

**References:**

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**OP0050 THE TREATMENT GAP AFTER FRACTURE IN OSTEOPOROSIS PATIENTS IN SWEDEN**

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**Background:** In Sweden, ~50% of women and ~25% of men are expected to suffer an osteoporosis (OP)-related fracture (Fx) during their lifetime, and hip Fx incidence in Sweden is one of the highest worldwide. Despite this, nationally only 12% of patients with Fx are prescribed an OP treatment following Fx.<sup>1</sup> Understanding the reasons for the marked under-treatment of patients with Fx may provide insights into how to improve deficiencies in the management of OP.

**Objectives:** To assess rates of OP treatment initiation within 1 year (<1 yr) following first Fx in treatment-naïve patients with fracture in Sweden and to evaluate the determinants of treatment initiation.

**Methods:** Patients aged ≥50 yrs with any type of Fx were identified from Swedish national registers between 2006–2012 and followed from time of first Fx. Patients who were treatment-naïve at the time of first Fx were included in the analysis. Here, we report OP treatment initiation <1 yr after Fx in the different baseline subgroups considering gender, age, Fx type, steroid use and comorbidities.

**Results:** 258,827 treatment-naïve patients with a first Fx (68% female; mean age 72.7 [SD 12.9] yrs) were included. Overall, 6.6% of patients initiated OP treatment <1 yr; the proportion was higher in females (8.5%) than in males (2.3%), and was highest in patients aged 70–80 yrs (10.7%) vs other ten-year age groups (mean 5.5%). Patients with a diagnosed vertebral Fx were more likely to start OP treatment (21.2%) compared with non-vertebral Fx (5.6%). The proportion of patients starting OP treatment was higher in patients receiving glucocorticoid (GC) treatment (17%) compared with those not treated with glucocorticoids (6.1%). In general, comorbidities were not positively associated with treatment initiation, except for those indirectly connected to known contributors of Fx risk, i.e. chronic pulmonary disease (GC use) and rheumatoid arthritis (FRAX-algorithm risk factor), which were associated with increased treatment initiation. Although both dementia and dependency are known to be associated with increased risk of Fx, the tendency to initiate treatment was lower in patients with these conditions compared with those without (1.5% vs 6.9% and 2.3% vs 7.4%, respectively).

**Conclusions:** This study confirms the large treatment gap in OP treatment initiation following a first Fx in Sweden; rate of OP treatment initiation was below the post-Fx treatment initiation rate goal of 30% and also lower than the 12% published national indicator for treatment exposure (2015).<sup>1</sup> The proportion of patients initiating OP treatment appears to be somewhat influenced by gender, age, Fx type, GC use, rheumatic disease, dependency and dementia; nevertheless, treatment initiation rates were low. These data highlight the need for significant efforts to improve OP management post Fx in Sweden.

**References:**

[1] Swedish Association of Local Authorities and Regions (SKL) and The National Board of Health and Welfare (2015) Öppna Jämförelser 2015, Hälso- och sjukvård vid kroniska sjukdomar.

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**OP0051 THE ACTIVATING PATIENTS AT RISK FOR OSTEOPOROSIS STUDY: A RANDOMIZED TRIAL WITHIN THE GLOBAL LONGITUDINAL STUDY OF OSTEOPOROSIS IN WOMEN COHORT**

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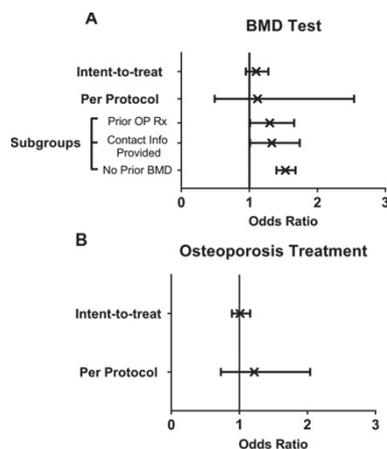
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**Background:** Osteoporosis treatment rates are declining, even among those with past fractures. Novel, low cost approaches engaging and activating patients are needed to improve care.

**Objectives:** To test a multi-modal, tailored, direct-to-patient, behavioral, video intervention aimed at improving rates of osteoporosis medication use.

**Methods:** We conducted a controlled, randomized clinical trial of our novel intervention among US women in the Global Longitudinal Study of Osteoporosis in Women cohort with self-reported fracture history who were not currently using osteoporosis therapy. The primary outcome at 6-months was self-report of osteoporosis medication use. Secondary and exploratory outcomes included starting calcium and vitamin D, bone mineral density (BMD) testing, readiness for behavioral change, and barriers to treatment.

**Results:** We randomized 2684 women to receive the intervention materials or usual care. Study participants were 92.6% Caucasian, with a mean (SD) age 74.9 (8.0) years, and a self-reported lower than average risk for osteoporosis (40.0%). In the 12 months prior to randomization, 1390 women reported talking with their doctor regarding osteoporosis, 7.4% reported a fracture, vitamin D or calcium supplementation were reported as 83.5% and 68.6%, respectively. We observed no differences in sociodemographic characteristics and no significant differences in the primary (11.7% vs 11.4%) and secondary (calcium, 31.8% vs 32.6%; vitamin D, 41.3% vs 41.9%; bone density, 61.8% vs 57.1%) end points between the intervention and usual care groups. Exploratory post-hoc analyses demonstrated that women in the intervention arm had more favorable views towards osteoporosis medications compared with the usual care arm and a lower proportion were in the unaware and uninvolved stages of behavior change regarding osteoporosis medications (OR=1.57, CI[1.11, 2.23]). We found that barriers to treatment were higher in the intervention, as compared to usual care arm at 6 months: concerns regarding osteonecrosis of the jaw (OR=1.58[1.14, 2.18]). We found significant differences in self-report BMD testing among the subgroup of women with no history of osteoporosis medication use (OR=1.30 [1.01, 1.66]), among those who provided a contact phone number or email address (OR=1.33 [1.01, 1.74]), and among those who did not report past BMD testing on the baseline survey (OR=1.53 [1.40, 1.68]) (Figure A). The proportion of self-reported osteoporosis treatment was similar between those with appreciable exposure to the online intervention compared with the control group (adjusted OR=1.22 [0.73, 2.04]) (Figure B).



**Conclusions:** This randomized study testing a novel, personalized educational intervention, did not increase the use of osteoporosis therapy at 6 months. The intervention appeared to have influenced participants' readiness for behavior change.

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