Conclusion: Mean calcium as well as other micronutrient food intake was rather low, showing deficiency while comparing with recommended values up to 50%. At the same time vitamin D food intake was extremely low, being in average about 10% from recommended daily value. All this raises the question of food quality and food fortification necessity.

P982

LEMON JUICE IMPACTS BONE METABOLISM IN OSTEOPENIC POSTMENOPAUSAL WOMEN

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Objective: Citrus fruits were previously associated with bone health; nevertheless, the effect of lemon juice on bone metabolism have not been explored yet, thus We aimed to address this issue.

Methods: Postmenopausal osteoporotic women without history of clinical fractures were recruited. Participants agreed to enrich their diet with lemon juice (Acti Lemon, Polenghi) and to be observed over a 2-month period. The daily juice dose of 30 ml was equivalent to one Sicilian organic lemon. P1NP and CTX, as surrogate bone formation and resorption markers respectively, RANKL, OPG, RANKL/OPG ratio and sclerostin were considered at baseline (before lemon juice administration) and then after 30 and 60 d. A placebo group consisted of age-matched postmenopausal women served as control.

Results: 47 participants [mean age 60.2±4.1 y] completed the study. Change at day 30 of sclerostin (vs. baseline) has been positively associated with change at day 30 and day 60 of CTX (r=0.46, p=0.01 and r=0.43, p=0.01, respectively). Change at day 30 of OPG was positively associated with change at day 30 of P1NP (r=0.49, p=0.006). Change at day 30 of RANKL/OPG has been related with variation at day 30 of P1NP (r=-0.44, p=0.013). Variation of P1NP at day 30 was related with sclerostin variation at day 30 (r=-0.56, p=0.02) and day 60 vs. baseline value (r=0.44, p=0.017) and with sclerostin variation between day 30 and day 60 (r=0.69, p<0.001). Variation of P1NP between day 30 and day 60 was associated with RANKL change at day 30 (r=-0.35, p=0.05), with sclerostin change at day 30 (r=-0.49, p=0.008) and with sclerostin change between day 30 and day 60 (r=0.41, p=0.028). At a multiple regression analysis the change of P1NP between day 30 and day 60 was independently predicted by the change of sclerostin at day 30 (ß=-1.5, SE 0.5, p=0.006), after correcting for age, BMI and change of RANKL and CTX levels at day 30. No significant data raised from controls.

Conclusion: In osteoporotic postmenopausal women, the intake of lemon juice provokes bone metabolic changes involving modulation of both bone resorption and formation.

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AN UPDATED SYSTEMATIC REVIEW OF COST-EFFECTIVENESS ANALYSES OF DRUGS FOR OSTEOPOROSIS

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Objective: Considering the limited healthcare resources, the ongoing aging population and economic burden of osteoporotic fractures, as well as the recent availability of new but costly agents for osteoporosis management, there is an increasing interest for economic evaluation studies. Accordingly, several studies on the cost-effectiveness of drugs for osteoporosis have been performed in recent years. We aimed to systematically identify and review recent economic evaluations on drugs for osteoporosis and to critically appraise their quality.

Methods: A systematic literature search was undertaken using PubMed, Embase(Ovid), the National Health Service Economic Evaluation database and the Cost-Effectiveness Analysis Registry to identify original articles containing economic evaluations of anti-osteoporosis drugs published between July 1, 2013 and December 31, 2019. A recent ESCEO-IOF guideline providing recommendations for the conduct and reporting of economic evaluations in osteoporosis was used to assess the quality of included articles.

Results: The database search retrieved 3860 records, 28 studies fulfilled the inclusion criteria. These studies were conducted in 17 different countries and 11 active drugs were assessed, including various traditional pharmacological treatments such as bisphosphonates, raloxifene, strontium ranelate, denosumab etc., and new agents (abaloparatide and gastro-resistant risedronate). Three studies assessed the cost-effectiveness of sequential therapies (e.g. abaloparatide/ teriparatide followed by alendronate), suggesting they are cost-effective and can lead to extra benefits (larger QALYs gained compared with no treatment). In addition, nine economic evaluations were conducted to compare denosumab with other active interventions, 6 studies showed that denosumab was cost-effective. As for quality assessment, although several studies followed several recommendations of the guideline, room for improvements was observed for most studies. Quality of reporting was also suboptimal especially regarding treatment side effects, transition probabilities and medication adherence.

Conclusion: This review provides an overview of economic evaluation of drugs for osteoporosis in the past 6 years. The updated economic evidence could be useful to help decision makers prioritize health interventions and identify gaps of osteoporosis drugs. The outcome of quality appraisal indicates there is still a room for improvement of economic evaluations on drugs for osteoporosis, which would further help the development of economic evaluations in the future.

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EVALUATION OF PROFESSIONAL PRACTICES IN THE PREVENTION OF GLUCOCORTICOID-INDUCED OSTEOPOROSIS

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Objective: The evaluation of professional practices is an assessment whose the main purpose is to improve the quality of care. Despite the guidelines and papers published to prevent glucocorticoid-