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%)

Abstract AB0861 Figure 1. Sequential steps employed to recruit African Americans to gout to a registry

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AB0862

EFFICACY AND SAFETY OF US-GUIDED INJECTIONS OF THE KNEES WITH HYALURONIC ACID IN PATIENTS AFFECTED BY OSTEOARTHRITIS ASSOCIATED TO CALCIUM PYROPHOSPHATE DEPOSITION DISEASE: PRELIMINARY RESULTS

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Background: Calcium pyrophosphate deposition disease (CPPD) and Osteoarthritis (OA) are often associated (1). However, is still controversial how calcium pyrophosphate (CPP) deposits could affect OA features (1) and, eventually, the response to the OA treatments.

Objectives: To evaluate the efficacy and the safety of Ultrasound (US)-guided injections of the knees with Hyaluronic Acid (HA) in patients with OA and CPPD, compared to OA.

Methods: Consecutive patients, referred to the outpatient clinic with a clinical and radiological knee OA required intra-articular (IA) treatment with high molecular weight (HMW) HA and without any clinical inflammatory signs, were enrolled. No limits about OA score [Kellgren-Lawrence (K-L) score] were used. Patients with diagnosis or suspicion of other chronic inflammatory rheumatic diseases were excluded. For each patients, were recorded age, sex, Body Mass Index (BMI) and K-L score. The presence of CPP deposits were evaluated by US at level of menisci and knee hyaline cartilage, using the OMERACT criteria (2). All the patients were submitted to three IA injections with HA, performed every week. Before each injection, the synovial fluid (SF) was aspirated and its amount recorded. All SF aspiration and injections were US-guided. At

baseline and before each injection, the Western Ontario and Mc Master Universities Osteoarthritis Index (WOMAC) was submitted to the patients. The data were analyzed using a Wilcoxon test for independent samples and a regressive logistic model, including age, sex, BMI, K-L, SF and CPPD presence.

Results: We enrolled 23 patients (12 woman [52,17%]) with a mean age of 67,65 yo (SD±11,93), a mean BMI of 27,43 (SD±4,82) and a median K-L score of 3 (range 2-3). 10/23 (43,88%) patients were identified as affected by CPPD at US [6 woman, mean age 67,39 yo (SD±12,1), BMI 27,14 (SD±4,4), median K-L of 3 (range 2,75-3,25)]. No differences about age, BMI and K-L score were observed. Regarding the baseline WOMAC, the CPPD group mean [955,89 (SD±416,5)] was significantly higher (p<0,01) than OA [379,5 (SD±225,21)].

Considering the short term effect, the WOMAC score improved in both groups after the first injection, but it was significantly higher in the CPPD group (p<0,01) and the regressive model analysis, showed that only the CPPD is correlate to the WOMAC change.

After the second injection, the improvement continues but without differences. The regressive model showed that no variables correlate with WOMAC. The data from the long term follow up are not still available. Regarding the SF amount, no differences statistically significant were observed between the two groups at every time.

Conclusion: The US-guided injections with HMWHA at knees appear effective and safe in patients with OA associated to CPPD. Particularly the presence of CPP does not appear a risk factor for the development of inflammation. However, these results are preliminary and should be confirmed in a larger cohort and for a longer follow-up.

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AB0863

AN AUDIT OF MANAGEMENT OF GOUT ACCORDING TO THE BRITISH SOCIETY FOR RHEUMATOLOGY GUIDELINES,2017 IN A TEACHING HOSPITAL RHEUMATOLOGY UNIT

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Background: Gout is the most common form of inflammatory arthritis worldwide. Its prevalence is 2.49% in UK general practice. In spite of the availability of effective treatments in the UK, the incidence of gout has increased in the last decade, the reasons for which are many. There is also evidence that gout is being sub-optimally treated in primary and secondary care. (1)

Fewer than 50% of patients receive urate lowering therapy (ULT), and many patients on ULT do not achieve the target serum urate level of 300 µmol/l or lower, which is essential to prevent further attacks of gout. This target has been proposed by the British Society for Rheumatology (BSR), in the latest guideline from 2017. (2)

Objectives: To assess the compliance of gout management with the BSR 2017 guideline in our unit (a teaching hospital rheumatology department): a) Urate lowering therapy should be discussed with all patients diagnosed with Gout.

b) ULT is strongly advised in patients with recurrent attacks (>2 over 12 months), chronic gouty arthritis, tophi, renal impairment (eGFR <60), patients on diuretics and primary gout at an early age.

c) Aim of urate lowering to reduce serum urate to <300µmol/l. (2)

Methods: Inclusion criteria:

All patients being treated for gout in the department of rheumatology, between 1st October 2016 to 31st September 2017, were included in this retrospective study. Demographics, treatment details obtained from electronic patient records. Adherence to the BSR guidelines was expressed as percentage.