Table 1. sample's characteristics

Total (N)	437
Age at admission, y (median, min-max)	83 (65-101)
Sex, female (n,%)	368, 79.7
Degree of dependence (N)	288
Totally dependent (n,%)	20, 7.0
Partially dependent (n,%)	76, 26.4
Autonomous (n,%)	192, 66.7
Type of fracture (N)	437
Subtrochanteric (n,%)	36, 8.2
Femoral neck (n,%)	176, 40.3
Transtrochanteric (n,%)	225, 51.5
Type of intervention (N)	437
Girdlestone (n,%)	1, 0.2
No surgery (n,%)	6, 1.4
Total hip replacement (n,%)	68, 15.6
Partial hip replacement (n,%)	68, 15.6
Osteosynthesis (n,%)	292, 66.8
Destination at discharge (N)	437
Home (n,%)	254, 58.1
NH (n,%)	62, 14.2
RU (n,%)	121, 27.7
Vertebral fracture (N)	229
0 (n,%)	96, 41.9
1 fracture (n,%)	54, 23.5
≥ 2 fractures (n,%)	79, 34.5
Femur neck BMD, g/cm ² (mean, SD, N)	0.7, ±0.12, 205
Femur neck T score (mean, SD, N)	-2.8, ±1.04, 205
≤2.5 (n,%)	144, 70.0%
vitD, ng/ml (mean, SD, N)	23.5, ±11.69, 210

Figure 1. Panel A - outcome mortality; Panel B - outcome refracture.

Conclusion: Previous studies showed lower survival in patients discharged for conventional home care (1,2). In our cohort, despite more than half the sample was discharged home, no difference was found in mortality or re-fracture. Further studies will assist to clarify this matter.

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[1] Pitzul KB, et al. Arch Osteoporos. 2017 Sep 30;12(1):87.

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OP0085

CAN WE AVOID THE LOSS OF BONE MINERAL DENSITY ONE YEAR AFTER DENOSUMAB DISCONTINUATION? THE REOLAUS BONE PROJECT

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Background: Denosumab discontinuation (DD) induces bone turnover markers (BTMs) increase, bone mineral density (BMD) decrease, and increased risk of spontaneous vertebral fractures. Prescribing a bisphosphonate after DD could avoid this rebound effect.

Objectives: The objective of the ReoLaus (Rebound Effect Observatory in Lausanne) Bone Project is to follow bone parameters after DD. We report the determinants associated to BMD loss 1 year after DD.

Methods: 170 patients are followed in ReoLaus. Patients with a BMD follow-up ≥ 1 year after DD with a standardized management were included. We defined as significant a lumbar spine BMD loss (Loosers group) over 3.96% at one year after DD as compared with values at the end of the denosumab treatment 18 months after last injection.

Results: 71 post-menopausal women stopped denosumab after 7.7±2.2 injections: age 63.8±8.1 years, BMI 23.8±4.5, 0.96 prevalent fractures/patient, 8.45% previously exposed to corticoids, 22.54% to anti-aromatases. 17.25 months after last denosumab injection 30 patients were classified as Loosers and 41 as Stable. At denosumab introduction Loosers were younger (61.4±7.3 vs 65.5±8.2 years, p=0.034) with higher sCTX level (644.7 vs. 474.1 ng/ml, p=0.005). The rate of BP given less than 2 years before denosumab was not different, but none of the Loosers had received zoledronate vs. 12% of the Stable (p=0.047). Other pre-denosumab characteristics were not different. Number of denosumab injections, BTMs and BMD values were comparable in both groups during denosumab treatment. First BTMs values measured 7.5 months (median) after last denosumab injection and before bisphosphonates were not different (sCTX: Loosers, 592 ng/ml; Stable, 379 ng/ml, p=0.06). At DD 59% received zoledronate, 24% alendronate, 3% others, and 14% nothing (p=0.39 between groups). BTMs 12.8 months post-BP were higher in Loosers as compared to Stable (sCTX 537 vs. 336 ng/ml, p=0.009). Incidence of new fractures was low (0.18/patient) without between group's difference.

Conclusion: In our sub-cohort, being younger, having high BMTs and not having received zoledronate before denosumab introduction increases the risk of a BMD loss, even if a bisphosphonate is prescribed at DD. Our results support the use of denosumab after a bisphosphonate to restrain the BMD loss at its discontinuation.

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OP0086

IMPACT OF GLUCOCORTICOID TAPERING ON MARKERS OF BONE METABOLISM IN PATIENTS WITH RHEUMATOID ARTHRITIS WHO ACHIEVED LOW DISEASE ACTIVITY OR REMISSION ON TOCILIZUMAB: EXPLORATORY ANALYSIS FROM A RANDOMIZED CONTROLLED TRIAL

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Background: Glucocorticoids (GCs) directly impact bone metabolism via increased bone resorption and inhibited bone formation¹; hence, systemic fracture risk increases with daily and cumulative GC doses.² However, many patients with established rheumatoid arthritis (RA) receive long-term treatment with GCs to suppress inflammation, which confers some benefit in delaying bone erosion.³

Objectives: This exploratory analysis of the SEMIRA (Steroid Elimination In RA) study⁴ compared changes in markers of bone and cartilage metabolism in RA patients with low disease activity (LDA) or remission on tocilizumab (TCZ) + GC ± conventional synthetic disease-modifying antirheumatic drugs (csDMARDs) who received either slow GC tapering (GCTaper) or continuation (5 mg; GC5mg).

Methods: Patients had at least stable LDA (DAS28-ESR ≤3.2) for ≥4 weeks, were receiving a stable prednisone regimen (5 mg/day) + TCZ ± csDMARDs for ≥4 weeks, and received TCZ + GCs (prednisone equivalent 5-15 mg/day) for ≥6 months before randomization. Patients were randomly assigned to GC5mg (n=128) or GCTaper (n=131; starting at 4 mg/day with 1-mg reduction every 4 weeks to 0 mg/day at weeks 16-24) for 24 weeks, during which TCZ ± csDMARDs remained stable. Change between baseline (BL) and week 24 in serum levels of markers of bone and cartilage metabolism—including N-terminal propeptide of type 1 collagen (P1NP), C-terminal telopeptide of type 1 collagen (CTX1), alkaline phosphatase (ALP), matrix metalloproteinase 3 (MMP3), calcium, phosphorus, and albumin—were exploratory outcomes. Within-group and between-group changes from baseline were evaluated by Wilcoxon paired rank test and Wilcoxon signed rank test, respectively.

Results: Figure 1 shows changes from BL to week 24 in bone and cartilage biomarkers. MMP3 (marker of cartilage degradation) was reduced at week 24 in the GCTaper group compared with GC5mg. Change from BL at week 24 in P1NP (bone formation) and CTX1 (bone resorption) favored the GCTaper arm, with P1NP increasing relatively more than CTX1 (44% and 24%, respectively, compared with GC5mg), indicating net anabolism. The increase in ALP from BL to week 24 was greater for the GCTaper arm than for the GC5mg arm, suggesting neomineralization. There was no difference in the change from BL to week 24 in calcium, phosphorus, or albumin (not shown).