Background: Orthoses and footwear can play an important role in managing foot pathology in patients whose systemic disease is controlled. Foot orthoses are frequently prescribed in clinical practice as an intervention for people with rheumatoid arthritis (RA).

Objectives: The aim of our study is to evaluate the impact of thermoformable orthoses on the functional index of the foot (FFI) in patients with rheumatoid arthritis.

Methods: We conducted an open clinical trial, having consecutively included 14 patients (85.7% female, average age 54.8 ± 10 years) suffering from rheumatoid arthritis (median progression time of 9 years [5–12]). The average DAS28 was 2.7 ± 1.2 and the functional impact objectified by the Health Assessment Questionnaire (HAQ) was on average 0.9 ± 0.7 .

The median deadline from the start of RA and the onset of the foot problem was 3 years [0–7.75]. The foot problem was bilateral in 100% of the cases and inaugural in 85.7% of the cases.

We evaluated the functional impact of foot injury for all our patients at baseline and 8 weeks after the use of thermoformable orthoses, based on the FFI (Foot function Index) measuring the impact of foot pathology on function in terms of pain, disability and activity limitation.

The comparison of the FFI domains before and after the use of orthoses was carried out using parametric or nonparametric paired tests using The SPSS statistical software.

Results: With the use of foot orthoses, FFI values decreased in all subscales ($p=0.024$) (pain, disability and activity limitation). This reduction was significant for disability (0.011) but not for pain and activity limitation.

There were no significant correlations between the global FFI and the progression of RA, the duration of foot damage and the functional impact measured by the HAQ.

Table 1. The comparison of the FFI domains before and after the use of orthoses.

		Before orthoses	After orthoses	p-value
Pain scale	When the pain was the worst	9 [5,7–10]	7 [4,7–8]	0,09
	Pain in the morning	4,5 [2,2–6]	2 [0–3,5]	0,046
	Pain when walking barefoot	6 [4–8]	6,5 [3,7–8]	0,719
	Pain when standing barefoot	6 [3,7–7,2]	6 [3–7,2]	0,723
	Pain when walking with shoes	5 [2,7–5,2]	3,5 [2–5,2]	0,378
	Pain when standing with shoes	5 [2,7–6]	3,5 [2–5,2]	0,342
	Pain when walking with orthoses	0 [0–0]	0 [0–2]	0,157
	Pain when standing with orthoses	0 [0–0]	0 [0–2]	0,317
	Pain at the end of the day	6 [4–8]	3 [2–5,2]	0,027
Disability scale	Difficulty walking at home	4 [3–5,2]	2 [0–2]	0,002
	Difficulty walking outside	6 [4,7–7]	2 [1,5–2,5]	0,019
	Difficulty walking 800m	6 [3,7–7]	2 [1,5–2,5]	0,003
	Difficulty climbing stairs	5,5 [3–7,2]	3 [1–5,2]	0,032
	Difficulty descending stairs	5,5 [3–7,2]	3 [1–5,2]	0,022
	Difficulty standing on tiptoe	6,5 [5–10]	7 [2,5–9,2]	0,687
	Difficulty getting up from a chair	5 [4–6,2]	3 [3–5]	0,032
	Difficulty climbing a sidewalk	4 [2–5,5]	3 [0–5]	0,137
Activity limitation	Difficulty walking fast	5 [2,2–6]	3,5 [0–8]	0,648
	Stay all day at home	2 [1,5–5,2]	0 [0–2]	0,077
	Stay all day lying down	2 [0–4]	0 [0–2]	0,122
	Limitation of activities	2 [2–5]	1 [1–2,2]	0,1
	Use of indoor walking aids	0 [0–0]	0 [0–0]	1
	Use of walking aid outside	0 [0–0]	0 [0–0]	0,18
Pain scale		37 [32,5–47,5]	36 [24,5–40,5]	0,198
Disability scale		49 [34–59]	27 [13,2–46,2]	0,011
Activity limitation		7 [5,5–7]	2,5 [0–5,2]	0,126
Total FFI score		95 [82–106]	65,5 [37,5–87]	0,024

p significant if $p < 0,05$; Test used: Non-parametric test for two linked samples.

Conclusion: Foot orthoses were effective as an adjuvant in the management of rheumatoid foot. They significantly reduced disability as measured by the FFI. The absence of factors associated with pain and limitation of activity could possibly be related to the small sample size.

Disclosure of Interests: None declared

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FRI0613-HPR THE EFFECTS OF PILATES TRAINING ON RESPIRATORY MUSCLE STRENGTH IN PATIENTS WITH ANKYLOSING SPONDYLITIS

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Background: Ankylosing Spondylitis (AS) is a chronic, inflammatory rheumatic disease that affects primarily axial spine. Reduction in flexibility and mobility is

important factors that can cause muscle weakness, impairment quality of life, reduction of exercise tolerance and pulmonary capacity with the progression of AS.

Objectives: The purpose of this study was to investigate the effects of pilates exercises on mobility, quality of life and respiratory muscle strength in patients with AS.

Methods: Forty patients with AS were randomly divided into two groups as pilates group and control group. Pilates group was performed pilates exercises and control group performed conventional exercises at home for 8 weeks, 3 days a week. Main outcome measures were maximal inspiratory pressure (MIP), maximal expiratory pressure (MEP). Secondary outcome measures were Forced Vital Capacity (FVC), Forced expiratory volume in one second/Forced Vital Capacity (FEV1/FVC), chest expansion, Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Bath Ankylosing Spondylitis Metrology Index (BASMI) and Ankylosing Spondylitis Quality of Life Questionnaire (ASQoL), 6 minutes walk test (6MWT). All participants were assessed by a blind assessor before and after the study.

Results: Thirty-six AS patients ($n=19$ in the pilates group, $n=17$ in the control group) completed the study. In the pilates group, respiratory muscle strength, FEV1/FVC, chest expansion, BASDAI, BASMI, ASQoL and 6MWT showed significant improvements at 8th week ($p<0.05$), while inspiratory muscle strength, FEV1/FVC, chest expansion and 6MWT showed significant improvements in the control group at 8th week compared to baseline ($p<0.05$). Although the pilates group had better outcomes for all parameters compared to the control group, significant differences were only observed in MIP and MEP.

Conclusion: Pilates method is an effective method for improving respiratory parameters, spinal mobility, disease activity and quality of life. Additionally, pilates training is found to be superior compared to conventional exercise training in improving respiratory muscle strength.

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FRI0614-HPR RECOMMENDATIONS FOR PATIENTS WITH RHEUMATIC DISEASES IN TREATMENT WITH METHOTREXATE

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Background: Methotrexate (MTX) is the first choice disease-modifying anti-rheumatic drug (FAME) in the treatment of rheumatoid arthritis among other rheumatic diseases. It is therefore very important that patients are aware of this treatment and have an adequate management of it.

Objectives: The development of a recommendation leaflet for patients with rheumatic diseases in treatment with MTX.

Methods: A systematic review of the literature was conducted, defining the criteria for inclusion and exclusion of content. The coordinators of the work generated preliminary recommendations that were evaluated and discussed in GESVR meetings and 10 recommendations on the use of MTX were accepted, which were later ratified by the Valencian Society of Rheumatology.

Results: The final document with a brief introduction indicates that MTX can be administered orally or subcutaneously, depending on the prescribed dose and its tolerance. In the case of subcutaneous administration, pre-filled syringes or pens are used which do not require any preparation, so there is no risk of handling and/or inhalation toxicity. The proposed recommendations are described below:

- [1] MTX should be taken or administered ONLY once a week, and always on the same day of the week. It is important to follow these recommendations to ensure adequate effectiveness and avoid side effects.
- [2] It is common to add a folic acid supplement the day after MTX is taken to avoid certain side effects of the drug. In some cases it may be necessary to increase the dose to other days of the week.

- [3] Alcohol consumption should be avoided, as it increases the likelihood of adverse effects from the treatment.
- [4] Common side effects include nausea or gastrointestinal distress, loss of appetite, headache and fatigue after taking each weekly dose of the drug. If this happens, you can take the daily dose in two doses, avoid taking large amounts and drink plenty of water on the day of administration. If in spite of everything, they do not disappear, you should consult the Rheumatology Unit.
- [5] It is recommended to use sun protection.
- [6] Pregnancy and breastfeeding should be avoided while taking MTX. In case of pregnancy desire, you should consult the Rheumatology service in order to schedule a withdrawal of the treatment. In case of unplanned pregnancy, stop treatment and contact the Rheumatology Unit immediately.
- [7] The annual flu vaccine is recommended. Consultation with the Rheumatology Unit is recommended for additional vaccines.
- [8] The benefits of MTX take several weeks to appear, so you should not modify or interrupt the treatment on your own.
- [9] Throughout the treatment, regular tests will be performed to monitor the safety and effectiveness of the drug.
- [10] In case of doubts, and in case of infection, surgical intervention, oncological pathology or pregnancy, contact the Rheumatology Unit.

Conclusion: This leaflet is intended to resolve common doubts of patients receiving treatment with MTX, and thus contribute to improve the therapeutic adherence and avoid errors in the drug taking.

Disclosure of Interests: None declared

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FRI0615-HPR CAN DEDICATED COMMUNITY HEALTH HUBS IMPROVE PHYSICAL ACTIVITY IN A MULTI-ETHNIC RHEUMATOLOGY PRACTICE?

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Background: Self care is an important management strategy for people with inflammatory arthritis (IA). Focused education should enable people to manage their life with IA and optimise their health and well-being. Several studies have shown positive effects of dedicated health programs on a range of patient reported outcomes such as self-efficacy, pain, fatigue, quality of life and overall well-being. However these benefits are only achievable and long lasting if people are provided with professional support to stay motivated and make appropriate adjustments to obtain better health.

Objectives: The objective of our intervention was to assess the outcomes of a dedicated health education program delivered in a diverse community setting represented by minorities with poor educational and socio-economic background.

Methods: We partnered with our local authority to establish a dedicated rheumatology community health hub for our patients with long term rheumatic conditions. Both clinical and paramedical staff in rheumatology clinics advertised the service and those who consented were referred. They were offered a 1:1 assessment with a health and well-being practitioner who would refer onwards based on the needs of the patient. In this pilot study we analysed the outcomes achieved at one year.

Results: 187 patients were referred to the service. 158 had IA and 29 had osteoporosis. 57 (30%) were White, 86 (46%) Asian, 26 (14%) Afro-Caribbean and 18 (10%) of other ethnicity. Mean age was 64 years (range 36-95). Interventions included weight management (10%), general health check (4%), dedicated exercise program (30%), physical activities (46%) and talking therapies (8%) and smoking cessation (2%). 100% responded to the contact and signed up for the intervention. 80% completed a minimum of 12 week intervention. 89% continued to attend physical activity at least once a week long term. Only five service users dropped out for varying reasons.

Conclusion: Physical activity programs can be successful in a diverse community setting with patients from low socio-economic and educational classes. There is a need to engage these patients and offer professional support which can produce carry-over effects on physical outcomes and enhance patients' long-term adherence to such programmes. Our study demonstrates that patient activation for self management and improved physical activity can be attained irrespective of patients' backgrounds.

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FRI0616-HPR SOCIAL SUPPORT WORKS BETTER IN RHEUMATOID ARTHRITIS THAN FIBROMYALGIA

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Background: Social support is defined as a helpful resource that can meet an individual's urgent needs and is provided by a network of others, such as family members, friends, colleagues and other communities. Perceived social support (PSS) is the subjective support that individuals may experience, emphasizing the individual's self-understanding, experience and feelings of social support from different sources. Social support directly exerts beneficial effects on the health-related quality of life in rheumatoid arthritis and fibromyalgia patients.

Objectives: The aim of this study is to compare the effect of perceived social support on quality of life of rheumatoid arthritis and fibromyalgia patients. The effect of social support from family, friends and significant others are examined separately.

Methods: Fifty-eight patients with rheumatoid arthritis, fifty patients with fibromyalgia and fifty healthy controls were enrolled in the study. Short form 36 (SF-36) was used to determine the quality of life and Multidimensional Perceived Social Support Scale (MSPSS) was used to determine the perceived social support. The effect of three factors in MSPSS (family, friends, significant others) on quality of life of rheumatoid arthritis and fibromyalgia patients were examined separately.

Results: Fibromyalgia patients had lower scores than the rheumatoid arthritis patients and healthy controls regarding the physical function, pain, social functioning and mental health subscales of SF-36 ($p < 0.05$). Regarding the all MSPSS scores, there was no significant difference between the three groups ($p > 0.05$). In rheumatoid arthritis patients, MSPSS-friend and MSPSS-significant others scores were positively correlated with all subscales of SF-36. MSPSS-family score was only correlated with pain, social functioning and mental health subscales of SF-36. But in fibromyalgia patients none of the three MSPSS scores had significant correlation with SF-36 subscales (Table-1).

Conclusion: Perceived social support especially from friends and significant others, has an important positive effect on the quality of life of rheumatoid arthritis patients. For fibromyalgia patients the effect of perceived social support on quality of life is lower than that is seen in rheumatoid arthritis.

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Table 1. The effect of perceived social support on quality of life in fibromyalgia and rheumatoid arthritis patients (FMS: Fibromyalgia, RA: Rheumatoid arthritis, * $p < 0.05$ ** $p < 0.01$)

		SF-36 Physical functioning	SF-36 Pain	SF-36 General health	SF-36 Social functioning	SF-36 Mental health
FMS-MSPSS	r	-0.034	0.015	-0.187	-0.121	-0.115
Family	p	0.816	0.915	0.194	0.401	0.428
FMS-MSPSS	r	0.154	0.192	0.221	0.182	0.089
Friend	p	0.285	0.181	0.123	0.206	0.539
FMS-MSPSS	r	0.163	0.248	0.119	0.175	-0.004
Significant others	p	0.258	0.082	0.412	0.225	0.976
RA-MSPSS	r	0.181	0.290	0.225	0.448	0.340
Family	p	0.173	0.027*	0.089	0.001**	0.009**
RA-MSPSS	r	0.357	0.352	0.333	0.376	0.389
Friend	p	0.006*	0.007**	0.011*	0.004**	0.003**
RA-MSPSS	r	0.310	0.310	0.329	0.315	0.463
Significant others	p	0.018*	0.018**	0.012*	0.016*	0.001*
RA-MSPSS	r	0.334	0.366	0.350	0.432	0.487
Total	p	0.010*	0.005**	0.007**	0.001**	0.001**
FMS-MSPSS	r	0.144	0.251	0.093	0.153	0.024
Total	p	0.320	0.279	0.519	0.290	0.867

Disclosure of Interests: None declared

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FRI0617-HPR GRADED MOTOR IMAGERY IN POSTTRAUMATIC STIFFNESS OF THE ELBOW: A PILOT STUDY

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Background: Elbow fracture is treated either conservatively or surgically followed by a period of immobilization with casting or splinting. A splint used to immobilize