

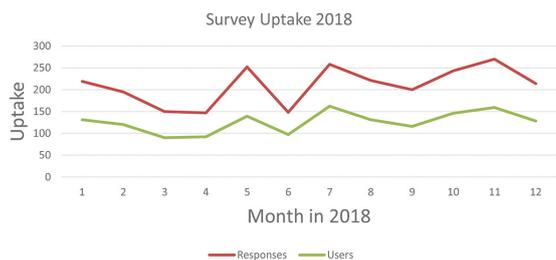
Among them, 94% reported the RPMP as easy to use, 54% found that RPMP helped them in understanding their rheumatology condition and 25% reported a flare through the RPMP.

Q1	Do you find the rheumatology portal easy to use?
Q2	Has the portal helped your understanding of your rheumatology condition?
Q3	Have you used the portal to report a flare?
Q4	If you have reported a flare using the portal, was your issue/concern answered quickly?
Q5	If you have reported a flare using the portal, was your issue/concern answered satisfactorily?
Q6	Would the portal service be more useful as an app?
Q7	Would you be happy to consider a one off payment of no more than £1 to use an app version?
Q8	Any further comments?

**Conclusion:** A large number of our rheumatology patients have consented to use the RPMP and their email. Uptake of the RPMP use is increasing (figure 2).

We have identified a significant proportion of 289 patients using the portal and email that could be targeted for virtual clinic use. Our data showed that use of tele-rheumatology in conjunction with standard care has potential to reduce number of standard clinic appointments however further work is required to investigate this.

Feedback from clinical staff is that having PROMs completed prior to consultation gives more time to discuss key issues whilst facilitating appropriate monitoring. The survey showed that majority of patients found the RPMP easy to use and helpful in understanding their rheumatology condition. The RPMP is an effective monitoring system for selected patients and has improved patient understanding in monitoring their disease activity.



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THU0642

#### EULAR POINTS TO CONSIDER FOR THE DEVELOPMENT, EVALUATION AND IMPLEMENTATION OF MOBILE HEALTH APPLICATIONS FOR SELF-MANAGEMENT IN PATIENTS WITH RHEUMATIC AND MUSCULOSKELETAL DISEASES

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**Background:** In the expanding era of e-health, a wide range of mobile health applications (apps) have become available to enable people with

rheumatic and musculoskeletal diseases (RMDs) to better self-manage their health. However, guidance on the development and evaluation of such apps is lacking.

**Objectives:** The objective of this EULAR task force was to establish points to consider (PtC) for the development, evaluation and implementation of apps for self-management of RMDs.

**Methods:** A systematic literature review of app content and development strategies was conducted, followed by a qualitative study with six patients and an online survey of people living with RMDs (n=394). Based on these data and expert opinion, the PtC were formulated in a face-to-face meeting in November 2018 by a multidisciplinary TF panel of experts, including patients, from 10 countries. The level of agreement among the panel in regard to each PtC was established by anonymous online voting.

**Results:** Three overarching principles and 10 PtC were formulated (Table). Out of the 10 PtC, three were related to patient safety (1,5,6), considered as a critical issue by the panel, along with accuracy of information provided by apps. Three were related to relevance of the content and functionalities (2,7,9) and the importance of apps being tailored to the individual needs of people with RMDs. The requirement for transparency around app developers and funding sources (3,4), along with involvement of relevant health professionals were also raised. Ease of app access across ages and abilities was highlighted (8), in addition to considering the cost-benefit of apps from the outset (10). The level of agreement was high (Table).

**Conclusion:** These PtC provide guidance on important aspects that should be considered for the development of new apps, the quality assessment of existing apps, as well as for further development of existing apps. As part of the dissemination phase, these PtC will be shared with a larger group of health professionals, patients and app developers and for wider consensus.

Points to consider	Level of agreement mean (SD)
1. The information content in self-management Apps should be up to date, scientifically justifiable, user-acceptable and evidence-based where applicable.	9.8 (0.4)
2. Apps should be relevant and tailored to the individual needs of people with RMDs.	9.7 (0.5)
3. The design, development and validation of a self-management App should involve people with RMDs and relevant health care providers.	9.8 (0.6)
4. There should be transparency on an Apps' developer, funding source, content validation process, version updates and data ownership.	9.9 (0.3)
5. Data collection as part of an App must adhere to all applicable regulatory frameworks, particularly data protection.	9.9 (0.3)
6. Apps must not result in physical or emotional harm to people with RMDs.	9.3 (1)
7. Apps could facilitate patient-health care provider communication and contribute to electronic health records or research.	9.4 (0.9)
8. App design should consider accessibility of people with RMDs across ages and abilities.	9.4 (0.9)
9. If a social network is an important component of an App, structures should be in place to ensure appropriate content moderation.	9.5 (0.6)
10. The rheumatology community should consider the cost-benefit balance of Apps before its endorsement and/or its promotion.	8.9 (1.3)

Table 1. The 10 Points to Consider.

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**THU0643 ARE PSORIATIC ARTHRITIS OUTCOMES BETTER IN EARLY ARTHRITIS SERVICE? STUDY FROM A NATIONAL AWARD WINNING CENTRE**

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**Background:** There is good evidence that dedicated early arthritis clinics (EACs) improve referral lag time and reduce delay in establishing disease-modifying therapy. However it remains arguable whether such clinics improve outcomes especially for arthritides other than RA. In the UK, only 57% of units have dedicated EACs. Our early arthritis service won national best practice commendation award for achieving high standards.

**Objectives:** We analysed our psoriatic arthritis (PsA) population data to ascertain whether this cohort benefits from EACs.

**Methods:** The department set up an early arthritis service with introduction of six clinics (EACs) every week. An agreed treatment protocol incorporating ultrasound was developed to ensure standardised approach to early initiation of treatment, drug education and timely review. This is a retrospective study of all patients with PsA presenting to the service in the first year

**Results:** Our catchment area covers a population of 350,000 with 40% ethnic minorities. Of 1884 patients referred, 482 (25.5%) were triaged into EACs based on set criteria. All were reviewed within 3 weeks. 247 (51%) were confirmed to have early inflammatory arthritis (EIA). Mean age was 52.4 years (17-86y). 157 (63.5%) were women. 177 (71.6%) were White, 58 (23.5%) of Asian and twelve of other background. 159 (64.3%) had RA, 55 (22%) with PsA and 33 had other inflammatory arthritides. There was median 26 weeks delay (0.4-1043 weeks) from symptom onset to GP presentation. Median time for GP referral to the department was 4.0 days (0-84 days).

All PsA patients had regular PsARC assessment. Mean tender (TJ) and swollen joint (SJ) counts at first visit were 8.2 (1-35) and 3.5 (0-14) respectively [n=55]. The patient (PtGA) and physician (PhGA) global assessments mean were 3.0 and 2.9 (1-5).

95% commenced their DMARDs within 3 week of initial review. Other 5% who missed the target was owing to patient factors. Target [TJ & SJ ≤2] was achieved for 38 patients (69%) and good PsARC response for a further four (7%). Median time to achieve the target or good response was 22 weeks (0-48 weeks). Of 55, only four (7%) patients required escalation to biologic therapy. Final TJ and SJ mean was significantly better at 1.2 (0-4) and 0.3 (0-2) [p <.0001] with similar improvement in PtGA [mean 1.8 (1-4)] and PhGA [mean 1.6 (1-3)]. Only six (11%) patients were true non-responders as the remaining seven declined therapy.

**Conclusion:** Dedicated EACs help achieve good clinical outcomes in majority of PsA patients. Nearly 76% of our cohort attained the target or good PsARC response in less than six months. This was despite a significant delay in patients presenting to their GPs and moderately-high disease activity. 100% of our patients were treated to target facilitated by protocol driven escalation of therapy in these clinics. This is in contrast to the national audit findings whereby only 68% of patients were treated with disease modifying drugs within 6 weeks of referral and 89% had treatment to target.

This study shows that the establishment of dedicated EACs improve the prognosis of psoriatic arthritis in terms of primary clinical outcomes compared to patients managed outside of EACs.

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**THU0644 PATIENTS' PERCEPTION AND USE OF MEDICAL MARIJUANA**

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**Background:** Though the introduction of biologics has resulted in significant improvements in their quality of life, people living with rheumatic and musculoskeletal disease (RMD) often seek alternative treatments, such as marijuana (THC) and cannabidiol (CBD). As these substances become more widely available, and legal in some jurisdictions, health care providers (HCP) need to understand patients' THC/CBD perceptions, use and information needs.

**Objectives:** To examine patient behavior and information needs regarding THC/CBD medical use.

**Methods:** A 77-item survey was developed in partnership with RMD patient partners and administered online via CreakyJoints and the ArthritisPower research registry. Participants (pts) were eligible if they were ≥19 years of age, resided in the US and reported physician-diagnosed RMD. Pts reported current health status (NIH PROMIS Global Health), use and perceptions of THC/CBD, and related information needs.

**Results:** To date, 189 pts completed the survey. A majority of pts were female (87%) and white (93%), with mean age of 55(11). More than half of all pts (62%) reported a diagnosis of rheumatoid arthritis. Most pts (78%) reported fair/poor health (PROMIS Global Physical Health <43). Only 30% of all pts were satisfied with their current treatment, and more than half (63%) had been on their current treatment for >1 year. Of those surveyed, a majority of pts (n=168, 89%) reported trying THC and/or CBD for a purpose they perceived as medical and offered various reasons for initiating its use (Table). Half of all pts (n=98, 52%) reported ever using CBD and a third (n=70, 37%) ever using THC "for medical reasons," fifty-one (73%) of whom currently use THC. More than half (53%) of those currently using THC reported using it at least once daily. Top reasons for stopping among the 19 who previously used THC were cost (26%) and illegality (26%). Most pts who had ever used THC reported that THC improved their symptoms (83%) and/or their condition (71%). Pain (100%) and sleep disturbance (73%) were the main symptoms pts sought to relieve with THC. Many pts had used THC in lieu of prescribed (56%) or OTC (73%) medications. Two thirds (67%) reported telling their HCP about their THC use, most of whom (64%) reported that their HCP did not consider it when making treatment changes nor offer advice about mode of administration or dosage. When acquiring THC, 39% of pts used a medical marijuana card issued by the state; the main reason given for not using a card was that THC was not legal for medical use where the pt lived (44%). Whether they had used THC for medical reasons or not, nearly all pts wanted information about THC, including its effectiveness (37%) and its interaction with other medications (34%); a majority preferred to receive information from HCPs (55%) or online educational resources (34%). Two thirds (60%) of all pts expressed interest in THC/CBD trial participation.

Table: Participants' Reasons for Initiating THC/CBD Use (N=168)

Reasons (not mutually exclusive)	n (%)
To address symptoms (e.g. pain) experienced despite taking medication	74 (44)
To address symptoms with less or no medication	50 (30)
Nothing else worked to treat condition or symptoms	33 (20)
Friend suggested it	30 (18)
Saw information online	28 (17)
Had used marijuana recreationally and wanted to try it for medical reasons	25 (15)
Medical marijuana became legal in state	24 (14)
To address side effect(s) from medication	19 (11)
Physician suggested it	17 (10)
Relative suggested it	17 (10)

**Conclusion:** Though many pts have used or currently use THC/CBD to substitute for or augment their prescribed treatment, pts lack adequate information to guide its use for medical reasons.

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