CONCLUSION: This study suggests that patients with more complex comorbidity profiles, including higher rates of adverse effects, often start pharmacological treatment with topical NSAIDs. However, patients who start treatment with topical NSAIDs switch to other types of NSAIDs; oral NSAIDs were the most frequently prescribed treatment across the cohorts. Thus, despite the safety concerns with oral NSAIDs and COX-2s, patients are still placed on these treatments to manage their OA pain. There is a need for new innovative treatments as there is currently a lack of other options.

Disclosure of Interests: Stuart Silverman Consultant of: Stuart Silverman is a paid consultant to Pfizer and Eli Lilly and Company in connection with this study. Patricia Schemp Shareholder of: Patricia Schemp is an employee of Pfizer with stock and/or stock options. Employee of: Pfizer. James B Rice Consultant of: Brad Rice is an employee of Analysis Group, who were paid consultants to Pfizer and Eli Lilly and Company for this study. Craig Beck Consultant of: Craig Beck is an employee of Pfizer with stock and/or stock options. Employee of: Pfizer. Alan White Consultant of: Alan White is an employee of Analysis Group, who were paid consultants to Pfizer and Eli Lilly and Company for this study. Sheena Thakkar Consultant of: Sheena Thakkar is an employee of Pfizer with stock and/or stock options. Employee of: Pfizer. Michaela Johnson Consultant of: Michaela Johnson is an employee of Analysis Group, who were paid consultants to Pfizer and Eli Lilly and Company for this study. Rebecca Robinson Consultant of: Rebecca Robinson is an employee and minor stockholder of Eli Lilly and Company. Birud E米尔 Shareholder of: Birud E米尔 is an employee of Pfizer with stock and/or stock options. Employee of: Pfizer.

DOI: 10.1136/annrheumdis-2021-eular.2175

PO50284

CLINICAL AND MRI COMPARISON OF ECCENTRIC VERSUS CONCENTRIC REHABILITATION IN SYMPTOMATIC KNEE OSTEOARTHRITIS: A PROSPECTIVE RANDOMIZED STUDY

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Background: Rehabilitation is at the center of the non-medical management of knee osteoarthritis. Concentric muscle strengthening is often preferred, while eccentric contractions play an important role in controlling knee flexion and knee stability and allow the development of a high level of strength with a low energy cost. But few studies have focused on these two technique

Objectives: To explore the effect of a 6-week-exercise program on function, pain and performance level in symptomatic knee osteoarthritis patients

Methods: An analysis was performed of the data from 60 individuals with symptomatic knee osteoarthritis who were included in the EXART study. The EXART study was a prospective, randomized controlled trial which included patients aged 40 to 85 with KL 2 or 3 responding to the American College of Rheumatology criteria for COX-2s or topical tNSAIDs. 37% of COX-2 patients and 56% of topical tNSAIDs cohort had the highest costs ($8,455), but fairly comparable with inpatient visits (18.1% vs. 15.4% for topical tNSAIDs and 11.8% for oral NSAIDs). Oral NSAIDs had the lowest total all-cause cost ($6,504), and the topical NSAIDs cohort had the highest costs ($8,455), but fairly comparable with COX-2s ($8,289). During follow-up, oral NSAIDs patients stayed mostly on oral NSAIDs as less than 15% of oral NSAIDs patients later had a prescription for COX-2s or topical NSAIDs. 37% of COX-2 patients and 56% of topical NSAIDs patients later took oral NSAIDs. Topical NSAIDs patients had an average of 184.4 days of supply for topical NSAIDs yet also extensively used oral NSAIDs during follow-up (average days of supply for oral NSAIDs was 315.5 days and for COX-2s was 383.5 days).

Conclusion: This study confirms the importance of any type of rehabilitation in knee osteoarthritis and raises the question of the relation between muscle gain/performance and function or pain

Acknowledgements: We would like to thank all the patients who took part in the study as well as all the members of the Fragile Platform of the Nice University Hospital.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.3164

PO50285

ARE RACIAL DISPARITIES IN REVISION TKA OUTCOMES ASSOCIATED WITH HOSPITAL OR SURGEON VOLUME? S. Mirza1, S. Goodman2, Y. Zhang3, H. Do4, B. Mehta2, S. Lyman5, L. A. Mandl2, M. Figgle4, M. Parks6, L. Russell2, A. Bass2, 1 Rho University of Osteopathic Medicine, Medical School, New York, United States of America; 2 Hospital for Special Surgery, Medicine, New York, United States of America; 3 Well Cornell Medical Center, Medicine, New York, United States of America; 4 Hospital for Special Surgery, Orthopedic Surgery, New York, United States of America

Background: Total knee arthroplasty (TKA) outcomes are linked to surgical volume, despite the increase in TKA utilization, racial disparities in TKA outcomes persist. Blacks in the US are at a higher risk of aseptic revision of TKA (R-TKA) when compared to Whites, yet the reasons for this are not understood.

Objectives: The objective of this study is to examine the relationship between hospital and surgeon annual TKA volume and R-TKA outcomes by race.

Methods: This is an observational cohort study. New York State Wide tracking and Research Cooperative System data for 2004 – 2013 was used to identify patients who underwent primary TKA. Data through 2015 was used to identify R-TKA within 2 years of the index TKA. Hospital characteristics were obtained from the AHA Annual Survey. Surgeon data was collected from New York State Education Department and New York State Physician Profile. Surgeon annual TKA volume was categorized based on cutoffs established by Wilson et al. as <12, 13-59, 60-145 or >146, and hospital TKA volume as <89, 90-235, 236-644 and >645. We calculated the odds of R-TKA in Whites and Blacks separately and generated crude odds ratios (OR) comparing Blacks to Whites to examine trends across volume categories. A multivariable logistic regression model adjusted for known R-TKA risk factors was also performed.

Results: A total of 163,576 patients were included. Mean (SD) age was 66.4 (10.4) years, 107,233 (65.6%) were female, 124,277 (76.6%) were White and 15,990 (9.8%) were Black. 2925 patients underwent aseptic R-TKA. In logistic regression analysis, Blacks had a higher risk of R-TKA (OR 1.42, 95%CI 1.26-1.6) (Table 1). Risk of R-TKA was also lower with increased annual TKA volume was <12 (OR 1.5, 95%CI 1.25-1.8) or 13-59 (OR 1.16, 95%CI 1.04-1.29) TKA was compared to the highest volume surgeons (p>0.14).

Conclusion: Patients who had surgery at a hospital with annual volume of 236-634 TKA were less likely to undergo R-TKA compared to the highest volume hospitals (p=0.645) (OR 0.88, 95%CI 0.79-0.98). Other risk factors for R-TKA were younger age and work’s compen- sation patients with inflammatory arthritis who had a lower risk. Figures 1A and 1B show the odds of R-TKA in Whites and Blacks, respectively, by hospital and surgeon volume. Figure 1C shows the crude OR for Blacks to Whites for each category pair. The OR ranged from 0.9 to 2.5, with the largest disparity found in patients who have TKA performed by surgeons with 60-145 annual TKA volume at the highest volume hospitals (p<0.05).

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.3164

References