A blood test and review of previous tests from the last year were performed, as well as measurement of blood pressure (BP), weight and abdominal circumference. Nurse-managed calls were made to monitor BP home measurements and check adherence/tolerance to pharmacological start/adjustment of ULT, antihypertensive, lipid-lowering and anti-diabetes drugs and non-pharmacological approach (gout education, dietary/lifestyle recommendations) initiated at the first visit, according to the Spanish gout guideline and EULAR recommendations for CVR management in rheumatic diseases. We count on multidisciplinary collaboration with other specialists. After 6 months, an in-person visit was made with the same measurements to determine potential changes. A descriptive analysis of the sample was performed. The Wilcoxon test was used to evaluate the variation in the parameters studied. The outcome variable was determined as improvement versus no improvement of the dependent variable. Chi-square and Mann Whitney U tests were used to evaluate the differences.

Results: Forty patients who met the inclusion criteria were included. 98% were male, with a median age of 66 (58-75) years, severe gout (83%: tophaceous, median duration 7 years) and marked presence of CVRF (smoking 23%, hypertension 78%, dyslipidemia 55%, diabetes 23%), some of them previously undetected (10% hypertensive, 3% dyslipidemic, 3% diabetic), and related comorbidities (ischaemic heart disease 8%, cerebrovascular disease 5%, chronic kidney disease 20%). Fifty-five percent were not taking ULT and 53% used non-steroidal anti-inflammatory drugs (NSAIDs) on a regular basis. At the first visit, ULT was started/adjusted in 95% of patients, antihypertensive in 15%, lipid-lowering drugs in 13%, and anti-diabetes drugs in 8%. At 6 months, there was a significant improvement in sUA and BP, and a non-statistically significant weight reduction (Table 1). Serum uric acid (sUA) target was achieved in 93% of patients (37/40 <6mg/dl, 29/40 <5mg/dl). The use of NSAIDs was reduced to 5%. Four out of 9 smokers quit. Statistic BP improved in 73% of patients and diastolic BP in 70%. Dietary and habit modifications, therapeutic adjustments and multidisciplinary care were significantly associated with improved BP (p=0.02).

Conclusion: In patients with difficult-to-treat gout and high CVR, combined intervention with CNS allows substantial short-term changes in CVRF, a drastic reduction in NSAID consumption and a high percentage of success in achieving weight reduction (Table 1). Serum uric acid (sUA) target was achieved in 93% of patients (37/40 <6mg/dl, 29/40 <5mg/dl). The use of NSAIDs was reduced to 5%. Four out of 9 smokers quit. Statistic BP improved in 73% of patients and diastolic BP in 70%. Dietary and habit modifications, therapeutic adjustments and multidisciplinary care were significantly associated with improved BP (p=0.02).

References:


Table 1. Anthropometric, blood pressure and serum uric acid changes 6 months after the first visit.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Basal</th>
<th>6 months</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (kg)</td>
<td>87 (77.3-99)</td>
<td>85.4 (77.6-93)</td>
<td>0.79</td>
</tr>
<tr>
<td>Abdominal circumference (cm)</td>
<td>107 (102-110)</td>
<td>108 (103-116)</td>
<td>0.81</td>
</tr>
<tr>
<td>Systolic BP (mm Hg)</td>
<td>151 (153-183.2)</td>
<td>142.5 (124.8-155)</td>
<td>0.02</td>
</tr>
<tr>
<td>Diastolic BP (mm Hg)</td>
<td>88.5 (76.3-95)</td>
<td>78.5 (70-86.8)</td>
<td>0.01</td>
</tr>
<tr>
<td>sUA (mg/dl)</td>
<td>77 (76.6-8)</td>
<td>4.5 (1.5-2)</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>

All variables expressed as median/IQR. BP: blood pressure; sUA: serum uric acid.

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Background: During times of social-distancing, in-person outpatient visits were greatly reduced. Health care professionals (HCPs) were dependent on the patient’s reported experience of their disease activity in their assessments of the wellbeing and inflammatory state, due to lack of physical assessments. Digital biomarkers can support real-world continuous measurements and offer a method for remote quantification of inflammatory joint disease. They are defined as objective, quantifiable, physiological and behavioural data that are collected and measured with digital devices [1].

Objectives: This study uncovers the HCPs perspective on current manners of disease activity monitoring, easing their workload and the potential of digital biomarkers.

Methods: A Design Thinking approach is followed for digital biomarker development. It is a human-centered problem solving approach that leverages iteration, empathy and collective idea generation to tackle complex challenges [2].

Semi-structured online focus group discussions were conducted. Pilot 1-1 interviews were executed to assess the interview script. The script is underpinned by the graphical framework for clinical decision making [3] and the theoretical domain framework [4]. One moderator and three alternating observers facilitated the sessions. All interviews were audio-recorded, transcribed to verbatim and coded.

Results: In total 6 focus groups were organised, with a total of 28 HCPs. Participants were rheumatologists (N=19, age 47 ± 9, 50% male) and rheumatology nurses (N=9, age 51 ± 6, 0% male). The main findings from the interviews about digital biomarkers in relation to current practices were: Trust; HCPs felt self-assured about their own abilities of physical evaluation, reading patients and their gut feeling. Trust in flare detection with digital biomarkers and machine learning was low. It was expected that much disease activity is missed and many false-positive flares are detected. Biomarkers should be valid, reliable and sensitive to change. Innovation should improve quality of care; No consensus about a golden standard of care exists. HCPs were afraid that with digital biomarkers personal interaction recedes to the background and quality of care is compromised. Personal interaction was marked as essential to raise sensitive topics and stimulate therapy adherence. Benefits of digital biomarkers; HCPs enjoyed the delivery of efficient and effective care.

Conclusion: The following problem statement from the HCPs perspective can be formulated: “In limited time we take many actions. We spend time on both disease and emotional support of our patients. Our workload is high and trivial tasks such as administration take too much of our time. Instead we want to focus on what’s relevant to the patient. We are confident about our own abilities and, only if technology is proven to be valuable, valid, reliable and accepted by our patients it can be used in clinical practice.”

HPR Measuring health (development and measurement properties of PROs, tests, devices)

POS0568-HPR DISCOVERING THE POTENTIAL OF DIGITAL BIOMARKERS IN THE WORK PROCESS OF THE RHEUMATOLOGY HEALTHCARE PROFESSIONALS: A DESIGN THINKING APPROACH. PRELIMINARY RESULTS OF THE HEALTHCARE PROFESSIONALS PERSPECTIVE

Keywords: Biomarkers, Health services research, Qualitative research methods

Figure 1. Interview Quotes of the HCP and the Design Thinking Process
The needs of this specific subgroup.

A subgroup of people with Rheumatoid Arthritis (RA) who have considerable hygiene (42%) and Reaching (28%), followed by Usual activities and Eating (15%)

Portions of patients with a maximum score of 3 were seen in the domains Personal hygiene (52%, n=111), almost a quarter in 7 domains (24%, n=52), 13% (n=28) in 7-8, mean 7.1). More than half of the participants had a domain score ≥1 in all 8 domains (52%, n=111), almost a quarter in 7 domains (24%, n=52), 13% (n=28) in 6 domains and the minority (11%, n=24) in 5 or less domains. The highest proportion of patients with a maximum score of 3 were seen in the domains Personal hygiene (42%) and Reaching (28%), followed by Usual activities and Eating (15% and 14%, respectively). For Gripping, Arising, Walking and Dressing and grooming the proportions of patients with the maximum score was less than 8%

Conclusion: In a subgroup of patients with RA and severe functional disability, the majority had limitations in almost all the domains of the HAQ-DI. Most severe limitations were seen in Reaching and Personal hygiene and the least severe for Arising and Dressing and grooming. In daily clinical practice, a comprehensive assessment of all areas of daily activities in this subgroup of RA patients is necessary, and because the functional limitations are present and significant in all domains, extensive support from multiple healthcare professionals may be indicated.

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Figure 1. Mean HAQ-DI scores for each HAQ-DI domain and the percentage of patients that reported to have either no/some/much difficulty or unable to perform everyday activities represented for each domain.

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Disclosure of Interests: None Declared.

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[4] PMID: 38279171