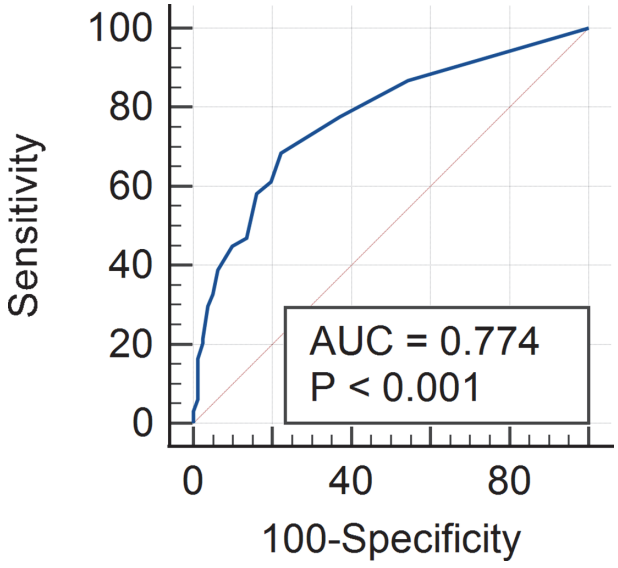

Abstract 1120 Figure 1 Receiver Operating Characteristic (ROC) curve of ΔPGA for predicting flare. AUC = Area under the curve.

between 2-3. The ROC curve for the performance of ΔPGA in predicting flare is shown in figure 1. The area under the curve was 0.774 (SE .034), p<0.001. A ΔPGA of 0.3 is associated with the highest Youden's index.

Conclusion Preliminary results from this small observational study suggest that the MCID for the PGA is 0.3. Larger studies evaluating the ΔPGA and flare, scored by multiple physicians are necessary.

1121 EVALUATION OF COMORBIDITIES AND DAMAGE IN CANADIAN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background Systemic Lupus Erythematosus (SLE) is a chronic autoimmune disease with a wide array of clinical manifestations, treated with corticosteroids and long term immunosuppressants to reduce the disease activity and damage. Our objectives were to examine a Canadian cohort of SLE patients in comparison to the general Canadian population to examine potential risk factors for comorbidities and disease damage in SLE patients. We hypothesize that SLE patients accumulate more damage and comorbidities with greater disease activity and corticosteroid exposure over time compared to the general population.

Methods We explored the Canadian Network for Improved Outcomes in SLE (CaNIOS) registry, a multi-centred cohort of Canadian SLE patients, to identify prevalence of damage using the SLICC SLE Damage Index (SDI) and comorbidity using the Charlson Comorbidity Index (CCI). We also performed an age-matched data analysis to compare the comorbidities prevalence between the CaNIOS registry and the general Canadian population (Canadian Community Health Survey). Exploratory analysis was done using descriptive statistics. Univariable analysis was performed to identify potential predictors of comorbidities and damage in the CaNIOS SLE population at baseline. Variables that were significant at the univariable level were included in Generalized Linear Model (GLM).

Results 603 SLE patients from the CaNIOS registry were included, mean age 50.9 years (SD=14.6), average disease duration 14.2 years (SD=11.9), 91% being female. Mean SLE disease activity score (SLEDAI) was 3.1 (SD 3.5) and mean ACR classification criteria 5.3 (1.5). Mean CCI was 1.33 (SD=0.69), and mean SDI was 1.34 (SD=2.04). The most common comorbidities in CaNIOS patients were cerebrovascular disease (6.5%), followed by solid tumours (5.8%). Compared to their age-matched general population counterparts, SLE patients had higher rates of cancer (7.8% vs 2%) and cerebrovascular disease (6.5% vs 1.8%) (p<0.0001). Multivariable GLM showed age to be a significant predictor for increased comorbidities (p<0.05). Baseline risk factors associated with increased damage (SDI) were age, longer disease duration, higher ACR scores, current smoking and prednisone use within the last year (p<0.05). Female gender (p<0.0160), a recent onset of disease (<12 months) (p<0.0001) and intravenous steroid use (p<0.0286) were found to be associated with less disease damage.

Conclusions Canadian lupus patients have a greater burden of certain comorbidities compared to the general population. Identifying the risk factors associated with comorbidities and greater disease damage is a very important step in treating those patients.

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1122 VALIDATION OF A NOVEL LUPUS MULTIVARIABLE OUTCOME SCORE AS AN OUTCOME MEASURE FOR SYSTEMTIC LUPUS ERYTHEMATOSUS TRIALS

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Background Development of effective new Systemic Lupus Erythematosus (SLE) treatments requires a validated responder index responsive to clinically meaningful change and relevant to clinical practice. To address this challenge, we have recently developed a new Lupus Multivariable Outcome Score (LuMOS) to optimize discrimination between outcomes of actively treated patients *versus* those on placebo.[1] We now report on external validation of LuMOS in two independent SLE clinical trials.

Methods Validation was carried out in the Illuminate trials that evaluated tabalumab (TB) in SLE. All participants in both Illuminate 1 and 2 trials met the ACR classification criteria for SLE and all were included in our analyses. To adapt LuMOS for use with laboratory results assessed on different platforms than used in the trials of belimumab employed to generate the original LuMOS outcome score.[1] we calculated a standardized score using z-score transformations. For validation, in each of the Illuminate trials, we calculated LuMOS scores at week 52 for all participants receiving either placebo or one of 2 dosage regimens of TB. Cohen D Effect Size (ES), with 95% confidence intervals (CI), assessed the ability of LuMOS to discriminate between outcomes in active