

**Conclusions:** The Italian specialised nurses use CF quite frequently and believe that their use has the capacity of positively influencing the clinical outcome. Larger surveys are needed to understand the proportion of use of CF by nurses in common clinical practice in Italy.

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**Disclosure of Interest:** None declared

**DOI:** 10.1136/annrheumdis-2017-eular.4379

#### AB1224-HPR COULD WE USE THE LAY REFERRAL SYSTEM TO IMPROVE THE EARLY ARTHRITIS CLINIC EFFICIENCY?

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**Background:** The professional's monopoly on knowledge about disease and its treatment is something gone now, in the era of internet and patient consumerism. In addition, the interest of rheumatologists (and the interest of the society, too) shifted toward early recognition of the disease and early arthritis clinics. Education is definitely one of the solutions to increase the awareness of potential patients regarding rheumatic diseases. However most of rheumatic diseases are not very frequent in the population that raise the problem of cost efficacy of the education process. Per Eliot Freidson's view, the members of every community of whatever kind share some cultural understandings about disease, treatment, and cure. The lay community network could be considered an instrument for dissemination of proper knowledge regarding health and could help to earlier recognition of a sign of disease related to early arthritis.

**Objectives:** To identify the opportunity of using lay network for early arthritis referral. In addition, we intended to identify the most suitable vectors from this network to be used for education and dissemination of medical knowledge.

**Methods:** 48 rheumatic patients (mean age (SD): 50.8 (14.7)) consecutively admitted in one tertiary clinic have been invited to answer to a structured questionnaire. Sex ratio (M: F) was 1:2, average disease duration 7.7 (8.3) years.

**Results:** In 28.3% cases the first sign of disease was noticed not by the patient but by somebody else, for 36.7% a delay of several months to one year was declared between first sign of disease and professional examination, 71.7% use to discuss about health problems with their lay network (often and very often), 76.1% consider them able to give pertinent advices regarding the disease they suffer from, 45.7% are ready to act as an education vector and 41.3% are ready to participate in additional education programs. They interest in such activity is not related to gender, education level or work status.

**Conclusions:** Lay network referral could be a powerful instrument to reduce the duration between onset of rheumatic symptoms and medical visit, to increase the awareness regarding rheumatic disease, to reduce the cost of health education. Health professionals should understand how to use these networks.

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**Disclosure of Interest:** None declared

**DOI:** 10.1136/annrheumdis-2017-eular.4241

#### AB1225-HPR A PROGRAM BASED ON PSYCHOEDUCATION FOR RHEUMATOID ARTHRITIS PATIENTS

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**Background:** The National Institute of Arthritis and Musculoskeletal and Skin Diseases defines rheumatoid arthritis (RA) as a chronic disease that affects the joints, causing pain, swelling, stiffness, reduced mobility and affection of internal organs. In order for patients to be able to learn to accept and integrate the disease as a part of their daily life, it is important that they have enough information and knowledge about their health condition. The strategy of psychoeducation is important because it involves the patient actively and seeks to have specialist who provide relevant, clear, and comprehensive information. In this way, a change is generated at level of beliefs and myths on the disease, and suggests suggestions for coping with situations for the management of the disease's impact on the patient's life.

**Objectives:** To determine the effect of a psychoeducation program on the quality of life and commitment to the treatment of patients diagnosed with RA from an specialized center in Bogotá.

**Methods:** We conducted a quasi-experimental study with two independent groups, one experimental and one for control. The Inclusion Criteria was: patients with RA over 30 years old that knew how to write and read with mobility resources. We excluded patients with emotional stress, stroke, and diagnosed cognitive deficit or with patients with consumption of psychoactive substance. We applied the Analog Visual Scale (EVA), a Quality of Life Questionnaire - Specific for patients with Rheumatoid Arthritis (QOL-RA). Data Analysis: when performing the normality test, the QoL-RA results were parametric and the analysis was performed with Student's t test for independent measurements. On the other hand, the results of the EVA and CQR were non-parametric, for that reason we worked with the Mann Whitney U-test.

**Results:** We included 36 patients, men (4) and women (32), aged between 35 and 75 years, with diagnosis of RA, which belong to the integral model of RA specialized center. The subjects that patients preferred were: Disease management, changes in health condition, training in abilities for self-care among others. Statistical analysis showed that, when we evaluated quality of life T-Student test did not showed any statistical differences between pre and post test results in both groups. The Man Wittney test showed statistical differences between groups ( $u=70,500$ ,  $z=241,500$ ,  $p=.004$ ) regarding the compromise with the RA treatment, but it did not showed differences in regards of pain intensity between groups.

**Conclusions:** We recommend a strategy to facilitate the process of data collection in pre-test and post-test. For the next application of the program, it is suggested that the sample of patients must be increased, to increase the duration of each session and the number of sessions of the program. In order to achieve the patients' attendance at the program, maintain permanent communication (may be by telephone). To have printed or recorded material (Brochures, guides, CDs, etc.) is recommended with the most relevant to each session of the program.

**Disclosure of Interest:** None declared

**DOI:** 10.1136/annrheumdis-2017-eular.6189

#### AB1226-HPR VACCINATION COMPLIANCE IN AUTOIMMUNE INFLAMMATORY RHEUMATIC DISEASES (AIRDS): ROLE OF SPECIALIST NURSE

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**Background:** The patients with autoimmune inflammatory rheumatic diseases (AIRDs) have double the risk of infections as compared to the general population this may be due to highly inflammatory nature of the disease, the drug used, and the co-morbidities. In recent years, the efficacy of vaccinations has been proven in decreasing morbidities and mortality among these patients, hence, it reduces the cost of the treatment and improves the quality of life of the patients. However, low vaccination compliance is a global problem. Therefore, in this study, we tried to assess the effect of nursing counselling on vaccinations compliance.

**Objectives:** To assess the efficacy of counseling by the specialist rheumatology nurses in vaccination compliance among AIRDs patients.

**Methods:** - All the adult patients (>18yrs), suffering from AIRDs, were advised vaccinations between January to December 2016 were enrolled in this study. The basic demographic and disease-related data captured with details of vaccinations such as date of advice of vaccination and reasons for non-compliance were recorded. The patients were intensely counselled by specialist nurses about the importance and needs of vaccination, clarifying their doubts. Reinforcement of the same was carried out in the follow-up visits.

**Results:** A total of 506 patients (374 female, 73.9.2% and 132 male, 26%), with mean age 48 years, diagnoses; rheumatoid arthritis: 378 (74.75%), Spondyloarthropathy: 80 (15.81%) other autoimmune rheumatic disease 48 (9.48%). Co-morbidities status: 309 (61%) having multiple co-morbidities and 197 (38.9%) have no co-morbidities. The vaccination compliance outcome is shown in table.

Table 1

Vaccine	Patients	Compliant	Non-compliant	Same day	Within 3 months	Within 6–9 months
Pneumovac 23	506	456 (90.1%)	50 (9.9%)	306 (67.1%)	103 (22.5%)	43 (9.4%)
Prevnar 13	244	211 (86.4%)	33 (13.6%)	143 (58.6%)	61 (25.0%)	7 (3.3%)
Influvac	506	443 (87.5%)	63 (12.5%)			

**Conclusions:** The compliance rate of all vaccinations was highest on the same day when it was prescribed. This was despite the fact that the patients pay for their own vaccinations without any third party payment. However, the compliance decreases with increase in the period when it was prescribed with the passage of time. This suggests that intense counselling, availability of vaccines at premises (pharmacy) and administration of vaccination free of cost are a few of the contributory factors which can boost the compliance of the vaccination among patients with AIRDs

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**Disclosure of Interest:** R. Thakran: None declared, S. Baghel: None declared, R. Rawat: None declared, C. Messi: None declared, S. Kapoor Consultant for: Advisory board of Novartis, Pfizer, S. Garg Consultant for: Advisory board of Intas,

A. Malaviya Consultant for: Advisory board of IPCA, Janssen, Pfizer, Roche, BMS, Dr. Reddy's, Zydus

DOI: 10.1136/annrheumdis-2017-eular.2344

# AB1227-HPR VALIDATION AND APPLICABILITY OF A NOVEL OSTEOMALACIA KNOWLEDGE BASED EDUCATIONAL INSTRUMENT (OKQ)

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**Background:** Osteomalacia is caused by a deficiency of vitamin D and can be corrected by changes in diet, lifestyle and supplementation. Consequently, it is a condition where education has a primary role in prevention.

**Objectives:** If educational interventions are to be developed and evaluated, then an instrument for measuring knowledge is required. This has led us to develop a novel Osteomalacia Knowledge Questionnaire (OKQ).

**Methods:** Based on nominal group technique, a steering group of people who are knowledgeable about osteomalacia, educational theory and questionnaire development was convened. The group decided to use true and false questions. Important areas of knowledge of osteomalacia were first determined by the group and then relevant statements which were true or false were written and grouped into 8 sections of 5 questions, each covering the different areas of knowledge. This resulted in a knowledge instrument with 40 questions in all. The questions were tested for utility and ambiguity in the group and modified and replaced accordingly.

The questionnaire was then trialled in 37 people of South Asian origin (an osteomalacia susceptible population), in three groups. Participants were initially administered the OKQ and then received an educational intervention comprising a practitioner led education session on osteomalacia, including a presentation and written or electronic material. Participants were re tested with the OKQ after 6 weeks.

Although there is no "gold standard" for measuring knowledge about osteomalacia, if effective, increased knowledge should lead to an increase in vitamin D (Vit D) levels and a decrease in parathormone (Pth) levels. Vitamin D and Parathormone levels were measured alongside the OKQ in 2 of the groups before and after the educational intervention

**Results:** Baseline knowledge about osteomalacia was low pre education averaging only 12.7 out of 40 (range 0–29) (n=37).

A total of 30 participants (81%) attended for the follow up test. They averaged a score of 13.9 at baseline and 23.4 at follow up. This was statistically significant (p=0.002 Mann Whitney) and demonstrated sensitivity to change of the OKQ.

Knowledge at baseline was correlated with vit D and Pth blood levels for two of the groups (n=27). This showed correlation coefficients of 0.128 and -0.407 respectively. For change of knowledge and change of parathormone (n=21) the r value was -0.324 suggesting a relationship between knowledge and Pth that is worthy of confirmation through further studies.

**Conclusions:** A novel questionnaire has been developed that has face validity for testing knowledge about osteomalacia. It has proved feasible and shown sensitivity to change. It has also shown promising correlation with biochemical measures of osteomalacia.

**Acknowledgements:** This study was funded by Arthritis Research United Kingdom.

**Disclosure of Interest:** None declared

DOI: 10.1136/annrheumdis-2017-eular.5280

# AB1228-HPR IN ABSENCE OF SPECIFIC ADVICE, WHAT DO THEY EAT AND AVOID? DOES IT MATTER? DIET EVALUATION OF INDIAN (ASIAN) PATIENTS OF RA IN A COMMUNITY RHEUMATOLOGY CLINIC

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**Background:** Diet in RA is generally considered to be inadequate/inappropriate. Rheumatologists often neglect this important patient concern. ACR/EULAR guidelines do not provide adequate advice. Ayurveda (ancient India medicine system) with highly restricted diet is popular with Indian patients.

**Objectives:** To evaluate diet adequacy in patients of RA in our setting

**Methods:** 139 consenting patients (ACR 1987 classified) on long term supervised care and 165 unmatched healthy subjects (mean age 37.7 years) were interviewed in no particular order as per protocol; cross sectional design. A 10 day diet recall period and a-priori validated questionnaires was used. National (India) recommended daily allowance (RDA) and diet analysis (web based and food composition tables) methods were used. Standard CRF captured clinical data [mean pain VAS 4.6 cms, mean HAQ score (Indian version) 6.5]. Standard statistical analysis (SPSS) was done; significant p<0.05.

**Results:** Table 1 (women) and 2 (men) show average daily energy expenditure and consumption of selected food items, RDA and p values (on comparison: P (1) for patient versus control, P (2) for patient versus RDA: p by Mann

Whitney). Compared to RDA, patient consumption was significantly higher for most of the items except K; includes calcium, phosphorus, zinc, iron, folic acid, vitamin B group (data not shown in Tables). When compared to healthy subjects, consumption was significantly lower for female patients but not different for men (except for K). Reduction in diet K in RA group was more pronounced for women. All patients tested normokalemic (mean serum K+ 4.37 mEq/L). No meaningful correlation between diet components and disease measures (data not shown). Food avoidance patterns identified a-priori did not seem to impact disease measures (data not shown). 44% RA and 77% controls consumed vegetarian diet (excluding eggs). Patient dependence for diet recall and measure was the important limitation.

Table 1. Women RA subjects and healthy control

Component	Patient (n=115)	Control (n=122)	RDA	P (1)	P (2)
Energy (kilocalorie)	2825	3436	2230	0.02	0.03
Carbohydrate (g/d)	457	532	NA	0.16	0.00
Protein (g/d)	94	127	55	0.00	0.00
Fat (g/d)	69	84	25	0.00	0.00
Sodium (mg/d)	3112	3221	1902	0.56	0.00
Potassium (mg/d)	1223	3393	3225	0.000	0.00

Table 2. Men RA subjects and healthy controls

Component	Patient (n=22)	Control (n=43)	RDA	P1	P2
Energy (Kcal)	2737	2829	2730	0.74	0.87
Carbohydrate (g/d)	439	425	NA	0.08	–
Protein (g/d)	92	109	60	0.33	0.07
Fat (g/d)	68	77	30	0.36	0.01
Sodium (mg/d)	3156	3180	2012	0.5	0.03
Potassium (mg/d)	1755	3562	3750	0.002	0.00

**Conclusions:** The diet of RA patients seemed adequate except for an intriguingly low K. We speculate that patients eat lesser vegetables and fruits that source K. K sub serves several physiological functions that may be deranged in RA and contribute to disease progression. This would need further investigation.

**Acknowledgements:** In contrary to our expectations and reassuringly, the diet of RA patients seemed adequate except for an intriguingly low potassium which should be investigated. We speculate that patients eat lesser vegetables and fruits that source potassium.

**Disclosure of Interest:** None declared

DOI: 10.1136/annrheumdis-2017-eular.4335

# AB1229-HPR EVALUATION OF RHEUMATOLOGY NURSE-LED CLINIC IN MANAGING PATIENTS WITH RHEUMATOID ARTHRITIS: A RETROSPECTIVE STUDY

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**Background:** Rheumatoid arthritis (RA) is a chronic, systemic, autoimmune disease characterized by inflammation of the synovial joints. Management of RA patients are usually provided by rheumatologists only. Enhanced care provided by rheumatology nurses between rheumatologist consultations may have beneficial effects in terms of symptom control. In Hong Kong, whether rheumatology nurse care model can favor to patient outcomes remained uncertain.

**Objectives:** The aim of the study was to examine the clinical effectiveness of rheumatology nurse clinic in controlling disease activity as expressed in change of Disease Activity Score in 28 joints in RA patients compared with usual care led by rheumatologists only.

**Methods:** This was a retrospective study. Two historical groups of RA patients (30 patients at each group) were identified from attendance records between 1/1/2015 and 20/7/2015 at the rheumatology outpatient clinics. Group 1 comprised of patients who attended rheumatology nurse clinic in between the doctor clinic consultations. Patient education delivered by the rheumatology nurse included disease mechanism, treatment aim, pain management and checking medication adherence according to prescription. RA treatment could also be intensified if needed. Group 2 comprised of patients managed by rheumatologists only. Primary outcomes were changes in disease activity at follow-up visit after the doctor clinic and nurse clinic.

**Results:** The mean follow-up duration for the study cohort was 20 weeks (median: 22.5 weeks). Patient global assessment and DAS 28 were similar for both groups at baseline. At follow-up, patient global assessment and in the nurse group (Group 1) decreased from mean  $\pm$  SD: 42 $\pm$ 24.7 at baseline to 28.7 $\pm$ 24.6 at follow-up, which was approaching the minimal clinically important improvement (MCII=-15). With regards to DAS28, there was a 8.2% decrease (absolute change: -0.38 $\pm$ 1.14) in DAS28 in group 1 suggesting a trend of improvement (p=0.081). The corresponding decrease in group 2 was 1.2% (absolute change: -0.05 $\pm$ 1.47) and such decrease was not significant (p=0.863). Changes in DAS28 did not exceed minimal clinically important improvement in both groups (MCII=-1.2).

**Conclusions:** This study demonstrates the short-term benefit of a nurse-led program on RA disease management. Future multi-center studies with a randomized controlled design and a larger sample will be required to confirm our findings.