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 develop 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.

Table: Results of multivariate linear regression analysis for relationship between BMD in each part and parameters

parameters	univariate mode				multivariate mode			
	Coefficient	LCL	UCL	p-value	Coefficient	LCL	UCL	p-value
age	-0.002	-0.005	2.0x10 ⁻³	0.078				
RA	0.065	0.017	0.114	9.00x10 ⁻⁴	0.034	-0.017	0.084	0.19
BIO	0.036	-0.037	0.109	0.338				
BMI	0.018	0.012	0.024	3.54x10 ⁻⁸	0.019	0.013	0.025	2.60x10 ⁻⁹
N.Com	0.008	0.012	0.345	6.70x10 ⁻⁶	0.01	0.053	0.014	3.00x10 ⁻⁵
Dementia	-0.009	-0.062	0.046	0.757				
Frailty score	-0.015	-0.031	9.0x10 ⁻³	0.065				
bone fragility fracture	-0.051	-0.108	0.005	0.073				
Cr/CysC	0.203	0.006	2.028	0.044	0.086	-0.11	0.283	0.39
Drug intervention	-0.042	-0.103	0.019	0.18				
age	-0.004	-0.006	-5.641	5.72x10 ⁻⁸	-0.003	-0.001	-3.213	1.55x10 ⁻³
RA	0.065	0.034	0.095	4.00x10 ⁻⁶	0.025	-0.01	0.059	0.16
BIO	0.059	0.014	0.105	0.011	0.001	-0.049	0.051	0.98
BMI	0.004	3.0x10 ⁻⁴	0.008	0.048	0.004	2.0x10 ⁻³	0.008	0.037
N.Com	0.002	0.005	1.13	0.26				
Dementia	-0.049	-0.083	-0.015	4.78x10 ⁻³	0.008	-0.029	0.044	0.69
Frailty score	-0.019	-0.028	-0.009	2.60x10 ⁻⁵	0.005	-0.007	0.017	0.44
bone fragility fracture	-0.068	-0.103	-0.033	1.50x10 ⁻⁴	-0.036	-0.071	-0.001	0.046
Cr/CysC	0.248	0.126	0.37	8.00x10 ⁻⁶	0.132	0.007	0.256	0.038
Drug intervention	-0.079	-0.116	0.041	5.00x10 ⁻⁶	-0.057	-0.093	-0.021	1.88x10 ⁻³

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Crystal diseases, metabolic bone diseases other than osteoporosis

AB0861 METHODS TO EFFICIENTLY RECRUIT MINORITY PATIENTS WITH GOUT FOR CLINIC-BASED REGISTRIES

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Background: Gout is frequently misdiagnosed and/or miscoded, making approaches to identifying eligible patients for observational and interventional studies more challenging. Ethnic and racial minorities are under-represented in many gout studies. Methods to better identify minorities and confirm gout diagnosis are essential to ensure studies have both validity and generalizability.

Objectives: To define efficient methods for identifying African Americans (AA) interested in participating in a gout registry and who satisfy the American College of Rheumatology (ACR) and European League Against Rheumatism (EULAR) gout classification criteria.

Methods: We identified all AA patients seen at University of Alabama at Birmingham 01/09/2017 and 31/08/2018 with an ICD 9/10 code for gout. Patients not "opted out" by their primary care provider (PCP) were invited to participate. Those interested underwent detailed medical record review followed by phone contact to determine eligibility. Those with a high likelihood of meeting diagnostic criteria for gout were invited for an in person visit to confirm diagnosis (**Abstract AB0861 Figure 1**). We compared descriptive characteristic of participants enrolled in the registry and the larger potential gout populations

Results: From 3,032 AA patients with an ICD 9/10 gout diagnosis we generated a random sample of 400 patients. 5 patients were excluded by their PCPs, thus 395 patients were preliminarily eligible and invited via e-mail (N=176) and/or letter (N=375). 1 patient (< 1%) communicated lack of interest, 19 (4.8%) were unreachable, 322 (81.5%) did not respond to the invitation, and 53 (13.4%) expressed preliminary interest and underwent medical record review. We successfully scheduled 30 subjects for a registry visit, 24 completed the visit, and 23 (6% of initial sample) satisfied 2015 ACR/EULAR gout classification criteria (see **Table**

1). We found no significant difference in age, sex, and the number of medical encounters in the last year between enrolled patients and the remaining population.

Conclusion: We present a strategy for identifying and recruiting AA patients with ACR/EULAR classified gout into a population-based registry. Among a randomly selected cohort of AAs with an initial ICD 9/10 diagnosis code of presumed gout, slightly under 15% expressed interest and 6% satisfied the 2015 ACR/EULAR criteria and successfully enrolled in the registry. Our experience emphasizes a potential approach as well as some challenges in creating a generalizable gout registry.

Abstract AB0861 Table 1. Characteristics of African Americans (n = 24) who completed in person visit for a gout registry

Gender	
Men (%)	12 (50%)
Women (%)	12 (50%)
Age years, mean (SD)	62.7 (8.3)
2015 ACR/EULAR criteria ≥8 (%)	23 (96%)
2015 ACR/EULAR criteria, mean (SD)	9.5 (0.9)
Sufficient criteria (%): MSU crystals present	0 (0%)
Joint/bursa involvement (%)	
Ankle or midfoot	1 (4%)
First metatarsophalangeal joint	23 (96%)
Characteristics of episode(s) ever (%)	
One	0 (0%)
Two	2 (8%)
Three	22 (92%)
Time course of episode(s) ever (%)	
One	0 (0%)
Recurrent	24 (100%)
Clinical evidence of tophus(i) (%)	0 (0%)
Serum urate (uricase method) (%)	
<4 mg/dl	0 (0%)
4-6	2 (8%)
6-8	9 (37.5%)
8-	10 (42%)
≥10	3 (12.5%)
Synovial fluid analysis (%)	
Negative	1 (4%)
Not done	23 (96%)
Imaging evidence of urate	0 (0%)
Imaging evidence of damage	1 (4%)
Gout medication	
Allopurinol	
Current (%)	15 (63%)
Past (%)	2 (8%)
Colchicine	
Current (%)	10 (42%)
Past (%)	2 (8%)
Gout flare history	
Last year (%)	18 (75%)
Number of flares last year, mean (SD)	3 (6.0)
Age at diagnosis, mean (SD)	52.7 (11.9)
Positive family history (%)	10 (42%)
Gout attack at screening visit (%)	3 (13%)