Highly stable, the compounds persist in soil and water, bioaccumulate, and are found in the blood and tissues of animals and humans. Several PFAS, including perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), have been associated with negative health effects through hormone disruption and immunologic dysfunction.

This ongoing study explores the associations between PFAS biomarkers, autoimmunity, and neighborhood-level social determinants of health among African Americans participating in a population-based cohort study.

Methods Data was utilized from a longitudinal study of Gullah African American patients with SLE and non-SLE controls. Demographics, medical history, Social Vulnerability Index (SVI) (incorporating socioeconomic status, household composition, race/ethnicity/language, and housing/transportation), antinuclear antibody (ANA) status and titer, serum PFOA concentration (ng/ml), and serum PFOS concentration (ng/ml) from in-person visits from 2003-2019 were included. Spatial overlays were applied to assign census tract identifiers and obtain SVI data for the participants. Statistical analysis using univariate and multivariate linear regression was performed.

Results A total of 81 participants, including 10 patients with SLE and 71 non-SLE controls were evaluated. All were non-Hispanic black, 85% female and 15% male (table 1). Participants with PFOS exposure had a 30% increase (worsening) in SVI for every one unit increase in the serum PFOS concentration (95% CI 0.04-0.60). PFOA concentration was not significantly associated with SVI, 95% CI -1.63-4.39. Adjusting for SLE, age, and gender, there was no significant association between SVI and PFOS (95% CI -0.004, 0.70) or PFOA (95% CI -2.24, 5.08).

Participants with a positive ANA had a statistically significant increase in SVI of 16% compared to those with a negative ANA, 95% CI 3.17-29.07. There was not a significant difference in SVI between patients with SLE and controls (95% CI -26.9-12.75).

Conclusion In our study of African Americans with and without SLE, PFOS, but not PFOA, exposure was associated with higher social vulnerability measured by the SVI. ANA positivity was also associated with higher SVI, although SLE diagnosis was not, likely due to the small number with SLE. These findings support continued studies of PFAS and other environmental contaminants which are associated with disparities in exposure, putting vulnerable communities at risk for adverse health impacts such as SLE.

Acknowledgements This work was supported by National Institute of Arthritis and Musculoskeletal and Skin Diseases grants P30AR072582 (JCO), K24AR068406 (DLK), and P30AR072582 (GSG). I would also like to acknowledge the participants in the Systemic Lupus Erythematosus in Gullah Health (SLEIGH) study.

Abstract 1103 Table 1 Demographics, Serology and Toxicology Levels of Cohort

	Total (N=81)	Cases (N=10)	Controls (N=71)	p-value
Gender	Number (%)	Number (%)	Number (%)	
Female	69 (85.2)	9 (90)	60 (84.5)	0.65
Male	12 (14.8)	1 (10)	11 (15.5)	
Age at visit/sample collection (years ± sd)	50.6 ± 14.7	45.4 ±13.0	51.3 ± 12.0	0.24
Race				
Other	0 (0.0)	0 (0.0)	0 (0.0)	
African American	81 (100.0)	10 (100.0)	71 (100.0)	
ANA positivity				
Yes	47 (58.0)	10 (100.0)	37 (52.1)	0.004
No	34 (42.0)	0 (0.0)	34 (47.9)	
ANA titer high (> 1:320)				
Yes	17 (21.0)	8 (80.0)	9 (12.7)	< 0.001
No	64 (79.0)	2 (20.0)	62 (87.3)	
PFOS (ng/ml)	24.7 ±21.8	8.7 ±5.4	27.0 ±22.2	<0.001
PFOA (ng/ml)	3.6 ±2.2	2.3 ±1.5	3.8 ±2.2	0.04
Social vulnerability index	0.5 ±0.3	0.5 ±0.4	0.6 ±0.3	0.48

1104 UPDATE ON THE STUDY OF ANTI-MALARIALS IN INCOMPLETE LUPUS ERYTHEMATOSUS (SMILE) CLINICAL TRIAL

[1]David Karp*, [2]Nancy Olsen, [2]Duanping Liao, [3]Judith James, [3]Cristina Arriens, [4]Diane Kamen, [5]Mariko Ishimori, [6]Susan Boackle. *[1]University of Texas Southwestern Medical Center, Dallas, TX USA; [2]Hershey Medical Center, Penn State University, Hershey, PA USA; [3]Oklahoma Medical Research Foundation, Oklahoma City, OK USA; [4]Medical University of South Carolina, Charleston, SC USA; [5]University of Colorado Anschutz Medical Campus, Aurora, CO USA*

10.1136/lupus-2021-lupus21century.47

Background There is clear evidence that clinical and laboratory features of systemic lupus erythematosus (SLE) can be present for many years prior to an individual fulfilling the full disease classification criteria. Most commonly, these features include characteristic serologies, but also isolated hematological findings, rash, serositis, or hypocomplementemia. Such individuals may be considered to have 'Incomplete Lupus Erythematosus' or ILE, and some eventually transition to frank SLE over time. There is retrospective evidence that hydroxychloroquine (HCQ) use delayed this progression to SLE. The SMILE trial was undertaken to study the ability of HCQ to prevent progression to lupus in people at risk.

Methods SMILE is an NIH-funded, multi-center, randomized, placebo-controlled study of HCQ in people with an ANA (1:80 by IF) and one or two SLICC criteria for the classification of SLE. Participants can be either sex, ages 15-49, and could not have other definite autoimmune disease or fibromyalgia. The primary end point is the rate of development of new lupus criteria. Subjects are randomized to HCQ or placebo and followed for 24 months or until the development of SLE. Assessments done every 3 months included determination of any new SLICC criteria by history, physical and laboratory, as well as banking of serum, plasma, peripheral blood mononuclear cells, DNA, RNA and urine.

Results Enrollment began in early 2018 and is anticipated to end in the Fall of 2021 with study completion in 2023. Currently, all results remain blinded. As of May 2021, a total of 222 participants were screened and 157 randomized. 31 completed the protocol, 29 were discontinued by clinical staff, and 29 withdrew from the study. 16 participants (10.2%) developed classification criteria for lupus. The remainder of the participants remain in the study. 352 adverse events

occurred in 115 subjects; 67 of which were felt to be probably or possibly related to the intervention.

Conclusions Recruitment for a trial of pre-clinical or incomplete lupus is difficult. Barriers included perceived risk of medication for an asymptomatic condition, or desire to take medication, even if not known to work. Nevertheless, a significant number of subjects has transitioned to lupus during the course of the trial. Data comparing HCQ to placebo will be available in 2023.

Acknowledgments This trial is supported by NIH/NIAMS U01 AR071077

Trial Registration ClinicalTrials.gov NCT03030118.

1105 TELEMEDICINE IN RHEUMATOLOGY: A SURVEY OF PATIENT AND PROVIDER SATISFACTION WITH VIRTUAL CARE

[1]Wei Tang, [1]Leila Khalili, [2]Maria Dall'Era, [3]Cynthia Aranow, [3]Meggan Mackay, [1]Anca Askanase*. *[1]Columbia University Irving Medical Center, Department of Medicine, Division of Rheumatology, New York, NY; [2]Lupus Clinic and Rheumatology Clinical Research Center, University of California San Francisco, San Francisco, CA; [3]Feinstein Institute for Medical Research, Manhasset, NY, 11030*

10.1136/lupus-2021-lupus21century.48

Abstract 1105 Table 1 Telemedicine Seven-item Questionnaire

Questionnaire Item	Response	N (%)
How satisfied were you with your previous telemedicine visit?	Highly satisfied	50 (50%)
	Satisfied	34 (34%)
	Neither satisfied nor unsatisfied	11 (11%)
	Not satisfied	5 (5%)
	Highly unsatisfied	0 (0%)
Reasons for satisfaction?	Avoid coming into the office	73 (73%)
	Call went smoothly	77 (77%)
	Decrease their concerns over condition, medications and risk of COVID-19	75 (75%)
Reasons for unsatisfaction?	Technical difficulties	4 (4%)
	Visit was too short	2 (2%)
	Visit was too basic for their needs	4 (4%)
How comfortable were you with your previous telemedicine visits?	Very comfortable	62 (62%)
	Comfortable	24 (24%)
	Neither comfortable nor uncomfortable	11 (11%)
	Uncomfortable	3 (3%)
	Highly uncomfortable	0 (0%)
The physician was able to address what was bothering me through the telemedicine visit?	Strongly agree	54 (54%)
	Agree	37 (37%)
	Don't know	5 (5%)
	Disagree	4 (4%)
	Strongly disagree	0 (0%)
Overall, compared to an in-person visit, the telemedicine visit was?	Much better	10 (10%)
	Better	6 (6%)
	Same	57 (57%)
	Worse	25 (25%)
	Much worse	2 (2%)
I would have a telemedicine appointment in the future, if given the option.	Yes	77 (77%)
	Unsure	14 (14%)
	No	9 (9%)

Background During the COVID-19 pandemic, in-person rheumatology was largely replaced by telemedicine to ensure the safety of both patients and providers. The increased pressure on the healthcare system amidst the pandemic that created a soaring number of patients has pressed an effective supplementary healthcare format for both rheumatology and other specialties. However, it remains unclear whether telemedicine, in the commonly used video-conference format, can serve as a feasible alternative to conventional in-person clinical visits while achieving comparable patient/provider satisfaction and maintaining long-term quality of care. The objective of this study was to evaluate the patient and provider experience with video-conference based virtual care thus provide further information on the prospective use of telemedicine in rheumatology practice.

Methods April-June 2020 we disseminated a seven-item questionnaire to patients with rheumatic diseases who recently attended telemedicine encounters in a video-conference format to evaluate their satisfaction and experience with the encounter. Simultaneously, we surveyed providers who recently conducted virtual care with a similar seven-item questionnaire to evaluate provider attitude towards the virtual care.

Results A total of 100 patients and 17 care providers responded to the survey. Of the 100 patients surveyed, 84 (84%) reported high levels of satisfaction; 86 (86%) felt comfortable with the video-conference format and 77 (77%) expressed willingness to use telemedicine in the future; 92 (92%) acknowledged that physicians were able to satisfactorily address the issues and concerns that prompted the visit, and 57 (57%) considered the experiences very similar to the in-person clinical visits. However, of the 17 care providers surveyed, only 3 (18%) expressed satisfaction with telemedicine while 14 (82%) considered telemedicine visit worse than conventional in-person clinical visits.

Abstract 1105 Table 2 Demographic characteristics of study subjects

Characteristics	Categories	N (%)
Gender	Male	9 (9%)
	Female	91 (91%)
Age (years)	20-30	18 (18%)
	30-40	22 (22%)
	40-50	22 (22%)
	50-60	21 (21%)
	60-70	13 (13%)
	70-80	4 (4%)
Race	White	41 (41%)
	Black or African American	25 (25%)
	Asian	7 (7%)
	Hispanic	26 (26%)
Health insurance	Insured	100 (100%)
	Uninsured	0 (0%)
Diagnoses	Systemic Lupus Erythematosus (SLE)	60 (60%)
	Rheumatoid Arthritis (RA)	7 (7%)
	Undifferentiated Connective Tissue Diseases (UCTD)	7 (7%)
	Psoriatic Arthritis (PsA)	5 (5%)
	Sjogren's Syndrome (SS)	4 (4%)
	Spondylitis	3 (3%)
	Other (Sarcoidosis, Myositis, Osteoarthritis, Fibromyalgia, Uveitis, Vasculitis)	14 (14%)