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.

Disclosure of Interest: None declared

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

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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 EU5: 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

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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

significant, among those treated with other non-TNFs (HR 2.4; 95% CI 0.9, 6.3; $p=0.08$) compared with those treated with abatacept. Infection-related medical costs were lower for abatacept compared with other non-TNFs as shown in the table 1.

Conclusions: In the real-world setting in the United States, pts treated with abatacept versus other tDMARDs tended to have a lower risk for infection-related hospitalisation and lower infection-related medical costs.

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THU0646 EVALUATING THE QUALITY OF CARE FOR RHEUMATOID ARTHRITIS

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Background: The Arthritis Alliance of Canada (AAC) has developed performance measures (PMs) to evaluate RA care quality.

Objectives: To operationalize and report on 4 PMs using administrative data for British Columbia (BC), Canada: PM1) percentage of patients with new onset RA with at least one visit to a rheumatologist in the first year after diagnosis, PM2) percentage of RA patients under the care of a rheumatologist seen in follow-up at least once per year, PM3) percentage of RA patients dispensed a disease modifying anti-rheumatic drug (DMARD) during the measurement year, PM4) time to DMARD therapy in new onset RA.

Methods: All patients with RA visits between 01/01/1997 and 31/12/2009 in BC were identified using health administrative data and followed until December 2014. Cases were identified by ≥ 2 physician billing codes for RA ≥ 8 weeks but ≤ 5 years apart. For this study, only cases age >18 who were seen by a rheumatologist at some point over follow-up were included. PM1: The percentage of incident RA cases with at least one visit to a rheumatologist within one year of their first RA visit was evaluated. PM2: The proportion of prevalent RA cases having at least one visit per year was calculated for those under rheumatology care. PM3: The percentage of prevalent RA patients dispensed a DMARD (including biologic agents and small molecule inhibitors) was calculated. PM4: time from RA onset (defined as first RA visit) to DMARD therapy was reported (in the calendar year of RA incidence), using median and 90th percentile wait time, as well as the proportion meeting the benchmark of 14 days.

Results: The cohort included 18 976 incident and 29 639 prevalent RA cases. The percentage of patients seen by a rheumatologist within 1 year from RA diagnosis increased over time, while the percentage of RA patients under the care of a rheumatologist seen in yearly follow-up declined steadily overtime. Further analysis (data not shown) suggests this is due to having more people with longer follow-up in the latter years, and lost to follow-up increasing over time, rather than a true

calendar year effect. The percentage of RA patients dispensed a DMARD was suboptimal (56% $>$ 65%). Of note, patients were not necessarily seen by a rheumatologist during the measurement year. The median time to DMARD improved over time to 23 days in 2009, with roughly one third receiving a DMARD within the benchmark of 14 days.

Conclusions: The present study represents the first time the AAC's PMs have been tested in administrative data and highlights where the measures are being met and potential gaps in care which require further examination.

Disclosure of Interest: None declared

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THU0647 LONGITUDINAL STUDY OF LONG-TERM POVERTY AND PERSISTENT DEPRESSIVE SYMPTOMS IN SLE

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Background: A prior study found that persons with SLE in long-term poverty have greater accumulation of disease damage over 6 years than those exiting poverty or never in poverty¹. The present study evaluates the effect of long-term poverty status on depressive symptoms over the same duration of time.

Objectives: Analyse the impact of long-term poverty on prevalent and incident persistent depression after accounting for other risk factors for depression among persons with SLE.

Methods: Data are from the UCSF Lupus Outcomes Study in which persons with SLE were recruited in 2003 throughout the U.S. and interviewed annually through 2015. In each year we characterised respondents' poverty status based on household income and family size and administered the CESD measure of depressive symptoms, defining a high level of depressive symptoms using a validated SLE-specific cutpoint (≥ 24) associated with a formal diagnosis of depression². Prevalent persistent depression was defined as having high levels of depressive symptoms for ≥ 3 years between 2009 and 2015. Incident persistent depression used the same criteria, measured only among those who had low levels of depressive symptoms between 2006 and 2009. Logistic regression was used to estimate the impact of being poor in every year from 2003–2009, permanently leaving poverty by 2009, or never being poor on prevalent and incident persistent depression, with and without adjustment for gender, age, marital status, race/ethnicity, education, disease duration, extent of accumulated damage by 2009 using the Brief Index of Lupus Damage³, smoking status, and BMI.

Results: 535 persons with SLE were interviewed in each year from 2003 to 2015 (94% female, 65% non-Hispanic whites, mean age in 2003 50 years, range 20–83, mean disease duration 17 years, range 1–51). Between 2003 and 2009, 81% were never poor, 8% exited poverty, and 11% were poor in every year. 89 of the 535 (16.6%) met the study definition of prevalent persistent depression; 23 (7.4%) of the 312 free of high levels of depressive symptoms from 2006–2009 had incident persistent depression as of 2015. Table 1, below, indicates that those who were poor in every year had significantly higher rates of prevalent and incident persistent depression than those exiting poverty or never poor.

Abstract THU0646 – Table 1. Results of Four Performance Measures for RA.

Measurement Year ¹	Prevalent RA cases	Incident RA cases	PM1: Patients seeing rheumatologist within 1 year of RA onset	PM2: % of Patients under rheum care with yearly rheumatology visits	PM3: % Patients dispensed a DMARD	PM4: Median (90th percentile) days to DMARD	PM4: % with DMARD within 14 days of onset
2004	17 472	1647	80%	57%	59%	31 (825)	27%
2005	19 097	1614	82%	56%	60%	26 (579)	30%
2006	20 612	1704	85%	54%	60%	23 (411)	31%
2007	21 764	1430	83%	53%	60%	29 (399)	28%
2008	22 721	1305	86%	50%	60%	26 (339)	29%
2009	23 386	921	92%	49%	61%	23 (188)	34%
2010	23 122	-	-	46%	60%	-	-
2011	22 781	-	-	44%	56%	-	-
2012	22 370	-	-	42%	56%	-	-
2013	21 966	-	-	41%	57%	-	-
2014	21 412	-	-	41%	57%	-	-

¹PMs reported on a prevalent cohort until 2014, and on an incident cohort reported until 2009