Abstract 104 Figure 1 30-day readmission by neighborhood disadvantage (ADI decile)

affiliation, rural urban commuter area, and area deprivation index (ADI) a measure of neighborhood disadvantage derived from patients census block group (www.neighborhoodatlas.medicine.wisc.edu). Analysis used multivariable logistic regression clustered by patient.

Results Nearly 1.4 million acute Medicare hospitalizations were analyzed including 10 868 lupus hospitalizations. Patients with lupus were younger (55% of hospitalizations in 18–<65 y.o.) and 89% were female. Patients with lupus were over twice as likely to be Black or Hispanic (29% vs 12%; 5% vs 2% respectively). Among lupus patients, 46% had history of Medicaid, 65% were Medicare eligible due to disability, and 15% were eligible due to end stage renal disease (ESRD), compared to 30% Medicaid, 32% disability, and 3% ESRD among general Medicare.

Lupus readmissions ranged from 20% within lower disadvantage to 27% within the greatest decile of ADI neighborhood disadvantage, compared to 17%–21% in general Medicare regardless of ADI decile (Figure 1). Before adjustment, patients with SLE were 60% more likely to be readmitted than non-lupus Medicare patients (Unadj. OR 1.61 (1.51, 1.71)). Lupus remained a readmission risk in adjusted models

(Adj. OR 1.28 (1.20, 1.36)). SLE patients with 30 day readmissions were more likely to be <65 y.o., Black, to have had prior Medicaid or hospitalization, and other comorbidities; significant interactions were seen between ADI quintile and Medicaid predicting readmission.

Conclusions Among nationally representative Medicare hospitalizations, having lupus was a major readmission risk factor. Hospitalized patients with lupus who lived in a neighborhood with greatest disadvantage had higher 30 day readmissions, impacting nearly 1 in 3 patients. Future studies are needed to examine readmission causes and interventions to systematically reduce readmissions among vulnerable hospitalized patients with lupus.

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PROVIDER PERCEPTIONS ON THE MANAGEMENT OF LUPUS DURING PREGNANCY: BARRIERS TO IMPROVED CARE

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Background More than half of pregnancies in women with systemic lupus erythematosus (lupus) result in adverse outcomes for both mother and fetus. As demonstrated in the PROMISSE study, pregnancies managed by experts can have outcomes similar to the general population. However, many women with lupus do not receive this level of care and suffer complications at higher rates. We sought to identify aspects of current community rheumatologic care that could be improved to decrease the frequency of poor lupus pregnancy outcomes.

Methods Focus groups with clinical rheumatologists were held at state rheumatology conferences in North Carolina, South Carolina, Virginia, and Northern California. The interview guide was based on the PRECEDE/PROCEED framework, seeking factors that predisposed, reinforced, and enabled physician practice patterns. Focus groups were recorded, transcribed, and coded to identify the elements of this framework. A group of women with lupus on their reproductive journey contributed to our understanding of the dilemmas and care provided.

Abstract 105 Figure 1 Model of modifiable contributors to ill-timed lupus pregnancy

Results In 6 focus groups including 36 rheumatologists (37% male), the key dilemma in lupus pregnancy was reported to be medically ill-timed pregnancies. We identified four modifiable barriers to effective pregnancy planning: 1.) physician/patient communication about contraceptive use was often directive, which is ill-suited to the sensitive discussion; 2.) some rheumatologists have a knowledge gap, with only 37% identifying mycophenolate mofetil as a major teratogen and most greatly over-estimating the efficacy of Depo-provera®; 3.) local rheumatologists and OB/GYN frequently did not communicate, leading to varying treatment plans and confusion for patients; and 4.) pregnancy planning conversations were derailed by limited patient-trust and physician-empathy about a young woman's desire to be a mother.

Conclusions While we hope that the coming inaugural ACR Reproductive Health Guidelines will improve pregnancy management and outcomes for women with SLE, prior research demonstrates that simple guideline publication does little to influence care. We have identified several important, modifiable factors that, if addressed, may allow the guidelines to have a stronger impact on pregnancy success. We have built HOP-STEP (Healthy Outcomes in Pregnancy in women with SLE Through Educating Providers), an in-person and online program, to enable open and honest conversations about pregnancy planning and management between rheumatologists and women with lupus (www.LupusPregnancy.org).

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PREGNANCY INTENTION AMONG WOMEN WITH SLE AND OTHER RHEUMATIC DISEASES

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Background An estimated half of all pregnancies in the US are unplanned. In general, unplanned pregnancies are at higher risk for pregnancy loss and birth defects; an estimated 1/3 are electively terminated. Among women with rheumatic disease, the risks of unplanned pregnancy are even higher due to the frequent use of teratogenic medications and complications from active disease at conception. We sought to determine the frequency of unplanned pregnancy and the demographic differences between planned and unplanned pregnancies in a university-based pregnancy and rheumatology clinic.

Methods At enrollment into a prospective rheumatology pregnancy cohort, each woman completed the London Measure of Unplanned Pregnancy (LMUP), a validated 6-question survey that assesses a woman's intentions for conception. Demographic and historical rheumatologic data were collected. A higher LMUP score indicated a higher degree of pregnancy planning; a planned pregnancy has a score of 10–12.

Results Eighty-two pregnant women completed the survey between January and December 2018. The majority of women were white (68%), well-educated (77% at least college educated), married (77%), and had private insurance (77%); the average age was 30.7. The most common diagnosis was SLE (26%), followed by RA (21%) and UCTD (18%).

The median LMUP score was 11 with 71% of women having a planned pregnancy. Of the women with an unplanned pregnancy, only 37% reported contraceptive use, including progesterone-only pill (8%), IUD (4%), and barrier methods (25%). No differences in contraception use between women with and without SLE were observed.

In comparison to women without SLE, those with SLE were more likely to have an unplanned pregnancy (25% without SLE vs 43% with SLE, $p=0.2$). The LMUP score was significantly lower for women with SLE (mean 10.3 non-SLE vs 9.0 SLE, $p=0.07$; median 12.0 non-SLE vs 10.0 SLE, $p=0.01$). Only 43% of women with SLE reported that they had intended to get pregnant, compared to 75% of non-SLE women ($p=0.02$) and 48% of women with SLE reported taking folic acid or a prenatal vitamin compared to 72% of non-SLE women ($p=0.06$).

Conclusions Among this largely upper-middle and middle class population, most pregnancies were planned and most women took steps pre-pregnancy to prepare; this data may not reflect the typical rheumatology clinic. Among women with SLE, however, a higher proportion of pregnancies were unplanned. Our next steps will be to correlate pregnancy intention with outcomes and implement approaches to limit unplanned pregnancies among women with SLE.

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FEATURES OF NEUROPSYCHIATRIC LUPUS IN NBA2 MOUSE MODEL

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Background Neuropsychiatric lupus (NPSLE) is a common but poorly understood manifestation of systemic lupus erythematosus (SLE), affecting up to 80% of SLE patients. Current treatments include broad immunosuppression and symptomatic control rather than addressing pathogenesis. Current mouse models of NPSLE were developed by selective inbreeding until a complex genetic background resulted in spontaneous development of SLE. However, these models are not easily manipulated by genetic tools, which prevents elucidation of a more specific mechanism. We propose to establish the neurobehavioral phenotype of the B6.Nba2 spontaneous mouse model of SLE, known to depend on interferon (IFN)-. Interestingly, recent studies suggested that IFN- contributes to NPSLE by stimulating microglia, making it a promising potential drug target.

Methods Age- and sex-matched B6.Nba2 and B6 mice were tested ($n=3-5$). We used open field testing as a general measure of movement and anxiety-like behavior and elevated plus maze as a more specific measure of anxiety. A novel object placement test assessed spatial memory. Rotarod testing was used to characterize motor coordination, and the forced swim test assessed for depression-like behavior. Students t-test with Welch's correction was used for statistical analysis.

Results B6.Nba2 mice moved less distance and at a slower velocity and spent less time in the center of the open field than B6 mice ($p=0.0005$). To determine whether this was truly from anxiety or if it was a result of motor deficits, we ran elevated plus maze and rotarod tests. In the elevated plus maze, B6.Nba2 mice spent more time in the closed arms than