Background and aims The prevalence of ANA-negative SLE is reportedly 5%–20%. Cytoplasmic or mitotic cell indirect immunofluorescence (IIF) patterns are usually reported as ANA-negative. This study examined the prevalence of ANA-negativity (no intracellular IIF pattern) and pure cytoplasmic and/or mitotic IIF patterns (CMP) in the Systemic Lupus International Collaborating Clinics (SLICC) inception cohort and examined demographic, clinical and autoantibody associations.

Methods Three groups were examined 1) ANA-positive (presence of nuclear IIF pattern), 2) ANA-negative (no IIF pattern), and 3) pure CMP. ANA were detected by IIF on HEp-2000 substrate, SLE-related autoantibodies by laser bead immunoassay, and anti-dsDNA and anti-dense fine speckles 70 (DFS70) by chemiluminescence immunoassay.

Results 1137 patients were included; 89.9% were female. 92.3% were ANA-positive, 6.2% were ANA-negative, and 1.5% had a CMP. In the multivariate analysis (Tables 1 and 2), patients from Canada (Odds Ratio (OR) 2.07 [95% CI: 1.28, 3.36]) or with anti-DFS70 (OR 4.45 [95% CI: 1.37, 14.39]) were more likely to be ANA-negative or have CMP. Patients of Asian descent (OR 0.34 [95% CI: 0.13, 0.86]) or with anti-dsDNA (OR 0.53 [95% CI: 0.30, 0.94]), anti-SSA/Ro60 (OR 0.51 [95% CI: 0.30, 0.87]), or anti-UI-RNP (OR 0.35 [95% CI: 0.17, 0.70]) were less likely to be ANA-negative or CMP.

Conclusions In newly diagnosed SLE, the prevalence of ANA-negativity was at the lower end (6.2%) of the range previously published and an additional 1.5% had a CMP pattern. The prevalence of true ANA-negativity will likely decrease as future guidelines are expected to recommend that non-nuclear patterns, such as CMP, are also reported.
erythematous (SLE) (2152, 14%). There were a total 38 738 patient encounters including 34 267 outpatient clinic visits and 4471 hospitalizations. Of these, SLE consistently had highest frequency outpatient encounters (9534, 28%) averaging 1192/yr (range 1–16, median 7), and hospitalizations (1956, 43%) averaging 245/yr (range 1 to 9; median 4). Polyarthritides (4726, 14%) and OA (4346, 13%) had next most frequent outpatient visits; other connective tissue diseases (641, 14.37%) and gout/pseudogout (612, 13.72%) ranked next to SLE in hospitalisation frequency (Figure 1). Mean age of OA patients (2258, 79.84% female) was 62.49±12.37 (20–101) years, gout/pseudogout (487, 20% female) 55.08±15.24 (18–94) years, and SLE (2004, 93% female) 30.7±14.3 SD (range 2–84) years.

Conclusions This 8 year patient census in a tertiary care Rheumatology training centre illustrates the burden of illness in SLE, with consistently the highest frequency of clinic visits and hospitalizations, affecting relatively young individuals.