0.24 points vs.  $0.53\pm0.26$  points, p=0.008). With the EQ-VAS, no difference was observed for either sarcopenia or severe sarcopenia.

**Conclusion:** Severe sarcopenic subjects present a reduced HRQoL. For sarcopenic, only specific domains, such as mobility or physical function, are affected by sarcopenia. Subtle effects of sarcopenia on HRQoL could have been missed by the generic nonspecific instruments used in this study. A specific tool could be necessary to assess the real impact of sarcopenia on HRQoL.

#### P267

## STRONTIUM RANELATE SEEMS TO WORK IN CRPS M. Herold<sup>1</sup>, M. Brunner-Palka<sup>1</sup>, R. Lunzer<sup>2</sup>

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**Objective:** Complex regional pain syndrome (CRPS) also referred to as reflex sympathetic dystrophy (RSD), Sudeck's atrophy or algodystrophy is a chronic painful condition with allodynia and hyperalgesia. An evidence based treatment is not known1.

Material and Methods: A 66-year old female was seen at the rheumatology unit in February 2013. She was unable to use the right hand in case of immobility in the metacarpo- and proximal interphalangeal joints and suffered from permanent pain in the right hand. Sudeck's atrophy of the right hand was diagnosed 1995 after distal radius fracture. Several therapeutic interventions including physical therapy had been tried without success. Chronic pain remained and major immobility of the right hand was given. Strontium ranelate 2 g daily orally was started immediately. Fingertip hand distance, SF-SACRAH2 and a VAS of 100 mm (0=no pain) were used to document disease activity.

Results: Already 6 weeks after first intake of strontium ranelate first improvements were reported. At the last visit in September 2014 the fingertip hand distance was 1 mm (70 mm at the beginning) and the right hand could again be used for easy working. According to the clinical improvement since February 2013 SF- SACRAH decreased from 6.2 to 1.8 and VAS from 80 to 9 mm. After our experience two more patients with painful CRPS were treated. Patient 1 (female, CRPS after trauma) and patients 2 (CRPS after surgery) were free of pain 3 months after first intake of strontium ranelate.

**Conclusion:** CRPS results with major disability and ongoing pain. A successful treatment is not known. We applied strontium ranelate and observed an impressive improvement in motion, a satisfying increase in functionality and a pleasant decrease of pain. We suppose that the effect is based on strontium ranelate's dual mechanism of action with increasing bone formation and decreasing bone resorption.

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#### P268

PERCENTAGE OF WOMEN ACHIEVING NON-OSTEOPOROTIC BMD T-SCORES AT THE LUMBAR SPINE (LS) AND TOTAL HIP (TH) DURING UP TO 8 YEARS OF DENOSUMAB (DMAB) TREATMENT

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**Objective:** Osteoporosis treatment guidelines do not currently define treatment targets or goals. While absence of BMD loss and fracture are generally considered treatment successes, lack of a negative outcome does not set a real goal for therapy. Potential goals might include reaching a BMD T-score somewhere above -2.5, representing an acceptable level of fracture risk. We report the percentage of women who achieved a range of possible target BMD T-scores at both the LS and TH during up to 8 years of DMAb treatment.

Material and Methods: From 2343 women who received up to 8 years continuous DMAb (60 mg SC Q6M) treatment, 3 years during FREEDOM and up to 5 years during the Extension, we determined the percentage with T-scores>-2.5, > -2.0 and>-1.5 at both the LS and TH, and T-scores>-2.5 at either site, at baseline and over 8 years of DMAb.

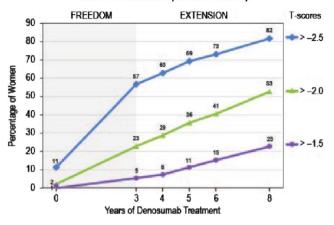
**Results:** Mean (SD) LS and TH T-scores were −2.83 (0.67) and −1.85 (0.79), respectively, at FREEDOM baseline. The percentage of women with T-scores>−2.5, > −2.0 and> −1.5 at both the LS and TH progressively increased over 8 years of DMAb treatment (Fig. 1). At individual sites, the percentage of women with a T-score>−2.5 increased from baseline over 8 years of DMAb treatment from 19 to 86 % (LS) and from 75 to 94 % (TH).

**Conclusion:** DMAb enables a substantial proportion of women with postmenopausal osteoporosis to achieve non-osteoporotic T scores. Furthermore, the BMD T-scores achieved at the hip during DMAb treatment are a robust predictor of the subsequent nonvertebral fracture risk, and suggest that achieving T- scores of -2.0 or higher are desirable to maximise treatment efficacy.



These data contribute insightful information to discussions on the topic of treatment goals for osteoporosis.

Fig. 1. Percentage of Women Achieving a Particular T-score at Both the Lumbar Spine and Total Hip



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#### P269

### VERTEBRAL FRACTURE CLINIC: ONE YEAR EXPERIENCE

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**Objective:** Vertebral fractures are the hallmark of osteoporosis as they are associated with significant morbidity, excess mortality, and an increased risk of future vertebral and nonvertebral fractures. We started a weekly vertebral fracture clinic with a dual aim of reducing morbidity in acute fractures and targeting asymptomatic patients for secondary prevention as most of these fractures are not picked up by the Fracture Liaison Service. **Material and Methods:** Local GP surgeries and other departments were informed of the service. Radiology services were requested to forward details of any patient found to have a vertebral fracture.

**Results:** 92 of the 115 referrals attended the clinic (DNA rate-20 %). There were 57 females (62 %) and 35 males (38 %) with an age range of 31–96 (mean-72 years) with no significant age difference between the two sexes (p 0.10). Maximum (34) referrals were received from GP surgeries followed by radiology (26) and other clinics (18). 77(84 %) of the total were referred as definite vertebral fracture and the rest as possible fracture with back pain. Only 30(32 %) patients were already on osteoporosis treatment. There was a significant (p<0.0005) difference between the mean age (62 years) of 21 patients with history of trauma as compared to the 71 patients without such history (mean-75 years). 30 out of 53 patients with thoracic vertebral fracture, had more than one fracture, though 20 of 24 lumber fractures were single. 32 patients had MRI

scan of which 18 were positive on STIR sequence. Of these 10 had vertebroplasty/kyphoplasty with good (8/10) pain relief at 8 weeks. DXA scan was done in 67 patients. This showed osteoporotic values in 32 patients, osteopenic values in 20 patients and 15 had normal bone density. 14 patients were not offered any antiosteoporosis treatment (pt. choice –6, normal BMD and history of severe trauma-8).

**Conclusion:** Vertebral fracture clinic is a useful addition to any Fracture Liaison Service and at the same time can help manage, acute vertebral fractures, effectively.

#### P270

# DENOSUMAB SIGNIFICANTLY INCREASES BMD COMPARED WITH ALENDRONATE IN POSTMENO-PAUSAL WOMEN

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**Objective:** Low BMD is an important risk factor for fractures in postmenopausal osteoporotic women. Denosumab (DMAb) significantly improved BMD, mass and strength besides significantly reducing the risk for fractures. Alendronate (ALN) is the first bisphosphonate that has proved to be effective antifracture in the long term. Our purpose was to investigate the effect of two antiresorptives with two different mechanisms of action DMAb vs. ALN on BMD change in postmenopausal osteoporotic women.

Material and Methods: A study randomized, open-label in which 105 postmenopausal women were randomized 1:3 to DMAb 60 mg subcutaneously every 6 months or ALN 70 mg weekly for 3 years. Tweenty-seven osteoporotic women received DMAb and 78 received ALN. All patients have received a supplement of 1000 mg calcium and alfacalcidol 1  $\mu$ g/day. Mean age of our patients was 63 years for DMAb and 67 for ALN. BMD was measured by DXA at baseline and at 1, 2, 3 years. The diagnosis of osteoporosis was confirmed by BMD -WHO criteria.

**Results:** At baseline mean BMD at LS was 0.727 g/cm2 and increased 0.852 g/cm<sup>2</sup> after 3 years, for women treated with DMAb a total of +17.1 %. For the women treated with ALN the baseline was 0.739 g/cm2 and increased at 0.782 g/cm2 a total of +5.8 % after 3 years. At TH the increase of BMD was +11.1 % for DMAb and +5.2 % for ALN after 3 years. For FN the change of BMD was +8.2 % after 3 years for DMAb treatment and +3.4 % for ALN. No adverse events or fractures under the therapy.

**Conclusion:** DMAb treatment significantly increased BMD at the LS, TH, and FN by comparing with ALN in patients with postmenopausal osteoporosis. Both drugs are effective at 3 years of treatment. For increasing importance of BMD can be taken into account and association with alfacalcidol in both cases of treatment.

