macrophages transfected with hY3. IFIT1 MX1, and EIF2AK2 transcripts were significantly increased in the WISH cells treated with hY3 macrophage supernatants, but not macrophage supernatants alone (n=7, p=0.02).

**Conclusion** These data now provide a link between IFN and the inflammatory and possibly fibrosing component of CHB and position Siglec-1 positive macrophages as integral to the process.

# Living with Lupus

## LL-01 SOCIAL DETERMINANTS OF TREATMENT ADHERENCE AND DISEASE SEVERITY AMONG PEOPLE LIVING WITH LUPUS IN A SMALL ISLAND DEVELOPING STATE: A REPORT FROM ST. LUCIA

[1]Amanda King*, [1]Cleopatra Altenor, [2]Catherine Brown, [2]Ian Hambleton. *[1]Bay Medical Centre, St. Lucia, West Indies; [2]The George Alleyne Chronic Disease Research Centre, Caribbean Institute for Health Research, The University of the West Indies, Barbados, West Indies*

10.1136/lupus-2018-lsm.111

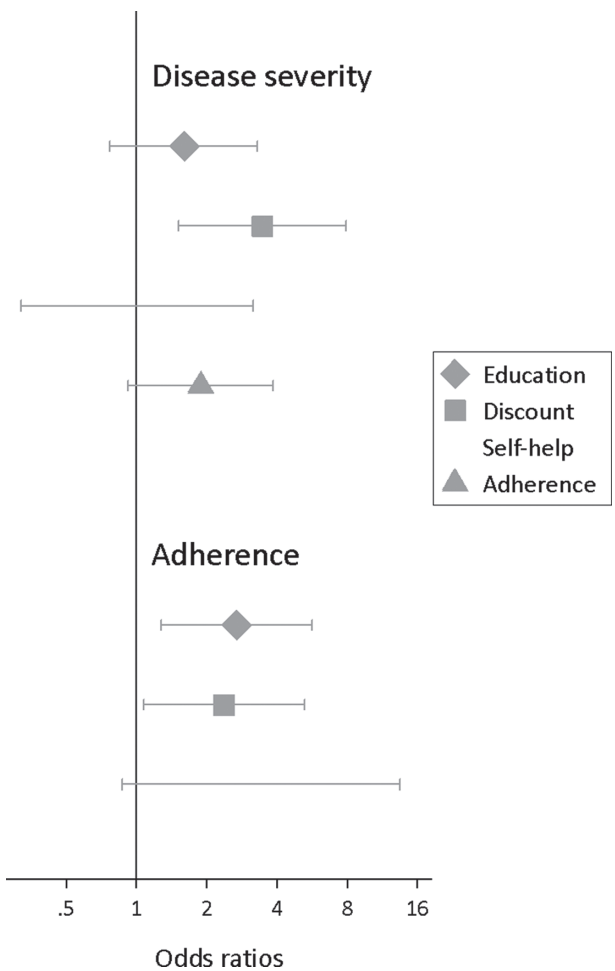
**Background** The occurrence of systemic lupus erythematosus (SLE) varies considerably worldwide, with documented high incidence rates among women of African descent. The clinical course is likely influenced by social determinants, including socioeconomic position (SEP), yet findings remain inconsistent, with little information from the Caribbean diaspora. This study presents the epidemiology of SLE in St. Lucia for the first time, exploring the association of SEP and SLE medication adherence and disease severity.

**Methods** Data have been collected from the only specialist lupus clinic in St Lucia between 1995 and 2017. We explored the effect of selected markers of SEP on disease severity (yes/no), and treatment adherence (yes/no) using logistic regression, adjusting for the effects of age, sex and years since diagnosis at all times. We used education level (primary or secondary education, tertiary education) or patients eligible for treatment cost discount or exemption (yes/no) as indicators of SEP. We also explored the effect of enrolment in a self-help programme on both regression outcomes, and the effect of treatment adherence on disease severity.

**Results** 143 people with SLE have registered at the clinic between 1995 and 2017. The mean age at diagnosis was 32 years (standard deviation 12 years), and 132 (92%) were female, for a female to male ratio of 12 to 1. Since 2010 (a period of full clinic operation) 66 women have been diagnosed with SLE, for a crude incidence rate of 9.3 per 1 00 000 person years (95% CI 7.2 to 11.8). Half (49%) had a severe clinical course, defined as having cerebritis, nephritis, or being on dialysis, and half (50%) were medication adherent at their last follow-up visit. Higher SEP was consistently associated with increased treatment adherence and decreased disease severity (treatment adherence odds ratios ranged from 2.4 to 3.4; disease severity odds ratios ranged from 1.0 to 3.5) (figure 1).

**Conclusion** In St Lucia, among a population of predominantly African descent, and using selected markers of SEP, patients of lower socioeconomic position have more severe disease and lower medication adherence than those of higher socioeconomic position.

**Acknowledgements** Christina Howitt, for assistance with data analysis.




**Abstract LL-01 Figure 1** Odds ratios with 95% confidence intervals for potential predictors of disease severity and treatment adherence

## LL-02 DEPRESSION IN PATIENTS WITH CHRONIC CUTANEOUS LUPUS ERYTHEMATOSUS: PREVALENCE AND ASSOCIATED FACTORS IN A PREDOMINANTLY AFRICAN AMERICAN COHORT FROM THE SOUTHEAST U.S

[1]Jennifer Hong, [2]Gaobin Bao, [3]Tamara Haynes, [4]Laura Aspey, [2]S Sam Lim, [2]Cristina Drenkard*. *[1]Emory University School of Medicine, Atlanta, GA; [2]Department of Medicine, Emory University School of Medicine, Division of Rheumatology, Atlanta, GA; [3]Department of Medicine and Department of Psychiatry and the Behavioral Sciences, Emory University School of Medicine, Atlanta, GA; [4]Department of Dermatology, Emory University School of Medicine, Atlanta, GA*

10.1136/lupus-2018-lsm.112

**Background** Chronic dermatologic diseases in general and cutaneous involvement in patients with systemic lupus erythematosus (SLE) in particular have been linked to increased depression. However, little is known about the burden of depression and its risk factors in patients with primary chronic cutaneous lupus erythematosus (CCLE), the most common type of cutaneous lupus. Additionally, previous studies examining CCLE have included predominantly white patients, despite recent findings indicating that black individuals have higher susceptibility for this condition and experience earlier damage in the disease course. We aimed to examine the prevalence of depression in patients with primary CCLE in the Southeast

U.S and explore sociodemographic, healthcare, and disease-related factors that can impact the risk of depression in this cohort.

**Methods** We conducted a cross-sectional study in a predominantly African American cohort of patients with primary CCLE from the Southeast U.S. Participants were assessed about depression, skin-related quality of life, sociodemographic and healthcare factors using validated self-reported tools. Depression was assessed using the PROMIS depression short form 8a. We conducted Student-T test and ANOVA to examine the severity of depression symptoms across sociodemographic subgroups, and we further explored factors associated with depression using univariate and multivariate analyses.

**Results** Among 106 patients with a documented diagnosis of primary CCLE, 28 (26.4%) had moderate to severe depression. The univariate analysis showed that being employed and insured, reporting higher social support, visiting a primary care physician in the last year, and reporting better physician-patient communication protected against depression. Patient's perceptions of staff disrespect and greater burden of the skin condition on patient's quality of life corresponded with higher risk. In the multivariate analysis, staff disrespect and emotional support were the only factors that increased and reduced the odds of depression, respectively (Staff disrespect: OR 2.35 [95% CI 1.06 to 5.17] per 1-unit score increase; emotional support: OR 0.48 0.35–0.66] per 5-unit score increase).

**Conclusions** Patients with isolated CCLE experience higher rates of depression than the general population. This population may uniquely benefit from routine mental health care such as depression screening and management. Moreover, office staff can undergo educational sessions to ensure fair treatment of all patients, and clinical tools may be implemented to assess patients' emotional support and initiate referral to care-coordinators, support groups, primary care and psychotherapy or psychiatric care as needed.

**Acknowledgements** This study is supported by the Centers for Disease Control and Prevention (CDC) Grant 1U01DP005119.

The findings and conclusions in this report are those of the author(s) and do not necessarily represent the official position of the CDC.

## LL-03 PATIENT-REPORTED OUTCOMES AMONG PEDIATRIC LUPUS NEPHRITIS PATIENTS TREATED WITH CARRA LUPUS NEPHRITIS CONSENSUS TREATMENT PLANS

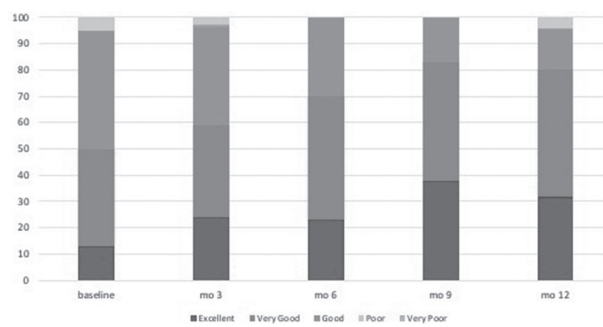
[1]Jennifer C Cooper, [2]Kelly Rouster-Stevens, [3]Tracy Wright, [4]Joyce Hsu, [5]Marisa S Klein-Gitelman, [6]Stacy P Ardoin, [7]Laura E Schanberg, [8]Hermine Brunner, [9]B Anne Eberhard, [10]Linda Wagner-Weiner, [1]Emily von Scheven*, for the CARRA Registry Investigators. *[1]University of California, San Francisco, USA; [2]Emory University School of Medicine, USA; [3]Texas Scottish Rite Children's Hospital, USA; [4]Stanford University, USA; [5]Ann and Robert H. Lurie Children's Hospital of Chicago, USA; [6]Ohio State University College of Medicine, USA; [7]Duke University Medical Center, USA; [8]Cincinnati Children's Hospital Medical Center, USA; [9]Cohen Children's Hospital Medical Center, USA; [10]University of Chicago Hospitals, USA*

10.1136/lupus-2018-lsm.113

**Background** The Childhood Arthritis and Rheumatology Research Alliance (CARRA) developed consensus treatment plans (CTP) for childhood proliferative lupus nephritis (LN) induction therapy to reduce treatment variability and support comparative effectiveness research comparing efficacy and tolerability of Mycophenolate mofetil (MMF) and intravenous cyclophosphamide (IV CYC). The CTPs specify two immunosuppression regimens (IV CYC, oral MMF) and three corticosteroid regimens (primarily oral, primarily IV, and mixed oral/IV). In addition to provider-reported outcomes, we assessed patient-reported outcomes in a pilot observational study.

**Methods** We enrolled 41 subjects with childhood SLE from 10 CARRA sites. Subjects had new-onset biopsy proven proliferative LN and were starting MMF or IV CYC. We collected baseline demographics, disease-related features and patient-reported outcomes, including functional disability (Childhood Health Assessment Questionnaire (CHAQ), range 0–3), Health-related quality of life (HRQOL) (Child Health Questionnaire (CHQ), excellent, very good, good, poor, very poor), well-being (CHQ, range 0–10), and pain (CHAQ, 0–10). With the exception of pain, parents reported outcomes for subjects<10 years of age. We report baseline and 12 month follow-up results.

**Results** The majority of participants were female (83%), mean age was 14 years (SD 2.6). At baseline, SLEDAI ranged from 2–34 (median 13, IQR 10–21) and glomerular filtration rate ranged from 41–151 ml/min/1.73 $m^2$ (median 94, IQR 70–107). Baseline functional ability (CHAQ) ranged from 0–1.75 (n=38) and was abnormal (CHAQ >0) in 55.3% of subjects. By 12 months, there was improvement with 14.8% reporting abnormal functional ability. HRQOL at baseline ranged from excellent to poor (13% excellent, 37% very good, 45% good, 5% poor, n=38) and was improved at 12 months (32% excellent, 48% very good, 16%, good, 4% poor, n=25, see figure 1). Baseline median parent-reported overall wellbeing was 3.0 (IQR 2–5), with 21% reporting doing 'very well' (score=0). At 12 months, overall wellbeing had improved (median 0.5, IQR 0–3) with 50% reporting doing 'very well'. Baseline patient-reported pain ranged from 0 (no pain) to 10 (very severe pain) (median 1, IQR 0–5, n=39). Pain was improved at 12 months (range 0–7, median 0, IQR 0–3, n=27).




**Abstract LL-03 Figure 1** HRQOL over 12 months of follow-up

**Conclusions** Although diagnosed with a severe medical condition and experiencing functional disability, most children reported good to excellent QOL and only minimal pain. After 12 months, the proportion of patients reporting excellent QOL increased, however reduced QOL persisted for many. Further study is needed to elucidate the factors impacting overall QOL in children with SLE, and association with different treatment strategies.

**Acknowledgements** We would like to acknowledge the CARRA Registry Investigators, Dr. Marilyn Punaro for her leadership in the CARRA lupus nephritis CTP development process and Thomas Phillips for his data management assistance. This study was supported by funding from the Arthritis Foundation, Lupus Foundation of America, CARRA and NIAMS.