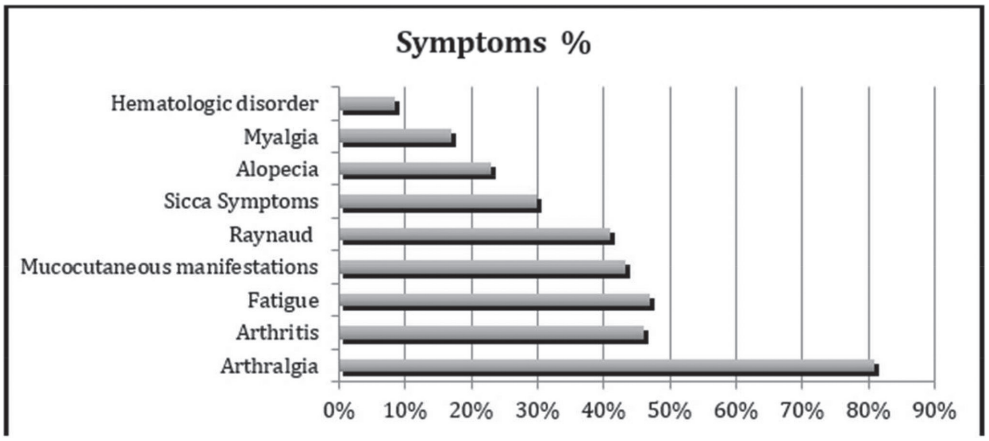

Abstract CE-30 Figure 1 Clinical Manifestations Requiring Medical Attention

CE-30 FACTORS THAT INFLUENCE THERAPY IN PATIENTS WITH UNDIFFERENTIATED CONNECTIVE TISSUE DISEASE

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10.1136/lupus-2016-000179.109

Background Preclinical autoimmunity may offer a unique opportunity for preventing the development of SLE. This study was initiated to compare clinical and immunological characteristics in patients with undifferentiated connective tissue disease (UCTD) treated with hydroxychloroquine (HCQ) in a large academic clinical practice.

Materials and methods This cross-sectional study included all patients diagnosed with UCTD according to the preliminary classification criteria (1) seen at the Columbia University Lupus Centre in New York, from January to December 2015. Clinical and immunological variables were ascertained. Chi squared tests were used to compare the following characteristic between treated and untreated patients: demographic characteristics, number of ACR criteria, SLICC criteria, individual symptoms and laboratory values.

Results Eighty-three patients were identified; 93% were female, mean age at diagnosis of 44 years + 14.9; 67% were Caucasian, 20% Hispanic and 11% Black/African American; median disease duration of 3.91 years + 5.35. The most prevalent symptoms that required medical attention are described in Figure 1. 95% of patients had positive antinuclear antibody (ANA) titers and 5% were ANA negative Ro+, 87% had titers between 1:80 and 1:640, with speckled pattern in 69% of patients. Interestingly, 16% of the patients met SLICC SLE criteria. Half of the patients, 42 (51%) were treated with HCQ and 41 (49.3%) were not treated. The patients treated with HCQ were more likely to also meet SLICC criteria (10 vs. 3, respectively; $p = 0.03$), have a history of arthralgia (38 vs. 29; $p = 0.02$), arthritis (28 vs. 10; $p = 0.0001$), and fatigue (25 vs. 14; $p = 0.02$). A history of low complement was more prevalent in the treated group (12 vs. 3, $p = 0.01$).

Conclusions Data from this single-centre cohort of patients with UCTD show that patients treated with HCQ by their rheumatologist are more likely to have multiple clinical criteria and low complement compared to those that were not treated. These data suggest that rheumatologist treat pre-clinical autoimmunity in the setting of clinical symptoms. None of patients were treated based on serologies alone. Longitudinal studies are needed to evaluate the long-term impact of HCQ on outcomes in patients with UCTD.

CE-31 A PILOT STUDY OF CONSENSUS TREATMENT PLANS FOR INDUCTION THERAPY IN CHILDHOOD PROLIFERATIVE LUPUS NEPHRITIS

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Background Childhood-onset systemic lupus erythematous (cSLE) patients are at higher risk for renal disease than those with adult-onset disease. Mycophenolate mofetil (MMF) and intravenous cyclophosphamide (IV CTX), commonly used for induction therapy of proliferative lupus nephritis (LN), are considered equally efficacious in adults. Comparative data in the paediatric population are lacking. To reduce treatment variability and facilitate comparative effectiveness studies, the Childhood Arthritis and Rheumatology Research Alliance (CARRA) published a consensus treatment plan (CTP) for induction therapy in childhood proliferative LN. The CTP recommended treatment with MMF or IV CTX and one of three steroid regimens: primarily oral, primarily IV, or mixed oral/IV. We report physician decision-making and 6-month response rates in a multi-centre pilot feasibility study.

Materials and methods This observational study enrolled 41 cSLE patients from 10 CARRA sites. Subjects had new-onset biopsy proven class III or IV proliferative LN and were starting MMF or IV CTX. Complete renal response (CRR), defined as normal renal function, inactive urine sediment, and spot urine protein/creatinine ratio of <0.2, was measured at 6 months. Subjects were followed for up to 24 months. Baseline demographics, disease-related features, physician decision-making and achievement of CRR were compared according to induction treatment group and among steroid regimens.

Results The majority of participants were female (83%) with a mean age of 14 years. There were no significant differences in demographics between MMF or IV CTX groups or among

steroid regimens. Those with class IV nephritis (35.3% vs 73%, p = 0.015) and hematuria (36% vs 74% p < 0.001) were more likely to be treated with IV CTX. Physicians more often reported compliance concerns as a reason for selecting treatment for the CTX group compared to MMF (22% vs 0%, p = 0.04). Overall, physicians reported "this is what I or my group always does" as the most common reason for choice of induction agent and steroid regimen. Induction agent use did not differ significantly according to study site. Steroid regimen differed significantly by study site and induction agent. CRR at 6 months was achieved for 56% with MMF and 64% with IV CTX (p = 0.6); the study was not powered to evaluate treatment efficacy.

Conclusions Class IV nephritis, hematuria and patient adherence influenced selection of induction agent. Steroid regimens differed by study site and induction regimen. To evaluate comparative effectiveness, future larger studies will be needed.

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CE-32 THE EPIDEMIOLOGY OF INDIVIDUALS NOT FULLY MEETING CLASSIFICATION CRITERIA FOR SYSTEMIC LUPUS ERYTHEMATOSUS (SLE): THE GEORGIA LUPUS REGISTRY

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Background Identifying individuals as early as possible in the development of an autoimmune disease may lead to important opportunities. This study utilises an established population-based registry to evaluate the burden of individuals who do not meet criteria for SLE but may be at higher risk of being diagnosed later.

Materials and methods The Georgia Lupus Registry (GLR) is designed to more accurately estimate the incidence and prevalence of SLE in Atlanta, Georgia. The state allowed investigators and trained abstractors to access protected health information without patient consent. Sources of potential cases included hospitals (20), rheumatologists (35), nephrology groups (10), dermatology groups (20), commercial labs, and population databases. Databases were queried for the International Classification of Diseases, Ninth Revision, (ICD-9) code 710.0 (SLE), as well as 695.4 (discoid lupus), 710.8 (other specified connective tissue disease), and 710.9 (unspecified connective tissue disease), as well as serologies and pathology results suggestive of SLE. Antiphospholipid antibody syndrome was searched for if a consistent code was used at a particular facility. Those with less than 4 American College of Rheumatology (ACR) criteria for SLE and without a final physician diagnosis of a specific connective tissue disease were analysed. Rates were determined for incidence (2002–2004) and prevalence (2002) and age adjusted using the 2000 US population. Age adjusted estimates and 95% confidence intervals were calculated by the direct method using R (routine ageadjust.direct).

Results 220 individuals were prevalent in 2004 with an overall age-adjusted rate of 14.2 per 100,000 person-years. 99 individuals were incident in 2002–04 with a rate of 2.1. Similar to SLE, the highest rates were in women and blacks. The rate ratio of prevalent women to men was 4.9 and was 2.2 in blacks to whites, lower than seen in SLE. (Table 1) The most frequent ACR criteria manifestations were ANA (56.4% and 57.6% in prevalent and incident individuals, respectively), hematologic disorder (39.1%, 35.4%), and arthritis (30%, 32.3%). There were no statistically significant differences between blacks and whites.

Abstract CE-32 Table 1 Rates of individuals not fully meeting classification criteria for systemic lupus erythematosus in Atlanta, Georgia, categorised by race/sex* (prevalence in 2004, incidence in 2002–04)

Race/Ethnicity, sex	Catchment population (person-years)	No. of cases	Crude rate (95% CI):	Age-adjusted rate (95% CI):
PREVALENCE				
Overall	1610314	220	13.7 (12,15.6)	14.2 (12.5, 16.1)
Women	822408	185	22.5 (19.5,26)	22.5 (19.5, 26)
Men	787906	35	4.4 (3.2,6.2)	4.6 (3.3, 6.3)
Black	783405	131	16.7 (14.1,19.8)	18.2 (15.5,21.5)
Women	418297	114	27.3 (22.7,32.7)	28.4 (23.8, 34)
Men	365108	17	4.7 (2.9,7.5)	5.1 (3.3, 8.1)
White	753526	65	8.6 (6.8,11)	8.3 (6.5, 10.7)
Women	368338	52	14.1 (10.8,18.5)	12.8 (9.6, 17)
Men	385188	13	3.4 (2,5.8)	3.4 (2, 5.9)
INCIDENCE				
Overall	4742264	99	2.1 (1.7,2.5)	2.1 (1.7, 2.6)
Women	2424592	78	3.2 (2.6,4)	3.2 (2.5, 4)
Men	2317672	21	0.9 (0.6,1.4)	1.0 (0.7, 1.5)
Black	2321302	58	2.5 (1.9,3.2)	2.8 (2.2, 3.5)
Women	1239819	47	3.8 (2.9,5)	3.9 (3, 5.2)
Men	1081483	11	1.0 (0.6,1.8)	1.4 (0.9, 2.3)
White	2210389	27	1.2 (0.8,1.8)	1.1 (0.8, 1.7)
Women	1082131	20	1.8 (1.2,2.9)	1.6 (1, 2.6)
Men	1128258	7	0.6 (0.3,1.3)	0.6 (0.3, 1.3)

* Rates are per 100,000 person-years (95% confidence intervals [95% CIs]).
* Age-adjusted rates used the 2000 US population.

Conclusions This is the first population-based evaluation of those not fully meeting ACR criteria for SLE in the US. The prevalence and incidence rates were 15% and 30%, respectively, of that which were seen in those validated as having SLE from the same general population. This suggests a significant population at higher risk of being diagnosed with SLE in the future can be identified. Studies are ongoing to determine the outcomes of these patients.

CE-33 CARDIOVASCULAR EVENTS AMONG US MEDICAID RECIPIENTS (2000–2010) WITH SYSTEMIC LUPUS ERYTHEMATOSUS, BY RACE AND ETHNICITY

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Background Cardiovascular disease (CVD) is the leading cause of death among SLE patients, with significantly elevated risks of