consistently associated with measures of function and disability. Most closely associated with function measures were: pain affecting sleep, for WOMAC function; pain catastrophizing, for Late Life basic function, chair stand time, and disability; and pain after 20 m walk, for Late Life advanced function. These findings suggest that different aspects of the pain experience in knee OA may have unique relationships with function and disability. Ultimately, specific multidisciplinary attention to aspects such as the impact of pain on sleep and pain catastrophizing may be a more meaningful approach for the person with painful knee OA, and potentially have greater impact on function and disability over time.

446 ASSOCIATION OF PATIENT-REPORTED OSTEOARTHRITIS SEVERITY WITH OTHER PATIENT-REPORTED OUTCOMES IN THE EUROPEAN CLINICAL SETTING

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447 PAIN MEDICATION TREATMENT AND JOINT REPLACEMENT SURGERY IN PATIENTS WITH OSTEOARTHRITIS

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Purpose: Osteoarthritis (OA) is characterized by joint pain, stiffness, and inflammation and can be associated with a significant number of comorbid conditions. In this retrospective longitudinal study, we estimated the rate of hip and knee replacement surgery in patients with OA and characterized joint replacement, pain medication treatment patterns, and concomitant gastroprotective agent (GPA) use.

Methods: Data were enrollment information and medical and pharmacy claims data from a large, national US health plan. The study population was adult (age ≥18 years) commercial health plan enrollees newly diagnosed with OA during the identification period 1/1/2000–4/30/2009. Patients had ≥2 medical claims with primary OA diagnoses (ICD-9-CM 715.xx, 721.0, 721.2, 721.3, 721.90) ≥30 days apart in the identification period; the index date was the date of the first OA diagnosis. Patients had 1 year of pre-index continuous enrollment with no chronic use of NSAIDs, COX-2 inhibitors (coxibs), or oral opioids, and ≥1 year of post-index enrollment. Outcomes included hip and knee replacement surgery and pain medication use. Demographics, comorbidities, and Charlson Comorbidity Index (CCI) score were measured. Data were analyzed descriptively.

Results: Of 193,829 newly diagnosed patients with OA, 57% were female and 43% were male. Patients whose first observed chronic pain medication use (index pain medications) were strong opioids appeared to have a higher mean CCI score, 1.16, compared with those with NSAIDs, coxibs, and weak opioid index pain medications (0.53–0.83). Patients in the youngest (18–44) and oldest (75+) age groups appeared to be more likely to have an opioid (35.7% and 34.9% respectively) as their index pain medication compared with patients in the middle age groups (45–54 yrs: 24.5%, 55–64 yrs: 19.9%, 65–74 yrs: 24.0%). The incident rates of hip or knee replacement per person-year appeared to be higher for those patients with opioids as their index pain medications (0.0663, weak opioids; 0.0801, strong opioids; 0.0464, NSAIDS; 0.0548, coxibs). The mean time from index pain medication to ANY joint replacement appeared shorter for patients whose index pain medications were opioids (106 days, weak opioids; 28 days, strong opioids; 320 days, nonselective NSAIDs; 479 days, coxibs). Only 18% of patients prescribed NSAIDs were co-prescribed a GPA.

Conclusions: The data from this study indicate specific patterns of relationships between the index diagnosis of OA, joint replacement, pain medication treatment, age, and concomitant GPA use. These data may be important in refining contemporary treatment guidelines, educating physicians in appropriate care paths, and may warrant exploration of potential unmet needs in the management of chronic pain in OA.

448 PROTEOMICS APPROACH FOR THE SEARCH OF BIOMARKERS IN SERUM AND CARTILAGE OF PATIENTS WITH OSTEOARTHRITIS

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Purpose: Osteoarthritis (OA) is a degenerative joint disease that is characterized by cartilage destruction and bone changes, occasionally accompanied by synovial inflammation. A major objective for OA research is the conceptualization and development of early diagnostic strategies. The discovery of protein biomarker panels for early diagnosis, therapeutic purposes and management in several diseases is an area of interest in medicine. In the present work we have quantitively screened differential proteins in sera and cartilage from patients suffering OA at diverse stages. To attain this objective, a quantitative proteomics approach has been followed, which is based on peptide differential