Abstract LSO-049 Table 1 Patient demographics

Patient Demographics	N
Gender	
Female	246
Male	26
Race	
Caucasian	120
Black or African American	143
American Indian or Alaska Native	2
Asian	4
Multiple Race	1

assessed SLE disease activity (>4 indicated active SLE). A multinomial logistic regression model analysis was used to determine association.

Results There was no correlation between cumulative SVI and disease activity (OR 1.15, 95% CI=0.67–1.99). Compared to patients with invulnerable cumulative SVI, vulnerable patients were 2.31 times as likely to have higher dose of prednisone (1.36–3.92). Of the specific SVI dimensions, socioeconomic status (2.47, 1.43–4.27) and household composition (2.21, 1.28–3.83) associated with higher prednisone dose, whereas race/ethnicity/language (1.57, 0.92–2.68) and housing/transportation (1.08, 0.65–1.80) had no statistically significant association.

Conclusions Patients who live in more socially vulnerable areas are more likely to be prescribed higher doses of prednisone, specifically patients vulnerable in terms of socioeconomic status and household composition. This is worrisome as this likely will contribute to a higher burden of damage. These data highlight that access to social determinants is associated with health inequities.

LSO-050 MORTALITY-RATE IN JUVENILE-ONSET SYSTEMIC LUPUS ERYTHEMATOSUS IN PERSPECTIVE: RESULTS FROM A POPULATION-BASED COHORT STUDY IN NORWAY

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Background There are limited population-based data on mortality in juvenile Systemic Lupus Erythematosus (SLE). Here, we examine standard mortality rate (SMR) in juvenile SLE and compare with young- and adult-onset subsets in a large population-based SLE cohort.

Methods The population-based cohort included all SLE patients who were resident in Southeast Norway 1999 – 2017, had SLE diagnosis confirmed by chart-review and met the 1997 ACR criteria for SLE. Cases with new-onset disease 1999–2017 were defined as inception cases. We stratified the cohort by age at diagnosis, with juvenile SLE diagnosed age <16, young-onset age 16–29 and adult-onset age ≥30. Lupus nephritis (LN) was defined by 1997 ACR criteria for SLE. We compared ratios with X2-test, estimated risk of death by SMR using 15 controls per SLE case (individually matched to case by age, sex and ethnicity) and survival in juvenile inception cases by Kaplan-Meier.

Results The cohort included 1300 SLE cases; of whom 93 (7%) were diagnosed at age<16, 461 (35%) at age 16–29

Abstract LSO-050 Table 1 Patient demographic and mortality in Systemic Lupus Erythematosus; stratified by age at diagnosis

	Age at SLE diagnosis		
	<16 years (juvenile) n=93	16-29 years (young-adult) n=461	≥30 years (adult) n=746
Inception cases, n (%)	37 (40)	197 (43)	439 (59)*
Female, n (%)	78 (84)	421 (91)*	628 (84)
Of European descent, n (%)	77 (83)	386 (92)*	678 (91)*
Cumulative ACR criteria, median (IQR)	6 (5-7)	5 (5-6)	5 (4-6)
Age at diagnosis, median (IQR)	14 (12 - 15)	23 (20 - 26)	44 (37-53)
Lupus nephritis, n (%)	60 (65)	211 (46)**	201 (27)**
Follow-up years, median (IQR)	18 (9-23)	19 (10-23)	16 (10-22)
Deceased, n (%)	12 (12)	55 (12)	234 (31)**
Years from diagnosis to death, median (IQR)	34 (24 - 45)	33 (21 - 41)	17 (10-23)
Age at death, median (IQR)	45 (36 - 56)	55 (44-64)	71 (62-78)
Standard Mortality Rate (95 % CI)	7.2 (3.3 - 14)	3.8 (2.8-5.1)	2.0 (1.8-2.4)

IQR: interquartile range CI: confidence interval *P-value compared to juvenile onset < 0.05 **p-value compared to juvenile onset< 0.01

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and 746 (57%) at age≥30 (table 1). Juvenile SLE developed significantly more LN than those with later disease-onset (table 1). None of the juvenile inception cases died during follow-up and 10-year survival was 100% (99% in matched-controls).

The SMR was significantly higher in juvenile and young adult-onset than in adult-onset, with highest SMR in juvenile-onset (table 1). SMR in men and women with juvenile-onset was 6.3 (95% CI 0.6–38) and 7.4 (95% CI 3.4–16), respectively. In juvenile SLE, presence of LN increased SMR to 9.2 (95% CI 3.6–22). Correspondingly, in non-LN juvenile patients SMR was 4.3 (95% CI 0.8–16).

Conclusions Early disease-onset greatly increase SMR in SLE to a maximum of 7.2 in juvenile-onset, twice as high as in juvenile type-1 Diabetes.[1] We find no sex-specific differences in SMR, but juvenile-onset with LN has the highest SMR.

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LSO-051 SMOKING AT ONSET OF SYSTEMIC LUPUS ERYTHEMATOSUS COMPARED WITH AGE-MATCHED CONTROLS

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Background The association between cigarette smoking and the risk of developing systemic lupus erythematosus (SLE) remains a matter of debate. The aim of this study is testing the hypothesis that there is a larger proportion of smokers among SLE patients at symptom debut compared to controls.

Methods Two hundred and fifty five SLE patients fulfilling the ACR classification criteria responded to a questionnaire regarding smoking in 2010. The year of symptom development was registered. Juvenile SLE was defined as onset before 16 years of age. All men, participants below 16 years, and patients born before 1920 were excluded due to lack of proper matches in the control group. Each of the remaining 200 SLE patients had three age-matched controls. The control group consisted of 1050 females who answered a questionnaire of various health issues including smoking habits in 2012. The smoking status in the SLE patients at onset of symptoms was compared with controls. The Cochran-Mantel-Haenszel (CMH) test was used to determine the association between smoking and SLE.

Results The pooled odds ratios (OR), 95% confidence intervals for OR as well as p-values for test of the hypothesis that OR = 1 are shown in the table 1. It is found that OR >= 1 in all groups, but only statistically significant in the age group 30 – 35 and for all ages combined.

Conclusions In this study of 200 women with SLE and age-matched controls, current smoking was associated with a modestly elevated risk of SLE (OR 1.49, p<0,03). This corresponds with a previous meta study on SLE.[1] However, smoking is complex phenomenon where cultural and socioeconomic factors play a part. The relationship between cigarette smoking and SLE should be addressed in a prospective manner.

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LSO-052 COMPARATIVE CARDIOVASCULAR RISK IN PATIENTS WITH OLDER-ONSET SYSTEMIC LUPUS ERYTHEMATOSUS: A NATIONWIDE RETROSPECTIVE COHORT STUDY IN KOREA

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Background Patients with systemic lupus erythematosus (SLE) have increased mortality related to cardiovascular disease (CVD) and the age is one of important risk factors for the development of CVDs. However, the comparative risk of CVDs in patients with older onset SLE has not been well studied. This study aimed to compare the CVD risk in

Abstract LSO-051 Table 1 Odds ratio of SLE patients smoking versus not smoking at onset of disease compared with controls

Age group	Smokers SLE	Smokers control	OR	90% CI for OR	p-value
16-19	14/49	41/147	1.03	(0.5, 2.13)	0.927
20-24	19/38	48/114	1.53	(0.64, 3.63)	0.351
25-29	14/33	38/99	1.20	(0.52, 2.76)	0.683
30-34	10/17	12/51	7.00	(1.62, 30.26)	0.005
35-39	12/25	26/75	1.83	(0.69, 4.86)	0.225
40-44	6/16	18/48	1.00	(0.25, 4.0)	1.000
45-54	4/14	9/42	1.50	(0.35, 6.46)	0.549
>55	3/8	6/24	2.00	(0.3, 13.44)	0.467
All ages	82/200	198/600	1.49	(1.04, 2.13)	0.031

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