respiratory tract infections were the most common TEAEs, with no dose response (Table 1). Tracheobronchitis and pneumonia, were mild to moderate severity, not associated with absolute neutrophil count G3, and none led to treatment withdrawal.

At Wk 52, efficacy was sustained for pts who continued 300 mg in TP2 (ESSDAI, ESSPRI, PaGA, PhGA CHB: -9.06, -1.91, -22.03, -35.80, respectively). Efficacy was partially lost for pts switched to PBO at Wk 24 (Figure 1). Improvement was noted for PBO pts switched to 150 mg. Stimulated whole salivary flow at Wk 24 was improved for 300 mg (PBO-adjusted CHB 0.20 ml/min; $P=0.037$); last measurement at Wk 48 was 0.45 and 0.22 ml/min CHB in pts who continued 300 mg or PBO in TP2, respectively.

Conclusion: Ianalumab 300 mg was well tolerated up to 52 Wks. Exploratory efficacy showed that continuous dosing of 300 mg s.c. q4w provided sustained clinical benefit. PaGA was the outcome that showed the most prominent change following switch to PBO or VAY736.

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Table 1. Key Safety Data (All Study Periods up to Week 52)*

n (%)	5 mg	50 mg	150 mg	Any 300 mg (N=47)
[EAIR] ¹	24 Wks	24 Wks	28 Wks	
	(N=47)	(N=47)	(N=47)	
Any AE	43 (91.5)	43 (91.5)	44 (93.6)	45 (95.7)
	[517.5]	[423.3]	[621.0]	[544.6]
Any SAE	3 (6.4)	5 (10.6)	8 (17.0)	8 (17.0)
	[5.9]	[10.7]	[19.9]	[13.6]
Infections and infestations (SOC) ²	33 (70.2)	31 (66.0)	34 (72.3)	38 (80.9)
	[154.1]	[119.2]	[162.0]	[127.7]
Nasopharyngitis ³	7 [15.5]	4 [8.5]	9 [22.1]	9 [16.5]
Upper respiratory tract infections ³	6 [12.8]	8 [17.8]	5 [11.6]	8 [13.6]
Bronchitis ³	3 [6.2]	3 [6.2]	4 [9.5]	4 [6.6]
Tracheobronchitis ³	1 [2.0]	0 [0.0]	0 [0.0]	3 [5.0]
Pneumonia ³	1 [2.0]	0 [0.0]	1 [2.2]	2 [3.3]
Blood & Lymphatic Disorders (SOC) ²	8 (17.0)	9 (19.1)	6 (12.8)	9 (19.1)
	[18.0]	[20.8]	[14.3]	[16.8]
Lymphopenia ³	4 [8.4]	4 [8.6]	3 [6.8]	2 [3.3]
Neutropenia ³	5 [10.7]	1 [2.1]	2 [4.5]	4 [6.9]
Injection site reaction ³	4 (8.5)	9 (19.1)	17 (36.2)	27 (57.4)

*Includes all safety data from TP1, TP2 and post-treatment follow-up; cut-off 06-Feb-2020¹EAIR, incidence rate per 100 subject years. For patient with an event, exposure time is censored at time of first event;²Number of pts with at least one AE in SOC;³PT, preferred term; SOC, system organ class

Figure: Summary of Efficacy data at Week 52 (Treatment Period from Wk 24 to Wk 52)

ESSDAI, EULAR Sjögren's Syndrome Disease Activity index; ESSPRI, EULAR Sjögren's Syndrome Patient Reported Index; EULAR, European League Against Rheumatism; FACIT-F, Functional Assessment of Chronic Illness Therapy Fatigue; MCS, mental component summary; PaGA, patient global assessment; PCS, physical component summary; PhGA, physician global assessment; SF, short form; SSSD, Sjögren's syndrome symptom diary

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POS0693 EFFICACY AND SAFETY OF BELIMUMAB IN PATIENTS WITH LUPUS NEPHRITIS IN REAL-LIFE SETTING: RESULTS FROM A LARGE, NATIONWIDE, MULTICENTRIC, PROSPECTIVE COHORT

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Background: LN is still a severe manifestation of Systemic lupus erythematosus (SLE) and multitarget therapy is needed to control the disease especially in refractory cases.

Objectives: To evaluate renal response in SLE patients with glomerulonephritis (GN) treated with Belimumab in real-life setting.

Methods: Patients with proteinuria >0.5 g/24 h and/or active sediment at baseline enrolled in a multicentre Italian cohort of SLE patients (BeRLISS study), treated with monthly iv Belimumab 10 mg/kg plus standard of care were considered in this study. **Complete renal response (CRR)** was defined as proteinuria <0.5 g/24 h, estimated glomerular filtration rate (eGFR) ≥ 90 ml/min/1.73 m² and no rescue therapy. **Primary efficacy renal response (PERR)** was defined as proteinuria <0.7 g/24 h, eGFR ≥ 60 ml/min/1.73 m² and no rescue therapy. Prevalence and predictive factors of CRR and PERR at 12 and 24 months after Belimumab initiation were analyzed by multivariate logistic regression analysis.

Results: A total of 91 patients were considered in this study, 79 female, mean age 40.51 ± 9.03 years, mean disease duration 12.18 ± 8.15 years, median follow-up time after Belimumab initiation 22 months. Twenty patients had baseline proteinuria ≥ 0.5 < 1 g/day, 17 ≥ 1 < 2 g/day, 13 ≥ 2 g/day. Belimumab was started at GN onset in 20 (22%) patients and at the time of a renal flare in all other cases. Seventy-five patients underwent a renal biopsy: 1 class I, 4 class II, 14

class III, 47 class IV and 9 class V. Baseline serum creatinine was 82.44 ± 29.26 $\mu\text{mol/L}$; 15 patients showed $\text{eGFR} < 60 \text{ mL/min/1.73m}^2$ at baseline. Immunosuppressants were taken by 70 (76.9%) patients: 47 micofenolate, 15 azathioprine and 5 ciclosporine. Sixty patients (65.9%) were on antimalarials. During follow-up 34 (37.4%) patients achieved CRR. Among them 5 (14.7%) patients relapsed and 29 (85.3%) patients maintained remission. Mean time to achieved CRR was 9.71 ± 5.91 months.

High levels of baseline proteinuria were a negative independent predictor of CRR and PERR at 6 months (OR 0.044 CI95% 0.006-0.320 $p=0.002$ and OR 0.232 CI95% 0.091-0.596 $p=0.002$) and 12 months (OR 0.029 CI95% 0.002-0.556 $p=0.019$ and OR 0.056 CI95% 0.009-0.327 $p=0.001$). High levels of baseline creatinine were a negative independent predictor of renal response. Renal response at 6 months was a strong predictive factor of renal response at 12 and 24 months.

Conclusion: Belimumab is an effective add-on therapy in the treatment of GN in real-life practice setting.

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POS0694

REAL-WORLD ECONOMIC IMPLICATIONS OF ACHIEVING LOW DISEASE ACTIVITY IN LUPUS NEPHRITIS

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Background: Lupus nephritis (LN) is a common and severe manifestation of systemic lupus erythematosus (SLE) affecting 50% of SLE patients and leading to end-stage kidney disease (ESKD) in up to 30% of patients with LN.¹ Previous studies have reported higher healthcare costs in patients with SLE that develop LN compared to patients without LN.²⁻⁵ These studies captured overall treatment costs associated with LN, regardless of disease activity or severity, and were conducted in small patient populations.

Objectives: The aim of this study was to assess the real-world economic implications of achieving low disease activity compared to active disease or ESKD in a large LN population.

Methods: This study was a retrospective observational analysis of patients with LN within Optum's health plan identified with ICD9 or ICD10 codes to have LN between January 1, 2015, and December 31, 2019. Patients were ≥ 18 years of age and had ≥ 2 months of follow-up data available. Patients were followed until death, loss to follow-up, or December 31, 2019. Low disease activity was defined by evidence of glucocorticoid doses $\leq 5 \text{ mg/day}$, evidence of mycophenolate mofetil (MMF) doses $\leq 2 \text{ g/day}$, and no use of cyclophosphamide for ≥ 6 consecutive months. Follow-up time that could not be defined as low disease activity was defined as active disease periods, except for periods with evidence of ESKD. Healthcare payer costs for medical and pharmacy services were compared between periods of low disease activity, active disease, and ESKD. A univariate generalized estimating equation model accounting for interdependence was used to compare differences in costs between periods of active and low disease activity.

Results: A total of 21,251 patients with LN met study criteria with a mean follow-up time of 31.0 months. The mean age was 60.3 years; 86.9% of patients were female and 35.2% of patients were non-White race. Low disease activity was evident in 51.3% of patients with a mean duration of 27.5 months. Mean monthly medical costs were \$2,523 during periods of low disease activity and \$4,777 during periods of active disease. After factoring in pharmacy costs, mean monthly total costs were \$3,584 during periods of low activity and \$6,612 during periods of active disease ($P < 0.001$). The mean monthly costs of ESRD were \$18,084 for medical and \$3,760 for pharmacy.

Conclusion: Achieving low disease activity in patients with LN is associated with reduced economic burden to healthcare payers, with monthly medical costs averaging \$2,254 less and total monthly costs averaging \$3,028 less than costs during periods of active disease.

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POS0695

KZR-616, A SELECTIVE IMMUNOPROTEASOME INHIBITOR FOR THE TREATMENT OF SYSTEMIC LUPUS ERYTHEMATOSUS: RESULTS FROM THE COMPLETED DOSE ESCALATION PHASE 1B PORTION OF THE MISSION STUDY

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Background: KZR-616 is a first-in-class selective inhibitor of the immunoproteasome, which is active in >15 autoimmune disease models, including murine models of systemic lupus erythematosus (SLE)/lupus nephritis (LN).^{1,2,3} Selective inhibition of the immunoproteasome modulates both innate and adaptive immune effector cells, resulting in reduced inflammatory T helper cell subsets (Th1 and Th17), increased regulatory T cells, and decreased plasma cells and autoantibodies. KZR-616 was well tolerated in two healthy volunteer studies of 100 subjects receiving up to 75 mg subcutaneously (SC). Target levels of immunoproteasome inhibition were observed at doses $\geq 30 \text{ mg}$.^{3,4} KZR-616 is currently in Phase 2 studies for several autoimmune indications, including the ongoing Phase 2 portion of the MISSION Study (KZR-616-002; NCT0339013) in patients with LN.

Objectives: Results of the completed MISSION Phase 1b dose escalation portion of the study are reported.

Methods: In the open-label, multicenter, dose escalation Phase 1b portion, SLE patients (per SLICC Classification Criteria) with SLEDAI ≥ 4 despite stable background immunosuppressant, anti-malarial, and/or corticosteroid therapy were administered weekly KZR-616 subcutaneously at doses of 45 mg (cohort 1), 60 mg (cohort 2), 60 mg following step-up doses of 30 mg and 45 mg (cohort 2a), 60 mg following a step-up dose of 30 mg (cohorts 2b, 2c) or 75 mg following a step-up dose of 30 mg (cohort 3) for 13 weeks with follow-up through Week 25 (W25); a lyophilized formulation was used for cohorts 2b, 2c and 3. The disease activity measures assessed were: SLEDAI-2K, Cutaneous Lupus Erythematosus Disease Area and Severity Index (CLASI), 28 tender and swollen joint counts, Physician and Patient Global Assessments, and Patient Assessment of Pain. Safety and tolerability were assessed in the safety population (patients receiving at least one dose of KZR-616).

Results: The Phase 1b portion of MISSION enrolled 47 SLE patients, including 2 patients with active proliferative LN. The most common treatment-emergent adverse events (TEAE) were injection site reactions, which were mostly mild. Infections occurred at a low rate, and there were no reports of peripheral neuropathy, prolonged hematologic AEs, or clinically significant laboratory abnormalities. No discontinuations were observed in cohorts 2b and 2c; no serious AEs were reported in cohort 3 and TEAEs were consistent with those reported in earlier cohorts. Mean values of all measures of disease activity improved in evaluable patients who completed the 13-week treatment period, and improvements were generally maintained at W25. All patients with