

## Pain in rheumatic diseases, including fibromyalgia

POS1337

### LONG-TERM OPIOID USE AMONG PATIENTS WITH RHEUMATIC AND MUSCULOSKELETAL DISEASES: IMPACT OF VARYING DEFINITIONS

**Keywords:** Pain, Fibromyalgia, Inflammatory arthritides

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**Background:** People living with rheumatic and musculoskeletal diseases (RMD) are frequently prescribed opioids for non-cancer pain. A proportion of RMD patients newly prescribed an opioid will transition to long-term opioid use, and represent a high-risk subgroup for opioid dependence, abuse and harms. However, definitions of long-term opioid use in the literature vary considerably, making it difficult to characterise the scale of the issue and design future interventions to address it [1,2].

**Objectives:** (1) To evaluate the proportion of patients transitioning to long-term opioid use in new users across 6 RMD conditions using varying definitions used in the literature (2) To assess the proportion of long-term opioid users who transition to opioid dependence.

**Methods:** Patients aged  $\geq 18$  years with a diagnosis of rheumatoid arthritis (RA), psoriatic arthritis (PsA), axial spondyloarthritis (AxSpA), systemic lupus erythematosus (SLE), osteoarthritis (OA) and fibromyalgia and without prior cancer, with a new episode of opioid use between 01/01/2006 and 31/10/2021 and at least a 1-year follow-up in the Clinical Practice Research Datalink (CPRD) were included. CPRD is a database of anonymised UK primary care electronic health records representative of the national population. Long-term opioid users were defined using 3 different definitions: 1) *Standard* (most commonly used):  $\geq 3$  opioid prescriptions issued within a 90-day period, or  $\geq 90$  days opioid supply, in the first year of follow-up (excluding the first 30 days). 2) *Stringent*:  $\geq 10$  opioid prescriptions filled over  $>90$  days, or  $\geq 120$ -day opioid supply in the first-year follow-up. 3) *Broad*:  $\geq 3$  monthly prescriptions (no need to be consecutive) in the first 12 months. Opioid dependence was defined as RMD patients who had relevant Read Codes within 5 years after a new episode of opioid use. The proportions of long-term opioid use and opioid dependence for RMDs were calculated.

**Results:** This study included 841,047 patients of whom 12,260 had a code for RA, 5,195 PsA, 3,046 AxSpA, 3,081 SLE, 796,276 OA, and 21,189 fibromyalgia. The highest proportion of long-term opioid users among the 6 RMDs was patients with fibromyalgia (27.4% for *Standard*, 20.9% for *Stringent*, and 33.7% for *Broad*), followed by RA (25.7%, 18.5%, and 32.3% respectively) and AxSpA (23.8%, 17.3%, and 29.6% respectively) (Figure 1-stacked bar chart). On average, using *Broad* definition showed 10-13% higher than *Stringent* definition for all RMDs. As the Venn diagram in Figure 1, 241,727 patients met any of the definitions of long-term use, of which half fulfilled all 3 definitions. The *Broad* definition was able to identify additional half of long-term users, with 24.0% overlapping with the *Standard* definition. In total, 685 (0.06%) RMD patients were diagnosed with opioid dependence within 5 years after starting opioids. Similar proportions of opioid dependence were observed in long-term opioid users across all definitions: 332 (0.18%) for *Standard*, 281 (0.23%) for *Stringent*, and 355 (0.15%) for *Broad* definitions. Moreover, 323 out of 685 RMD patients (47.2%) who had a diagnosis of opioid dependence were not classified as long-term opioid users by the 3 definitions.

**Conclusion:** Around 1 in 3 fibromyalgia patients and 1 in 4 RA/ AxSpA patients fulfilled definitions for long-term opioid use within 12 months after starting an opioid. The low prevalence of opioid dependence across all RMDs, defined using

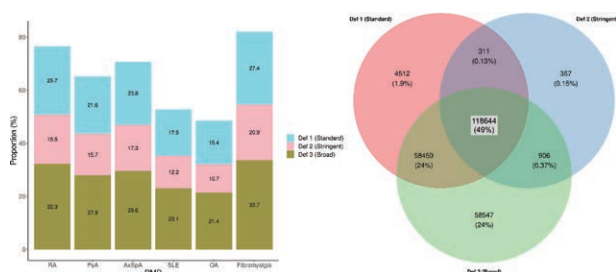


Figure 1 Long-term opioid users by definitions and overlap between them

Read Codes alone is likely to be considerably underrepresented in clinical practice. This reflects both coding practises in primary care and under recognition of the issue in those on long-term opioids.

#### REFERENCES:

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### PHARMAKON OR THE ART THAT HEALS: TRANSDISCIPLINARY ARTISTIC-TRANSFORMATIVE WORKSHOPS FOR FIBROMYALGIA SYNDROME

**Keywords:** Non-pharmacological interventions, Patient reported outcomes, Fibromyalgia

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**Background:** Fibromyalgia syndrome (FMS) is a widespread chronic pain syndrome with many associated symptoms. It is frequently related to a traumatic event (1), strong and of short duration, or slight but protracted over time. A multidisciplinary therapeutic approach is recommended by international guidelines. The transformative experience (TE) allows for a profound and immediate change that differs from linear and gradual psychological change; this helps create novel responses to the same initial thoughts and actions, thereby breaking the maladaptive emotional/behavioral loop elicited by chronic stress and trauma (2), creating a sort of “virtuous” cycle, adaptive rather than maladaptive and long-lasting. In this study, TE was specifically elicited through transformative art (TA), an intrinsically transdisciplinary tool, in different ways in the three arms of the study.

**Objectives:** Validation of the efficacy (in terms of quality of life and sleep, self-esteem, self-efficacy) of transdisciplinary TA workshops in patients with FMS.

**Methods:** Prospective observational study lasting 8 months (February-October, 2021), in which the effectiveness of three different TA workshops in patients with FMS was evaluated: in group 1 participants were encouraged to review their autobiography and illness in a humorous sense; in group 2 participants were guided to express their own realities of chronically ill patients in poetry; group 3 was based on the guided narration of works of art according to visual thinking strategies integrated with the principles of narrative medicine. Patients were divided into the three laboratories according to their preference. Tests were administered at baseline and post-workshop. The activities took place entirely online.

**Results:** 109 FM patients completed the study (n=3 males, mean age 52.9, mean years from diagnosis 11.2 [SD 8.6]). No differences were found among the three groups at baseline in terms of clinimetric variables. Data analysis made by a Wilcoxon non-parametric test (WNPT) of the three groups in conjunction showed a statistically significant improvement of the Pittsburgh Sleep Quality Index (PSQI) (p<0.05), Response to Stressful Experiences Scale (RSES) (p<0.05), World Health Organization- Five Well-Being Index (WHO-5) (p<0.001) and Global Health scale (GH) (p<0.05). No significant difference was found for The Mindful Attention Awareness Scale (MAAS) (p=0.2663). A WPNT was performed to compare baseline and final results of the three groups separately. The best performance was seen in Group 1, since patients ameliorated in almost all parameters: PSQI (p<0.05), GH (p<0.05), SAP dimension 1 (p<0.05), 2 (p<0.05) and 4 (p<0.05), WHO-5 (p=0.0013). MAAS (p=0.895), RSES (p=0.0673) and SAP dimension 3 (p=0.0573) resulted nonsignificant, although very close to significance. Sleep (p<0.05) and the 3rd dimension of SAP (p<0.05) improved in patients of Group 2; whilst self-esteem (p<0.05) and WHO-5 (p<0.05) did in Group 3.

**Conclusion:** Our research shows that art, experienced as TA, leads to significant improvements of the psychophysical condition of FMS patients. TA can be seen as a crucial mediator for overcoming the trauma/stressors, probably through the generation of “pivotal mental states” (PIMS), defined as a “hyper-plastic state aiding rapid and deep learning that can mediate psychological transformation” [3].