

Abstract THU0605 – Table 1. Comparison of overall costs between persistent and non-persistent patients (n=1,575)

	Mean cost/patient (SD)			P-value
	Persistent	Non-persistent	Difference (persistent – Non persistent)	
Drugs costs	10,726.29 (6,285.74)	7,443.47 (10,199.31)	3,282.82 (-3,913.57)	<0.0001
Biotherapies	9,520.45 (3,601.16)	3,807.88 (4,887.48)	5,712.57 (-1,286.32)	<0.0001
Others	1,205.84 (5,596.59)	3,635.59 (9,818.49)	-2,429.75 (-4,221.89)	<0.0001
Non-drugs costs	3,066.42 (4,765.38)	4,658.24 (6,330.43)	-1,591.81 (-1,565.04)	<0.0001
Including sick leave compensations	525.00 (2,029.22)	1,162.55 (3,309.37)	-637.55 (-1,280.15)	<0.0001
Hospital admissions	1,234.64 (3,957.32)	3,712.15 (7,124.84)	-2,477.50 (-3,167.52)	<0.0001
Total cost	15,027.36 (10,268.24)	15,813.86 (16,976.21)	-786.50 (-6,707.97)	0.0495

estimated with Kaplan Meier analysis. A patient was considered as non-persistent in the event of a prolonged interruption of the therapy during 91 days or more. Persistent and non-persistent patients were compared, after a 1:1 propensity score matching, in term of medical resource utilization and costs (from a National Health Service perspective) in the subsequent 12-month period.

Results: Among 3,804 patients initiating treatment with an SC-TNFI in France between 2012/07/01 and 2012/12/31, 2,133 were classified as persistent at 12 months and 1,671 as non-persistent. After the 1:1 propensity score matching, 1,575 patients were studied in each group. Persistent patients had a lower overall cost than non-persistent patients (-787€): persistent patients had higher costs for drugs (+3,283€), due to the cost of biotherapies, but had lower costs associated to non-drugs (-1,592€) and hospital admissions (-2,478€).

Conclusions: The results indicate that persistence to treatment with SC-TNFI may be associated with cost offsets in terms of non-biologic costs, particularly for hospital admissions. However, as always the case with observational data, residual confounding factors could explain part of the results (e.g. disease severity).

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THU0606 COGNITIVE DYSFUNCTION IN CONNECTIVE TISSUE DISEASES

A. Dima¹, L. Groseanu^{1,2}, A. Balanescu^{1,2}, D. Predeteanu^{1,2}, D. Opris-Belinski^{1,2}, A. Borangiu^{1,2}, D. Mazilu^{1,2}, V. Bojinca^{1,2}, R. Ionescu^{1,2}.
¹ Internal Medicine and Rheumatology, Sf Maria Clinical Hospital; ² Department 5 - Internal Medicine, University of Medicine and Pharmacy Carol Davila, Bucharest, Romania

Background: Several studies documented the presence of cognitive dysfunction in different rheumatologic autoimmune diseases, but the absence of standard criteria of diagnostic and of an index with patients in which this dysfunction occurs, makes the mentioned studies often lead to divergent conclusions.

Objectives: To evaluate the impact of four autoimmune diseases: Systemic Lupus Erythematosus (SLE), Rheumatoid Arthritis (RA), Systemic Sclerosis (SSc) and Ankylosing Spondylitis (AS) on patient cognition and to identify potential factors which lead to cognitive dysfunction occurrence in these diseases.

Methods: This is a case-control study that included randomly selected patients with SLE, RA, SSc and AS from a University hospital and a matched control group. Data collected included: demographics, patients' education and specific data related to disease (duration, activity scores: DAS284v for RA patients, BASDAI in patients with AS, SLICC/SLEDAI for SLE patients and EUSTAR score/Rodnan score for SSc patients, damage indexes, organ involvement, treatment) and comorbidities. Cognition was assessed using MoCA Test (Montreal Cognitive Assessment The Test). The data were then processed using SPSS 23 version software.

Results: The study group included 255 patients: 58 RA patients, 52 SLE, 70 SSc and 25 AS patients and 50 healthy matched controls.

In all groups of patients, cognitive dysfunction prevalence was higher than control group (RA-64.98%, SLE -57.69%, SS -44.29%, AS -35.72% vs. 24% in the control group).

The differences were statistically significant for the RA group (p=0.00), the SLE group (p=0.001), and the SS group (p=0.001).

For the RA group none of the items analyzed (demographics, disease characteristic, patient' education) showed a significant correlation with cognitive dysfunction. The same lack of correlation was also noted in AS and SSc patients. For the SLE group the only variable analyzed with a significant impact statistically was the SLEDAI score over 12 (p=0.002).

Also, this study did not find a significant statistically association between the presence of antiphospholipid syndrome.

Cognitive dysfunction seems to be more frequent and severe in RA and SLE patients compared to AS patients (p=0.014, respectively p=0.05).

Conclusions: The results obtained in this study show that, indeed, cognitive dysfunction is an issue to be watched very carefully in patients with autoimmune

diseases. The appearance of cognitive dysfunction has a negative impact on life quality of these patients, the pathophysiological mechanisms that contribute to it's appearance are intricate and difficult to isolate.

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THU0607 RISK FACTORS FOR EARLY RETIREMENT IN SYSTEMIC SCLEROSIS

A.M. Gheorghiu^{1,2}, C. Vrancianu^{1,2}, C. Draganescu^{1,2}, R. Oneata^{1,2}, L. Macovei^{1,2}, M. Sasu^{1,2}, M. Milicescu^{1,2}, O. Olteanu^{1,3}, M. Speriatu^{1,2}, M. Bojinca^{1,2}, V. Stoica^{1,2}, C. Mihai^{1,2}. ¹ Carol Davila University of Medicine and Pharmacy; ² Internal Medicine and Rheumatology; ³ Cantacuzino Hospital, Bucharest, Romania

Background: Systemic sclerosis (SSc) is a connective tissue disease characterized by skin and internal organs fibrosis, microvascular impairment and frequently by disability and early retirement.

Objectives: To assess employment status, risk factors for early retirement (ER) and the associations of ER with disease characteristics and with patients' health-related questionnaires (Scleroderma Health Assessment Questionnaire (SHAQ)) and hand function (Duruoz hand index (DHI)).

Methods: This study included patients with SSc according to the 2013 ACR/EULAR classification criteria, examined in our EUSTAR center from 11.2011 to 11.2016, who were under the legal age of retirement of in our country (62 years). Patients completed a work assessment questionnaire, the DHI and the SHAQ, as well as a full assessment as per the recommendations of EUSTAR.

Logistic regression was used to investigate the associations between employment status (outcome) and potential predictors (including socio-economic status, education, disease characteristics and health-related questionnaires).

Results: There were 66 patients (8 males, mean±SD age 49.1±9.3 years, 19 with diffuse cutaneous SSc (dcSSc), 46 with history of digital ulcers (DUs) and 23 with joint contractures) included. Forty-two patients lived in urban environments and 42 had higher education (high school or above).

Twenty patients were active professionally, whereas 46 were retired, of which 32 retired because of SSc. Of those active professionally, 8 had to do manual labor, 7 had to spend many hours at work standing and 3 had a cold or moist work environment.

Using logistic regression adjusted for age and gender, higher education was found to be highly associated with employment (OR (95% CI) 9.0 (1.5, 52.4)), whereas labor conditions (manual labor, stress) had no significant influence on employment status in our cohort. No association was found between employment status and disease characteristics or SHAQ and DHI questionnaires.

Conclusions: SSc is associated with substantial work disability and unemployment. Completing less education than high school was associated with early retirement.

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THU0608 ASSOCIATION BETWEEN ALLOPURINOL DOSE-TITRATION AND SERUM URIC ACID LEVELS IN GOUT PATIENTS: US ELECTRONIC HEALTH RECORD DATA

A.-C. Fu¹, D.C. Taylor², D.S. Reasner². ¹ Ironwood Pharmaceuticals, Inc., Cambridge, Ashmore and Cartier Islands; ² Ironwood Pharmaceuticals, Inc., Cambridge, United States

Background: Allopurinol is a first-line urate lowering therapy for patients with gout. The American College of Rheumatology guidelines recommend allopurinol dose-titration to maintain serum uric acid (sUA) levels <6 mg/dl.

Objectives: To understand allopurinol dose-titration relative to sUA levels.

Methods: This retrospective study used the de-identified Humedica electronic medical record database. The study included all sUA and allopurinol records among gout patients (ICD-9-CM: 274.xx) ≥ 18 years old with first gout diagnosis in 2007 – 2015. An episode was defined as an allopurinol initial dose (ID) prior to (closest) and titrated dose (TD) after (within 30 days) an sUA test. Dose-titration was categorized as an episode with a dose-change (up-titration: ID < TD; down-titration: ID > TD), or no-dose-change (ID = TD). For multiple different doses recorded on the same prescription date, the sum of doses was taken as daily dosage. Episodes were considered uncontrolled when sUA ≥ 6 mg/dl. Descriptive episode-level analyses were performed.

Results: Within 64,609 episodes, 57% of episodes were uncontrolled (sUA: 6 to <8 mg/dl: 38%; 8 to <10 mg/dl: 15%; ≥ 10 mg/dl: 4%). Seventy-one percent of uncontrolled episodes were no-dose-change, 21% were up-titrated, and 7% were down-titrated. Within no-dose-change episodes, 51% were uncontrolled and lower doses corresponded to higher percentages of uncontrolled episodes (<100mg/day: 88%; 100mg/day: 70%; >100, <300 mg/day: 49%; 300mg/day: 38%; >300mg/day: 36%). Seventy-eight percent of dose-change episodes were uncontrolled, of which 100 to 300 mg/day (39%) was the most frequent dose titration. Overall, the most frequent TD was 300 mg/day (52%) followed by <100mg/day (36%), >100 – <300mg/day (8%), >300mg/day (3%), and <100mg/day (<1%).

Conclusions: Allopurinol dose is not generally titrated regardless of sUA control. This pattern suggests a need for active management of patients with gout with uncontrolled sUA including consideration of new treatment options in addition to allopurinol.

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THU0609 REGIONAL DIFFERENCES IN HEALTH CARE UTILIZATION IN THE KHOALA COHORT, A FRENCH POPULATION BASED COHORT OF SYMPTOMATIC KNEE AND/OR HIP OA PATIENTS

A.-C. Rat^{1,2}, J.-H. Salmon³, A. Saraux⁴, C. Gard⁵, F. Guillemin^{1,6}, B. Fautrel⁷.
¹Ea 4360 Apemac, Lorraine Université; ²Rheumatology, CHRU Nancy, Nancy; ³Rheumatology, CHU Reims, Reims; ⁴Rheumatology, la Cavale blanche University, hospital and université de Bretagne occidentale, Brest; ⁵Pharmacy, Pitié Salpêtrière hospital, Paris; ⁶CIC 1433 Epidémiologie clinique, Inserm, CHRU, Université de Lorraine, Nancy; ⁷Rheumatology, Université Pierre et Marie Curie (UPMC)-Paris 6 GRC-UMPC 08 (EMOIS), Paris, France

Background: In hip and knee OA, one of the leading causes of global disability, recent population-based data of health care practices and utilization are scarce. Describing patterns of care of patients is important to adapt health care practices and guide interventions to optimize patients' use of health care services.

Objectives: The aim of the project was to describe health care utilization and associated factors of a representative sample of patients with knee or hip symptomatic OA.

Methods: The KHOALA cohort is a French population-based multicenter cohort of patients with symptomatic knee and/or hip OA, aged between 40 and 75 years old recruited between 2007 and 2009. The representativity of the cohort allows for generalizing the results

Results: Among the 878 patients, 609 (69%) were women, 222 (25%) have hip OA, 607 (69%) knee OA and 49 (6%) both hip and knee OA. Groll comorbidity index (0–18) was 3.1 (1.6). Radiographic K&L grades 2, 3 and 4 were 69.8%, 26.1% and 4.1% for hip OA respectively and 44.5%, 30.3%, and 25.2% for knee OA.

In multivariate analyses, increased pain was independently associated with increased number of patients using pain killers (non-opioids and weak opioids), symptomatic slow-acting drugs or steroid injections but not NSAIDs. Increased age or being retired was associated with increased use of non-opioid drugs or decreased prescription of NSAIDs but not with opioid drugs. Weak opioid drugs were more frequently used by patients with low than high education and by those consulting a rheumatologist. The geographical effect was important, independently of the symptoms, with OR=0.3 (95% CI 0.2–0.7) and OR=0.5 (95% CI 0.2–0.9) for south vs north/east and west vs north/east respectively for weak opioids use with the same trend for non-opioids use. On the opposite, physiotherapy was more frequently prescribed in the south than in the north OR=2.1 (95% CI 1.3–3.5). More patients consulted a rheumatologist in large (>50,000) than small cities (<2,000) OR=2.8 (95% CI 1.6–5.1) but this was not the case for orthopedic surgeons consultations. Pain was not independently associated with consultations with the different health care professionals. Instead

the number of patients consulting different health care professionals increased with functional impairment. Consulting an orthopedic surgeon was less frequent for patients with more comorbidities, retired, with decreased vitality or who also did not consult a rheumatologist.

Conclusions: Even if symptoms and patients characteristics are strongly associated with treatments use and health care professional consultations, regional or rural vs cities differences are important independently of pain, function or other quality of life domains. Whether these differences are due to health care professional prescriptions or patients life style and behaviors are still to be explored.

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THU0610 RHEUMA SPACE: STANDARD PRACTICE AIMING CLINICAL EXCELLENCE IN RHEUMATOLOGY

C. Macieira¹, L. Cunha-Miranda², P. Nero³, P. Lucas⁴, J. Eurico da Fonseca^{1,5}, J. Canas da Silva⁶ on behalf of Rheuma Space study group. ¹Department of Rheumatology, Centro Hospitalar Lisboa Norte; ²Department of Rheumatology, Instituto Português de Reumatologia; ³Department of Rheumatology, Hospital CUF Descobertas, Lisbon; ⁴QuintilesIMS, Porto Salvo; ⁵Faculdade de Medicina da Universidade de Lisboa, Lisbon; ⁶Department of Rheumatology, Hospital Garcia de Orta, Almada, Portugal

Background: The quality of medical care and the implementation of measures to improve it are crucial steps for the development of Rheumatology in Europe. Quality indicators were obtained through a four-step rand-modified Delphi methodology. A final set of 26 quality indicators was defined within Donabedian framework dimensions: 9 “structure”, 11 “processes” and 6 “outcomes” indicators. Herein we describe the second implementation phase of a national program, Rheuma Space (RS), aiming at quality improvement in Rheumatology.

Objectives: To develop a quality improvement plan for care provided by Rheumatology Departments (RD). In this second phase we present the results of the RD evaluation.

Methods: A measurement scale on quality/excellence thresholds was developed for each of the 26 criteria. Eight RD participated in the project and each one set up an Investigation Team of 2–3 members for field criteria measurement and evaluation that required the use of different data sources and focused on the period: 2014 – 1st semester of 2015. After data analysis an individual report was delivered and discussed with each of the 8 RD. Afterwards public presentation and discussion of the results took place.

Results: “Structure” was evaluated in terms of personal, training, facilities, equipment and budgeting:

- RD lack Rheumatology specialists and need fully dedicated nurses
- Training plans exist in all RD, but physicians allocate few time to research
- Equipment is appropriate, nonetheless microscopes and computers could be updated
- Internal contracting is well established and professionals are committed to targets

“Processes” were evaluated in terms of access and medical care, clinical records, physician-patient communication and multidisciplinary patient management:

- Triage criteria for first appointments should be standardized, despite compliance for “High Priority” patients
- Follow up could be more frequent, but direct access in emergencies is guaranteed
- Reuma.pt registry is mainly used for patients under biologics and data completion could improve
- Multidisciplinary care is provided, but patient coverage and speciality diversity can increase.

“Outcomes” were evaluated in terms of clinical outcomes, patient and personal satisfaction:

- Average working absence is <15days/patient/year, but is much higher in more affected patients
- Almost 1/3 of patients requested early retirement at a median age >50years
- Patients are satisfied with provided care and physicians' attitude, but less with RD facilities
- Professionals are satisfied with working environment, however criticize career related aspects.

Conclusions: The 26 quality indicators set the basis of this quality management tool that was applied to 8 Portuguese RD. Strengths and weakness were identified and an individual Department report was elaborated and discussed. Interventions are now being planned based on these results in order to ensure quality standards of structure and process criteria for a patient oriented clinical practice, favouring desirable continuous quality improvement on health outcomes.

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