Methods 56 patients with a mean age of 33 ± 6.3years and with 7.5 ± 3.2years' duration of SLE were enrolled in this study. All patients fulfilled with EULAR/ACR 2019 classification criteria and were evaluated with SLEDAI-2K. Anemia was graded as mild(91–110g/l), moderate(71–91g/l) and severe(51–70g/l). Data was analyzed with spss statistical software.
Results Out of all examined patients 85% were females and 15% males. Mean SLEDAI-2K was 11,26±7,2. 68,4% of patients presented with anemia, in particular 27 patients (47,4%) had mild, 7(12,3)– moderate, 4(7,0%)- severe anemia. According to the study lower values of anemia significantly correlate with high SLEDAI-2K($p<0,01$) and presence of Lupus nephritis($p<0,042$). Diversely, significant association between ESR, CRP and aPL titers and anemia levels was not found. 78,9% of patients with anemia had mucocutaneous manifestations, 57,9%-arthritis, 47,4%-hepatosplenomegaly, 44,7%-pleuritic, 42,1%-pericarditis, 36,8%-lupus nephritis, 28,9%-cerebral vasculitis.
Conclusion Anemia could be used as an additional marker for the evaluation of SLE activity status. In purpose to determine, if specific anemia type is more connected with disease activity, further assessment of hepcidin, ferritin and coombs test is required.

PO.4.84 INFECTIONS IN INFANTS BORN TO MOTHERS WITH SYSTEMIC LUPUS ERYTHEMATOSUS AND THE ROLE OF PRETERM BIRTH

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10.1136/lupus-2022-elm2022.111

Purpose To investigate the risk of infections in the first year of life in infants born to mothers with systemic lupus erythematosus (SLE) compared to infants born to general population comparators, and to examine the role of preterm birth as a mediator of the association.
Methods Liveborn singletons born to mothers with SLE and general population comparators were identified in the Medical Birth Register (MBR; 2006–2012), sampled from the Swedish Lupus Linkage (SLINK) cohort (1987–2012). SLE was defined by ≥2 International Classification of Diseases (ICD)-coded visits in the National Patient Register (NPR) and MBR, with ≥1 visit before pregnancy. Infections were defined as any ICD-coded visit listing an infection diagnosis in the in- and outpatient records of the NPR or dispensed antibiotic prescriptions in the Prescribed Drug Register. Hospitalized infections were defined as a primary ICD-coded hospitalization. Modified Poisson regression models estimated risk ratios and 95% confidence intervals (RR; 95% CI) of infant infection associated with maternal SLE adjusted for maternal age, first-trimester smoking, and calendar year. Causal mediation analysis estimated the percentage of the total effect explained by preterm birth (<37 weeks).
Results Of 441 SLE offspring, 17% had an infection diagnosis in the first three months of life compared to 12% of 4,485 non-SLE offspring, with a corresponding RR of 1.4 [95% CI 1.1–1.7] which was greater for infants born preterm (1.8 [95% CI 1.2–2.9]). Hospitalized infections occurred in 5% of SLE offspring and 3% of non-SLE offspring in the first three months (RR 2.1 [95% CI 1.3–3.3]), and in 9% of SLE offspring and 5% of non-SLE offspring in the first year (RR of 1.6 [95% CI 1.1–2.2]), regardless of being born preterm. Fifty-two percent of the total effect of maternal SLE on any infection in the first three months was mediated through preterm birth.
Conclusions When looking at the first three months, maternal SLE was associated with a nearly 40% higher risk of any infection and a two-fold higher risk of hospitalized infections. Preterm birth may explain half of the association between maternal SLE and any infection in the first three months of life.

PO.4.85 WHAT ARE THE SEX DIFFERENCES IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS?

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10.1136/lupus-2022-elm2022.112

Purpose Systemic lupus erythematosus (SLE) is a chronic, multiorgan, systemic autoimmune disease that is more common in women than men. Men with SLE diagnosed often have a more aggressive clinical course with rapid accrual of organ damage, resulting in a poorer prognosis compared with women with SLE.
Methods This cross-sectional study included 227pts: 69% (n=156) females, aged 35,4±0,8years and 31% (n=71) males, aged 36,1±1,3 years with SLE according to SLICC/ACR 2012 criteria, attending a routine visit at our Clinic between February 2015 and February 2020. Regarding SLE-specific evaluations, patients were assessed for age at onset, disease duration, cumulative organ involvement, cumulative serology and ongoing therapy, SLE Disease Activity Index (SLEDAI-2K) and the Systemic Lupus International Collaborating Clinics damage index (SDI).
Results There were no sex differences in: mean age, age at onset (24,5±9,4 years in females and 25,6±11,0 years in males), disease duration (133,7±9,6 and 131,4±12,9 months), SLEDAI-2Kscore (9,51±0,59 and 9,15±0,98), SDI score (1,91 ±0,16 and 1,85±0,2), steroid use duration (99,8±8,3 and 89,8±10,4 months), taking immunosuppressants in the disease course (49% and 53%). SLE men compared to SLE women had a higher incidence of discoid cutaneous lupus – 23% versus 7%, $p<0,001$, venous thromboses – 27% vs 15%, $p<0,05$ and cumulative prednisolone dose -80,1±6,6 vs 39,1±3,4 grams, $p<0,001$. Oral ulcers (28% vs 46%, $p<0,05$), Sjögren's syndrome (1% vs 11%, $p<0,05$) and taking hydroxychloroquine (30% vs 63%, $p<0,00001$) appears to be less common in men than in women. No differences were found in the frequency of other clinical and serological disorders (women and men): acute cutaneous lupus – in 63% vs 62%, joint involvement – 90% vs 96%, serositic involvement – 42% vs 54%, nephritis – 53% vs 62%, neuropsychiatric involvement – 30% vs 31%, haematological involvement – 60% vs 46%, ANA - 85% vs 82%, other serological disorders (anti-dsDNA or anti-Sm, or low complement) – 81% vs 69% ($p=0,05$), antiphospholipid antibodies – 55% vs 41%, antiphospholipid syndrome – 21% vs 30%, arterial thromboses – 11% vs 8%, fever – 25% vs 30%, Raynaud phenomenon – in 25% vs 30% of patients ($p>0,05$ in all cases).

Conclusions Men with SLE are reported to have more frequent of discoid cutaneous lupus, venous thromboses, high cumulative prednisolone dose and low adherence to hydroxychloroquine therapy. Female sex is associated with a greater frequency of oral ulcers and Sjögren's syndrome.

PO.4.86 CLUSTER ANALYSIS OF INITIAL LABORATORY FINDINGS IDENTIFIES THREE CLINICAL CLUSTERS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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10.1136/lupus-2022-elm2022.113

Purpose Systemic lupus erythematosus (SLE) is a heterogeneous disorder with diverse manifestations. This study tried to classify patients with SLE by combining laboratory values when they were classified as SLE.
Methods We performed hierarchical cluster analysis with laboratory results at the time of classification of SLE. Linear discriminant analysis was performed to construct a model for predicting the clusters.
Results The cluster analysis using data of 389 patients with SLE yielded 3 clusters with different laboratory characteristics. Cluster 1 had the youngest age at diagnosis and showed significantly lower lymphocyte, hemoglobin, platelet count and complement levels, and the highest erythrocyte sedimentation rate (ESR) and anti-dsDNA antibody. Cluster 2 showed higher white blood cell (WBC), lymphocyte and platelet, and lower ESR and anti-dsDNA antibody. Cluster 3 revealed the highest titer of antinuclear antibody and lower WBC and lymphocyte count. For 171 months follow-up, Cluster 1 showed higher number of cumulative manifestations compared to Cluster 2 and 3 with higher prevalence of malar rash, alopecia, arthritis and renal disease. In addition, the dose of glucocorticoids and the proportion taking immunosuppressive agents were higher in Cluster 1 than Cluster 2 or Cluster 3. However, damage index and mortality didn't differ significantly among 3 Clusters.
Conclusions Cluster analysis using initial laboratory results could identify 3 Clusters which had a distinct clinical characteristic in patients with SLE, with 84.5% accuracy. Although organ involvements and management patterns differ among the Clusters, damage and mortality didn't differ.

PO.4.87 RACIAL DISCRIMINATION AND TELOMERE SHORTENING: FINDINGS FROM THE BLACK WOMEN'S EXPERIENCES LIVING WITH LUPUS (BEWELL) STUDY

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10.1136/lupus-2022-elm2022.114

Purpose Black women have the highest prevalence of systemic lupus erythematosus (SLE) in the U.S., and also experience greater severity and worse disease outcomes compared to their white counterparts. Racial discrimination may contribute to more aggressive SLE progression among Black women through physiologic channels engaged by the stress response, resulting in faster telomeric aging as indexed by the rate of leukocyte telomere length (LTL) shortening. Using longitudinal data, this study examined if racial discrimination is associated with LTL among Black women with SLE.
Methods Data were from the Black Women's Experiences Living with Lupus (BeWELL) Study, a prospective cohort study of 438 Black women, all with a validated diagnosis of SLE and living in metropolitan Atlanta, Georgia. Participants were recruited from April 2015 to May 2017. Linear regression was used to examine LTL assayed from dried blood spots collected at year 1 follow-up, measured as the relative telomere to single copy gene (T/S) ratio. Incident experiences of racial discrimination between baseline and year 1 follow-up were captured in surveys administered at 6-month and year 1 follow-up. Participants were asked how often they had experienced racial discrimination in the past 6 months in the following settings: at school; getting a job; at work; getting housing; medical care; service at a store or restaurant; obtaining credit or a loan; on the street or in a public setting; and from the police or in the courts. Models adjusted for baseline LTL, baseline lifetime racial discrimination, age, years of diagnosis, socioeconomic factors, and other health-related characteristics. Participants who died between baseline and year 1 follow-up (n=9), were missing data on LTL (n=18), and additionally were missing data on any other study variable (n=36) were excluded from analyses, resulting in a total analytic sample size of 375.
Results Examining the interaction between incident racial discrimination and age showed that compared to those reporting no new experiences of racial discrimination in the past year, the negative relationship between age and year 1 LTL was steeper among those reporting high incident racial discrimination (b=-.04, SE=.02, p=.03). The LTL shortening by age was faster among those experiencing high vs. no new experiences of racial discrimination. High racial discrimination was associated with faster LTL shortening particularly among older participants.
Conclusions Racial discrimination has been shown to be a health risk factor among Black Americans, including among Black women living with SLE. Our findings suggest that one mechanism through which racial discrimination may become biologically embedded in this population is via its impact on the telomere maintenance system. This study further demonstrates the need for anti-discrimination policies and practices—for example, in medical care as well as in other societal domains—to address racial inequities in health.

PO.4.89 HASHIMOTO'S THYROIDITIS IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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10.1136/lupus-2022-elm2022.115

Purpose Hashimoto's thyroiditis is an autoimmune disease affecting the thyroid, which may or may not be accompanied by hypothyroidism. Systemic lupus erythematosus (SLE)