Conclusion: Half-dose regimen of TMP/SMX may be better to reduce AEs than full-dose regimen in prophylaxis for PCP in patients with systemic rheumatic disease.

REFERENCES:


Acknowledgements: We thank all staff at Department of Rheumatology and Internal Medicine, Juntendo University for their contribution to recruiting the patients. Soichiro Nakano and Ran Matsudaira were contributed to recruiting the patients in the Juntendo Tokyo Koto Geriatric Medical Center. We sincerely thank all the rheumatologists and medical staff who care for the patients enrolled in this study.

Disclosure of Interests: None Declared.

DOI: 10.1136/annrheumdis-2023-eular.661

Table 1.

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>GP2017 (n=621)</th>
<th>SBS (n=695)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSA RA AxSpA</td>
<td>166 213 262</td>
<td>173 253 269</td>
</tr>
<tr>
<td>Number of patients (N)</td>
<td>146 (11) 62 (11) 48 (12)</td>
<td>55 (11) 63 (10) 49 (11)</td>
</tr>
<tr>
<td>Female, n (%)</td>
<td>80 (55) 158 (74) 82 (31)</td>
<td>58 (34) 181 (72) 69 (3)</td>
</tr>
<tr>
<td>Disease duration, years (mean, SD)</td>
<td>14 (7) 169 (9) 14 (10)</td>
<td>15 (8) 19 (10) 14 (8)</td>
</tr>
<tr>
<td>Switch originator adalimumab treatment before switch (%)</td>
<td>43 (29) 59 (28) 72 (27)</td>
<td>36 (21) 34 (13) 68 (25)</td>
</tr>
<tr>
<td>&lt;6 years</td>
<td>107 (71) 164 (72) 190 (73)</td>
<td>127 (79) 219 (87) 201 (75)</td>
</tr>
<tr>
<td>≥6 years</td>
<td>10 (7) 8 (4) 15 (6)</td>
<td>6 (4) 18 (7) 16 (6)</td>
</tr>
</tbody>
</table>

GLM regression estimates for costs after versus before switching, stratified by drug and diagnosis:

<table>
<thead>
<tr>
<th>Drug</th>
<th>GP2017</th>
<th>SBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSA RA AxSpA</td>
<td>0.83 (0.77-0.93)</td>
<td>0.99 (0.93-1.01)</td>
</tr>
<tr>
<td>Total hospital costs</td>
<td>1.00 (0.95-1.04)</td>
<td>0.92 (0.89-0.95)</td>
</tr>
</tbody>
</table>

*Adjusted for gender, age, duration of treatment with originator drug (≥6 months), comorbidity (number of WHO 1 chapters excluding WHO 13 ICD-10), and diagnosis.

Acknowledgements: We thank all the Danish departments of rheumatology, which report to the DANBIO registry. Also the work of IT consultant Niels Steen Krogh, Zitelab Aps, who extracted data from DANBIO is acknowledged.

Figure 1. Hospital costs stratified by biosimilar drug. Black dotted line indicates time of switch. y-axis: Mean cost per patient per month
POS0377 ACCURACY OF AN AI-BASED SYMPTOM CHECKER AND AN ONLINE SELF-REFERRAL TOOL IN RHEUMATOLOGY: RESULTS FROM A MULTICENTER RANDOMIZED CONTROLLED TRIAL

Keywords: Validation, Real-world evidence, Telemedicine

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Background: Inflammatory rheumatic diseases (IRD) are often diagnosed too late due to non-specific symptoms and the lack of specialists in rheumatology. Digital diagnostic decision support systems (DDSS) promise to accelerate diagnosis and decrease the overall healthcare burden.

Objectives: To assess the ability of an artificial intelligence (AI)-based symptom checker (Ada) and an online self-referral tool (Rheport) to diagnose inflammatory rheumatic diseases (IRD).

Methods: In a prospective, multicenter open-label controlled randomized cross-over trial patients newly presenting to a rheumatology center were randomly assigned in a 1:1 ratio to complete a symptom assessment with Ada or Rheport followed by a crossover to the other respective diagnostic decision support system (DDSS). The primary outcome was correct identification of a patient with IRD by the DDSS, defined as the presence of any IRD in the list of suggested diagnoses with Ada or a pre-specified threshold score with Rheport. Physician diagnosis was the gold standard.

Results: In total, 600 patients were included and 214 (36%) patients were eventually diagnosed with an IRD by a physician. Rhoepoint showed a sensitivity of 62% and specificity of 66% and a specificity of 68% and 54% concerning IRDs, respectively Ada, in comparison to Rhoepoint, was more likely to correctly identify patients with an IRD when used as the first DDSS (OR: 1.09, 95% CI: 1.01 to 1.18) however this finding was not consistent after cross-over (OR: 0.97, 95% CI: 0.90 to 1.05).

Conclusion: The diagnostic capability of both DDSS for IRDs was not promising in this high-prevalence patient population referred for subspecialty evaluation. Although the overall numbers suggest that AI-based Ada demonstrated a slightly higher specificity and sensitivity compared to the questionnaire-based Rhoepoint, Ada was not consistently better than Rhoepoint in correctly identifying patients with an IRD when the use of the apps was taken into account. Our results indicate that, strict regulation and drastic improvement is necessary to ensure safety and effectiveness of DDSS.

Acknowledgements: This study was partially funded by Novartis Pharma GmbH.

Disclosure of Interests: Johannes Knitz Speakers bureau: Abbvie, Novartis, Lilly, Medac, BMS, Sanofi, Amgen, Gilead, UCB, ABATON, GSK, Werfen, Vila Health, Böhringer Ingelheim, Janssen, Galapagos, Chugai, Celltrion, Grant/ research support from: This study has been partially supported by Novartis Pharma GmbH. Others: Abbvie, Novartis, Tervo Fisher, UCB, ABATON, Sanofi, DFG, EIT Health, Koray Tasclar: None declared, Franziska Fuchs: None declared, Jacob Mohn: None declared, David Simon: None declared, Arnd Kleyer: None declared, Christina Bergmann: None declared, Hannah Labinsky: None declared, Harald Morf: None declared, Elizabeth Araujo: None declared, Daniela Bohr: None declared, Felix Muehmensiepen: None declared, Matthias Engbrecht: None declared, Wolfgang Vrbruggen: None declared, Cay-Benedict von der Decken: None declared, Stefan Kleinert: None declared, Andreas Ramming: None declared, Joerg Distler: None declared, Peter Bartz-Bazzanella: None declared, Nicolas Vuillerme: None declared, Georg Schett: None declared, Martin Welcker Grant/research support from: Novartis Pharma GmbH. Axel Hueber Grant/research support from: Novartis Pharma GmbH.

DOI: 10.1136/annrheumdis-2023-eular.812

POS0378 ASSOCIATION BETWEEN METABOLIC SYNDROME AND KNEE PAIN IN MIDDLE-AGED ADULTS OVER 10-13 YEARS

Keywords: Pain, Osteoarthritis, Epidemiology

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Background: Metabolic syndrome (MetS) is characterized by an increased waist circumference, dyslipidaemia (elevated triglycerides and reduced high-density lipoprotein (HDL)), hypertension and hyperglycaemia. MetS has been suggested as having a role in osteoarthritis (OA) pathogenesis. Few studies have described the association of MetS with joint pain in older adults with OA; however, none has described the association between MetS and knee pain in a middle-aged adult population.

Objectives: We aimed to describe the association of MetS and trajectories of MetS over 10-13 years with knee symptoms in general population-based middle-aged adults.

Methods: Fasting blood biochemistry, waist circumference and blood pressure measures collected during the Childhood Determinants of Adult Health (CDAH)-1 study (year 2004-6; n = 2447) and at 10-13 year follow-up at CDAH-3 (n = 1549) were used to define MetS using the International Diabetes Federation (IDF) definition. Knee symptoms were assessed using the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) scale at the CDAH-3 follow-up (mid-adulthood). Univariable and multivariable (adjusted for age, sex, and body mass index (BMI)) zero-inflated Poisson (ZIP) regression models were used for analysis.

Figure 1: Participant flowchart

Table 1

Cross-sectional analysis

Results: Overall, the prevalence of MetS increased from 8% (mean age:31.48±2.60; female:52.06%) to 13% (mean age: 44±2.90; female: 53.78%) over 10-13 years. Four MetS trajectories were identified—No MetS (85.01%); ‘Improved MetS’ (2.14%), ‘Incident MetS’ (8.81%), and ‘Persistent MetS’ (4.04%). The presence of MetS at any point, compared to no MetS, was significantly associated with worse knee symptoms at follow-up. Notably, ‘Incident MetS’ was most strongly associated with knee symptoms [R0M: 1.56,95%CI: 1.48,1.68] and pain [R0M:1.52,95%CI:1.37,1.78] at follow-up (Table 1).

TOURING THE LANDSCAPE OF EPIDEMIOLOGY