patients had an osteoporosis (54.8%): six cases of HCV, three cases of HBV, five cases of PBC, two cases of AIH and one case of PSC. Osteoporosis is most common in postmenopausal women with significant correlation ($p < 0.001$). Hyperbilirubinaemia and increased Gamma Glutamyl Transferase (GGT) were significantly correlated with osteoporosis ($p < 0.05$). However, there was no significant correlation between osteoporosis and body mass index or the Child-Pugh score.

Conclusion: In our study, 54.8% of cirrhotic patients who have had a BMD, had an osteoporosis. It was more frequent among postmenopausal women with hyperbilirubinaemia and increased GGT. The systematic realization of BMD in these patients could contribute to better management.

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AB0857 DENSITOMETRY VALUES CHANGE WHEN STOPPING DENOSUMAB

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Background: Denosumab (DMAB) withdrawal without subsequent bisphosphonate treatment seems to be related to a rebound effect: a rapid decrease in mineral density in bone densitometry (DEXA). However, evidence is scarce.

Objectives: To analyze DEXA values in patients who have stopped DMAB without subsequent treatment and to detect possible factors associated.

Methods: Unicentric observational study. We included patients with osteoporosis (OP) who attended our rheumatology clinic from May 2017 to December 2018, who had stopped DMAB without any further treatment. Demographic data, risk factors for OP (smoking, age of menopause, previous fractures, chronic corticotherapy), data related to calcium and vitamin D analogues supplementation, previous OP treatment and duration of active treatment with DMAB were collected; as well as DEXA data (last DEXA while on DMAB and immediate DEXA after its withdrawal, no more than 3 years later). For the statistical analysis, means, standard deviations, frequencies and percentages are reported accordingly. Paired Student's T test has been used to analyze medias in both DEXAs, and chi square for comparisons when appropriate.

Results: 39 patients (38 women) age 70.17 ± 4 , menopause at 46 ± 4.07 years, 37(94%) never used tobacco, 25 (64%) suffered some fracture before treatment with DMAB, 17(43%) received previous bisphosphonates, 5 (13%) teriparatide and 7(18%) strontium ranelate. The average duration of DMAB use was 2 ± 0.86 years, onset at 61 ± 7.34 years. Standard deviations (T score) of DEXA values worsened significantly ($p < 0.001$) in all the locations: femur -0.28 (IC95% -0.36 to -0.19), columnL1 -0.43 (IC95% -0.30 a - 0.56), columnL2 -0.44 (IC95% -0.25 to -0.62) columnL3 -0.40 (IC95% -0.22 to -0.59) columnL4 -0.52 (IC95% -0.33 to -0.72) columnL1-L4 -0.48 (IC95% -0.33 to -0.64) (table 1). We analyzed the decrease in T-scores alongside the other variables, obtaining a proportionally inverse relation between duration of DMAB use and this reduction (table 2). Given that DMAB use in one patient was several standard deviations above the mean (12 yrs), her data were excluded for analysis.

Conclusion: DMAB withdrawal without subsequent antiresorptive treatment produces a rapid decrease in DEXA values in our patients. This phenomenon appears to diminish in patients who have received DMAB for a longer period.

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Abstract AB0857 Table 1. Comparison T-score DEXA previous to DMAB withdrawal (1st DEXA) and afterwards (2nd DEXA)

	Mean T-score $\pm$ SD* 1 st DEXA	T-score Media $\pm$ SD* 2 nd DEXA	Media difference between 1 st and 2 nd DEXA
Total	-1.46 $\pm$ 0.85	-1.74 $\pm$ 0.87	-0.28*
Femur			
Column L1	-2.16 $\pm$ 0.82	-2.59 $\pm$ 0.75	-0.43*
Column L2	-2.42 $\pm$ 0.81	-2.87 $\pm$ 0.75	-0.44*
Column L3	-2.01 $\pm$ 0.82	-2.42 $\pm$ 0.89	-0.40*
Column L4	-2.04 $\pm$ 1.10	-2.57 $\pm$ 1.06	-0.52*
Column L1-L4	-2.12 $\pm$ 0.76	-2.61 $\pm$ 0.71	-0.48*

* $p < 0.001$ *SD: Standard deviation

Abstract AB0857 Table 2

YEARS ON DMAB DIVIDED INTO TERTILES * COLUMN L1 L4 SD DIFFERENCE IN TERTILES Crosstabulation

			Difference L1 L4 in tertiles			Total
	-0.60 and more	-0.59 to -0.30	-0.29 and less			
YEARS ON DMAB DIVIDED INTO TERTILES	0-1.95	Count	7	5	1	13
		% within Difference L1 L4 in tertiles	46.7%	50.0%	10.0%	37.1%
	1.96-2.38	Count	3	5	3	11
		% within Difference L1 L4 in tertiles	20.0%	50.0%	30.0%	31.4%
	2.39 or more	Count	5	0	6	11
		% within Difference L1 L4 in tertiles	33.3%	0.0%	60.0%	31.4%
Total		Count	15	10	10	35
		% within Difference L1 L4 in tertiles	100.0%	100.0%	100.0%	100.0%

Disclosure of Interests: None declared

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AB0858 MAINLY MEN, AND OLDER PEOPLE, WITH FRAGILITY HIP FRACTURE DO NOT RECEIVE ANTIOSTEOPOROTIC TREATMENT

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Background: Osteoporotic hip fractures have a profound impact on the physical health and psychosocial wellbeing of patients, with considerable economic implications. More than 20% of individuals experience a subsequent hip fracture in the following year (1,2). Although there are effective treatments in the prevention of fractures, the proportion of patients who start treatment after a fragility fracture is low, having decreased in recent years (3).

Objectives: The aim of the study is to know the percentage of patients who received medical treatment for osteoporosis after a fragility hip fracture in our health department. Secondary, we want to know the mortality and re-fracture rates two years after the fracture.

Methods: Cross-sectional retrospective observational study. Patients discharged during 2015 with diagnosis of "Fragility Hip Fracture" were reviewed, data collected through electronic medical record. Variables: sex; age; age and date of death; treatment (calcium, vitamin D or antiosteoporotic drugs) before and after discharge; Fragility fracture before and after hospital discharge. Statistical methods: absolute and relative frequencies for qualitative variables, means and standard deviations for quantitative. Associations between variables were studied using Chi square and T-student test.

Results: A total of 320 patients were obtained, 17 discarded (3 other fracture locations, 1 duplicate, 6 high energy trauma fractures and 8 had other pathologies than osteoporosis that justified the fracture). Mean age was 83.3 ± 7.9 years, 223 (73.6%) women. Prior to admission, 43 patients (14%) took calcium and/or vitamin D, 10 (3%) some antiosteoporotic drug and 20 (7%) both. 230 patients (76%) did not receive treatment. 102 exits (33.7%) occurred in the 2 years after the fracture. In the post-discharge analysis, 30 patients were discarded (17 died during admission and 13 in the subsequent month), since it was not possible for them to be treated. After discharge, 49 patients (18%) receive Calcium and/or Vitamin D, 15 (5%) some antiosteoporotic drug and 37 (14%) both, leaving 172 patients (63%) without treatment. There were 12 new hip fractures (4.0%). There is a greater proportion of deaths in men (43.8% vs. 30% in women, $p = 0.026$) and in patients not treated before the fracture (33.2% vs 11.6% calcium-Vit D, $p < 0.001$, 30.5% vs 9.4%, antiosteoporotic treatment $p = 0.002$). The multivariate analysis found lower probability of having received treatment in men (RR 0.34 IC 95% (0.16-0.72), $p = 0.005$) and with more age (RR 0.95 IC 95% (0.92-0.98), $p = 0.004$). After correcting with age: the risk of death in men is 83% higher than in women ($p = 0.035$). The probability of exits increases by 10% for each additional year of life. Treatment with calcium and/or vitamin D after discharge is a protective factor against mortality from any cause ($p = 0.037$).

Conclusion: Percentage of patients receiving drug treatment after suffering an osteoporotic hip fracture is very low. This is accentuated in males, and at an older age, populations that also have higher mortality rates in the two years after the fracture.

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AB0859

THE SERUM CREATININE TO CYSTATIN C RATIO: A POSSIBLE NEW SURROGATE MARKER FOR BONE MINERAL DENSITY

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Background: Bone mineral density (BMD) measured using dual-energy X-ray absorptiometry (DEXA) is one of the most important markers for osteoporosis diagnosis. The serum creatinine-to-cystatin C ratio (Cr/CysC) is in focus as a sarcopenia marker because it represents total muscle volume. Recently, Cr/CysC was suggested to have correlation with bone fragility fracture risk [1].

Objectives: This study aimed to assess whether Cr/CysC is correlated with BMD.

Methods: BMD at the lumbar spine (LS) and femoral neck (FN) were measured in women diagnosed with postmenopausal osteoporosis. Steroid induced osteoporosis patients were eliminated. Cr/CysC was assessed at the time. Clinical factors, such as age, concurrent rheumatoid arthritis treatment (RA), concomitant biological drug administration (BIO), body mass index (BMI), concurrent dementia treatment (dementia), number of comorbidities other than dementia (N.Com), frailty score (FS), bone fragility fracture (BFF), and drug intervention for osteoporosis (DI), were evaluated. Multivariate linear regression (MLR) was used to assess the correlation of these factors with BMD at each part. The relationships

between Cr/CysC and other parameters were statistically evaluated using MLR. Additionally, the relationships between the BMD change at each part and parameters were evaluated in the same manner.

Results: The study enrolled 207 subjects. BMD at the LS was significantly correlated with BMI and N.Com ($p < 0.01$), whereas BMD at the FN was significantly negatively correlated with age and was positively correlated with BMI, BFF, Cr/CysC, and DI ($p < 0.01$). Cr/CysC was significantly correlated with age, RA, BIO, dementia, FS, and BFF ($p < 0.01$).

After effect of age was corrected, BMD at the FN demonstrated significant positive correlation with Cr/CysC ($p < 0.01$), whereas no statistical correlation demonstrated between BMD at the LS and Cr/CysC. Both BMD at the LS and the FN demonstrated significant positive correlation with BMI ($p < 0.05$). No parameter significantly correlated with the BMD change at both the LS and FN ($p < 0.01$).

Conclusion: Cr/CysC represents BMD at the FN and is a candidate for BMD substitution.

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AB0860

RECURRENCE OF VERTEBRAL FRACTURE IN PATIENTS WITH OSTEOPOROTIC VERTEBRAL FRACTURES: RETROSPECTIVE REVIEW IN MONCLOA UNIVERSITY HOSPITAL. PRELIMINARY RESULTS

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Background Current drugs for patients who suffer from established osteoporosis (OP) with osteoporotic vertebral fracture (VF) have demonstrated their efficacy with different levels of evidence for secondary prevention of fractures¹. In fact, this level of efficacy can be limited in real clinical practice, with pluripathological and previously polimedicated patients.

Objectives Main objective of this study is to describe the percentage of patients with VF in which the therapeutic goal of avoiding new VF during their follow-up has been achieved. As a secondary objective, clinical and therapeutic differences will be analyzed among distinct groups arisen from achieving or not the therapeutic goal.

Methods Retrospective, observational, longitudinal, descriptive study of patients from Rheumatology Department in Moncloa University Hospital who have suffered a osteoporotic VF.

Results 133 cases have been reviewed, 115 (86.5%) females and 18 males (13.5%). Average age is 72 years (+/- 7) and average follow-up time is 2.68 years (+/- 2.3). 25 cases (18.5%) were smokers, 9 (6.8%) oncologic patients, 33 (24%) with chronic corticotherapy and 28 (21%) with immune-mediated diseases. 81 patients (60.9%) had previous VF (0.933 fracture /patient) and 14 (10.5%) non-vertebral fracture (NVF). The average VF was 1.967/patient and 0.133/patient for NVF. 52 patients (39.1%) had received prior treatment for OP (36 Biphosphonate, 23 Denosumab, 5 SERM, 2 strontium ranelate and 1 teriparatide) and in 39 cases (29.3%) a cementoplasty was performed. Initial treatments prescribed by Rheumatology Department were Biphosphonates (48%), Denosumab (31%) and Teriparatide (21%). 35 patients received sequential-treatment (26.9%). 86.5 % of patients haven't presented new VF. 18 cases (13.5%) have been registered with new VF. This group is composed by 13 females and 5 males; the average age was 75 years (+/- 7.5) and the average follow-up time 2.8 years (+/- 2.46); 14 (77.8 %) patients presented previous VF and 3 (16.7 %) previous NVF. The average number of previous VF was 2.0/patient and 0.33/patient for NVF. 14 cases (78.8%) of new VF occurred during the first year of follow-up. The treatment they were receiving at the time of the new VF was in 8 cases with Denosumab (44%), 4 with Teriparatide (22%), 2 Alendronate (11%), 3 Risedronate (16%) and 1 case without treatment.

Conclusion These are preliminary data from a register for prognosis evaluation of patients who suffer VF in Moncloa University Hospital. A larger sample size is necessary to developed a strategic conclusion in this patients, pluripathological, with previous osteoporotic fractures and treatment. 78 % of new VF occurred during the first year of the follow-up, 44% of them were receiving Denosumab, 77% (vs. 58% of the patients without new VF) had previous VF and 44% (vs. 37% patients without new VF) had received previous OP treatment.