Methods: We present the data collected from the Rheumatology clinic aimed to treat the medical pathology of the LA during the first 3 months, October to December 2017 and we compared the results with the same period of 2016, when this consultation was in charge of Traumatology department. Patients are referred from Primary Care (PC). We recorded the epidemiological characteristics of the patients, reason for consultation and final diagnosis, ability to resolve the consultation, need to request additional tests, treatment prescribed at discharge and referrals to other specialties.

Results: We treated 744 patients, with an average age of 55.26 years (± 15.02), mainly women (62.6%). The most frequent referral consultation were: gonalgia (30.6%), polyarthralgia (14.5%) and low back pain (13.7%). Peripheral Osteoarthritis (26.6%) and soft tissue diseases (24.2%) were the most frequent processes. In 11.6% of the cases, no organic cause was found that justified the referred clinic ("nonspecific mechanical pathology") and 4.3% were asymptomatic when assessed. They provided complementary tests in the first consultation 85.2% of patients: 92.43% simple radiographs and 10.72% magnetic resonances. We requested: 7.2% MRI (54), 7.8% X-Ray (58), 7.1% Ultrasound (53), 5% Analysis,³⁷ 4.2% neurophysiological study,³¹ 1.2% scintigraphy.⁹ Discharged at the first consultation 72.4% and at the second visit 5%, leaving 22.6% of patients still in follow-up. 23.1% of the patients were referred to another specialty, mainly to Traumatology (15.3%). During the same period of time, October-December 2016, Traumatology treated 3730 patients and requested 506 MRI (13.5%).

Conclusions: The management of an locomotor apparatus clinic carried out by rheumatologists is more efficient: high resolution capacity in the first consultation, less number of complementary tests requested, mainly MRI (7.2% vs. 13.5%), and little referral to other specialties. It is necessary to create referral protocols from Primary Care to Rheumatology and to enhance the Rheumatology as the medical specialty of reference of the locomotor apparatus musculoskeletal diseases.

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THU0642

LIVING IN IMMIGRANT COMMUNITIES DOES NOT IMPACT TOTAL KNEE ARTHROPLASTY OUTCOMES: EXPERIENCE FROM A HIGH-VOLUME CENTRE IN THE UNITED STATES

B. Mehta^{1,2,3}, J. Szymonifka⁴, S.A. Dey¹, I.Y. Navarro-Millan^{1,2}, S.V. Grassia⁴, L. A. Mandl^{1,2}, A.R. Bass^{1,2}, L.A. Russell^{1,2}, M.L. Parks^{5,6}, M.P. Figgie^{5,6}, Y.-Y. Lee⁴, J.T. Nguyen⁴, S.M. Goodman^{1,2}. ¹Rheumatology, HOSPITAL FOR SPECIAL SURGERY; ²Rheumatology, Weill Cornell Medicine; ³Columbia Mailman School of Public Health; ⁴Biostatistics; ⁵Orthopaedics, HOSPITAL FOR SPECIAL SURGERY; ⁶Orthopaedics, Weill Cornell Medicine, New York, USA

Background: Social factors affect TKA outcomes in osteoarthritis, both at the individual and neighbourhood level.¹ However, prior studies have not evaluated the influence of the proportion of immigrants within a neighbourhood, as reported for other high-volume and high-cost procedures.²

Objectives: Our objective was to determine the association of neighbourhood immigrant proportion (IP) on Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) pain and function scores at baseline and 2 years after elective TKA, and to examine if this is different between sexes.

Methods: Individual patient-level variables were obtained from a single institution TKA registry between May 2007 and February 2011, including demographics, baseline and 2 year WOMAC pain and function (0–100; 100 best), and geocodable US addresses. We only included patients living in the tri-state area - i.e. New York, Connecticut and New Jersey which is the catchment area for the hospital. Individual patient level variables were then linked to US Census Bureau data at the census tract level. Data was analysed using univariate and multivariable linear mixed effects models, with census tracts variables treated as random effects. A separate linear mixed-effects model was used to assess the interaction between neighbourhood IP and gender.

Results: Table 1 describes the 3,898 TKA cases analysed. In multivariable analyses, patients from neighbourhoods with low IP (<10%) had slightly higher baseline and 2 year WOMAC pain and function scores than those with high IP ($\geq 40\%$), but these differences were not statistically significant (table 2). While women had

worse baseline and 2 year WOMAC pain and function scores (all $p \leq 0.04$), this difference was not significantly influenced by neighbourhood IP (all $p_{\text{interaction}} \text{ NS}$).

Abstract THU0642 – Table 1. Baseline characteristics

Characteristic	IP* <10% (n=1032)	IP* $\geq 10 - < 40\%$ (n=2527)	IP* $\geq 40\%$ (n=339)	p-value ($\leq 10\%$ v. $\geq 40\%$)
Patient demographics				
Age at surgery (years), mean $\pm$ SD	67.0 $\pm$ 9.2	68.1 $\pm$ 9.6	67.3 $\pm$ 9.6	0.16
Sex: female, n (%)	568 (55.0%)	1338 (50.9%)	240 (70.8%)	<0.001
BMI (kg/m ²), mean $\pm$ SD	30.1 $\pm$ 5.7	29.9 $\pm$ 6.0	31.0 $\pm$ 6.6	0.03
Race, n (%)				<0.001
White	1012 (98.1%)	2297 (90.9%)	259 (76.4%)	
Black	5 (0.5%)	128 (5.1%)	41 (12.1%)	
Asian	9 (0.9%)	47 (1.9%)	18 (5.3%)	
Other	5 (0.5%)	35 (1.4%)	16 (4.7%)	
Unknown	1 (0.1%)	20 (0.8%)	5 (1.5%)	
Ethnicity, n (%)				<0.001
Hispanic	5 (0.5%)	35 (1.4%)	16 (4.7%)	
Patient status				
ASA class				0.81
I–II	828 (80.2%)	2026 (80.2%)	270 (79.7%)	
III–IV	203 (19.7%)	501 (19.8%)	69 (20.4%)	
One or more comorbidities	267 (25.9%)	674 (26.7%)	116 (34.2%)	0.003
Sociodemographic characteristics				
Education level (highest), n (%)				<0.001
Some high school, high school graduate or some college	359 (36.0%)	849 (35.1%)	158 (49.4%)	
College graduate or Masters, professional or doctorate degree	639 (64.6%)	1569 (64.9%)	162 (50.6%)	
Lives alone, n (%)				<0.001
No	863 (84.4%)	1881 (75.9%)	229 (69.0%)	
Yes	159 (15.6%)	598 (24.1%)	103 (31.0%)	
Census tract characteristics				
Poverty, n (%)				<0.001
< 10%	975 (94.5%)	2078 (82.2%)	122 (36.0%)	
10% – < 20%	48 (4.7%)	300 (11.9%)	163 (48.1%)	
$\geq 20\%$	9 (0.9%)	149 (5.9%)	54 (15.9%)	
Patient-reported outcomes				
Baseline survey results, mean $\pm$ SD				
WOMAC** pain	54.9 $\pm$ 17.6	54.7 $\pm$ 17.3	51.0 $\pm$ 18.9	<0.001
WOMAC** function	54.2 $\pm$ 16.9	54.1 $\pm$ 17.7	49.1 $\pm$ 17.3	<0.001
2-year survey results				
WOMAC** pain, mean $\pm$ SD	89.3 $\pm$ 14.7	87.5 $\pm$ 15.7	86.5 $\pm$ 17.5	0.01
WOMAC** function, mean $\pm$ SD	86.7 $\pm$ 14.9	85.4 $\pm$ 16.2	83.6 $\pm$ 17.9	0.005

*IP – Immigrant Proportion, **WOMAC – Western Ontario and McMaster Universities Osteoarthritis Index

Timepoint	WOMAC** pain estimate $\pm$ SD	p-value	WOMAC** function estimate $\pm$ SD	p-value
Baseline		0.36		0.24
IP* $\geq 10\%$	52.30 $\pm$ 3.26		51.71 $\pm$ 3.28	
IP* $\geq 40\%$	51.19 $\pm$ 3.33		50.31 $\pm$ 3.36	
2-year		0.80		0.97
IP* $\geq 10\%$	85.08 $\pm$ 3.02		85.95 $\pm$ 3.11	
IP* $\geq 40\%$	84.81 $\pm$ 3.09		85.90 $\pm$ 3.18	

*IP – Immigrant proportion, **WOMAC – Western Ontario and McMaster Universities Osteoarthritis Index

Table 2 Impact of neighbourhood immigrant proportion (IP) on WOMAC pain and function.

Conclusions: Patients coming from high (>40%) IP neighbourhoods present with worse baseline pain and function. Two years later, worse pain and function persist; however, the difference is not significant. Although sex differences favouring males are notable, these differences are not associated with IP. Social factor contributions to healthcare disparities are multidimensional, and future studies examining immigration-related neighbourhood characteristics may be warranted.

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THU0643

IMPACT OF SHOULDER ULTRASOUND IN QUALITY OF CARE INDICATORS IN PATIENTS WITH RECENT ONSET OF PAIN

C.A. Guillen-Astete¹, R. Penedo Alonso², C. De La Casa Resino². ¹Rheumatology Department; ²Ramon y Cajal University Hospital, Madrid, Spain

Background: Ultrasound is a technique that has demonstrated diagnostic accuracy in the periarthral pathology of the shoulder. Although its value is not questioned, any diagnostic or therapeutic instrument must also demonstrate a beneficial impact for the patient in terms of quality of care. The quality of care can be measured by direct indicators (satisfaction surveys, waiting times) or indirect ones (referral rate, need for new consultations). We do not have studies that measure the impact of ultrasound in the assessment of hyperacute shoulder pain or of recent onset (less than a week) pain.

Objectives: Our purpose is to determine to what extent its use modifies three indicators of quality of care in relation to hyperacute omalgia of non-traumatic origin.

Methods: We conducted an analysis of three indirect indicators of quality of care: Need for reassessment due to pain (NRD), specialised referral rate (TDE) and length of stay in the emergency room (TDU). Records of patients treated for acute omalgia between 2014 and 2016 were reviewed and classified according to whether or not ultrasound was used as a diagnostic tool. For the statistical analysis we used the Student's T test, Fisher's exact test and survival curve (for TDU, TDE and NRD, respectively). The design used was that of a retrospective descriptive study. The information on waiting times was obtained from the CAJAL registry, information on new consults and specialised referral registration were obtained from the HORUS program and CAJAL registry. A comparative retrospective study was carried out based on the usual clinical practice. We examined the records of patients treated between 2015–2016 in the rheumatological emergency unit, who were known diabetics and who underwent an ultrasound-guided infiltration. Using the HORUS program we reviewed the patient's files of the immediate outcome after infiltration and the follow up consults.

Results: We included 1433 records of patient. Of these, 547 (38.1%) were examined with ultrasound assistance (Group-ECO) from which 2 were performed by a radiologist and the rest by a trained physician (Rheumatologist or Family Physician). The rest of the assessments, 886 (61.8%) were made without using the ultrasound (Control group), although in 540 cases a different imaging test was used. At 30 days after the first assessment, 90 patients (10.1%) in the control group had consulted again (56 due to emergencies and 34 per AP), while in the ECO-Group 14 (2.5%) consulted again at least once (12 for emergencies and 2 for AP) ($p<0.001$). The referral rate to the specialist in the Control-Group was 36.5%, while in the ECO-Group was 6.21% ($p<0.0001$). The average stay time was 94.5 DE 34.3 min in the Control Group and 105.4 DE 40.1 min in the ECO-Group ($p<0.0001$).

Conclusions: The use of ultrasound as a diagnostic tool reduces the need for re-evaluations of patients and the rate of referrals to the specialist in a significant way. On the contrary, it increases the patient's stay time in the emergency room, probably due to delays in the availability of the equipment to perform the diagnostic procedure. Globally, our results show that most quality health care indexes improve in patients assessed by using ultrasonography.

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THU0644 PERCEPTIONS OF BIOSIMILARS AMONG PRACTICING RHEUMATOLOGISTS: RESULTS FROM A MULTICOUNTRY STUDY IN EUROPE

C. Karki¹, S. Shah¹, L. Archer², A. Baskett², E. Baynton², L. Ha¹, B. Shah-Manek³.
¹Ipsos Healthcare, New York, USA; ²Ipsos Healthcare, London, UK; ³Ipsos Healthcare, San Francisco, USA

Background: In recent years, a substantial number of biosimilar (BioSm) products have come into the market for the treatment of rheumatic disorders, that might potentially improve patient access to treatment, resulting in cost savings and improved outcomes. However, given the limited regulatory evidence, clinical decision making continues to be a challenge.

Objectives: The objective of the study was to assess perceptions of prescribing biosimilars among rheumatologists and gain insights on barriers to access in the EU5 countries (United Kingdom (UK), France (FR), Italy (IT), Spain (SP) and Germany (DE)).

Methods: A cross-sectional survey was conducted in Q4 2016 in the EU5 among national, regional and hospital physicians who had been practicing between 3–30 years. Respondents completed a Physician Biosimilar Perceptual Questionnaire, which assessed the overall perception of anti-TNF biosimilars, specific barriers to prescribing them and cost factors influencing the current use and adoption of biosimilars. Data was analysed using descriptive statistics.

Results: A total of 256 rheumatologists in the EU5 were recruited as part of the study (with almost equal number of rheumatologists representing each EU5 country). Treating rheumatologists were practicing for an average of 16 years, mainly practicing in teaching hospitals (52%), and urban hospitals (21.9%). Overall, 83% of rheumatologists had awareness of biosimilars (range: 70% in DE and IT to 92% in UK). Among the different domains queried, only one in four rheumatologists trusted BioSm as much as branded biologics (range: 17.3% in IT to 39.2% in UK) and about 30% were comfortable with the safety profiles, and reported that long term efficacy and safety was of great importance for prescribing BioSm. Comparing perceptions of BioSm across countries, only 25% of rheumatologists in IT felt that BioSm offered equivalent efficacy to branded biologics, whereas 60.8% in the UK agreed with the same statement (figure 1). There was a consensus among respondents in all five countries regarding the lower cost of BioSm (range: 56.9% in SP to 72.5% in UK). Over 35% of the rheumatologists anticipated that clinical guidelines would require them to prescribe biosimilars. Data also showed that 63% chose BioSm for cost and 49% for formulary placement in clinical practice.

Abstract THU0644 – Figure 1 Perceptions. of Physicians in EUS: Equivalent efficacy as branded biologics

Conclusions: Overall, rheumatologists expressed the greatest level of awareness of biosimilars, even though differences were seen among the countries. Long term safety and efficacy data was of key importance; however, cost and formulary coverage did impact the prescribing pattern.

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THU0645 IMPACT OF SECOND-LINE THERAPY WITH ABATACEPT VERSUS OTHER TARGETED DMARDS ON THE RISK FOR INFECTION-RELATED HOSPITALIZATIONS AND ASSOCIATED COSTS AMONG RA PATIENTS IN THE UNITED STATES

D. Paul¹, L. McDonald¹, A. Marshall¹, T. Curtice¹, M. Lingohr-Smith², B. Menges², J. Lin².
¹Bristol-Myers Squibb, Princeton; ²Novosys Health, Green Brook, USA

Background: Abatacept is a targeted DMARD (tDMARD) with a unique mechanism of action that has demonstrated a lower risk of infection-related hospitalizations as a second-line (2L) therapy compared with other tDMARDs among patients (pts) with RA. The cost savings in the United States associated with this reduced risk of infection-related hospitalizations is not well understood.

Objectives: To compare infection-related hospitalisation risk and associated healthcare costs of RA pts who were treated at 2L with abatacept versus other tDMARDs, including TNF- α inhibitors (TNFis) and non-TNFis.

Methods: Pts prescribed a 2L tDMARD (index date) who had ≥ 1 inpatient diagnosis or ≥ 2 outpatient diagnoses of RA in the 12 months prior to the index date were identified from the MarketScan[®] Commercial and Medicare claims databases between 1 January 2010 and 30 September 2015. Pts were required to have 12 months of continuous insurance coverage prior to the index date (baseline period) and throughout the follow-up period (≥ 12 and up to 36 months). All pts were treated with a TNFi in first line. Infection-related hospitalizations and associated costs (on a per-pt per-month [PPPM] basis) were evaluated during baseline and follow-up periods. Multivariable regression analyses were used to evaluate the impact of index drugs on the risk of infection-related hospitalisation, as well as infection-related medical cost change from baseline to follow-up periods, while controlling for differences in baseline pt characteristics.

Unadjusted Comparison of Medical Cost, PPPM				
	Abatacept	TNFis	Non-TNFis	p-value
Baseline medical costs	\$121	\$48	\$39	0.02
Follow-up medical costs	\$30	\$69	\$102	0.16
Medical cost difference (follow-up – baseline)	–\$91	\$21	\$63	0.005
Regression Adjusted Comparison of Difference of Medical Cost, PPPM				
	Cost difference, PPPM			p-value
TNFi vs abatacept	\$51			0.09
Non-TNFi vs abatacept	\$76			0.04

Results: Among the study population, 285 pts (mean age 55 years; 85% female) were treated with abatacept, 954 with TNFis (mean age 52 years; 82% female) and 288 with non-TNFis (mean age 55 years; 76% female). After controlling for differences in pts' characteristics, Cox regression showed that the risk for an infection-related hospitalisation was significantly greater among those treated with TNFis (hazard ratio [HR] 2.8; 95% CI 1.2, 6.7; $p=0.02$) and higher, although not