Conclusions: KZR-616 up to 45 mg was well tolerated in HV and demonstrated consistent PK and PD. Selective immunoproteasome inhibition did not induce hematologic or constitutional toxicities associated with bortezomib. Candidate dose levels were identified to explore safety, tolerability and efficacy in patients with SLE and LN in an ongoing Phase 1b/2 study.

Disclosure of Interest: J. Lickliter: None declared, D. Bomba Employee of: Kezar Life Sciences, J. Anderl: None declared, A. Fan: None declared, C. Kirk: None declared, J. Wang: None declared

DOI: 10.1136/annrheumdis-2018-eular.3344

AB0510 IMPROVING KNOWLEDGE OF SLE DISEASE FLARES AND TREATMENT OPTIONS AMONG RHEUMATOLOGISTS AND PRIMARY CARE PROVIDERS: EFFECT OF AN ONLINE EDUCATIONAL INTERVENTION

E. Jackson, D. Blatherwick, K. Badal. *Medscape Education, New York, USA*

Background: With a significantly higher mortality in patients affected by systemic lupus erythematosus (SLE) developing chronic damage, prevention is a major goal in management.¹ Flares are a common feature throughout the course of SLE and can result in organ damage.² As a result, clinician knowledge on how to prevent, recognise, and treat flares is crucial.

Objectives: Determine whether an online educational intervention could effectively address a knowledge gap and an underlying educational need in the areas of SLE disease management among rheumatologists and primary care providers (PCPs).

Methods: An online educational intervention focusing on SLE disease management was made available online, intended for rheumatologists and PCPs who treat patients with SLE. The intervention consisted of a 30 min video presentation by a recognised expert in the treatment of SLE. Synchronised slides supported the presentation. The educational impact was assessed by comparing participants' responses to 3 repeated-pair, multiple-choice pre- and post-intervention questions. The impact on self-reported confidence was also assessed through a separate, 5-point Likert-scale question. Data were collected from 9/28/2017 through 11/29/2017. Statistical analysis included a paired 2-tailed t-test comparing mean pre-intervention and post-intervention scores, McNemar's χ^2 statistic for measuring changes in responses to individual questions, and Cramer's *V* to determine the overall impact of the intervention.

Results: Analysis of pre- versus post-intervention responses demonstrated a significant ($p<0.05$) improvement in overall knowledge in both rheumatologists (79% to 87%, $n=118$) and PCPs (61% to 73%, $n=253$). The overall impact of the intervention was similar in both groups ($V=0.106$ for rheumatologists and $V=0.123$ for PCPs). This intervention resulted in increased knowledge surrounding several specific areas of SLE, such as pathophysiology, relationship between disease activity and organ damage, and selection of SLE therapies (see table 1).

Abstract AB0510 – Table 1

Topic area	Rheumatologists (n=118)	PCPs (n=253)
Pathophysiology	9% (75% to 84%, $p=0.106$)	23% (40% to 63%, $p<0.05$)
Relationship between disease activity and organ damage	8% (84% to 92%, $p<0.05$)	5% (70% to 75%, $p=0.197$)
Treatment selection	7% (79% to 86%, $p=0.173$)	6% (74% to 80%, $p=0.093$)

The intervention resulted in a +4% shift in self-reported confidence in addressing flare symptoms among rheumatologists, and a +26% shift among PCPs.

Conclusions: Participation in an online video educational intervention with synchronised slides was associated with significant overall improvement in knowledge levels of rheumatologists and PCPs in several important aspects of SLE management. Based on assessment of residual gaps, future directions for education should be tailored to specific learner groups including case-based reinforcement of knowledge and competence among rheumatologists, and additional foundational education for PCPs in the areas of pathophysiology and disease progression.

REFERENCES:

- [1] Conti F, Ceccarelli F, Perricone C, et al. *Lupus* 2016 Jun;25(7):719–26.
- [2] Fernandez D, Kirou KA. *Curr Rheumatol Rep*. 2016 Mar;18(3):14.

Acknowledgements: The educational intervention and outcomes measurement were funded through an independent educational grant from GlaxoSmithKline Global.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4719

AB0511 THE EFFECT OF MILNACIPRAN ON FATIGUE IN A CLINICALLY STABLE LUPUS COHORT

E.P. Katsaros¹, F. Dong², I. Moldovan³. ¹Internal Medicine; ²Graduate College of Biomedical Sciences, Western University of Health Sciences, Pomona; ³Internal Medicine, Loma Linda University, Loma Linda, USA

Background: Systemic lupus erythematosus (SLE) is a chronic multi-system autoimmune disease impacting the physical wellbeing and health related quality of life (HRQOL) of patients¹. Fatigue occurs in up to 90% of SLE patients and affects their HRQOL². The purpose of this pilot study is to determine the effect of milnacipran, a norepinephrine and serotonin reuptake inhibitor used to treat fibromyalgia, on fatigue in clinically stable SLE patients with widespread pain (WSP). To date, no clinical trials have demonstrated efficacy for the primary treatment of fatigue and WSP in adult SLE patients.

Objectives: The objective is to determine the effect of milnacipran on fatigue in a clinically stable lupus cohort.

Methods: SLE patients, 18 years and older, with fatigue, WSP and on more than 4 weeks of stable therapy were recruited for a 15 week prospective, double-blind, placebo-controlled study. Patients were randomised at a 1:1 ratio to receive 14 weeks of milnacipran 50–100 mg twice a day or placebo. Disease activity was measured by the Systemic Lupus Erythematosus Disease Activity Index (SLEDAI). Measurements of fatigue, pain and a patient's general impression of change from baseline were assessed at baseline and week 14 using the Fatigue Severity Scale (FSS), the Short-Form McGill Pain Questionnaire (SF-MPQ)³, and the Patient's Global Impression of Change (PGIC) respectively.

Results: A total of 14 patients were included in the final analysis with seven patients in each group. Upon entry and throughout this study, both groups had low disease activity (mean SLEDAI <3.5 at week 0 and week 14). Fatigue as measured by FSS in the intervention group improved from 5.70 at week 0 to 5.14 at week 14 and improved in the placebo group from 5.90 to 5.59 respectively (Delta=0.56, 0.31 for the intervention and placebo group, respectively, $p=0.70$). Pain as measured by the SF-MPQ changed in the treatment group from 20.80 at week 0 to 18.80 at week 14, and in the placebo group from 15.40 to 13.2 respectively (Delta=2.00, 2.20 for the intervention and placebo group, respectively, $p=0.97$). The patient's Global impression of change was greater in the intervention group than the placebo group (0.67, 0.49, $p=0.21$).

Conclusions: Although results were not significantly different in this pilot study, improvement in fatigue and the patient's impression of global change appeared to be greater in the intervention group than the placebo group even though lupus activity remained low in both groups and the difference in pain between the two groups were nearly identical. Therefore, milnacipran may improve fatigue independently of disease activity and pain in lupus patients. Future randomised controlled trials of the drugs effect with larger cohorts are needed to confirm these findings.

REFERENCES:

- [1] Kuriya B, et al. *Arthritis and Rheum*. 2008;59(2):181–5.
- [2] Abina-Zubieta JA, et al. *Arthritis and Rheum*. 2007;56(8): 1348–1357.
- [3] Burckhardt CS, Jones KD. *Arthritis and Rheum*. 2003; 49(5S): S96-S104.

Acknowledgements: Kendall Boyd, PhD, Loma Linda University Allergan/Forest Laboratories

Disclosure of Interest: E. Katsaros Grant/research support from: Allergan/Forest Laboratories, F. Dong: None declared, I. Moldovan: None declared

DOI: 10.1136/annrheumdis-2018-eular.6065

AB0512 OCCURRENCE AND CONSEQUENCES OF ANTI-DRUG ANTIBODIES TO RITUXIMAB IN SYSTEMIC LUPUS ERYTHEMATOSUS

F. Faustini¹, I. Parodis¹, N. Dunn², M. Ryner², A. Fogdell-Hahn², I. Gunnarsson¹. ¹Medicine, Unit of Rheumatology; ²Clinical Neuroscience, Center for Molecular Medicine, Karolinska Institutet, Karolinska University Hospital, Stockholm, Sweden

Background: Anti-drug antibodies (ADA) to rituximab (RTX) have been reported to a limited extent in rheumatoid arthritis (RA, 4%–11%) and in multiple sclerosis (MS, 26%–37%), in the latter being associated with incomplete B-cell depletion.¹ In SLE, data on the clinical significance of ADA are lacking.

Objectives: To define the frequency and consequences of ADA to RTX in a SLE population by setting a disease specific threshold using a sensitive ADA method.