Conclusion: This study showed that compared with patients admitted on weekdays, patients with SANJ admitted on weekends had increased mortality rates but similar length of stays and total hospital charges. However, patients who received an early arthrocentesis had significantly lower length of stay and hospital charges regardless of the day of admission. This results add weight to the hypothesis of negative outcomes in weekend admissions. Moreover, we believe that our findings require further investigation to establish the role of early arthrocentesis in the management of septic arthritis.

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THU0632

A POPULATION-BASED STUDY OF TUBERCULOSIS INCIDENCE AMONG RHEUMATIC DISEASE PATIENTS UNDER ANTI-TNF TREATMENT

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Background: Tuberculosis (TB) is an infectious disease caused by *Mycobacterium tuberculosis*, with a high incidence in the general population of Brazil. The advent of immunobiologic therapy with anti-TNF agents for rheumatic diseases, despite achieving substantial efficacy in controlling disease activity, has been associated with a significant increase in incident cases of tuberculosis in this population due to blockade of TNF, which is responsible for maintenance of granuloma structure.

Objectives: Estimate the incidence of tuberculosis in Public Health System patients receiving anti-TNF therapy for rheumatic diseases. As secondary objectives, we sought to evaluate mortality and the influence of screening for latent tuberculosis infection on clinical outcomes in this population.

Methods: This retrospective cohort study included all Public Health System patients from the Brazilian state of Rio Grande do Sul (RS) who received prescriptions of anti-TNF agents for treatment of rheumatic diseases between 2006 and 2016. All data were obtained from official government records (drug dispensing, tuberculosis reporting, and mortality) where notification was mandatory. For a subset of patients, latent tuberculosis screening data were obtained through a review of medical records.

Results: A total of 5853 patients were included from 2006 to 2016, out of which 3653 (62.4%) had rheumatoid arthritis, 1150 (19.7%) had ankylosing spondylitis, 872 (14.9%) had psoriatic arthritis, and 123 (2.1%) had juvenile idiopathic arthritis. Overall, 43 cases of TB were found, with an incidence of 734.7 cases per 100,000 exposed, which corresponds to 2.86 per 1000 person-years exposed. Two hundred and fifty deaths occurred in this cohort. In a subgroup of patients recruited from the outpatient rheumatology clinic of Hospital de Clínicas de Porto Alegre (n = 268), screening for latent tuberculosis infection (LTBI) was performed in 86% of patients before initiation of anti-TNF therapy; 30.1% had a positive tuberculin skin test. LTBI treatment was administered to 74 patients. In this subgroup of patients, 5 cases of TB were diagnosed, 2 in patients who had previously completed LTBI treatment.

Conclusion: In this population-based study, a high incidence of tuberculosis among patients with rheumatic diseases exposed to anti-TNF agents was found, reinforcing the need for screening and treatment of LTBI to reduce the risk of reactivation of granulomatous disease. No significant impact on mortality was demonstrated.

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THU0633

ECONOMIC IMPACT OF HEALTHCARE RESOURCE UTILIZATION AND WORK DISABILITY IN PORTUGUESE PATIENTS WITH ANKYLOSING SPONDYLITIS: RESULTS FROM THE ASSESSMENT OF RESULTS IN ANKYLOSING SPONDYLITIS (AREA) STUDY

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Background: Ankylosing spondylitis (AS) has a significant burden upon the individual, family and society. Understanding the economic impact of AS is crucial to substantiate policies that promote early referral, diagnosis and treatment.

Objectives: To assess the economic impact of AS in Portugal concerning healthcare utilization and work disability.

Methods: The Assessment of REsults in Ankylosing spondylitis (arEA) study was developed by the NOVA-Information Management School (Lisbon) in collaboration with the Portuguese Society of Rheumatology, the Portuguese Association of Family Physicians, the National Association of Primary Care Units, the National Association of AS Patients and the Portuguese League Against Rheumatic Diseases. The arEA aimed at assessing reasons for delayed diagnosis of AS, as well as disease impact in patients' lives, global health and work. A comprehensive online survey was developed and sent to AS patients. Data on demographics, lifestyle habits, daily life activities, working habits, disease indexes and healthcare utilization was retrieved. Costs of the disease for patients resulting from the use of health systems was obtained thorough patient's declaration, the cost for the national health service (SNS) was obtained combining primary data and secondary data related with the average costs of service use. Finally, the impact over the economy was also estimated through the participation of patients in labor market and using as mediator variables the absenteeism and presenteeism. A set of generalized linear models were used to identify the factors with significant effect over health status, SNS costs and impact over economy.

Results: 354 patients responded the survey, 42.1% female, more frequently from the 35-44 year-old age group. In the previous 12 months, 76% reported using the National Healthcare System (SNS) for AS-related reasons (85% outpatient visits; 74% diagnostic exams; 48% ER visits; 8% inpatient admissions). During that period, estimated SNS expenditure with AS patients reached €47 million, excluding costs with medication (ongoing analysis), distributed as: outpatient visits €25 million, diagnostic exams €7 million, ER visits €3 million and inpatient admissions €12 million. Adding to this, patients spent on average €84 million out of their own pocket on AS-related expenses (€1.786 per patient: outpatient visits €245, diagnostic exams €151, ER visits €48, inpatient admissions €415, medication €593, travelling expenses €334). Regarding work disability, working AS patients reported an average of 12 days on leave of absence and 25 days on sick leave per year, with an estimated cost of €28 and €57 million, respectively. Presenteeism led to a loss of 73 working days with a cost of €165 million. Taking also into account patients with prolonged leaves of absence (€72 million), permanent leaves (€18 million), unemployed (€50 million) and family medical leaves (€47 million), the overall costs with work disability in AS reached €437 million in one year.

Conclusion: AS-related work disability and healthcare resource utilization have an enormous economic impact in Portugal. Investment in strategies that encourage early referral, diagnosis and treatment is fundamental to mitigate such burden.

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THU0634

PHYSICIAN PERCEPTIONS OF BIOLOGICS VERSUS THEIR BIOSIMILAR COUNTERPARTS IN RHEUMATOLOGY: A MULTICOUNTRY STUDY IN EUROPE

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Background: Following LOE for the originator brand of etanercept in 2016 and the subsequent launch of its first biosimilar version, several other biosimilars have arrived in the rheumatoid arthritis treatment space. Due to their potential for reducing healthcare spend and their supposed equivalence, biosimilars are expected to be of rising relevance and impact in the following years. 12 biosimilar brands of biologic originator treatments are now available in Europe to treat rheumatoid arthritis; it will be crucial to understand physician perceptions of biosimilars relative to branded products and the impact such views have on potential prescribing decisions.

Objectives: The objective of the study was to assess perceptions of efficacy and safety for biosimilars relative to branded biologic originator products among treating Rheumatologists in the EU5 countries (United Kingdom (UK), France (FR), Italy (IT), Spain (SP) and Germany (DE)).

Methods: A cross-sectional survey was conducted in Q3 2018 in the EU5 among national, regional and hospital physicians who had been practicing between 3-30 years. Respondents completed a Physician Perceptual Questionnaire online, which assessed the overall perception of biologic brands and anti-TNF biosimilars, important attributes for treatments, and specific barriers to prescribing them. Data were analyzed using descriptive statistics.

Results: A total of 261 rheumatologists in the EU5 were recruited as part of the study (with almost equal numbers of rheumatologists representing each EU5 country). Treating rheumatologists were practicing for an average of 17.4 years, mainly in teaching hospitals (50.2%) and urban hospitals (20.7%)¹. Physicians consistently expressed greater satisfaction for branded products, with 73.9% (range: 63.5% DE to 90.6% FR) of physicians having rated satisfaction with the originator brand of etanercept as a 6 or 7 (on a 7-point scale where 7 corresponded to highest satisfaction), compared to only 37.5% for biosimilar etanercept (range: 28.6% IT to 51.9% DE)¹. When asked about specific attributes related to RA treatments, 64.4% of our sampled rheumatologists associated the originator brand of rituximab with 'Inhibition of radiographic progression' (range: 55.1% IT to 81.1% FR) – versus 47.5% association for biosimilar rituximab (range: 32.7% IT to 62.3% FR)¹. 73.2% of physicians associated the originator brand of infliximab with 'helps maintain or improve physical function' (range: 55.8% DE to 87.0% ES) compared to 58.6% of biosimilar infliximab (range: 44.9% IT to 67.9% FR)¹. For 'reduction in morning stiffness', 78.5% of our rheumatologists associated it with originator etanercept (range: 65.4% DE to 88.7% FR) versus only 66.7% for biosimilar etanercept (range: 55.1% IT to 81.1% FR)¹.

Figure: EU5 Physician Perceptions: Attribute associations for branded versus biosimilar products

Conclusion: Biosimilars score lower on overall satisfaction and are less frequently associated with specific efficacy attributes relative to branded products. This is possibly due to their relatively short time in clinical practice, and the resulting lack of experience and supporting data compared to the older branded equivalents. Proof of concept may be essential to close the perceptual gap that still exists between branded products and biosimilars.

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THU0635

REAL WORLD PHYSICIAN SATISFACTION WITH SECUKINUMAB IN PSORIATIC ARTHRITIS AND ANKYLOSING SPONDYLITIS IN EUROPE

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Background: Psoriatic arthritis (PsA) and ankylosing spondylitis (AS) can lead to reduced physical functioning and quality of life. Secukinumab has demonstrated clinical benefits in PsA and AS, however little is known about physician satisfaction with its ability to control disease in the real world.

Objectives: Assess physician satisfaction with secukinumab's ability to control disease in a real-world setting.

Methods: This was a cross-sectional survey of rheumatologists and dermatologists (PsA only) in France, Germany, Italy, Spain, and UK. Data were collected from Jun-Aug 2018 via physician-completed patient record forms. Patients receiving any treatment were included in the survey. Patients receiving secukinumab >1 month were included in this analysis. Physicians rated satisfaction on a 5-point scale (Very satisfied to very dissatisfied), a binary variable of satisfied/not satisfied was created by grouping "Very satisfied" and "Satisfied" responses as satisfied and "Neutral", "Dissatisfied", and "Very dissatisfied" as not satisfied. Data were reported by disease, then stratified by overall physician-rated disease severity (mild/moderate/severe) at initiation of secukinumab, prior biologic use, treatment duration, and concomitant medication.

Results: 438 PsA and 277 AS patients were receiving secukinumab >1month at time of data collection. Patient mean age was 46.9 years (48.2 PsA, 44.8 AS) with 35.2% female (41.8% PsA; 24.9% AS). On average, patients had received secukinumab for 8.8 months (9.2 PsA; 8.2 AS). At secukinumab initiation, 44.2% of patients were rated by their physician as severe vs. 3.5% at the current consultation (39.3% vs. 2.7% PsA; 52.0% vs. 4.7% AS).

Overall, 87.6% of physicians were satisfied with the ability of secukinumab to control disease (87.9% PsA; 86.3% AS). Physicians report high satisfaction across each stratification (Table 1).