## Online Education Significantly Improved Rheumatologists’ Understanding and Interpretation of Comparative Treatment Data for AS

**Adriana Stan**

### Summary
- **Objective:** Help inform treatment choices.
- **Methods:** Meta-analysis and matching adjusted indirect comparisons can be useful decisions, but in the absence of such trials, physicians often rely on their evidence to guide their patient care.
- **Conclusion:** The online CME activity significantly improved rheumatologists' understanding of how to compare treatments and interpret comparative effectiveness data in AS which may lead to improved treatment selection and better patient outcomes. However, there is clearly room for further improving physicians’ knowledge of treatments & radiographic progression and comparative analysis of RCTs (since 75% of rheumatologists provided incorrect answers to questions 2 and 3-post activity) which can be addressed in future education.

### REFERENCES


### Acknowledgement
- Statistical analysis was carried out by Dr. M. Engbrecht, Healthcare Data Scientist, Eckental, Germany.
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### Table

<table>
<thead>
<tr>
<th>General questions</th>
<th>Mean (0= very good/very satisfied; 10= very poor/inadequate)</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>The prior consultation to a medical assistant is estimated as ? 0 = good 10 = bad</td>
<td>1.04</td>
<td>1.66</td>
</tr>
<tr>
<td>Regarding acquiring information and asking questions the form of consultation is ? 0 = better 10 = worse</td>
<td>1.28</td>
<td>1.76</td>
</tr>
<tr>
<td>All of my questions were answered</td>
<td>0.89</td>
<td>1.55</td>
</tr>
<tr>
<td>The consultation to the physician was ? 0 = adequate 10 = inadequate</td>
<td>0.96</td>
<td>1.49</td>
</tr>
<tr>
<td>Cardiovascular assessment and education</td>
<td>0.50</td>
<td>0.96</td>
</tr>
<tr>
<td>I had the opportunity to ask questions</td>
<td>0.50</td>
<td>0.90</td>
</tr>
<tr>
<td>The information was helpful, I learned something new</td>
<td>1.32</td>
<td>1.93</td>
</tr>
<tr>
<td>I am planning to put the information into practice</td>
<td>0.74</td>
<td>0.86</td>
</tr>
<tr>
<td>Inform new vaccination</td>
<td>0.17</td>
<td>0.38</td>
</tr>
<tr>
<td>I had the opportunity to ask questions</td>
<td>0.22</td>
<td>0.43</td>
</tr>
<tr>
<td>The information was helpful, I learned something new</td>
<td>1.06</td>
<td>1.35</td>
</tr>
<tr>
<td>I am planning to put the information into practice</td>
<td>0.44</td>
<td>0.78</td>
</tr>
</tbody>
</table>

### Conclusion
- The semi-standardized assessment of patients with rheumatoid arthritis by medical assistants, the cardiovascular risk assessment and education, and the assessment and information on vaccination was very well accepted and appreciated by patients. Currently, there is no reimbursement by the German health care system.

### Disclosure

**Disclosure of Interests:**

- Adriana Stan: None declared, Elaine Bell: None declared, Peter Schoonheim: None declared, Xenon Baraliakos: Grant/research support from: AbbVie, Roche and UCB, Grant/research support from: AbbVie, Merck Sharp & Dohme, UCB Pharma, Novartis, Consultant for: AbbVie, Bristol-Myers Squibb, Boehringer Ingelheim, Celgene, Chugai, Janssen Biologics, Novartis, Pfizer, UCB Pharma, Galapagos, Speakers bureau: Abbvie, Chugai, Janssen, Novartis, Pfizer, UCB Pharma

### Background
- Systemic lupus erythematosus (SLE) is a chronic disease that requires lifelong treatment with a multidisciplinary approach. Increasingly, patients use the internet and associated technology to access health-related information. Smartphone applications (apps) have become essential tools in this age and are widely-accessed by patients. These apps can be very helpful tools to inform patients about their illness, support them in their treatment plan, and help them connect with others. Unfortunately, healthcare apps remain largely unregulated.

### Objectives
- We aim to evaluate the overall quality of patient-directed lupus apps with a focus on the accuracy and appropriateness of the health information contained in these apps.

### Methods
- The 2 most commonly used app stores are Apple Store and Google Play. These stores were searched for the terms “lupus” and “SLE” during December 2018. The resulted apps (Patient-oriented, English language, and free of charge) were analyzed and the following data was collected: app type (informational, tool, both), features, and functionality, accuracy of information.
content. Tool apps are those used by patients to track symptoms, contained lupus action plan, appointment and medication reminders, and/or quizzes/surveys. Inclusion criteria for apps included connection to external sites (social media, professional societies, online patient communities, health-care provider), and security features including login/password protection and privacy policy statement. Apps were then rated using (with permission from originator) a published reliable and multidimensional scale: Mobile App Rating Scale (MARS). The study authors were trained on MARS using the recommended slides and exercises. In addition, quality of health information contained in informational apps was rated using the published DISCERN instrument.

**Results:** The search terms SLE and Lupus retrieved a total of 471 apps on Google Play store and a total of 198 apps on Apple Store. On Google Play, 14/471 met our inclusion criteria compared to 11/198 on Apple Store. Majority of Google apps were in the tools category representing 41%, followed by apps that are both tools and informational (31%), whereas informational apps were 25%. On the other hand, majority of Apple Store apps were both tools and informational (64%), followed by tools only apps (27%), and finally informational only apps (9%). The most common apps features were email login (37%) and links to external sites including social media platforms (31%). Two apps were identified as a potential source for misleading information claiming that certain homemade herbs/food has anti-inflammatory properties to treat lupus. The average MARS score for Google apps was 2.7/5 indicating poor apps quality. The average MARS score for Apple apps was 3.7 indicating acceptable apps quality. Overall, the functionality score was the highest (3.9/5) while the engagement score was the lowest (2.7/5) for both app stores. For apps that contained information for patients, DISCERN score was 2.15/5 and 3.12/5 for Google and Apple apps respectively indicating potentially important shortcomings in the quality of health information provided in these apps.

**Conclusion:** Our study demonstrates that a larger need is emerging for designing high-quality apps for patients with lupus. Healthcare organizations, professional societies, rheumatologists, and allied health professionals are encouraged to participate in promoting and creating high-quality apps for lupus patients. These apps are likely to contribute to improving the quality of care provided to these patients and can potentially extend care in the looming global shortage of rheumatologists. This is also an acknowledgment of the need to adapt to advancing communications technology as it integrates into many patients’ lives in this digital age.

**Disclosure of Interests:** None declared

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HPR Epidemiology and public health (including prevention).

**SAT0695-HPR**

ASSOCIATION OF PHYSICAL FITNESS WITH HEALTH-RELATED QUALITY OF LIFE IN WOMEN WITH FIBROMYALGIA

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**Background:** Physical fitness (PF) represents a marker of health and is associated with health-related quality of life (HRQoL). Different components of PF have shown to be consistently associated with lower symptomatology in people with fibromyalgia.1-4 Identifying which PF components are associated with HRQoL in people with fibromyalgia may contribute to the development of more specific therapeutic strategies.

**Objectives:** The aim was to examine the associations of different PF components with HRQoL in women with fibromyalgia.

**Methods:** This population-based cross-sectional study included 466 women with fibromyalgia. The Senior Fitness Tests battery plus handgrip test was used to assess PF and the 36-Item Short-Form Health Survey (SF-36) was used to assess HRQoL. Trender postural, cognitive impairment, anthropometric measurements and medication usage were also measured and used as confounders. Firstly, multivariate linear regression assessed the individual relationship of each PF test with the eight dimensions of the SF-36. Secondly, a standardized composite score was computed for each component of PF (aerobic fitness, muscular strength, flexibility and motor agility). Forward stepwise regression was performed to analyse which components of PF were independently associated with the SF-36 physical and mental component scales.

**Results:** Overall, higher performance on PF tests was associated with higher levels of HRQoL in all SF-36 dimensions and subscales (all p<0.05 or p<0.001) except for associations between handgrip with social functioning, emotional role, mental health and mental component scale, as well as the chair sit-and-reach test with the general health dimension. The muscular strength composite score was independently (from other fitness components and confounders) associated with the SF-36 physical component scale (p<0.001), while the flexibility composite score and cardiorespiratory fitness were independently (from other fitness components and confounders) associated with the SF-36 mental component scale (both p<0.05).

**Conclusion:** High PF is consistently associated with better HRQoL in women with fibromyalgia. Muscular strength, flexibility and cardiorespiratory fitness are independent indicators of HRQoL in this population. These results might have implications for future intervention studies because it could facilitate the selection of the most suitable exercise interventions according to the clinical profile of each patient.

**References**


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THE PREVALENCE OF SEPTIC ARTHRITIS AT A LARGE UNIVERSITY TEACHING HOSPITAL

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**Background:** Septic arthritis (SA) is a rheumatological emergency requiring early treatment to prevent lasting joint damage. Treatment outcomes depend on prompt diagnosis, which currently rests on clinical suspicion, raised non-specific inflammatory markers and identification of a pathogen from synovial fluid.

**Objectives:** To establish the prevalence of SA in a large University teaching hospital. To review the microbiology results and identified pathogens in each positive case along with subsequent treatment regimes utilising outpatient parenteral antimicrobial therapy (OPAT) with adherence to local guidelines.

**Methods:** Retrospective data collection of all samples identified as synovial fluid or joint aspiration sent to microbiology lab between 1st January, 2016 and 31st December 2016. Electronic review of microbiology results to identify the causal pathogen and case notes to review treatment and outcomes.

**Results:** There were 364 samples identified as joint aspirate or synovial fluid, 54 of these grew a pathogen. Positive aspirates from native joints totaled 35 in 31 patients. Twenty-three of these patients accounting for 25 of the positive samples were treated clinically as SA. Sub analysis of this group revealed Staphylococcus aureus was the most commonly identified pathogen in 14 cases (56%). There were however 8 other pathogens identified in the 25 positive samples. Fifteen patients (65%) underwent a joint aspiration in 12 patients, whilst in 7 of these patients however, administration of antibiotic therapy was 5 weeks in 8 cases; 13 cases had therapy for >5 weeks and 2 cases with SA in the upper limb had treatment for <5 weeks. There were 10 positive samples taken from 8 native joints that grew a pathogen and were not treated as SA. These were identified as...