the deep learning models predict RA, based on very similar patterns of known (teno-)

Table 1. The overall performance, mean AUC (±SD)

<table>
<thead>
<tr>
<th>Method:</th>
<th>Input AUC</th>
<th>RA in EAC AUC</th>
<th>RA in CSA AUC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wrist</td>
<td>0.679 (±0.021)</td>
<td>0.688 (±0.039)</td>
<td></td>
</tr>
<tr>
<td>MCP</td>
<td>0.647 (±0.015)</td>
<td>0.669 (±0.024)</td>
<td></td>
</tr>
<tr>
<td>Foot</td>
<td>0.664 (±0.009)</td>
<td>0.715 (±0.026)</td>
<td></td>
</tr>
</tbody>
</table>

| Wrist   | 0.663 (±0.025) | 0.727 (±0.037) |
| MCP     |                |               |
| Foot    | 0.707 (±0.016) | 0.708 (±0.068) |

Figure 1. The overall workflow of the AI model and visualization examples from correctly-predicted samples.

Conclusion: Automatic RA prediction is feasible, using AI interpretation of MRI scans. AI performed close to the level of human experts, including MRI data from healthy controls, as used in RAMRIS-based prediction [1], will probably improve the AI prediction further. The new visualization method not only confirms the significance of known inflammatory features but may also point to new imaging biomarkers, giving a different perspective of understanding RA.

REFERENCES:


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Keywords: Patient information and education, Systemic lupus erythematosus, Self-management

Background: Quality of information on lupus on the internet is a real issue. "Word of mouth," rumors, unchecked data, or unconfirmed research increase the risk of healthcare costs and reduces the access to rheumatologists for patients with inflammatory rheumatic diseases, for whom early diagnosis, disease modifying medication and tight controls may induce remission and prevent irreversible joint damage and long-term disability. Delegating the healthcare management and treatment of HOA to allied health professionals such as occupational therapists may therefore free scarce healthcare resources and improve overall health economics.

Objectives: In this study we evaluated a new model of care in specialist healthcare, where HOA patients receive their first consultation by occupational therapists instead of rheumatologists. The objective was to test the non-inferiority of occupational therapist-led care (OTC) compared to rheumatologist-led care (RC) with regards to effectiveness defined as proportion of responders (based on OMERACT/OARSI criteria) and safety. In addition, we conducted a health economics evaluation comparing Quality-adjusted life years (QUALys) and treatment costs between the treatment groups and conducted a cost-economics analysis.

Methods: We conducted a randomized controlled multicentre parallel group trial in which we recruited 400 patients with symptomatic HOA and no signs of possible inflammatory rheumatic disease at two Norwegian hospitals. Participants were randomized (1:1, computer-based) to either OTC (n=200) or RC (n=200). Various demographic and clinical parameters were registered at baseline. Disease activity (numeric rating scale, NRS, 0-10, 0=no disease activity), pain (NRS, 0-10, 0=no pain) and function (using the MAP-hand questionnaire, 18 items averaged to a 1-4 score, 1=no problems) were registered at baseline and 6 months post-intervention, and the delta was used to determine if patients were responders/non-responders based on OMERACT/OARSI criteria. Ch2-test and logistic regression were used to compare the proportion of responders/non-responders per treatment arm, and to analyse the relationship between response status (as dependent variable) and treatment arm (as independent variables). Results of the logistic regression are presented as odds ratio (OR) with 95% confidence interval (CI). Safety analysis was conducted by screening healthcare journals 12 months post-baseline for new diagnoses and adverse events related to musculoskeletal diseases. QUALys were calculated using data from EQ-5D weighted with preference weights from the general population. To evaluate cost-effectiveness, we calculated and compared the incremental cost-effectiveness ratio (ICER).

Results: Mean age was 63.6 years (SD=10.01), 80.8 % were female. No statistical difference between the treatment arms was found in any baseline variables. In the RC group, 48 patients (25.8%) met the primary outcome criteria for treatment response. In the OTC group, 94 (47.2%) were classified as responders. The proportion of responders did not differ by treatment group (X2 (1, N = 337) = 0.0012, p = 0.97). Treatment group did not significantly predict response status (OR=0.99, CI=0.62-1.59, p = 0.97). No notable safety-related events were found in either group. No statistically significant differences were found regarding QUALys and overall treatment costs, and cost-effectiveness was marginal.

Conclusion: We found no statistically significant difference regarding proportion of treatment responders between the two treatment arms, suggesting non-inferiority of OTC compared to RC with regards to effectiveness and safety. While the cost-effectiveness analysis showed no clear benefit for either of the treatment options, delegating HOA treatment to OTs may free RT time and improve health-care accessibility for urgent diagnoses, and thus prove a valuable opportunity to optimize future healthcare allocation.

REFERENCES: NIL.

Disclosure of Interests: None Declared.

DOI: 10.1136/annrheumdis-2023-eular.5455

Keywords: Patient information and education, Systemic lupus erythematosus, Self-management

Background: Quality of information on lupus on the internet is a real issue. "Word of mouth," rumors, unchecked data, or unconfirmed research increase the risk of
Objectives: To provide access to quality information about lupus online, in the native language of 95%+ of the European population.

Methods: The first step was to get the project endorsed by specialised lupus doctors, ERN ReCONNECT. The French book “lupus en 100 questions” (initiated by FAI2R) was used as a starting point. Patients from the Lupus Europe Patient Advisory Network (PAN) and doctors worked together to create the French version. The least internationally relevant questions were removed to make space for new questions suggested by Lupus Europe’s PAN. Answers for the new questions were constructed collaboratively between patients and doctors. The other questions were translated to English, updated where needed and adapted for international use. The resulting English document was distributed to ERN ReCONNECT SLE working group doctors and, to all PAN members, and feedback was incorporated. This master version was then put online and served as starting point for an ambitious multilingual translation. The translation process included generating an initial draft translation through DeepL Pro, and then upgrading this by a Doctor-Patient native speaker team. In parallel, a process has been established to collect comments and suggestions so that content can be maintained and upgraded on a continuous basis while keeping all language versions synchronised.

Results: lupus100.org in English was launched at the European Lupus Meeting in October 2022 and has to date received 8,900 visits. 18 translations have been completed and 10 of them are under final validation. The international launch of the multilingual website will take place on May 10, World Lupus day.

Conclusion: The project will provide access to high-quality information about lupus to 95% of European lupus patients in their own language, eliminating a big barrier to quality information. Thanks to the effective collaboration between patients and doctors, quality of information can be guaranteed and information truly answers the patient concerns. Both national groups and the ERN network of doctors will ensure effective dissemination, so patients in all European countries are aware of the initiative.

REFERENCE:

Acknowledgements: NIL

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Keywords: Diagnostic Tests, Spondyloarthropathy, Epidemiology

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Background: Unacceptable diagnostic delay in axial Spondyloarthritis (axSpA) remains an issue. In 2009, the longitudinal SpPondyloArthritiCs Caught Early (SPACE)-cohort started to assess the prevalence of axSpA and the reliability of an early diagnosis in patients with chronic back (CBP) of unknown origin. Here we present one of the main outcomes of SPACE.

Objectives: To assess the two-year (2y) prevalence of an axSpA diagnosis among patients with recent onset CBP referred to the rheumatologist; To investigate the sustainability of a baseline (BL) diagnosis of axSpA when reviewed after 2y; And to explore patient-differences between BL and 2y, in those with and without an axSpA diagnosis.

Methods: We analysed the 2y data from SPACE, a European inception cohort of patients (age <65y) with CBP of recent onset (<3 months, <2y) and unknown origin. The full diagnostic work-up included all clinical SpA-features, acute phase reactants, HLA-B27, radiographs and MRI of the sacroiliac joints (SI-CR and SI-MRI) and spine (data not shown). Patients with increased likelihood of having axSpA (≥1 major or ≥2 minor prespecified SpA-features) were eligible for follow-up with the remaining patients excluded per protocol. The clinical diagnosis at 2y was the main outcome of this study. At each visit, the treating rheumatologist judged on the presence or absence of axSpA (axSpA or no-axSpA) with a level of confidence (LoC) on a numeric rating scale (0, not confident at all to 10, very confident). The main outcome was the presence of ‘definite’ axSpA at 2y defined as a clinical diagnosis of axSpA with a LoC ≥7 (complete follow-up) or at the two last available visits if 2y visit was missing. ‘No axSpA’ was defined as not having axSpA at 2y (with LoC ≥7; or if LoC <7, plus an alternative diagnosis for CBP reported). All other patients were considered having an ‘uncertain’ diagnosis. The ASAS classification criteria were computed using sacroiliitis central reading results in definite axSpA patients. We assessed the prevalence of definite axSpA at 2y as well as changes in diagnosis over time, and descriptively summarised BL characteristics.

Results: A total of 555 CBP patients were included (Leiden n=383, Oslo n=97, Amsterdam n=48, and Gouda n=27). A diagnosis of definite axSpA was given to 175 (32%) patients at BL and 166 (30%) at 2y (Figure 1). The mean (SD) LoC’s were 8.1 (2.0) and 8.7 (1.0), with 155/175 (89%) and 145/166 (87%) fulfilling ASAS classification criteria, respectively. BL diagnostic judgments were relatively consistent and remained rather stable. At 2y, 6% of the BL diagnoses of definite axSpA were refuted; and vice versa: 9% of those who did not obtain a BL diagnosis of axSpA ‘gained’ one at 2y. Residual diagnostic uncertainty remained in 14% of CBP-patients. Expectedly, BL SpA-related features were more prevalent in the 2y definite axSpA group (Table 1). (The presence or absence of imaging-detected sacroiliac joints at BL appeared the best discriminator between BL and no axSpA at 2y.

Conclusion: One third of patients with CBP of recent onset referred to the rheumatologist has definite axSpA. Most of these patients can be unequivocally and reliably diagnosed at their first assessment. None of the many SpA-features suffices alone, but imaging discriminates best.