

Results 1697 patients (89% female, 51% non-Caucasian race/ethnicity, mean age at enrolment 35.1 years) were followed a mean of 8.8 years. 1971 NP events occurred in 956 patients, 32% attributed to SLE. For SLE NP events, annual DC were higher in those with new/ongoing vs no events (\$10,809 vs \$6715) (table 1). Annual and 5-yr IC were higher in new/ongoing vs no events and new/ongoing vs resolved events (5-yr: new/ongoing vs no: \$172,674 vs \$136,970). For non-SLE NP events, annual IC were higher in new/ongoing vs no events, new/ongoing vs resolved events, and resolved vs no events and 5 and 10-yr IC were higher in new/ongoing vs no events (10-yr: new/ongoing vs no: \$342,434 vs \$279,874). For all NP states, IC exceeded DC 2.8 to 4-fold.

Conclusion IC are 1.3-fold higher in patients with new/ongoing vs no NP events. While DC trended higher in new/ongoing events, they were not significantly higher across all NP states and times. Impaired productivity associated with ongoing and resolved NP lupus is substantial, contributing to the previously documented reduced quality of life.

1200 - COVID-19

1201 FLARES AFTER SARS-COV-2 VACCINATION IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background Vaccination against SARS-CoV-2 is particularly important for patients with systemic lupus erythematosus

(SLE), who may be at increased risk of hospitalization for COVID-19. However, the most common reason for vaccine refusal in patients with SLE is fear of SLE disease flare. Additionally, SARS-CoV-2 mRNA vaccines could potentially induce interferon production, associated with increased SLE disease activity. Thus far, no population-based data exist regarding whether SARS-CoV-2 vaccines trigger SLE flares.

Methods We e-mailed a survey on March 5, 2021 to 7,094 outpatients evaluated in our Rheumatology Division in New York City, to assess vaccination outcomes. ICD-10 algorithms identified patients with SLE. A self-reported disease flare was defined as 'a sudden worsening of your rheumatology condition or arthritis' within two weeks of the vaccine dose.

Results As of March 30, 2021, 2714 rheumatology patients responded (36.2%). 136/466 (29.2%) patients with SLE (mean [SD] age 54.7 [13.9] years; 93.4% female; 67.7% White; 13.2% Hispanic/Latinx) reported receiving at least one COVID-19 vaccine dose. Eighty-one patients (59.6%) received Pfizer, 48 (39.3%) received Moderna, and 4 (2.9%) received Janssen. Of patients receiving Pfizer or Moderna, 72 (54.5%) received 2/2 doses. Twelve patients (8.8%) reported SLE flare within two weeks of any COVID-19 vaccination (table 1). Patients reporting SLE flare were older (59.0 [14.0] versus 54.3 [13.9] years) and White (83.3% versus 61.1%). Flares occurred in 12.5% of patients receiving Moderna and 7.4% receiving Pfizer (6 patients each). Out of 7 patients receiving both vaccine doses and who reported a flare, 2 flared after both doses (table 1).

Of the 14 flares, 9 occurred after the first dose, and 5 occurred after the second dose. Most flares after the first vaccine dose were mild (77.8%), whereas most after the second were moderate (60%). 12/14 flares (85%) were described as 'typical', predominantly characterized by joint pain, muscle aches, and fatigue. While 8/14 flares started 1 day after vaccination, 4/14 started 4-7 days later. Most SLE flares resolved

Abstract 1201 Table 1 Characteristics of Self-Reported Flares* After COVID-19 Vaccination Among Outpatients with Systemic Lupus Erythematosus

Study ID	Vaccine Manufacturer	Flare Onset (Days after vaccine dose)	Flare Severity (Mild, Moderate, Severe)	"Typical" Flare	Flare Duration (in days)	Flare Symptoms**							
						Fever	Joint pain	Joint swelling	Skin rash	Fatigue	Muscle aches	Other	Other Symptoms
Flare After Vaccine Dose #1													
1	Moderna	1 days	Mild	Yes	1 days	0	1	0	0	1	1	1	Mouth sores
2	Pfizer	1 days	Moderate	Unknown	4 days	1	1	0	0	1	1	0	
3	Moderna	1 days	Mild	Yes	4 days	0	1	1	0	0	0	0	
4	Pfizer	1 days	Severe	Yes	20 days	0	1	0	0	1	0	1	Brain fog
5	Moderna	1 days	Mild	Yes	21 days	0	1	0	1	1	1	0	
6	Moderna	3 days	Mild	Yes	22 days	1	0	0	0	1	0	0	
7	Moderna	4 days	Mild	Yes	6 days	0	0	0	0	1	1	0	
8	Pfizer	4 days	Mild	Yes	22 days	1	0	0	0	1	1	0	
9	Pfizer	7 days	Mild	Yes	7 days	0	0	0	1	0	0	0	
Flare After Vaccine Dose #2													
5	Moderna	1 day	Severe	No	8 days	0	1	1	0	1	1	0	
6	Moderna	1 day	Mild	Yes	4 days	1	0	0	0	1	0	0	
10	Moderna	1 day	Moderate	Yes	3 days	0	1	1	0	1	1	0	
11	Pfizer	3 days	Moderate	Yes	8 days	0	1	1	0	1	1	1	Increased neuropathy, neck pain, knee pain
12	Pfizer	7 days	Moderate	Yes	2 days	0	1	0	1	1	1	0	

*12 patients reported 14 flares (2 patients flared at 2/2 vaccine doses).

within 7 days of onset; however, 4/14 lasted 8-21 days and 2/14 lasted >21 days.

Conclusions Interim data suggest >91% of SLE patients did not self-report a flare post-SARS-CoV-2 vaccination; of those that did, most had mild flares. Given most patients reported that their post-vaccine flare was 'typical' of their SLE flares, vaccine side effects alone may not explain these findings. Whether vaccine type or modifying immunosuppressive medications to enhance vaccine efficacy independently predicts SLE flare remains to be determined.

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1202

COVID-19 PANDEMIC STRESSORS AND PSYCHOLOGICAL DISTRESS SYMPTOMS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS AND RHEUMATOID ARTHRITIS

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Background The coronavirus disease 2019 (COVID-19) global pandemic is a highly stressful event that may contribute to psychological symptoms, particularly in patients with pre-existing chronic conditions. This study examined COVID-19 pandemic related stress experienced by patients with systemic lupus erythematosus (SLE) or rheumatoid

arthritis (RA) and its association with symptoms of psychological distress.

Methods An on-line cross-sectional survey study was conducted with 55 SLE (mean age = 54.8, ±13.8) and 42 RA (mean age = 64.2, ±12.2) patients recruited from a tertiary care centre in Quebec City between May 25, 2021 and June 13, 2021. Participants completed the COVID-19 Stressors Questionnaire adapted by our team for inflammatory arthritis. The Impact of Event Scale-Revised (IES-R) assessed post-traumatic stress symptoms (PTSS) caused by the COVID-19 pandemic. The Patient Health Questionnaire-8 (PHQ-8) and the Generalized Anxiety Disorder-7 (GAD-7) measured symptoms of depression and anxiety, respectively.

Results Among respondents 3/97 had been diagnosed with COVID-19 since the start of the pandemic (SLE=2, RA=1). Clinically significant PTSS (IES-R score ≥24) due to the COVID-19 pandemic was reported by 13.4% of participants, with no statistically significant difference between both disease groups (SLE = 16.4%; RA=9.5%). The degree of concern related to COVID-19 stressors were similar in both disease groups (SLE: M = 10.0 ±8.2; RA: M = 8.7 ±9.5). As shown in table 1, COVID-19 stressors that were associated with the highest degree of concerns were: having a loved one contract coronavirus (SLE 50.9%; RA 28.6%), the possibility of contracting (SLE 45.5%; RA 35.7%) or getting sick from coronavirus (SLE 40%; RA 21.4%), working in a place with high likelihood of exposure (SLE 30.9%; RA 21.4%), and the possibility of their disease worsening or being poorly managed due to changes in medical care (SLE 27.3%; RA 26.2%). In patients with SLE, a higher level of concern related to COVID-19 stressors was significantly correlated with greater symptoms of PTSS ($r = 0.46$, $p < 0.001$), depression ($r = 0.46$, $p < 0.001$) and anxiety ($r = 0.62$, $p < 0.001$). In patients with RA, a higher level of concerns related to COVID-19 stressors was significantly correlated with greater symptoms of PTSS ($r = 0.33$, $p = 0.036$), but not with symptoms of depression and anxiety.

Conclusions Stressors related to the COVID-19 pandemic are experienced by an important proportion of patients with SLE and RA and are associated with psychological symptoms, particularly for patients with SLE.

Abstract 1202 Table 1 Degree of Concerns related to COVID-19 Stressors for Patients with SLE or RA

COVID-19 Stressors	All Participants n=97 n (%)	SLE n=55 n (%)	RA n=42 n (%)
Having loved ones who contracts coronavirus	40 (41.2)	28 (50.9)	12 (28.6)
Possibility of contracting coronavirus	40 (41.2)	25 (45.5)	15 (35.7)
Getting sick from exposure to coronavirus	31 (32)	22 (40)	9 (21.4)
Working in a place likely to be exposed to the coronavirus.	26 (26.8)	17 (30.9)	9 (21.4)
Possibility of condition worsening or being poorly managed due to changes in medical care	26 (26.8)	15 (27.3)	11 (26.2)
Postponement or cancellation of diagnostic and disease monitoring tests	19 (19.6)	10 (18.2)	9 (21.4)
Increased responsibilities at home	19 (19.6)	11 (20)	8 (19.0)
Difficulty obtaining food, medicine and other essentials	16 (16.5)	9 (16.4)	7 (16.7)
Changes in treatments due coronavirus pandemic	15 (15.5)	9 (16.4)	6 (14.3)
Postponement or cancellation of medical visits	15 (15.5)	9 (16.4)	6 (14.3)
Difficulty obtaining help or social support needed	12 (12.4)	8 (14.5)	4 (9.5)
Losing a job or experiencing a drop in income related to the coronavirus pandemic	10 (10.3)	5 (9.1)	5 (11.9)

Responses rated on a scale of 0 "not at all" to 4 "extremely" concerned or worried. Responses dichotomized such that a threshold of 2 or higher represent greater concern/worry.