-step proceeding is not possible at present due to the missing data and the lack of evidence. Decision analytic models considering long-term effects are recommended.

PAR18
COST-EFFECTIVENESS ANALYSIS OF DIFFERENT DRUG THERAPIES FOR OSTEOPOROSIS
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OBJECTIVES: To evaluate the cost-effectiveness of all recommended therapies for prevention of osteoporotic hip, spine, and wrist fractures in postmenopausal women without prior fracture. METHODS: A retrospective, modeled cost-effectiveness analysis of all therapies given in the international guidelines for osteoporosis treatment and prevention of fractures and currently available on the Slovenian market was performed from societal perspective. The analysis included postmenopausal women divided in three age groups treated by the following treatment options: no drug therapy, alendronate, etidronate, calcitonin, hormone replacement therapy (HRT) and raloxifene. Data on clinical efficacy of all therapies in terms of decreasing fracture risk (relative risks for hip, spine and wrist fracture) were pooled from the published summarized systematic reviews of meta-analyses obtained by Medline search. A Markov model of 10-years preventive treatment for women without previous fracture was developed with DATA 4.0 decision analysis software. Model data on baseline fracture and death probabilities were obtained from National Health care Institute 2000 Report. Cost estimates on annual drug treatment and fracture treatment were derived from Slovenian sources (2002 price list) and converted to Euros. Utility values for the health states defined in the model were obtained from the reference literature. RESULTS: The incremental cost-effectiveness ratio for 10 years of HRT treatment versus no therapy ranged from €174088/QALY at age 65-years to €66578/QALY for 75-years and to only €480/QALY at age 85-years, respectively. The incremental cost-effectiveness ratio for 10 years of treatment with alendronate versus no therapy ranged from €183258/QALY at age 65-years to €68457/QALY for 75-years and to only €2291/QALY for age 85-years, respectively. Etidronate, raloxifene, and calcitonin were dominated by either HRT or alendronate for all age groups. CONCLUSIONS: HRT and alendronate can be considered as cost-effective therapies for prevention of osteoporotic fractures in older postmenopausal women without prior fracture.