Methods: We undertook within-person comparisons using self-controlled case-series (SCCS). AIRD cases who received IIV and had an outcome of interest in the same influenza cycle, between 1st September of one year and 31st August of the next year, between 2006 and 2016 were ascertained within the Clinical Practice Research Datalink. The influenza cycle (1st September of one year to 31st December of the next year) was partitioned into five exposure periods (1-15 days pre-vaccination, and 0-14, 15-30, 31-60, and 61-90 days post-vaccination), with the remaining time period classified as non-exposed. Incidence rate ratios (IRRs) and 95% confidence intervals (CI) were calculated to compare the frequency of outcomes in different periods.

Results: Data for 14,928 AIRD cases (69% women, 80% with RA) were included. There was no association between IIV administration and primary-care consultation for RA flare, corticosteroid prescription, and vasculitis (Table 1). Vaccination associated with reduced primary-care consultation for joint pain in the 90-day post-vaccination period (IRR (95%CI) 0.91 (0.87-0.94)), and fatigue (IRR (95%CI) 0.40 (0.22-0.71)) in the 61-90 days post vaccination (Table 1).

Abstract Table 1. Association between IIV and AIRD flare and vasculitis

Risk period	IRRs(95% CI)				
	Joint pain	Corticosteroid prescription*	Fatigue	RA flare	Vasculitis
Baseline	1.00	1.00	1.00	1.00	1.00
Upto 15 days pre vaccination	1.29 (1.20-1.39)	1.17 (0.73-1.89)	1.09 (0.67-1.79)	0.95 (0.64-1.41)	0.95 (0.38-2.33)
Post-vaccination					
0-14 days	0.84 (0.77-0.92)	1.11 (0.67-1.84)	0.62 (0.32-1.20)	0.97 (0.65-1.45)	0.41 (0.10-1.65)
15-30 days	0.94 (0.86-1.02)	1.31 (0.83-2.06)	0.90 (0.52-1.54)	1.12 (0.78-1.62)	0.95 (0.38-2.33)
31-60 days	0.93 (0.88-0.99)	1.02 (0.70-1.48)	0.87 (0.59-1.30)	1.06 (0.80-1.39)	0.76 (0.37-1.56)
61-90 days	0.90 (0.84-0.96)	0.76 (0.49-1.16)	0.40 (0.22-0.71)	0.81 (0.59-1.10)	1.14 (0.62-2.08)

*New corticosteroid prescription on the same date as consultation for either RA flare, or joint pain, or fatigue.

Conclusion: The administration of IIV was not associated with flare of the underlying AIRD and its association with reduced disease activity warrants further investigation. Nevertheless, these data add to the accumulating evidence to support seasonal influenza vaccination in people with AIRDs.

REFERENCES:

- [1] Loubet P, et al. Vaccine. 2015; 33(31):3703-8.
- [2] Birk R, et al. Journal of clinical rheumatology: practical reports on rheumatic & musculoskeletal diseases. 2009; 15(6):289-91.
- [3] Park JK, et al. Annals of the Rheumatic Diseases. 2018; 77(6):898-904.

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HPR Abstract session II

OP0268-HPR THE PREVALENCE AND IMPACT OF FATIGUE IN PEOPLE WITH PRIMARY ANTIPHOSPHOLIPID SYNDROME: A MIXED METHODS STUDY

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Background: Primary antiphospholipid syndrome (pAPS) is a prothrombotic disorder associated with increased morbidity and mortality¹. Symptoms include fatigue but the prevalence and impact of fatigue is unknown.

Objectives: To explore the prevalence, relationships and impact of fatigue in adults with pAPS.

Methods: This mixed methods study recruited participants from one public hospital, UK. Inclusion criteria comprised: adults with ≥6 month history of pAPS (Sydney classification criteria) and sufficient written and spoken English. Exclusion criteria included: other autoimmune rheumatic/inflammatory disorders; cancer; active chronic infections, positive Antinuclear antibody, pregnancy/breast-feeding, drugs/alcohol dependency and BMI>30.

Consenting participants completed seven questionnaires to record sociodemographic characteristics, fatigue (Fatigue Severity Scale (FSS), FACIT-Fatigue subscale, (FS)), social support (Multi-Dimensional Perceived Social Support Scale (MDPSS), mood (Patient Health Questionnaire (PHQ-9), quality of life (EQ-5D-5L), sleep quality (Pittsburgh Sleep Quality Index (PSQI) and physical activity (International Physical Activity Questionnaire (IPAQMETS)). The relationship between fatigue (FSS) and predictor variables were explored using Spearman's Rho correlation coefficients and backward stepwise regression analyses.

Audio recorded, semi structured interviews were conducted with a subset of participants by two researchers with an agreed topic guide. Interviews were transcribed verbatim, anonymised, and analysed thematically with NVivo 10. The data was validated by a subsample of participants, cross-referencing the emergent codes and themes.

Results: 103 participants were recruited (87 complete datasets; mean (standard deviation) 50.3 (10.4) years, 8 men, 49 thrombotic APS). 69% of participants reported clinically relevant fatigue (FSS>3) and 62% of participants indicated severe fatigue (FSS>4). FSS was positively associated with PSQI ($r_s(67)=0.269$ $p=0.025$), PHQ9 ($r_s(83)=0.602$ $p<0.001$) and negatively associated with EQ-5D-5L ($r_s(83)=-0.505$ $p<0.001$), FS ($r_s(82)=-0.656$ $p<0.001$) and IPAQMETS ($r_s(80)=-0.243$ $p=0.028$) but not MSPSS.

The best fit model explained 62% of the variance in FSS (adjusted $R^2=0.617$, $F_{(5,62)}=22.63$, $p>0.001$) and included FS, MSPSS, PHQ9, and IPAQMETS as significant predictors. For every 1 unit increase in FS, MSPSS, IPAQMETS and PHQ9, FSS decreased by -0.087 points, -0.084 points and -9.7*10⁻⁵ MET/minutes or increased by 0.090 points respectively.

Twenty participants (10 obstetric/10 thrombotic pAPS) completed interviews (duration 20-50 minutes). Participants with obstetric pAPS were younger. Five themes were identified across both subgroups: 1. Unpredictability of fatigue 2. Impact on daily life 3. Physical activity matters 4. Individual coping strategies 5. Acknowledgement and help with fatigue from clinicians.

Conclusion: Fatigue is a common, overwhelming, unpredictable symptom of pAPS which is a challenge to manage. Social support, mood and physical activity predicted fatigue severity. Interviewees tended not to discuss fatigue with clinicians due to lack of observed response or empathy. Participants perceived physical activity as important but difficult to complete regularly. Interventions to manage fatigue and support physical activity are needed for adults with pAPS.

REFERENCE:

- [1] Cervera R, et al. Annals of the rheumatic diseases. 2015 Jun 1;74(6):1011-8

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