products and the development of RA was observed: HR for the fully adjusted model=1.12 (95% CI: 0.78-1.59 (Table 1). Also when evaluating milk and cheese consumption separately, no association with the risk of RA was observed: HR for the highest milk consumption=1.10 (95% CI: 0.82-1.44) and highest cheese consumption HR=1.20 (95% CI: 0.81-1.79), compared with low consumption (fully adjusted models, table 1).

Conclusion: In this large population-based cohort study, consumption of dairy products was not associated with risk to develop RA.

FRI0697HPR Table 1. Relative risk of developing rheumatoid arthritis during follow-up (2003-14) of women in the Swedish Mammography Cohort by consumption of dairy products in 1997.

	N of cases	N of person years	HR, adjusted for age	HR, fully adjusted model*
Total dairy				
<=3 servings/week	73	77148	1 (Ref)	1 (Ref)
3-4.5 servings/week	103	105043	1.00 (0.75-1.35)	1.05 (0.78-1.43)
4.5-6 servings/week	76	83777	0.93 (0.68-1.28)	1.01 (0.72-1.43)
>6 servings/week	111	115333	1.00 (0.74-1.33)	1.12 (0.78-1.59)
Milk				
<=0.5 servings/week	113	118630	1 (Ref)	1 (Ref)
0.5-1 serving/week	67	62227	1.16 (0.86-1.57)	1.17 (0.86-1.58)
1-2 serving/week	95	104788	1.01 (0.77-1.33)	1.03 (0.78-1.35)
>2 serving/week	85	89145	1.09 (0.82-1.44)	1.10 (0.82-1.48)
Cheese				
<=1 servings/week	81	84818	1 (Ref)	1 (Ref)
1-2 serving/week	119	124044	1.03 (0.77-1.36)	1.06 (0.80-1.41)
2-4 serving/week	106	108849	1.04 (0.78-1.39)	1.12 (0.82-1.51)
>4 serving/week	47	45405	1.08 (0.75-1.54)	1.20 (0.81-1.79)

*Adjusted for age, alcohol intake, smoking, energy intake, meat and fish consumption

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HPR Interventions (educational, physical, social and psychological)

FRI0698-HPR A RANDOMISED CONTROLLED CLINICAL TRIAL COMPARING THE EFFECTIVENESS OF 6 AND 12 WEEKS OF A SHOULDER SPECIFIC EXERCISE PROGRAMME FOR PATIENTS WITH ROTATOR CUFF RELATED SHOULDER PAIN

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Background: Research has shown loaded exercise to be beneficial for patients with rotator cuff related shoulder pain in terms of improving shoulder function, self-reported disability and pain^{1,2}. The optimal duration for which these patients should complete a loaded exercise programme to achieve beneficial effects remains unclear.

Objectives: The purpose of this study is to determine if 6 weeks of a supervised shoulder specific exercise programme is as effective as 12 weeks of the same programme, for improving shoulder function, self-reported disability and pain, in patients with rotator cuff related shoulder pain.

Methods: In this randomised controlled single-blinded study patients with a history of lateral upper arm pain with MRI confirmation of rotator cuff pathology or positive testing on a cluster of clinical rotator cuff tests were included. Patients with a recent history of shoulder surgery or a shoulder fracture were excluded. Participants were randomly assigned to complete either 6 weeks (short group) or 12 weeks (long group) of the exercise programme. Both groups performed the same specific set of loaded exercises daily at home and attended 6 clinic-based group exercise sessions². Participants were assessed at 6 weeks, 3 and 6 months. Shoulder function was assessed using the Constant-Murley (CM) score. Disability was assessed using the QuickDash and the Shoulder Pain and Disability Index (SPADI). Pain was assessed using a visual analogue scale. Group comparisons were made using univariate generalised linear models.

Results: 85 patients were included in this study as per Table 1.

FRI0698HPR Table 1.

Group	Short (n = 45)	Long (n = 40)
Background variables		
Sex (male/female)	24/21	21/19
Age in years median (SD)	57 (15)	57 (14)
Duration of symptoms (median months)	19	24

Within each group shoulder function, self-reported disability and pain improved significantly at 3 months ($p < .05$). Comparisons at 3 months showed the long group had significantly lower pain scores ($p = .02$). At 3 months there was no significant difference between the two groups in the CM score ($p = .415$), SPADI score ($p = .053$) and QuickDash score ($p = .245$). However, at 6 months, the long group had significantly greater changes in both the CM score ($p = .007$) and the SPADI score ($p = .002$).

Conclusion: In the management of patients with rotator cuff related shoulder pain the findings of this study indicate that a 12 week exercise programme results in better outcomes for pain at 3 months and self-disability and shoulder function at 6 months.

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FRI0699-HPR DEVELOPMENT OF DELPHI-BASED RECOMMENDATIONS FOR THE MANAGEMENT OF CARDIOVASCULAR COMORBIDITIES IN PATIENTS WITH PSORIATIC ARTHRITIS AND MODERATE-TO-SEVERE PSORIASIS: STUDY PROTOCOL

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Background: Psoriasis (PSO) and Psoriatic Arthritis, (PsA) particularly moderate to severe disease (MS-PSO), are inflammatory systemic

conditions that are associated with a high risk of cardiovascular (CV) complications further beyond the increased prevalence of classical risk factors in this population. Consequently, the early identification of patients with MS-PSO and PsA who may benefit from primary CV prevention is essential. However, medical providers do not routinely screen or counsel their patients for CV risk factors or comorbidities. In addition, paucity of robust clinical data complicates the implementation of management protocols for primary CV prevention in MS-PSO and PsA.

Objectives: To generate expert-based recommendations on the management of CV comorbidities in patients with MS-PSO and PsA through the application of the Delphi technique.

Methods: The development of Delphi-based recommendations included four steps: (1) systematic literature review to explore current information and clinical recommendations on management of CV comorbidities in patients with PsO and PsA; (2) two subsequent meetings with project coordinators ($n = 3$) and scientific advisors ($n = 7$) from different medical specialties (rheumatology, dermatology, endocrinology, internal medicine, pneumology, rehabilitation, psychiatry and primary care) to examine the results of the review and decide which statements should be included in the final version of the questionnaire; (3) a two-round Delphi questionnaire aimed at specialists in rheumatology and dermatology to assess the degree of consensus on the different points raised; (4) finally, a face-to-face meeting with the project coordinators and scientific advisors to discuss and ratify the results of the Delphi process.

Results: As a result of the literature review and the assessment and approval of scientific advisors, the final version of the Delphi survey contains 52 statements grouped into 35 questions. The questionnaire is divided into 3 topic sections: (1) identification, diagnosis and referral of MS-PSO and/or PsA patients with CV comorbidities ($n = 12$ statements); (2) management and treatment of CV comorbidities associated with MS-PSO and/or PsA ($n = 36$); (3) influence of MS-PSO and/or PsA treatments on CV comorbidities and vice versa ($n = 4$).

Conclusion: This Delphi-based study may fill an important gap in the evidence by providing relevant information on the management of CV comorbidities in patients with MS-PSO and/or PsA.

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FRI0700-HPR LESSONS LEARNED FROM PILOT IMPLEMENTATION OF PHYSICAL ACTIVITY RECOMMENDATIONS IN AXSPA EXERCISE GROUP THERAPY – LESS MAY BE MORE

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Background: The Ankylosing Spondylitis Association of Switzerland (SVMB) offers 68 exercise groups (EG) for people with axial Spondyloarthritis (axSpA). Participants exercise weekly with focus on strength and flexibility supervised by a physiotherapist (PT). Given the EULAR physical

activity (PA) recommendations [1] and recent research [2, 3], the SVMB aims to further develop the concept of their EG by introducing: a) exercises in all dimensions, cardiorespiratory fitness, muscle strength, flexibility and neuromotor performance, according to the general PA recommendations [4]; b) individual exercise-coaching (three sessions in first six months) by the group PT, specifically trained in communication and action planning skills to support individual exercising, and c) bi-annual fitness-assessments for all exercise dimensions.

Objectives: To evaluate the new EG concept among the participating people with axSpA and PTs across four pilot groups.

Methods: After six months, a survey on the perception and satisfaction towards the new EG concept was sent to 30 people with axSpA, who rated the questions on a 0-10 numeric rating scale (0=not satisfied, 10=very satisfied). Semi-structured telephone-interviews were conducted with the PTs to explore their experiences with the new GE concept.

Results:

People with axSpA: The survey's response rate was 83% (25/30); of these, 15 (62%) participants were satisfied with the concept (mean 6.7 $\pm$ 2.23) and 20 (80%) with the exercise-coaching (mean 7.7 $\pm$ 2.92). 22 (88%) individuals defined a training goal and 15 (60%) achieved it. The exercise diary was used by 16 (64%) participants, five reported app-based. Reasons for not using the diary were the daily effort and problems with correctly allocating activities to exercise dimensions. A minority ($n=7$, 28%) reported to use a technical device for cardiovascular exercising. 17 (68%) were satisfied with the fitness-assessment (mean 7.5 $\pm$ 1.78). PTs perceived the exercise-coaching as very useful for supporting individualised exercising. However, they emphasised that the frequency of the sessions should be flexibly based on the participant's individual training goal and motivation. The PTs perceived controversial reactions to the fitness-assessments: increased but also decreased motivation towards exercising.

Conclusion: Exercise-coaching and fitness-assessments were generally appreciated; however, the frequency was perceived as too high. The GE concept will be adapted accordingly to improve feasibility for national implementation: the exercise-coachings will be reduced to two in the first six months, the first one compulsory for all participants, then bi-annually, according to individual needs and training goals. The fitness-assessments will take place annually instead of bi-annually. There is a need for easy-to-use exercise diaries, covering all exercise dimensions.

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FRI0701-HPR EFFICACY OF INTERMITTENT AEROBIC EXERCISE ON SLEEP EFFICIENCY IN PATIENTS WITH RHEUMATOID ARTHRITIS. A RANDOMIZED CONTROLLED TRIAL

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Background: Insomnia is seen in >60% of patients with rheumatoid arthritis (RA). While cross-sectional studies have shown a positive association between regular physical activity and good sleep, there is a lack of knowledge on the effect of physical activity on insomnia in patients with RA.

Objectives: To examine the efficacy of intermittent aerobic exercise on sleep efficiency as well as the effect on fatigue and depressive symptoms.