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### IMMUNE STATUS TO MEASLES IN A U.S. LUPUS CLINIC SERVING PATIENTS WITH LIMITED ACCESS TO HEALTHCARE

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**Background** Infections in patients with systemic lupus erythematosus (SLE) are a leading cause of morbidity and mortality. Preventive measures such as immunizations can reduce this burden. The United States experienced a surge in measles infections with outbreaks totaling more than 1,000 cases in 2019. Most of these outbreaks were associated with communities opposed to vaccination for varying reasons. Little attention has been given to communities at risk for measles due to limited access to health care. Current guidelines for screening prior to immune modulating therapy emphasize tuberculosis, opportunistic infections, viral hepatitis, and HIV, but do not discuss measles. Our clinic serves a majority Hispanic, Central American born population with limited access to healthcare. Measles seroprevalence studies of Central American countries have shown less than optimal rates of immunity. The CDC defines measles immunity as a positive titer, or evidence of 2 measles vaccines, or birth prior to 1957. The population threshold for herd-immunity for measles is generally accepted to be 92–94% immune.

We seek to describe immune status to measles with current immunization status in our cohort of underserved patients with rheumatic diseases.

**Methods** Cross-sectional with a convenience sample of 95 patients with SLE born after 1957 who were seen in a community-health lupus clinic in 2019. All patients were participants in a natural history study of SLE. Titer for anti-rubeola IgG was requested for each patient with their routine clinical lab draw. Immunization records were requested from primary care providers for patients with negative or equivocal titers.

Information on demographics and willingness to be vaccinated in the future were collected.

**Results** We found evidence of sub-optimal levels of immunity within our cohort. Eleven patients (11.5%) had negative or equivocal titers, and none had records documenting prior measles immunization. Only 2 of the 11 non-immune patients were eligible to receive a live vaccine and both of those patients indicated willingness to receive the MMR vaccine at a future visit. Given the small size of the non-immune group, our study was not sufficiently powered to detect differences across groups by region of birth.

**Conclusions** Our study shows sub-optimal levels of immunity to measles for our cohort of underserved patients with SLE and particularly highlighting missed opportunity for immunization prior to immunosuppression in patients with SLE. In this manner we expand the public health conversation concerning measles immunization in the United States. Not only is this an issue to address in anti-vaccination communities, but it is an important factor in communities with limited access to healthcare affected by rheumatic diseases such as SLE. Our results suggest that screening titers for measles should be considered by rheumatologists prior to the start of immunosuppression. Given that rheumatology patients living in communities with limited access to healthcare are at further risk due to their dysregulated immune systems and immunosuppressive therapies, both rheumatologists and primary care providers can reduce infection risk in these communities by updating immunizations in patients and family members.

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### DOES CELIAC DISEASE DIAGNOSIS MODIFY THE GAME RULES IN LUPUS PATIENTS? A 7 CASE SERIES REPORT

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**Background/Purpose** Autoimmune disorders tend to be aggregated since genetic, epigenetic and environmental pathogenic factors are usually common for several diseases. Specifically celiac disease (CD) is an uncommon comorbidity of Systemic Lupus Erythematosus (SLE), but seems to be extremely underdiagnosed.

We aimed to describe the SLE disease evolution after the CD diagnosis and the gluten free diet (GFD).

**Methods** An observational ambispective study including patients with prior diagnosis of SLE and posterior diagnosis of CD was performed. The moment since GFD was started was registered. Clinical characteristics of SLE were categorized like in RELESSER study. The first manifestation was considered only if counts in SLEDAI index.

**Results** 7 patients were included (all women) with a mean age of 45.14 (11.43) years old. SLE had a median evolution of 15 (2.25, 87) months. First manifestation of the disease was reported 48 (24, 84) months before. Domains mainly affected are mucocutaneous, hematological, articular and gastrointestinal. Six patients had history of recurrent aphthosis, which improved in all cases. Only 2 patients had positivity to anti-

**Abstract P60 Table 1** Demographics of patients with lupus tested for measles immunity

	Immune*	Non-immune
<b>N</b>	84	11
<b>Age, mean, SD</b>	44.9 ± 9.1	41.4 ± 7.7
<b>Gender, %, n</b>		
Male	7 (8.3%)	1 (9%)
Female	77 (91.6%)	10 (90.9%)
<b>Ethnicity, %, n</b>		
Hispanic or Latino	51 (60.7%)	6 (54.5%)
Not Hispanic or Latino	33 (39.2%)	5 (45.4%)
<b>Race, %, n</b>		
Black/African American	16 (19%)	2 (18.1%)
White	39 (46.4%)	2 (18.1%)
Asian	9 (10.7%)	1 (9%)
Multiracial/Other	20 (23.8%)	6 (54.5%)
<b>Region of Birth, %, n</b>		
USA	19 (22.6%)	4 (36.3%)
Mexico and Central America	35 (41.6%)	4 (36.3%)
South America and Caribbean	18 (21.4%)	2 (18.1%)
Asia	8 (9.5%)	0
Africa and Middle East	4 (4.7%)	1 (9%)

\*Immune as defined as rubeola IgG >30 AU/mL.