

represent a crucial step in order to identify appropriate drug regimens for LN treatment. The aim of this study was to systematically review the available literature to compare renal primary outcome measures used in randomized controlled trials (RCTs) for both the induction and the maintenance therapy in biopsy proven LN setting.

**Methods** A detailed literature search was applied a priori to Ovid-MEDLINE (2000–2018), clinicaltrials.gov and to abstracts from the EULAR and ACR/ARHP Annual Meetings (table 1).

**Results** A total of 3922 patients with LN were identified from 28 RCTs. Mean follow-up period was  $17.3 \pm 15.9$  months. Patients were distributed, based on the presence of active biopsy-proven LN, as follow: 717 (23.6%) patients presented class III LN, 1681 (55.3%) class IV, 448 (14.7%) class V, and 195 (6.4%) class IV+V. Twenty-three RCTs (92%) were designed to investigate induction therapy for active LN, while 5 (8%) for maintenance. Twenty-five out of 28 (89.3%) trials considered 'complete remission' (CR) as the primary outcome, and 3 (10.7%) studies used 'time to renal flare/time to treatment failure' as primary endpoint. When analyzing the definition of CR based on the inclusion of urine protein excretion, renal function (including serum creatinine, serum albumine, glomerular filtration rate, and/or estimated glomerular filtration rate), urinary sediment, and the SELENA-SLEDAI, we found that only 1 (4%) trial considered all these variables, 13 (52%) comprehended 3 items, 9 (36%) 2 items, and 2 (8%) included only one variable. In detail, protein excretion was included as a variable computed to define CR in 23 (92%) studies (with range of UPCR ranging from 3.2 to 0.3), renal function in 22 (88%), urinary sediment in 13 (52%), and SELENA-SLEDAI in 2 (8%) of the analyzed trials.

**Conclusions** We report an overall heterogeneity of the primary endpoints used in RTC in LN patients. With the armamentarium of treatments for LN potentially expanding, a better homogeneity in the choice of clinical outcomes is warranted to improve the comparability of the results, potentially leading to a more personalized approach to LN management.

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## REFERENCE

- Houssiau FA, Lauwerys BR. Current management of lupus nephritis. *Best Pract Res Clin Rheumatol* 2013;**27**:31928.

139

## TREATMENT COMPLIANCE IN SYSTEMIC LUPUS ERYTHEMATOSUS: COMPARISON OF TWO QUESTIONNAIRES

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**Background** Lack of compliance to prescribed treatment is an ongoing problem in healthcare, leading to therapeutic failure and increased costs. Treatment compliance is defined by two related concepts: adherence and persistence during time. WHO estimates show that one every two patients with a chronic disease is not adherent. Studies on compliance in patients with Systemic Lupus Erythematosus (SLE) are scarce, especially in third world countries. Low treatment compliance can be presumed.

Different tools had been developed to assess compliance, been the Compliance Questionnaire on Rheumatology (CQR)

and the Morisky and Green questionnaire (MG) the most widely used.

The aim of this study is to evaluate the correlation between both questionnaires in SLE patients and to evaluate the relation between this instruments and SLE disease activity.

**Methods** Consecutive patients from our SLE unit were recruited in July and August 2018. The following variables were assessed: age, gender, ethnics, disease duration, occupation, monetary income, educational level, health insurance, place of residence, marital status, disease activity by SELENA-SLEDAI, accrual damage by SLICC-DI, current treatment and number of follow-up visits during the prior 12 months.

Compliance was assessed by CQR19 (compliant if 80%) and by MG (compliant if=0). Continual variables are expressed as mean and DS or median and interquartile range according to distribution. Categorical variables are presented as n(%). Association was assessed by chi2 or logistic regression as appropriate. Statistical analysis was performed using SPSS v21.

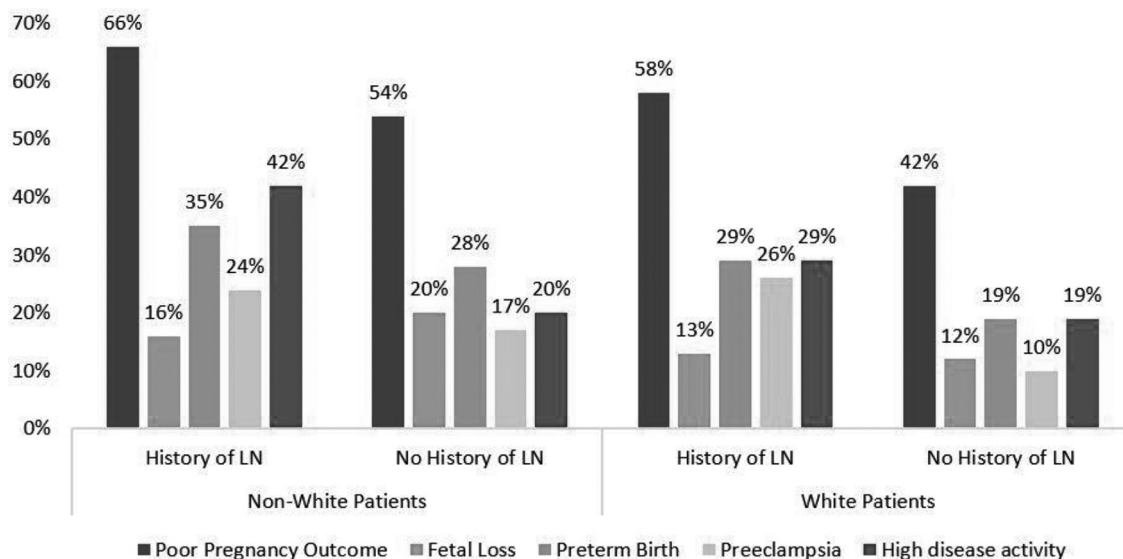
**Results** 70 consecutive patients were included. Baseline characteristics are shown in table 1.

Sensitivity and specificity for MG to detect lack of compliance was 90% and 42% respectively.

In our study, correlation between MG and CQR19 was found (RS=0.406, 0.01 bilateral; p=0.0005). However, none correlated with SELENA-SLEDAI, SLICC-DI. Both CQR19

**Abstract 139 Table 1** Demographic characteristics

Age (mean±SD)		40.8±15.5
Women (n (%))		66 (94.3)
Half blood (n (%))		69 (98.6)
Place of residence (n (%))	CABA	22 (31.4)
	GBA	34(48)
	Country side	14(20)
Civil Status (n (%))	Single	39 (55.7)
	Married	22 (31.4)
	Divorced	8 (11.4)
	Widow	1 (1.41)
Education (n (%))	Primary School	16 (22.9)
	High School	28(40)
	Tertiary education	14(20)
	Collage education	12 (17.1)
Occupation (n (%))	Employed	24 (34.3)
	Unemployed	14(20)
	Student	4 (5.7)
	Housewife	12 (17.1)
	Retired	7 (10)
	Health Insurance (n (%))	
Satisfaction with prescription (n (%))	Satisfied	60 (85.7)
	Half satisfied	1 (1.4)
	Unsatisfied	9 (12.9)
Trust in medical group (YES=n (%))		70(100)
Last year controls (media±SD)		2.96±1.39
SLEDAI (mean±SD)		2.07±3.047
SLICC (mean±SD)		039±0.839
CQR (n (%))	Adherent	40 (57.1)
	Non adherent	30 (32.9)
	MORISKY GREEN (n(%))	
	Adherent	20 (28.6)
	Non adherent	50 (71.4)



**Abstract 140 Figure 1** Pregnancy outcomes for patients with and without a history of lupus nephritis, stratified by maternal race

and MG correlated with age ( $r_s=0,272$  ; $p=0023$  and  $r_s=0,471$  ; $p=0,0000$  respectively).

**Conclusions** MG, counting only four questions, is simpler to perform than CQR19. In our study, we found good correlation between both questionnaires.

Having found no correlation between compliance defined by either tool and SLE activity or accrual damage, we believe that the routine use of these tools has no influence in terms of therapeutic management in SLE patients.

**Funding Source(s):** None

140

#### EFFECT OF LUPUS NEPHRITIS ON PREGNANCY OUTCOMES IN SYSTEMIC LUPUS ERYTHEMATOSUS: AN INDIVIDUAL PARTICIPANT META-ANALYSIS

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**Background** Cohort studies show that lupus nephritis (LN) is associated with poor pregnancy outcomes. In North America a significant proportion of LN patients are non-white, a population that has a baseline increased risk of preterm birth, preeclampsia, and fetal growth restriction. This individual participant meta-analysis pooled data to determine the effect of history LN on pregnancy outcomes stratified by maternal race.

**Methods** Data from three prospective lupus pregnancy cohorts were included in this analysis. Race was classified as white or non-white; only one pregnancy per patient in women with a first trimester visit were included. Outcomes included fetal loss, preterm birth (<37 weeks), preeclampsia, high disease activity (PGA >1 or SLEDAI >4 during pregnancy), and a composite poor pregnancy outcome (fetal loss, preterm birth, preeclampsia or high disease).

**Results** The analysis included 312 pregnancies across three cohorts in the US and Canada, of which 22% were to women with history of LN and 46% were to non-white mothers (figure 1). Women with a history of LN were at increased risk of

a poor pregnancy outcome (OR: 1.76; CI: 1.33–2.32), a difference seen in both white and non-white women. A history of LN was not associated with an increase in fetal loss (OR: 0.94; CI: 0.61–1.45). Women with a history of LN had an increased risk of preterm birth overall (OR: 1.50; CI: 1.04–2.17). Women with a history of LN were at increased risk of developing preeclampsia (OR: 2.31; CI: 1.59–3.36). Among white women, preeclampsia was largely driven by a history of LN. In non-white women, the baseline high preeclampsia risk was not significantly increased by a history of LN. A history of LN increased the risk of high disease activity (OR: 2.31; CI: 1.52–3.50). The impact of a history of LN on disease activity in pregnancy was particularly strong among non-white women.

**Conclusions** As expected, a history of LN was associated with poor pregnancy outcomes. While fetal loss was not increased, preterm birth, preeclampsia, and disease activity were all more common in women with a history of LN. A history of LN had a greater impact on the rates of preterm birth and preeclampsia in white women, while non-white women without LN had baseline elevations in these complications, making the impact of LN less dramatic.

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141

#### COST EFFECTIVENESS OF A PEER MENTORING INTERVENTION TO IMPROVE DISEASE SELF-MANAGEMENT PRACTICES AND SELF-EFFICACY AMONG AFRICAN AMERICAN WOMEN WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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**Background** The annual medical costs for systemic lupus erythematosus (SLE) patients can reach up to \$62 651 due to complex care needs. This presents a major challenge for all