letter and having the opportunity to contact if necessary. This made the process quite smooth, easy to administer and avoided costs associated with face-to-face review. Substantial annual cost savings of nearly £100,000 were achieved once the switch process completed. Only six patients (7%) encountered adverse effects, two of whom had uncontrolled disease despite switching back to the originator. We support the routine switching from originator to biosimilar etanercept in view of good patient experience and disease outcomes. This can be achieved with minimal contact in a cost-efficient manner.

Disclosure of Interests: Muhammad Khurram Nisar Grant/research support from: Muhammad Nisar undertakes clinical trials and received support (including attendance at conferences, speaker fees and honoraria) from Roche, Chugai, MSD, Abbvie, Pfizer, BMS, Novartis, Celgene, Malinckrodt, UCB and Lilly. Consultant for: Muhammad Nisar undertakes clinical trials and received support (including attendance at conferences, speaker fees and honoraria) from Roche, Chugai, MSD, Abbvie, Pfizer, BMS, Novartis, Celgene, Malinckrodt, UCB and Lilly. Speakers bureau: Muhammad Nisar undertakes clinical trials and received support (including attendance at conferences, speaker fees and honoraria) from Roche, Chugai, MSD, Abbvie, Pfizer, BMS, Novartis, Celgene, Malinckrodt, UCB and Lilly. 


Background: Indirect costs due to absenteeism of rheumatoid arthritis (RA) and ankylosing spondylitis (AS) in Slovenia have not been thoroughly researched despite availability of national administrative data on sick leave and evidence from other countries on their sizable burden [1-2].

Objectives: To compare absenteeism trends in Slovenia in the 2001-2016 period between three age cohorts of RA and AS patients given that age is an important determinant of sick leave [3].

Methods: Retrospective population data on sick leave from the Slovenian National Institute of Public Health was collected. Total annual number of days on sick leave was used as an indicator of absenteeism. Patients were classified into three age cohorts (20-39 years, 40-54 years and 55-69 years). Changes in absenteeism during the 16-year period were estimated using a linear trend function.

Results: In the 2001-2016 period, patients with RA spent 448,828 days on sick leave. For AS patients the number of sick days was 92,990. Patients aged 40-54 accounted for 66.6% of all sick days of RA patients, while the shares for patients aged 20-39 and 55-69 were 16.6% and 16.8%, respectively. Estimated linear trend reveals a statistically significant reduction of sick days in RA patients from all age cohorts throughout the observed period. RA patients aged 20-39 experienced a decrease of 483.7 days spent on sick leave annually on average (p=0.000; R2=0.849). Patients aged 40-54 experienced a higher average annual decrease of 952.3 days (p=0.000, R2=0.74). RA patients aged 55-69 experienced an average annual increase of 250.3 days spent on sick leave in the 2001-2016 period (p=0.001; R2=0.567).

Sick days of AS patients aged 40-54 represented 64.4% of all sick days of AS patients. For AS patients aged 20-39 this share was 25.0%, and 10.6% for those aged 55-69. Estimated linear trend shows that, on average, patients with AS aged 20-39 and 40-54 experienced an 11.4 and 5.9 decrease of sick days, respectively, whereas the patients with AS aged 55-69 experienced an average annual increase of 19.4 days spent on sick leave in the observed period. However, none of the linear trends were statistically significant for AS patients.

Conclusion: Results indicate that RA patients aged 20-39 and 40-54 experienced a significant average annual decrease in days spent on sick leave during the 2001-2016 period. This suggests a general decline in economic burden due to absenteeism in patients with RA, which could be attributed to innovative treatments, improved disease management practices and other organizational and process changes in treating RA. Yet, the results do not show any statistically significant changes in days spent on sick leave for AS patients, regardless of age. This implies that factors other than age should be investigated to explain changes in absenteeism for AS patients. Future studies should focus on other potential associations and causal mechanisms of changes in days spent in sick leave as in AS and RA patients.

REFERENCES

Disclosure of Interests: None declared

others are dedicated to primary immunodeficiencies and autoinflammatory diseases (respectively 15 registries, 28%, and 12 registries, 23%). Fifteen registries (28%) enroll patients with a single specific disorder: in particular, three registries are devoted to systemic lupus erythematosus, two registries to Kawasaki disease or Behcet disease, and single registry to juvenile dermatomyositis, juvenile systemic sclerosis, juvenile idiopathic arthritis (JIA)-related uveitis, systemic JIA, Blau syndrome, sarcoidosis, Guillain-Barre syndrome, and myasthenia gravis. More than 55000 patients with Ritis are enrolled. The majority of registries (36; 68%) enroll only patients from national territories. Among the internationals, six collect data on autoimmune disorders (Pharmachild, BrainWorks, EuroMyositis, EULAR web library, UKIVAS registry and JIR cohort), five on primary immunodeficiencies (ESID, EMBT, SCETIDE, PCID and HLH registry), and three are devoted to autoinflammatory diseases (Eurofever, Infevers, and ImmunoNAID), despite also ESID registry and JIR cohort collect data on autoinflammatory diseases. Data usually collected in these registries are demography, diagnosis, clinical manifestations, laboratory tests and treatment, while genetic and imaging data are less frequently reported (respectively in 38% and 9% of registries). A treatment safety profile is reported in 29 registries (55%). Collectively, fifteen biobanks are counted.

Conclusion: The survey highlighted the pivotal role of national and international organizations in Europe to collect and organize clinical data on immune diseases, allowing the rapidly growing knowledge on these rare disorders, creating research networks and providing significant numbers of data to support new discoveries in the field. RITA network could improve the coordination of these numerous entities, supporting initiatives of collaboration. As a first attempt, the present survey revealed that the collection of key parameters about patient safety, as well as outcome and quality of life measures should be improved among the registries of RITA network.

REFERENCE

Disclosure of Interests: Riccardo Papa: None declared, Andrew Cant: None declared, Christoph Klein: None declared, Martin Little: None declared, Nico M Wulfraat: None declared, Marco Gattorno Grant/research support from: MG has received unrestricted grants from Sobi and Novartis, Nicolino Rupert Grant/research support from: The Gaslini Hospital, where NR works as full-time public employee, has received contributions (> 10.000 USD each) from the following industries in the last 3 years: BMS, Eli-Lilly, GlaxoSmithKline, F Hoffmann-La Roche, Janssen, Novartis, Pfizer, Sobi. This funding has been reinvested for the research activities of the hospital in a fully independent manner, without any commitment with research parties. The following industries have provided honoraria for conferences or speaker bureaus (< 10.000 USD each) from the following pharmaceutical companies in the past 3 years: Abylnx, AbbVie, AstraZeneca-Medimmune, Biogen, Boehringer, Bristol-Myers Squibb, Eli-Lilly, EMD Serono, GlaxoSmitthKline, Hoffmann-La Roche, Janssen, Merck, Novartis, Pfizer, R-Pharma, SanofiServier, Sinergie, Sobi and Takeda., Speakers bureau: Received honoraria for consultancies or speaker bureaus (< 10.000 USD each) from the following pharmaceutical companies in the past 3 years: Abylnx, AbbVie, AstraZeneca-Medimmune, Biogen, Boehringer, Bristol-Myers Squibb, Eli-Lilly, EMD Serono, GlaxoSmithKline, Hoffmann-La Roche, Janssen, Merck, Novartis, Pfizer, R-Pharma, SanofiServier, Sinergie, Sobi and Takeda.


SAT0579
AN ELECTRONIC MDHAQ (MULTIDIMENSIONAL HEALTH ASSESSMENT QUESTIONNAIRE) GIVES SIMILAR RESULTS TO A PAPER VERSION
Mariam Ria'd, Elena Obreja, Isabel Castrejon, Theodore Pincus, Rush University Medical Center, Chicago, United States of America

Background: A self-report multi-dimensional health assessment questionnaire (MDHAQ) is used in many routine care rheumatology settings as a pragmatic tool to recognize efficacy and adverse events. The MDHAQ is informative in all rheumatic diseases in which it has been studied. An electronic version of the MDHAQ (eMDHAQ) could offer several advantages, including completion at home rather than in the waiting area and completion from any site between visits to report possible change in status and/or adverse events of a medication. Furthermore, the 4-page, new patient“ eMDHAQ can allow a patient to store a full medical history at a password-protected, secure website. Reports of the patient history can be available for an electronic medical record (EMR) without dictation or typing by the doctor, although interaction with the EMR vendor is required, which has proven difficult. Implementation of eMDHAQ software requires documentation that eMDHAQ responses are similar to those on a paper MDHAQ.

Objectives: To compare scores on an eMDHAQ vs paper version of MDHAQ.

Methods: All patients with at least 3 diagnoses complete a paper MDHAQ at all visits in the waiting area as part of routine clinical care in one setting. Conssecutive patients completed MDHAQ in paper and in an iPad at the same visit. The MDHAQ includes 0-10 scores for physical function, pain and patient global visual analog scales (VAS), compiled into 0-30 RAPID3, as well as a 0-48 self-report painful joint count, and 0-60 symptom checklist. For this study, at the conclusion of the visit, the rheumatologist asked a question: “If she/he would like to complete an eMDHAQ on an iPad indicating no problem if a patient declined for any reason. Patients who agreed to participate completed the an eMDHAQ, with identical content to the paper MDHAQ. The patient also completed a 3-query questionnaire, with 2 VAS concerning the value of the MDHAQ to the patient or the doctor (0= no value, 10= great value), and a query of her/his preference for the eMDHAQ vs paper MDHAQ or no preference. Test-retest reliability was examined by intraclass correlation coefficients (ICC).

Results: 65 patients completed the study. The ICC for physical function, patient global VAS, and RAPID3 was >0.9 indicating excellent reliability between the electronic and paper versions, while the ICC for pain, self-report painful joint count, and symptom checklist was >0.75, indicating good reliability. Differences between the 2 versions were within variation on the paper questionnaire. The mean rating for the value of MDHAQ was 8.85/10 to the patient, and 8.88/10 to the doctor. Among the 65 patients, 43 (66%) indicated a preference for the eMDHAQ, 7 (11%) for the paper MDHAQ, and 15 (23%) indicated no preference.

Conclusion: An eMDHAQ appears to have similar performance compared to a paper MDHAQ version. A high percentage of patients prefer the digital version to paper, although about 20% of patients are likely to require a paper MDHAQ. An eMDHAQ offers remote completion at home, before and/or between visits, to report issues concerning efficacy and/or adverse events. Expanded eMDHAQ software can allow a doctor to develop flow-sheets and a database for all patients, a full patient medical history, and interfacing with any electronic medical record (EMR), although that requires interaction with the EMR vendor, which often is difficult. The eMDHAQ appears useful independent of the EMR.

Disclosure of Interests: None declared


SAT0580
HEALTHCARE BURDEN AND COST OF ILLNESS OF GIANT CELL ARTERITIS IN THE ITALIAN REGION OF FRIULI VENEZIA GIULIA: A 17 YEAR INTEGRATIVE ANALYSIS OF DIGITAL ADMINISTRATIVE DATABASES
Luca Quartauda,1 Milena Bond1, Elena Cavallaro1, Annarita Tullio2, Bruno Bembì3, Christian Dejaço,4 Salvatore De Vita1, Francesca Valenti,1 Rheumatology Clinic, Udine, Italy; Instituto di Epidemiologia, Udine, Italy;1Regional Centre for Rare Diseases, Udine, Italy;2Rheumatology Unit, Brunico, Italy

Background: Giant cell arteritis (GCA) is the most common systemic vasculitis in persons aged 50 and above (1). Data on incidence and prevalence of GCA are welcomed. Further information is also needed on the healthcare burden and resource consumption. The use of multiple digital databases with the integration of clinical data from a formalized network of specialists is needed.

Objectives: To estimate incidence, prevalence and costs of GCA by an integrative analysis of multiple administrative databases of the healthcare system of the Italian Region of Friuli Venezia Giulia (about 1.2 millions of inhabitants), cooperating with the existing local Rheumatology Network.

Methods: A 17-year retrospective study was conducted through the following administrative health regional digital databases of the Friuli Venezia Giulia:

1 Institute of Epidemiology, Udine, Italy; 2Regional Centre for Rare Diseases, Udine, Italy; 3Rheumatology Unit, Brunico, Italy

Disclosure of Interests: None declared


Paper I-Pad Diff. (95%CI) ICC (95%CI)

<table>
<thead>
<tr>
<th>Physical Function (0-10)</th>
<th>2.0 (1.7)</th>
<th>2.0 (1.7)</th>
<th>0.04 (0.06, 0.6)</th>
<th>0.96 (0.94, 0.98)</th>
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<tr>
<td>Pain (0-10)</td>
<td>5.3 (3.2)</td>
<td>5.1 (3.1)</td>
<td>-0.08 (0.14, 1.8)</td>
<td>0.87 (0.80, 0.89)</td>
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<td>Patient global (0-10)</td>
<td>4.8 (2.8)</td>
<td>4.5 (2.8)</td>
<td>-0.3 (0.7, 1.3)</td>
<td>0.94 (0.90, 0.96)</td>
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<tr>
<td>RAPID3 (0-30)</td>
<td>12.1 (7.1)</td>
<td>11.4 (7.2)</td>
<td>0.7 (1.7, 3.2)</td>
<td>0.93 (0.88, 0.95)</td>
</tr>
<tr>
<td>Symptom checklist (0-60)</td>
<td>9.9 (8.5)</td>
<td>10.8 (9.5)</td>
<td>-0.9 (4.1, 2.2)</td>
<td>0.75 (0.62, 0.84)</td>
</tr>
<tr>
<td>RADAI-48 (0-48)</td>
<td>9.9 (8.9)</td>
<td>11.4 (10.7)</td>
<td>-1.4 (7.9, 9.9)</td>
<td>0.81 (0.71, 0.88)</td>
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