Abstract 1303 Table 2 Outcomes within 10 years of follow-up. Values are expressed as mean $\pm$ SD or n (%)

Outcomes	EULAR/ACR score < 20 N=415	EULAR/ACR score $\geq$ 20 N=452	P value
Death	24 (5.8)	44 (9.7)	0.03
Time to death, years	5.0 $\pm$ 2.9	3.6 $\pm$ 3.1	0.07
Increase in SDI ^a	167 (40)	210 (46)	0.02
Time to SDI ^a increase, years	2.9 $\pm$ 2.7	3.0 $\pm$ 2.9	0.52
SDI ^a score [#]	0.97 $\pm$ 1.42	1.28 $\pm$ 1.47	0.03
SDI ^a Domains [#]			
Ocular	20 (10.26)	34 (15.96)	0.08
Neurologic	19 (9.74)	28 (13.15)	0.28
Renal	5 (2.56)	19 (8.92)	0.006
Pulmonary	3 (1.54)	9 (4.23)	0.10
Cardiovascular	22 (11.28)	14 (6.57)	0.09
Vascular	6 (3.08)	8 (3.76)	0.70
Gastrointestinal	5 (2.56)	6 (2.82)	0.87
Musculoskeletal	38 (19.49)	54 (25.35)	0.15
Skin	18 (9.23)	21 (9.86)	0.82
Gonadal	1 (0.51)	3 (1.41)	0.35
Diabetes	3 (1.54)	14 (6.57)	0.01
Malignancy	5 (2.56)	3 (1.41)	0.40

[#]At 10 years of follow-up, N = 190 and 206 in the low and high score groups respectively.

^aSLICC/ACR Damage Index

Abstract 1303 Table 3 Univariate and Multivariable Cox Regression analysis. Factors associated with damage accrual and death within 10 years of follow-up

VARIABLE	Univariate Cox Regression		Multivariable Cox Regression	
	Hazard Ratio (95% CI)	P value	Hazard Ratio (95% CI)	P value
First damage accrued (any increase in SDI^a)				
Age at first visit	1.02 (1.01-1.03)	<0.001	1.02 (1.01-1.03)	<0.001
Caucasian vs non-caucasian	0.88 (0.71-1.08)	0.22	0.89 (0.72-1.11)	0.31
EULAR/ACR score < or $\geq$ 20	1.21 (0.98-1.48)	0.07	1.3 (1.04-1.57)	0.02
First damage accrued (Initial SDI^a >0)[#]				
Age at first visit	1.02 (1.01-1.03)	<0.001	1.02 (1.02-1.03)	<0.001
Caucasian vs non-caucasian	0.88 (0.71-1.10)	0.27	0.91 (0.73-1.14)	0.42
EULAR/ACR score < or $\geq$ 20	1.25 (1.01-1.54)	0.04	1.33 (1.07-1.64)	0.009
Mortality				
Age at first visit	1.05 (1.03-1.06)	<0.001	1.05 (1.03-1.07)	<0.001
Caucasian vs non-caucasian	1.46 (0.84-2.57)	0.17	1.48 (0.84-2.62)	0.17
EULAR/ACR score < or $\geq$ 20	1.66 (1.01-2.73)	0.04	2.13 (1.28-3.54)	0.003

[#]57 patients who had damage at entry were excluded for the analysis.

^aSLICC/ACR Damage Index.

with a score $\geq$ 20, (table 2). Individuals in the $\geq$ 20 group had twice the probability of dying compared to patients with the lower score, the hazard ratios with significant p values confirmed this finding (table 3).

Conclusion A EULAR/ACR score $\geq$ 20 is an indicator of damage accrual and mortality in SLE.

1304 FACTORS IN LUPUS DIAGNOSIS

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Background Lupus is a complex, chronic autoimmune disease affecting an estimated 1.5 million Americans.

Lupus symptoms are heterogeneous. Suboptimal diagnostic tests have contributed to diagnostic delay. Reducing diagnostic time is critical to preventing poor long-term outcomes. An objective of the 2020 survey sought to understand how access to healthcare is associated with diagnostic delay factors.

Methods A 25-question retrospective cross-sectional online survey on diagnostic time factors was developed by the Lupus Foundation of America (LFA) in partnership with Exagen. Using convenience sampling, individuals who self-reported SLE were recruited and 1,313 responded. Descriptive statistics and chi-square tests were conducted.

Results Almost half of respondents (45.4%) were diagnosed within a year of their first health care provider visit to discuss symptoms, while 29.1% reported five or more years to diagnosis. Factors delaying diagnosis may include misdiagnosis and the number of visited doctors. On average, respondents saw 2.8 different types of doctors before diagnosis. Nearly a third reported they were diagnosed with anxiety (31.7%), depression (29.8%), or fibromyalgia (23.0%) before their lupus diagnosis, and 21.8% were told nothing was wrong with them.

Decreased care access and high costs associated with delayed lupus diagnosis. More than a third (35.9%) of respondents diagnosed after five or more years reported that out-of-pocket costs were too high, compared to 22.8% diagnosed within a year (table 1). Over half diagnosed after a year cited long wait times for specialist appointments,

Abstract 1304 Table 1 Challenges to Care in Lupus Diagnosis and Time to Diagnosis (N-1,302)

Challenge Reported	Percent of Respondents (%)	P-value
Out-of-pocket costs too high		0.001
< 1 year	22.8	
1 – 4 years	35.2	
5+ years	35.9	
Long wait times for specialists		0.001
< 1 year	39.4	
1 – 4 years	55.4	
5+ years	58.3	
Insurance did not cover costs of services		0.003
< 1 year	8.6	
1 – 4 years	13.9	
5+ years	15.3	
Long wait times for PCP		0.001
< 1 year	8.3	
1 – 4 years	15.4	
5+ years	17.2	
Not enough doctors nearby to treat Lupus		0.03
< 1 year	25.2	
1 – 4 years	32.2	
5+ years	31.9	

compared to 39.4% of those diagnosed within a year. Respondents diagnosed after a year were more likely to report insurance not covering costs, long wait times for appointments with primary care physicians (PCP), and lack of nearby doctors treating lupus.

Conclusion Multiple factors associated with lupus diagnosis delays, including delayed access to specialists, onerous health care costs, and health insurance obstacles. An ongoing shortage of rheumatologists may further magnify the delay in diagnosis and explain the apparent long wait times for specialists, misdiagnosis, and increasing costs. Further practitioner education, rheumatology provider recruitment, and studies examining reasons for lupus diagnosis delays may help us better understand and reduce inequities in reaching a prompt lupus diagnosis.

It is important to recognize the limitations of the study; the convenience sample study design lacks the rigor of random sampling, some questions may have introduced recall bias, and socioeconomic status and disease burden at time of diagnosis weren't addressed in this survey.

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1400 – Lupus-targeted therapeutics

1401

EFFECTS OF ANIFROLUMAB ON RENAL DISEASE IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background The type I interferon (IFN) receptor antibody, anifrolumab, has shown efficacy in patients with systemic lupus erythematosus (SLE) in the phase 3 TULIP-1 and TULIP-2 trials. Type I IFN dysregulation is associated with lupus nephritis (LN) pathogenesis. Pooled TULIP data were analyzed to assess baseline characteristics of patients with and without renal involvement and to evaluate the effects of anifrolumab on renal disease.

Methods TULIP-1 and TULIP-2 were randomized, placebo-controlled trials of intravenous anifrolumab in patients with moderate to severe SLE despite standard therapy, which excluded patients with severe active LN. Renal involvement at baseline was defined as any of the following: British Isles Lupus Assessment Group (BILAG)-2004 renal score A–C; SLE Disease Activity Index 2000 (SLEDAI-2K) renal score >0; urine protein–creatinine ratio (UPCR) >0.5 mg/mg. Baseline characteristics were evaluated in patients with and without renal involvement, and the following endpoints were compared for the anifrolumab 300 mg and placebo groups: cumulative UPCR (area under the curve, AUC) through Week (W)52; percentage of patients with UPCR >0.5 mg/mg at baseline who improved to UPCR ≤0.5 mg/mg at W52; cumulative glucocorticoid (GC) use (AUC) through W52; and percentage changes in complement C3/C4 from baseline to W52.

Results Of the 726 patients in TULIP-1/2 (anifrolumab, n=360; placebo, n=366), 99 had renal involvement at baseline (anifrolumab, n=45; placebo, n=54), 57 of whom had

Abstract 1401 Table 1 Renal endpoints in TULIP-1 and TULIP-2

Endpoint (baseline to Week 52)	Placebo	Anifrolumab 300 mg
UPCR AUC^a		
n	54	45
LS mean (SE)	271.8 (54.8)	217.7 (60.0)
LS mean difference (SE), 95% CI	−54.1 (54.3), −161.9, 53.6	
Improvement from >0.5 to ≤0.5 mg/mg UPCR^b		
n	33	24
Patients with improvement (%)	36.3	41.2
Difference,% (SE), 95% CI	4.9 (13.3), −21.1, 30.9	
Glucocorticoid AUC^a		
n	54	45
LS mean (SE)	3524.5 (339.0)	3314.2 (365.2)
LS mean difference (SE), 95% CI	−210.3 (332.6), −870.7, 450.1	
Change in C3/C4 (%)^c		
C3		
n	31	21
Mean (SE)	20.3 (6.2)	26.6 (5.0)
C4		
n	19	14
Mean (SE)	29.1 (12.0)	38.7 (13.8)

AUC, area under the curve; CI, confidence interval; LS, least squares; UPCR, urine protein–creatinine ratio; SE, standard error; n, number satisfying baseline inclusion criteria for subgroup.

^aPatients with baseline renal involvement; analysis of covariance.

^bStratified Cochran–Mantel–Haenszel.

^cPatients with renal involvement and abnormal C3/C4 at baseline.

UPCR >0.5 mg/mg (anifrolumab, n=24; placebo, n=33). Patients with vs without renal involvement had a lower mean age (37.8 vs 42.4 years) and were more likely to be male (14.1% vs 6.1%), Asian (16.2% vs 9.6%), IFN gene signature high (89.9% vs 81.5%), and anti-dsDNA positive (69.7% vs 40.4%); have a SLEDAI-2K score ≥10 (91.9% vs 68.4%); and be receiving GC ≥10 mg/day (67.7% vs 49.1%) or mycophenolate (26.3% vs 11.5%) at baseline. Among patients with baseline renal involvement, anifrolumab treatment was associated with a greater improvement vs placebo in cumulative UPCR (AUC) through W52 (table 1). More patients improved from UPCR >0.5 mg/mg at baseline to ≤0.5 mg/mg at W52 with anifrolumab vs placebo (table 1). Among patients with renal involvement, cumulative GC use (AUC) through W52 was lower with anifrolumab vs placebo and there were greater improvements in C3/C4 from baseline to W52 (table 1).

Conclusions TULIP data suggest renal benefit with anifrolumab in patients with SLE with mild/stable renal disease, supporting further investigation into anifrolumab's efficacy in patients with active LN.

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1402

AUGMENTED GLUCOSE DEPENDENCY OF AUTOREACTIVE B CELLS PROVIDES A TREATMENT TARGET FOR LUPUS

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