**Abstract P87 Table 1** Select safety outcomes

| % (n) | 3 Months | | | 6 Months | | |
|---|---|---|---|---|---|---|
| | ALMS | | AURA-LV/AURORA 1 | ALMS | | AURA-LV/AURORA1 |
| | IVC N=91 | MMF N=88 | Voclosporin N=179 | IVC N=91 | MMF N=88 | Voclosporin N=179 |
| Any AE | 91.2 (83) | 94.3 (83) | 83.2 (149) | 95.6 (87) | 95.5 (84) | 89.9 (161) |
| Serious AE | 12.1 (11) | 22.7 (20) | 14.5 (26) | 15.4 (14) | 25.0 (22) | 19.6 (35) |
| AEs by System Organ Class,% (n) | | | | | | |
| Gastrointestinal disorders | 59.3 (54) | 52.3 (46) | 34.6 (62) | 65.9 (60) | 61.4 (54) | 38.5 (69) |
| Infections and infestations | 46.2 (42) | 60.2 (53) | 41.9 (75) | 58.2 (53) | 72.7 (64) | 54.2 (97) |
| Skin and subcutaneous tissue disorders | 47.3 (43) | 28.4 (25) | 19.6 (35) | 56.0 (51) | 37.5 (33) | 24.0 (43) |
| Musculoskeletal/connective tissue disorders | 34.1 (31) | 29.5 (26) | 19.6 (35) | 44.0 (40) | 37.5 (33) | 24.6 (44) |
| Blood and lymphatic system disorders | 20.9 (19) | 13.6 (12) | 11.7 (21) | 40.7 (37) | 23.9 (21) | 18.4 (33) |
| Psychiatric disorders | 13.2 (12) | 17.0 (15) | 2.2 (4) | 15.4 (14) | 17.0 (15) | 3.4 (6) |
| Endocrine disorders | 11.0 (10) | 8.0 (7) | 1.1 (2) | 11.0 (10) | 8.0 (7) | 1.1 (2) |
| Reproductive system and breast disorders | 9.9 (9) | 6.8 (6) | 2.2 (4) | 12.1 (11) | 8.0 (7) | 2.2 (4) |
| Renal and urinary disorders | 6.6 (6) | 4.5 (4) | 7.3 (13) | 8.8 (8) | 9.1 (8) | 10.6 (19) |
| AEs by Preferred Term,% (n) | | | | | | |
| GFR decreased | 0 (0) | 0 (0) | 18.4 (33) | 0 (0) | 0 (0) | 24.6 (44) |
| Hypertension | 8.8 (8) | 10.2 (9) | `15.6 (28) | 12.1 (11) | 14.8 (13) | 17.3 (31) |

MMF) and AURA-LV/AURORA 1 (voclosporin) studies based on the following parameters: age, duration of lupus nephritis, duration of SLE, albumin, C3, C4, creatinine, anti-dsDNA, eGFR, UPCR, biopsy class, sex, and geographical region. Adverse events (AEs) occurred on or after the first dose of study drug up to either 3 or 6 months of treatment and coded by System Organ Class and Preferred Term using MedDRA v9.1 (ALMS), v17.0 (AURA-LV) and v20.0 (AURORA 1). AEs were selected for inclusion in this table to evaluate the impact of IVC, MMF, voclosporin, and glucocorticoids on these organ systems. Assignation of AEs of 'GFR decreased' were based on the clinical discretion of the study investigator and were not characterized by a specified drop in eGFR from baseline. GFR, glomerular filtration rate; IVC, intravenous cyclophosphamide; MMF, mycophenolate mofetil.

## P88 BASELINE FACTORS ASSOCIATED WITH SUBSEQUENT DEVELOPMENT OF INCIDENT NEPHRITIS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS: A RETROSPECTIVE COHORT STUDY

[1]Spyridon Katechis, [2]Dionysis Nikolopoulos, [2]Sofia Flouda, [2]Katerina Chavatza, [2]Noemin Kapsala, [2]Pelagia Katsimbri, [2]Dimitrios T Boumpas, [2]Antonis Fanouriakis. *[1]Rheumatology Dept., Asklepieion Voulas, Athens, Greece; [2]Rheumatology and Clinical Immunology Unit, 4th Dept. of Internal Medicine, Attikon University Hospital, Athens, Greece*

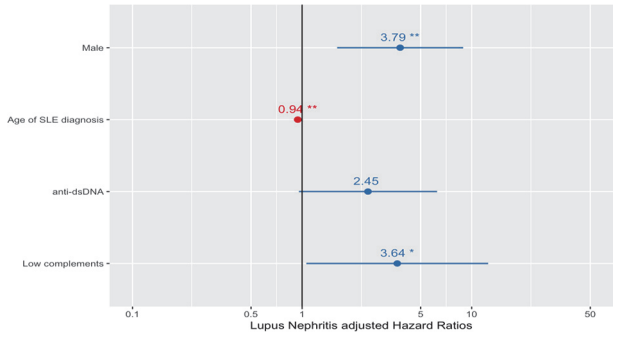
10.1136/lupus-2024-el.142

**Objective** To discern predictive factors for the development of incident lupus nephritis (LN) in systemic lupus erythematosus (SLE) patients.

**Methods** Patients with SLE, according to American College of Rheumatology 1997 criteria and/or the Systemic Lupus Erythematosus International Collaborating Clinics (SLICC) 2012 criteria, from a mixed prevalent and incident cohort ('Attikon' Lupus cohort) were followed for development of biopsy-proven nephritis. Demographics, clinical characteristics and laboratory values at baseline were compared against patients who did not develop LN. LN-free survival curves were generated using the Kaplan-Meier method and a multivariate Cox proportional hazards model was used to identify independent predictors of LN, after adjusting for potential confounders.

**Results** Of 570 patients, 59 manifested LN as presenting clinical manifestation and 66 developed LN during follow-up (total 21.9% of the entire cohort). On univariate analysis, male sex, younger age at disease onset, low C3 and/or C4 and high anti-dsDNA titre at baseline were associated with a higher risk of LN. On multivariate analysis, baseline factors predictive of future nephritis were male sex (aHR 3.79, 95% CI: 1.61–8.91, $p < 0.01$), younger age of SLE diagnosis (aHR per year 0.94, 95% CI: 0.91–0.98, $p < 0.01$), low C3 and/or C4 (aHR 3.64, 95% CI: 1.06–12.5, $p < 0.05$) and high anti-dsDNA titre (although not statistically significant, a clear trend was evident, aHR 2.45, 95% CI: 0.96–6.25, $p = 0.062$) (figure 1). Of note, combined serologic activity at baseline conferred the most pronounced risk, underscoring the additive effect of each factor (figure 2).

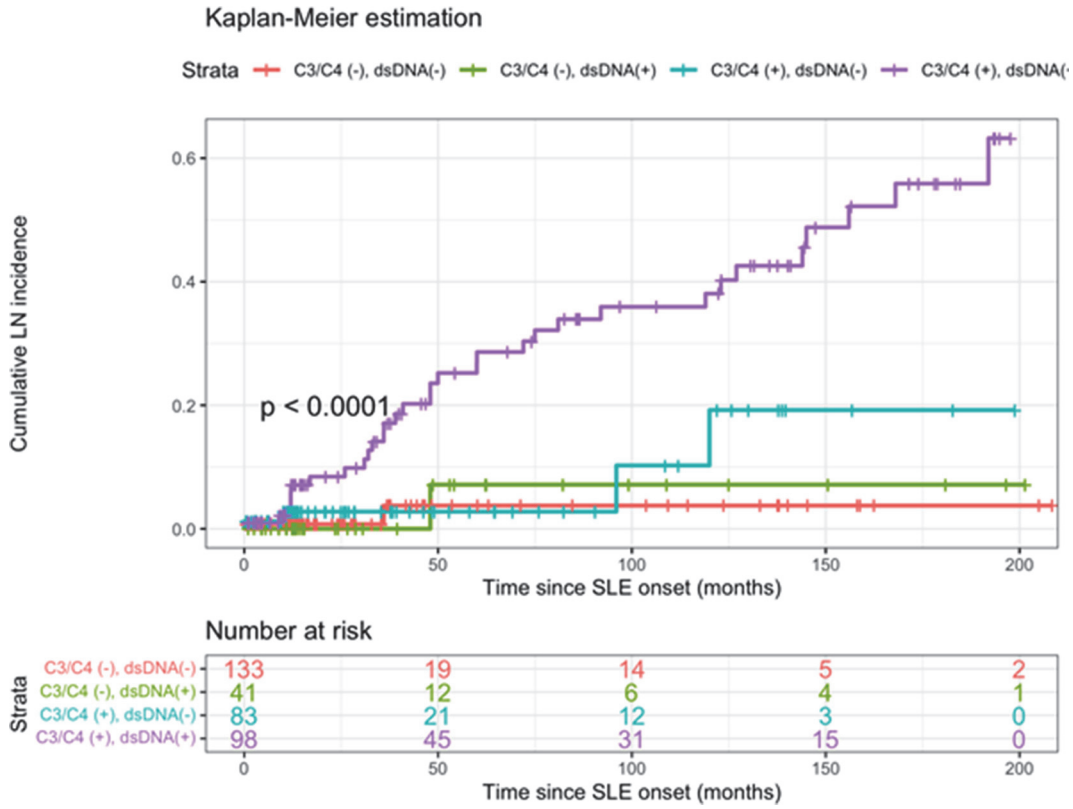
**Conclusions** Male sex, younger age and -especially combined-serologic activity at the time of SLE diagnosis are strongly




**Abstract P88 Figure 1** Adjusted hazard ratios after multivariate analysis of lupus nephritis predictive factors



Lupus Sci Med: first published as 10.1136/lupus-2024-el.142 on 14 March 2024. Downloaded from http://lupus.bmj.com/ on October 7, 2024 by guest. Protected by copyright.




**Abstract P88 Figure 2** Cumulative lupus nephritis incidence according to serologic activity at baseline

associated with LN development. Vigilant surveillance for early signs of nephritis is particularly warranted in these subsets of patients.

## P89 IL-28 AS POTENTIAL THERAPEUTIC TARGET FOR LN

[1]Myriam Meineck, [1]Andreas Kommer, [1]Sebastian Linsel, [1]Sabrina Saurin, [1]Tamara Möckel, [2]Andrea Pautz, [1]Andreas Schwarting, [1]Julia Weinmann-Menke. *[1]First Dept. of Medicine, University Medicine of the Johannes Gutenberg University, Mainz, Germany; [2]Institute of Pharmacology, University Medicine of the Johannes Gutenberg University, Mainz, Germany*

10.1136/lupus-2024-el.143

**Objective** Lupus nephritis (LN) is a common and severe manifestation of the autoimmune disease systemic lupus erythematosus (SLE). Since LN-flares result in irreversible tissue damage, and thus may lead to renal failure, there is an urgent need to develop new therapeutic approaches. Therefore, we evaluated the disease promoting function of IL-28 Receptor Signals (IFNlambdaReceptor, the type III Interferon Receptor) in murine LN. Moreover, we determined the expression of type III Interferons (IL-28/IL-29) in LN patients to further explore their role in human LN.

**Methods** Progression of LN as well as systemic autoimmune symptoms were observed in IL-28R Knockout (KO) MRL-*Fas*$^{lpr}$ lupus mice and compared to WT littermates. Furthermore, MRL-*Fas*$^{lpr}$ mice were treated with a neutralizing anti IL-28 antibody. In LN patients, the IL-28/IL-29 expression was determined via IHC in renal biopsies. Additionally their expression in blood and urine samples was tested via ELISA. The activation of renal tubular epithelial cells (TEC) was examined *in vitro*.

**Results** A decelerated progression of LN was observed in IL-28R KO MRL-*Fas*$^{lpr}$ mice. Moreover, Lymphadenopathy and serum antibodies were reduced and the progression of Sialadenitis was less severe. The disease promoting role of IL-28 was further confirmed by therapeutic treatment of MRL-*Fas*$^{lpr}$ mice with an anti IL-28 antibody. The expression of IL-28/29 and as well as their receptor (IL-28R) was observed in renal biopsies of LN patients. The urine IL-29 levels in LN patients decreased during roughly one year after diagnosis/flare, while the C3c levels increased and the proteinuria tended to decrease. The expression of pro-inflammatory mediators by renal TEC after stimulation with type III Interferons was observed *in vitro*.

**Conclusion** The inhibition of IL-28R signals resulted in a less severe LN in MRL-*Fas*$^{lpr}$ mice. Therefore and regarding our findings in human LN, we conclude that IL-28 inhibition should be considered as a therapeutic target for LN. Moreover, we suggest to further evaluate urine IL-29 as potential disease activity marker.

## P90 USE OF BELIMUMAB IN PATIENTS WITH LUPUS NEPHRITIS REFRACTORY TO STANDARD TREATMENT

[1]Luxme Nadarajah, [1]Cameron Bonthrone, [2]Angela Pakozdi, [2]Debasish Pyne, [1]Andrea Cove-Smith, [1]Ravindra Rajakariar. *[1]Dept. of Renal Medicine, Barts Health NHS Trust, London, UK; [2]Dept. of Rheumatology, Barts Health, NHS Trust, London, UK*

10.1136/lupus-2024-el.144

**Objective** The risk of progression to end stage kidney disease (ESKD) following identification of Lupus nephritis (LN) is 10–30 %, this risk has remained unchanged for decades. The landmark BLISS-LN trial led to belimumab being the first

Lupus Sci Med: first published as 10.1136/lupus-2024-el.142 on 14 March 2024. Downloaded from http://lupus.bmj.com/ on October 7, 2024 by guest. Protected by copyright.