System Level	Patients' lack of awareness of CVD risk	–	3.3
	Total Votes	9.9	13.4
	Lack of care coordination	6.8	11.7
	Financial barriers (limited insurance coverage, cost of repeating labs)	3.1	–
	Lack of financial incentive for screening	–	1.7

Note: RA = rheumatoid arthritis; CVD = cardiovascular disease; 0% = that sub-theme emerged during the brainstorming session but did not receive votes; “–” = the sub-theme did not emerge in the respective group.

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AB1222 PATIENT PREFERENCES FOR THE USE OF DIGITAL TOOLS AND SOCIAL MEDIA IN DIET AND EXERCISE INTERVENTIONS

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Background: Healthy behavior changes such as improving diet/exercise are important to improve outcomes in rheumatic and musculoskeletal disease (RMD) patients. These changes require incentives, whether internal or external motivation or social support.

Objectives: To assess feasibility of using digital symptom tracking and social media peer support to conduct diet/exercise health behavior change interventions among adults with inflammatory arthritis (IA) and osteoarthritis (OA).

Methods: A 37-item cross-sectional survey was developed and administered online and via mobile app in the ArthritisPower research registry. Participants (pts) were eligible if they were ≥ 19 years of age, resided in the US, and reported physician diagnosis of IA or OA. Pts reported on use of technology and social media, experience with exercise and weight loss programs, and interest in various program features. We descriptively reported differences between respondents with IA (RA, PsA, AS) and OA.

Results: 418 pts completed the survey. A majority were female (89.5%) and white (89.5%); mean age was 56 (10.5). The proportion of pts who were obese (BMI >30) was higher among OA than IA pts (67.7% and 50.0%, respectively; $p<0.001$). Most pts were willing to provide blood samples remotely and use WiFi-enabled digital scale and blood pressure monitor for a trial (Table). Interest in social media for peer support and apps differed between IA vs. OA pts: more IA pts used an app to help them exercise (35.1% vs. 19.2% of OA pts, $p=0.001$) and were interested in using an app to track diet and exercise in the context of peer support on Facebook (72.2% vs. 62.3% of OA pts, $p=0.04$). The most commonly used social media platform overall was Facebook (93.3% of pts) followed by Twitter (51.9%) and Instagram (41.9%). Pts cited pain/difficulty moving (57.4%) and sedentary behavior, such as watching TV, (47.6%), as their biggest weight loss challenges. OA pts reported depression (46.9%, $p=0.01$) and disliking exercise (34.6%, $p=0.003$) as bigger challenges to weight loss than did pts with IA (34.0% and 20.8% respectively). Motivations to exercise also differed between groups: more IA than OA pts said building muscle was a top motivation (54.5% and 43.1%, respectively; $p=0.03$).

Table: Interest in program features by arthritis type

	n (%)	Inflammatory Arthritis (n=288)	Osteoarthritis (n=130)	p-value
Regularly using WiFi-enabled digital scale to measure weight and blood pressure monitor automatically linked to study	332 (79.4)	236 (81.9)	96 (73.9)	0.12
Providing blood samples for study by going to nearby Quest or other lab	320 (76.6)	222 (77.1)	98 (75.4)	0.88
Participating in study that would provide an activity tracker (e.g. Fitbit) and resources to increase daily steps	313 (74.9)	224 (77.8)	89 (68.5)	0.03*

Participating in peer support (via Facebook private group), with other arthritis patients	299 (71.5)	207 (71.9)	92 (70.8)	0.82
Participating in peer support (via Facebook private group), that includes patients without arthritis	40 (9.6)	27 (9.4)	13 (10.0)	0.84
Using a mobile app to track my diet and exercise	289 (69.1)	208 (72.2)	81 (62.3)	0.04*
Participating in group facilitated by professional weight loss counselor	274 (65.6)	189 (65.6)	85 (65.4)	0.96
Using wireless scale that automatically sends my weight to the counselor	270 (64.6)	187 (64.9)	83 (63.9)	0.83
Sharing my banking information so study could provide compensation	222 (53.1)	161 (55.9)	61 (46.9)	0.23

*Statistically significant at alpha=0.05

Conclusion: Program focus and format may need to be tailored depending on arthritis type, but pts with both IA and OA are interested in social media peer support and digital symptom tracking to motivate achievement of health behavior change goals.

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AB1223 A SYSTEMATIC REVIEW OF STUDIES INVESTIGATING THE EFFECTIVENESS OF ADALIMUMAB PATIENT SUPPORT PROGRAMMES

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Background: Adalimumab patient support programmes (A-PSPs) are offered to patients with chronic inflammatory indications creating the need to study how such A-PSPs assist patients and other stakeholders in improving health outcomes. A deeper understanding of the effects of A-PSPs can improve treatment outcomes and experience of patients being treated with adalimumab.

Objectives: To review current studies evaluating A-PSPs, summarize their general characteristics and methodology, and recommend future research work in the area of A-PSPs.

Methods: Studies were identified through Web of Science and were cross-checked by searching through PubMed and MEDLINE databases, following PRISMA guidelines. Full-text papers and conference proceedings identified by the database search were reviewed for relevance.

Results: 17 studies evaluating the impacts of A-PSPs on patient outcomes were identified – 6 full-text articles and 11 meeting abstracts. Most research was done at the international level or in North America [1-3]. In only 5 reviewed studies a prospective study design was applied. Indications most commonly investigated were rheumatoid arthritis and inflammatory bowel disease. 12 studies evaluated the impact of all interventions of A-PSPs while others assessed the impact of Coach Care Calls or phone calls. Patient outcomes most commonly measured were persistence, adherence and low disease activity or remission. Overall, patients using any of the interventions of A-PSPs experienced significantly better improvements in all studied patient outcomes at different follow-up assessments compared to those not enrolled into any of the programme's interventions. Study population sizes and ratios between assigned users and non-users of interventions differed between studies. The most frequent follow-up assessments were after 12 and 24 months of treatment with adalimumab. Data for analysis was mostly obtained by linking a patient support database and claims administrative database, and in 5 cases by applying patient and physician reported surveys. Methodology for assessing the differences between users and non-users of interventions of A-PSPs consisted of univariate and multivariate methods, where the causal relationships between the impact of patient support program and patient outcomes were estimated by regression modelling adjusted for multiple confounders.

Conclusion: Interventions of A-PSPs have been shown to have a positive impact on all investigated patient outcomes. Main recommendations for

future studies are to design a prospective study, include persistence and adherence measures in the study design, and to assess patient outcomes with additional measures such as patient outcomes based on a patient-centric approach and adverse effects.

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AB1224

IS THERE A NEED TO OPTIMIZE REFERRAL DIAGNOSIS TO A RHEUMATOLOGY DEPARTMENT?:

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Background: The initial visitation of patient suffering from rheumatic disease related symptoms often occurs in absence of a rheumatologist.

Objectives: This study evaluated the following questions: I. Which medical specialists referral patients to a rheumatology department? II. To quantify the accordance of the presumptive diagnosis and the final diagnosis of a rheumatologist.

Methods: 1151 patients (355 men and 796 women) were admitted to a hospital for rheumatological diagnostic. The referral medical specialists were identified. Kappa-Analysis was performed to evaluate the presumptive diagnosis and the final diagnosis by the rheumatologists.

Results: 73.0% of the referrals were performed by general practitioner. The other referrals were: 7.7% rheumatologist, 4.8% specialist in internal medicine (excluding rheumatology), 4.3% orthopaedic surgeon, 1.0% ortho surgeon and 9.2% other specialists.

The highest accordance of the presumptive diagnosis and the final diagnosis was $\kappa=0.534$ for rheumatologists and $\kappa=0.400$ for specialist in internal medicine (excluding rheumatology). Lower kappa values were evaluated for general practitioner ($\kappa=0.345$), orthopaedic surgeon ($\kappa=0.310$) and other specialists ($\kappa=0.252$).

Conclusion: The referrals were frequently realized by general practitioners. In this context the presumptive diagnosis of a general practitioner presents a low accordance with the final diagnosis. In this context, general practitioners should achieve a detailed education in the assessment of rheumatic-related symptoms to optimize the dedicated referral to rheumatological departments.

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AB1225

POSSIBLE EARLY DETECTION OF ADVERSE EVENTS USING REMOTE SYSTEMATIC WEEKLY ELECTRONIC MDHAQ

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Background: Adverse events of medications are reported to account for 5% of hospital admissions in the USA, including 10% in the elderly. Warnings from doctors and pharmacies concerning adverse events are given at initiation of new medications, but adverse events occur between visits and reporting depends primarily on communication between a patient and a health professional, which may be variable. Therefore, recognition and reporting of adverse events remain relatively haphazard. Several reports present strategies for systematic monitoring for adverse events, primarily involving telephone contacts from nurses to patients. A far less expensive systematic approach based on patient self-report using a remote electronic multidimensional health assessment questionnaire

Date	19 Jan 2018	25 Jan 2018	11 May 2018	2 Aug 2018	15-29 Aug 2018	24 Sep 2018	26 Sep 2018	4 Oct 2018	9 Oct 2018	9 Nov 2018	25 Nov 2018	28 Dec 2018
Site of MDHAQ	Clinic	Clinic	Clinic	Clinic	None	Home	Home	Home	Home	Home	Home	Home
RAPID3 (0-30)*	14.0	10.2	5.7	3.5	?	19.5	10.2	6.7	6.5	4.8	6.0	4.2
Fatigue VAS (0-10)	6	4.5	2.0	2.0		9.0	4.5	4.0	3.5	1.0	1.0	1.0
Medications												
Prednisone mg/day	B 40	↓20	↓7	↓6	D/C 0	R 10	5	5	5	5	5	5
Methotrexate mg/w												
pirfenidone			B 10	20	D/C 0	0	0	0	0	R 10	10	10
#Symptoms (0-60)	10	5	6	6	B3-9/d	9/d	D/C	0	0	3/D	D/C	0
Weight loss	+	+				15	15	13	13	6	8	6
Feeling sickly	+					+	+	+	+			
Unusual fatigue	+					+	+	+	+	+	+	
Bruising/bleeding	+			+							+	
Other skin problem				+								
Loss of appetite						+	+	+	+	+	+	
Other eye problems			+									
Stuffy nose	+		+	+		+	+	+	+	+	+	+
Dry mouth	+	+	+			+	+	+	+	+	+	+
Problems with smell/taste				+		+	+	+	+			
Cough	+	+	+	+		+	+	+	+	+	+	+
Dyspnea	+	+	+	+		+	+	+	+	+	+	+
Heartburn/gas	+					+	+	+	+			
Dizziness	+											
Muscle weakness		+				+	+	+	+		+	+
Swelling of hands						+	+	+	+			
Swell-other joints						+	+	+	+			
Joint pain						+	+	+	+			+
Back pain						+	+					
Anxiety			+									
Sleep problems						+	+					