patients, the RCI cohort had significantly higher CCI and CIRAS scores; higher use of traditional DMARDs (65.6% vs. 61.9%), corticosteroids (CS, 91.3% vs 68.8%), prescription nonsteroidal anti-inflammatory drugs (NSAIDs, 66.9% vs 58.5%), and opioids (67.7% vs 47.5%), but lower biologic use (45.8% vs. 87.7%) (all $p < 0.05$). RCI pts had significantly higher mean number of inpatient, emergency room, office, and outpatient visits (all $p < 0.05$).

RCI therapy initiation was most significantly impacted by treatment patterns, including number of DMARDs, CS, and opioids tried in the previous year (Figure 1). Corticosteroid use was the strongest predictor of RCI initiation, especially extended use at any dose ($OR \geq 2.6$) and extended use of the highest doses (>15 mg/day, $OR=8.5$), present in 21% of the RCI cohort (Figure 1). Drug benefit generosity (proportion of out-of-pocket costs) was also associated with RCI initiation in any plan qualified as better than "below average" ($OR=2.1-2.9$). Anemia, renal disease, and Sjogren's syndrome were also associated with higher odds of RCI initiation ($OR=1.4-2.1$).

Conclusion: RA pts initiating RCI therapy were prescribed a greater number of traditional DMARDs, CS, and opioids in the previous 12 months compared to non-RCI pts, and have evidence of more severe disease and comorbidities. Extended and high dose CS use were the factors most associated with RCI initiation.

References:

- [1] Smolen JS, et al. *Ann Rheum Dis*. 2017;76:960–977
- [2] Strand V, et al.. *Rheumatol Ther*. 2017;4(2):489–502.
- [3] Acthar Gel (repository corticotropin injection; prescribing information). Mallinckrodt ARD LLC, Bedminster, NJ 07921 USA. 2019.

Figure 1. Predictors of RCI Initiation

Disclosure of Interests: Kyle Hayes Employee of: Mallinckrodt ARD, LLC, Mary Panaccio Employee of: Mallinckrodt Pharmaceuticals, Huanxue Zhou Consultant of: I am full time employee in KMK Consulting Inc. and providing consulting service to Mallinckrodt, Mohammed Fahim Consultant of: I am full time employee in KMK Consulting Inc. and providing consulting service to Mallinckrodt
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AB1167

PREGNANCY AND INFLAMMATORY ARTHROPATHIES: EXPERIENCE IN A MULTIDISCIPLINARY UNIT

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Background: Systemic inflammatory diseases are common in women at the reproductive age. These women may have fertility problems and complications during pregnancy.

Objectives: To describe the experience in a multidisciplinary unit (composed of Rheumatologists and Obstetricians) and assess the complications and treatments used in patients with inflammatory diseases in a tertiary hospital compared to those registered in healthy women from the same center (preterm births 6.59%, Caesarean section (C-section) 14.4%, maternal average age 33.33 years).

Methods: Retrospective and descriptive study of the evolution of pregnancy in patients with inflammatory diseases and follow-up in a multidisciplinary unit for more than 15 years (until December 2019). Demographics, maternal disease, time until conception, births, abortions, C-sections, treatments and complications were collected. Data was analyzed using IBM SPSS v23.

Results: We registered 29 pregnancies (25 patients): 20 Rheumatoid Arthritis (RA), 5 Psoriatic Arthritis (PsA), and 4 Spondylarthritis (SpA). Maternal average age at diagnosis was 27.6±6.36 years and average age at childbirth/abortion 35±5.6 years.

It took an average time of 8 months to conceive. 11.5% received fertility treatment using in vitro fertilization techniques.

5 abortions were registered prior to follow-up in this unit (0.2 abortions/mother). During follow-up 1 abortion (0.04 abortions/mother) was recorded in a RA patient. C-section was performed in 11 cases (39.2%): 6 RA (31.6%), 3 SpA (75%) and 2 PsA (40%).

17.2% of pregnancies were preterm (<37 weeks).

Intrauterine growth restriction (IUGR) was observed in a woman (3.4%) with RA and preeclampsia was observed in 2 cases (6.9%) (RA 1, SpA 1).

Disease activity (DAS28 and BASDAI) is shown in Table 1.

TABLE 1.

	DAS28 (median)				
	Previous	First Trimester	Second Trimester	Third Trimester	Posterior
Rheumatoid Arthritis	2.69	2.59	3.09	3.33	3.11
Psoriatic Arthritis	2.58	2.5	3.32	3.08	2.89
RA with biological agents (n: 6)	2.37	2.94	2.71	2.4	2.52
	BASDAI (median)				
Spondylarthritis	2.8	2.4	1.75	1	1.9

Treatments used prior to and during pregnancy are listed in Table 2.

TABLE 2.

TREATMENT BEFORE PREGNANCY	n (%)	TREATMENT DURING PREGNANCY	n (%)
Hydroxychloroquine	13 (44.8%)	Prednisone	17 (58.6%)
Prednisone	12 (41.4%)	Acetylsalicylic acid	16 (55.2%)
Methotrexate	9 (31%)	Hydroxychloroquine	15 (51.7%)
TNF inhibitors	7 (24.1%)	Sulfasalazine	2 (6.9%)
Sulfasalazine	2 (6.9%)	TNF inhibitors	2 (6.9%)

8 patients had received biological treatment prior to pregnancy (2 SpA, 6 RA)(3 Etanercept, 3 Adalimumab, 2 Certolizumab). 2 of them (RA) continued treatment during pregnancy. 1 of them discontinued it at week 17 on her own (Adalimumab) while the other continued with Certolizumab throughout pregnancy and presented IUGR. No other complications, such as infections or malformation, were observed in newborns. DAS28 data of these women can be found in Table 1.

Conclusion: In our series, as described in the literature, women with inflammatory arthropathies are older, need longer time to achieve pregnancy and have increased use of fertility techniques and increased likelihood of preterm and instrumental delivery compared to general population. Given the low number of patients receiving biological treatment no conclusions about complications and evolution of the disease can be drawn, so further investigation are needed in this group of patients.

Monitoring inflammatory arthropathies in a multidisciplinary unit increases the chances of successful pregnancies.

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AB1168

THE ANALYSIS OF "BIG DATA" AND PROCESSING OF UNSTRUCTURED INFORMATION (SEMANTIC HUB PLATFORM) TO IDENTIFY PATIENTS WITH SEVERE GOUT IN THE RUSSIAN FEDERATION.

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Background: the prevalence of gout and hyperuricemia (HU) in the world remains high, with a stable high incidence of severe gout [1]. There are no data on the prevalence and features of severe gout in the population of the Russian Federation (RF).

Objectives: To determine the percentage of patients (pts) with severe gout in the RF among pts with gout who are looking for information about their disease

on the Internet, to clarify their average age, gender distribution, comorbidity, difficulties in diagnosing and treating, to get an idea of the most relevant online requests in this cohort.

Methods: We used technology for analyzing "big data" and processing unstructured information (semantic intelligence) (the Semantic Hub platform, which scans Google and Yandex environments). For efficient processing of text corpora, several specialized converters were used. The resulting format for these converters is an XML representation of the source data. The study was based on real-life patient cases (specialized social networks, forums, and other sources of user-generated content). Messages from pts with gout and their relatives were used. Severe gout is characterized by frequent polyarticular flares or chronic arthritis, subcutaneous tophi, the presence of concomitant conditions.

Results: A total of 16253 messages were processed, with 'gout' entered as a search word. A total of 1691 gout pts were identified. The average age of online-active pts - 47.2 years. Men 60.5%. Severe gout was identified in 194 of 1691 (11.5%) pts, with 59% of pts aged 29 to 45 years. The proportion of men among pts with severe gout is 71%. Comorbidities most often include diabetes mellitus and metabolic syndrome - 24%, CKD - 51%, arterial hypertension-14%. Pts with severe gout have 1.9 comorbidities on average, while other pts with gout - 1.1. The groups are comparable by age. Among 90 links related to medical specialties that pts visited before being referred to a rheumatologist, the first three leading positions were - orthopaedic surgeon (30%), general practitioner (25.8%), surgeon (21%). Sixty percent of pts reported that the time between the first attack and the diagnosis of gout was less than six months. The remaining 40% of pts report that this period lasted from 1 to 15 years. Less than 42% of pts were prescribed urate-lowering therapy (ULT) during internal consultation of a physician, and only 23% of physicians recommended ULT to pts with gout during online consultation. According to pts' reports, treatment includes 3 main groups of drugs: NSAIDs, intra-articular corticosteroids and ULT. Compliance with life-time ULT is very low. The most commonly requested topic on the Internet - attacks during holidays - 2426 messages, the second is held by the topic of lifestyle - 1899 messages, the third place - problems of comorbidities - 1813 references, and only in the fourth position - 1662 messages- the topic of ULT.

Conclusion: The percentage of pts with severe gout is 11.5% among gout pts who are looking for information about their condition on the Internet, which is consistent with the data from the largest original papers in the RF on the prevalence of severe gout [2]. More than a half of pts with severe gout (59%) are men aged 29 to 45 years. The decreased online activity of pts over 46 years old may be due to the low motivation for treatment of this cohort. Gout pts are rather more concerned about lifestyle than medical problems. This may also indicate the absence of the consistent compliance of this patient category to life-time therapy. Inadequate long-term therapy and late diagnosis may be the main factors for severe gout in young and active pts.

References:

- [1] Kuo CF, Grainge MJ, Zhang W, Doherty M. Global epidemiology of gout: prevalence, incidence and risk factors. *Nat Rev Rheumatol*. 2015 Nov;11(11):649-62.
- [2] Eliseev MS, Barskova VG, Denisov IS. The dynamics of clinical manifestations of gout in men (data from 7-year retrospective surveillance). *Terapevticheskiy arkhiv*. 2015;87(5):10-5

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AB1169

RHEUMATOLOGY PATIENT PERCEPTION OF CARDIOVASCULAR RISKS: A SURVEY AT A TEACHING HOSPITAL

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Background: It is well known that individuals with rheumatological conditions are at an increased risk for developing cardiovascular diseases (CVS) and they are the most common cause of mortality. However, there is still lack of awareness about the CVS risk among Rheumatology patients. We carried out a patient survey to assess their awareness and perception of CVS risk associated with their condition. We also assessed if the health professionals attending to these patients gave adequate education to the patients regarding the CVS risk.

Objectives: To study awareness about CVS risks among rheumatology patients

Methods: This was a prospective cross sectional survey where in multiple-choice questionnaires were distributed to consecutive patients attending rheumatology clinic. The questionnaire contained 18 questions including demographics, diagnosis, medications and their awareness of cardiovascular risks associated with their underlying rheumatic conditions. We also explored as patient attempted any Primary preventive measures for reducing the CVS risk.

Results: We collected data of 57 patients with 47% of patients were above 60 years of age with Female: Male ratio of 3:1. Rheumatoid arthritis was the most common diagnosis (60%) with others including AS (22%), SLE(5%). 32% of patients had been suffering from inflammatory disorder for >10 years and 44% believed their disease was still not fully controlled. 37% had family history of heart diseases. More than half of the patients (56%) were unaware of cardiovascular risks associated with their condition and 65% overall reported that they were not personally informed about these risks by the treating health professionals. When we analysed the newly diagnosed patients (<5years) 64% were unaware about the CVS risks which is higher compared to patients with diagnosis of >5 years. We tried to explore any ethnic differences, however the number is too small to compare. We noted that around 60% of white British with rheumatological diagnosis were not aware of CVS risk in our group. When further asked about the primary preventive measures, only 23% engage in exercise, 21% have made diet changes, 12% take aspirin, 16% have quit smoking and only 5% quit alcohol.

Conclusion: This was a small pilot study to look at the patient awareness of CVS risks associated with rheumatological conditions. Clearly there is lack of awareness among patients about CVS risks. Furthermore, most of the patients reported they were not educated about the risks from the health professionals. Majority do not engage in any kind of primary preventive measure for heart diseases. It is crucial that the health professionals actively educate patients regarding the CVS risks and the various methods through which these can be prevented. We believe patient-targeted educational programmes and behavioural interventions can be incorporated for holistic patient management.

References:

- [1] John, Holly et al. Inflammatory arthritis as a novel risk factor for cardiovascular disease *European Journal of Internal Medicine*, Volume 23, Issue 7, 575 - 579

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AB1170

THE IMPACT OF HIGH DISEASE ACTIVITY AS MEASURED BY SLEDAI AND DRUG BURDEN-ON HEALTHCARE UTILIZATION, QUALITY OF LIFE AND WORK PRODUCTIVITY IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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Background: Although there is abundant literature on healthcare utilization in SLE patients, the impact of disease activity in SLE patients is not well understood.

Objectives: To quantify the impact of disease activity, as measured by SLEDAI score and drug burden, in SLE patients on health care resource utilization (HCRU), health related quality of life (HRQoL) and work productivity (WP).

Methods: Data were collected from a cross-sectional survey of 754 rheumatologists in US and EU5 from the Adelphi Real World 2010/2013/2015 Lupus Disease Specific Programmes (DSP). Physicians were asked to complete patient record forms (PRFs) for the next 5 prospectively consulting SLE patients; the same patients were asked to complete patient self-completion (PSC) forms describing how SLE affected them. PRFs collected data pertaining to the patient's diagnosis, disease history, current clinical outcomes, treatment and management history. PSCs focused on similar data collection and included patient reported outcome measures (PROs). Propensity score matching was used to assess differences in HCRU and PRO scores between SLE patients who had a low disease activity and those who had a high disease activity. Low disease activity was defined as a SLEDAI score of ≤4, a steroid dose of <7.5mg/day, and not on immunosuppressant or biologic. High disease activity was a SLEDAI score of >4, or on an immunosuppressant, biologic, or steroid dose of >7.5mg/day. Patients were matched on age, sex, and ethnicity.

Results: Data was extracted from 1278 PRFs, and 591 PSCs. Using the estimated propensity score each low disease activity patient (n=44) was matched with a high disease activity patient (n=1187). Using 1:1 matching, with replacement and allowing for ties, matching resulted in 414 high disease activity patients being used as matches for 44 low disease activity patients. Demographic data are reported in Table 1. Patients with a low disease activity were significantly less likely to be currently flaring, lower number of flares in last 12 months, less likely to have been hospitalized in the last 12 months, had fewer consultations in the last 12 months, reported better HrQoL (EQ5D), more favourable levels of fatigue (FACIT), and lower work impairment (WPAI). (Table 2).