Patients with hypoglb during RTX	38 (35.8%)
Severe hypoglb	4 (3.8%)
Patients with severe infections which required hospitalization	14 (13.2%)
With hypoglb	7 (6.6%)
Without hypoglb	7 (6.6%)
Severe infections which required RTX discontinuation	2 (1,9%)
Respiratory	0
HBV reactivation	2 (1,9%)
Skin (Erisipela and celulitis)	
Exitus	0 (0%)

Conclusion: Hypogammaglobulinemia happens in a third of the patients who receive RTX, especially in those who have low previous IgG levels; therefore a follow up during the treatment should be encouraged. Low IgM and IgA levels during the treatment could also be associated with severe infections.

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AB0474 MORTALITY ACROSS RITUXIMAB-TREATED PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS: RESULTS FROM THE BRITISH ISLES LUPUS ASSESSMENT GROUP (BILAG) REGISTRY

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Background: Mortality in Systemic Lupus Erythematosus (SLE) is elevated in comparison to the general population. Previously we have demonstrated improved disease control in response to Rituximab (RTX) therapy in a cohort of refractory SLE patients.
Objectives: To investigate mortality in refractory SLE patients treated with RTX and identify risk factors that may be associated with death.
Methods: All patients recruited to the BILAG-BR (both RTX treated and standard of care-SOC) were included from initial study visit to death or 3 years post last treatment change. Demographics, concurrent medication use, disease activity (BILAG/SLEDAI) and damage scores (SLICC-DI) were recorded. Information regarding mortality was collected from study centres and NHS digital national death registry. Baseline demographic data are presented using descriptive statistics performed using Stata (version 14).
Results: 830 patients were included (715 RTX-treated, 115 standard therapy). RTX-treated patients tended to have longer disease duration (10 vs 6.5 years respectively) and were more likely to have active musculoskeletal disease (% BILAG A or B: 39% vs 23%). Rates of renal (11% vs 16%) and neurological disease (12% vs 9%) were comparable between groups as were baseline SLICC-DI and SLEDAI scores.
33 deaths were reported. 28 (3.9%) RTX-treated patients (1.2 deaths/100 pt yrs follow up) and 5 (4.3%) non-RTX patients (1.5 deaths/100 pt yrs follow up).
Cause of death was identifiable in 20 RTX treated patients. Infection was the commonest cause of death (10/20, 50%) followed by ischaemic heart disease (5/20, 25%) and malignancy (3/20, 15%). Median time to death for RTX-treated was 481 days.
Risk factors associated with mortality within the RTX group included male gender, older age at diagnosis, renal disease, hypogammaglobulinaemia, high SLICC-DI and higher steroid use at last review (Table 1). Median cumulative RTX dosing was 2g for deceased and alive.
Deceased RTX patients had a greater total number of co-morbidities at baseline (2.5 vs 0, $p < 0.01$) driven predominantly by the presence of hypertension (11/28, 39% vs 159/687, 25%, $p = 0.05$), ischaemic heart disease (4/28, 14% vs 11/687, 2%, p= 0.00) and diabetes (7/28, 25% vs 15/687, 2%, p = 0.00).
Conclusion: RTX treated patients do not appear to have higher mortality rates compared to patients starting SOC treatment. Mortality is associated with cardiovascular risk factors, higher steroid doses, hypogammaglobulinaemia and renal disease. Active management of these risk factors may lead to improved mortality outcomes.

Table 1. Deceased and alive RTX treated patients

	Deceased (n=28)	Alive (n=687)
Gender (M: F%) (n= 708)	7:21 (25% M, 75% F)	63:617 (9.26% M, 90.74% F)
Median Age at Diagnosis in years (IQR) (n = 713)	51.5(42.5-66.5)	39(30-49)
Median Disease duration in years (IQR) (n=647)	13(11-19)	12.27(6-16)
Median Cumulative Rituximab dose in mg (IQR) (n=567)	2000 (2000-4000)	2000 (2000-4000)
Ethnicity (Caucasian: Non-Caucasian) (n =491)	17:5 (77.27% Caucasian, 24% Non-Caucasian)	291:178 (62.05% Caucasian, 37.95% Caucasian)

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AB0475 BELIMUMAB: EXPERIENCE IN CLINICAL PRACTICE SETTINGS AT A RHEUMATOLOGY DEPARTMENT IN A TERTIARY HOSPITAL

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Background: Belimumab is a human IgG1l monoclonal antibody directed against BAFF, a B lymphocyte survival factor. It is indicated as adjuvant treatment in adult patients with active systemic lupus erythematosus (SLE), with positive autoantibodies and with a high degree of activity of the disease despite standard treatment.

Case	Gender	Age	Indication	Start date	Withdrawal	Reason for withdrawal	Initial and final daily prednisone dose	Time in treatment
1	♀	56	thrombocytopenia	26/01/2012	Yes	Inefficiency	0 → 0	8 months
2	♀	33	arthritis	17/03/2012	No		10 → 5	6 years and 6 months
3	♀	48	arthritis	22/03/2012	Yes	Neutropenia	7.5 → 2.5	8 months
4	♀	64	thrombocytopenia	03/04/2012	Yes	Urothelial carcinoma	15 → 2.5	5 years
5	♀	45	cutaneous	07/05/2012	Yes	Inefficiency	30 → 30	4 months
6	♀	70	cutaneous thrombocytopenia	09/12/2013	No		15 → 2.5	4 years and 9 months
7	♀	54	arthritis	18/12/2014	No		15 → 2.5	3 years and 9 months
8	♀	46	arthritis	30/11/2015	No		0 → 0	2 years and 10 months
9	♀	58	arthritis	30/05/2017	No		7.5 → 5	1 year and 4 months
10	♀	31	arthritis	17/01/2018	No		10 → 5	8 months
11	♀	46	arthritis	15/02/2018	No		5 → 2.5	7 months
12	♀	49	serositis	11/04/2018	No		5 → 5	5 months

Objectives: This study aims to describe a sample of patients diagnosed with SLE who received treatment with belimumab in a tertiary hospital.

Methods: Retrospective longitudinal unicentric observational study. Clinical records of all patients diagnosed with SLE who had received treatment with belimumab were reviewed. Demographic characteristics, clinical manifestations and reason for belimumab indicaton were collected.
Results: The twelve patients included in the sample were women. Median age was 48.5 years (31-70). The most frequent reason for indication of belimumab was uncontrolled arthritis. The average time of treatment with belimumab in the total sample was 27.5 (+/- 26.24) months, with a median of 12 months (4-78). Mean treatment time (cases in which belimumab was discontinued excluded) was 31.25 (+/- 26.98) months with a median of 25 (5-78). The average dose reduction of prednisone after initiation of treatment with belimumab (in patients in which it was considered effective) was 5 mg per day (+/- 5). It should be noted that of the 14 cases, treatment was only discontinued in 4 patients, 2 of which were withdrawn due to ineffectiveness. There were 2 adverse events that required drug withdrawal: neutropenia and urothelial carcinoma. (Table).
Conclusion: BLM is a well tolerated drug and effective in clinical practice. Adverse effects leading to drug withdrawal are infrequent.
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AB0476 SPECIAL ASPECTS OF GLUCOCORTICOID THERAPY IN PATIENTSWHO TREATED WITH ANTI-B-CELL AND ANTI-BLYS THERAPY

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Background: The basis of treatment of SLE are glucocorticoids (GCs), which since their introduction into clinical practice, have led to increased survival and reduced early mortality of SLE patients. However, the need to use high doses of GCs, as well as long-term use of medium doses to maintain disease remission, leads to the development of serious adverse reactions. This leads to an increase in the risk of irreversible organ damage. In this regard, it is important to search for ways to prevent the use of high doses of GCs, minimizing the dose of GCs.
Objectives: To assess special aspects and dynamics of oral glucocorticoid (GC) therapy in SLE patients treated with anti-B-cell and anti-BlyS therapy.
Methods: The study included 64 SLE pts (5M/58F), divided into 3 groups: Group I - 47 patients (SLEDAI2K 16[11;20] scores), receiving rituximab (RTX) i/v infusions by drop at 500 - 2000 mg dose-range. Group II included 10 patients (SLEDAI2K 10[8;11] scores) treated with Belimumab (BLM) at 10 mg/kg once a month. The remaining 7 patients from Group III (SLEDAI2K 10[9;16] scores) were administered a combination of RTX and BLM. They started treatment with RTX 500 (2 patients) or 1000 mg (5 patients) infusions, and 3 months later BLM at standard scheme of 10 mg/kg once a month was initiated for 8 months. SLICC damage index (DI) was documented at baseline - before initiation of RTX and BLM - in 26 out of 64 patients (40%) with SLICC DI score > 1 (1 - 5 scores); 20 patients out of them were administered RTX.
Results: 47 patients on RTX therapy received different oral GCs doses: high GCs doses (Me 40[30;50]mg/day) were documented in 11 (24%) patients, moderate doses (Me 13[10;20]mg/day) – in 29 (61%) patients, and low doses (Me 5[5;7,5]mg/day) - in 7 (15%) patients. Patients on BLM and combination therapy were administered GCs at doses ≤ 20 mg (Me 15[5;20]mg/day and Me 8,75[5;15] mg/day, respectively)
During first 3 month of treatment GCs doses in all 3 Groups remained unmodified. By Mo 6 25% reduction in oral GCs doses was documented in: patients on RTX - 20[15;20]mg/day, 10[8,75;10]mg/day, 5[5;5] mg/day (respectively, in the groups with initially high, moderate and low GCs doses); BLM 10[7,5;10] mg/day, combination therapy 8,75[5;15] mg/day. By Mo 12 Me GCs dose in all 3 Groups did not exceed 10 mg/day. In view of SLE exacerbations in patients from Group I (RTX) additional RTX infusions at Mo 6, 9 and 12 were administered in 8 (20%) patients. Figure 1 presents the dynamics of oral GCs doses in patients from Group I (RTX), who were divided in 3 subgroups based on baseline (high, moderate or low) GCs dose, and also dynamics of GCs dose in patients from Groups II (BLM) and III (RTX+BLM).
Increase in SLICC score by Mo 12 of follow up was documented in patients on RTX therapy with baseline pre-existing organ damage (5 patients). There was no increase in SLICC scores in BLM and RTX +BLM treatment groups.
Conclusion: Combination therapy results in achieving rapid control of SLE activity thanks to RTX effects, and the combination with BLM allows significantly prolongs this result, minimizing the risk of exacerbation. And a very specific gain from combination RTX+BLM therapy is a chance to manage patients on moderate-to-low oral GCs doses, therefore, reducing the risk of irreversible organ damage. Increasing organ damage score in RTX Group is most likely associated with intake of higher GCs doses.

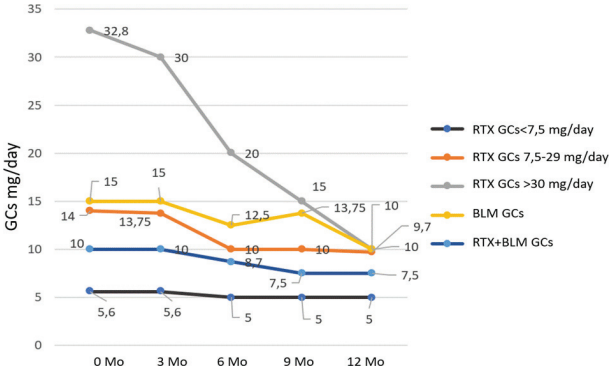

Figure 1. The dose of oral GCs in patients treated with RTX, BLM and combined treatment, Me

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AB0477 THE EFFECT OF CLOSTRIDIUM BUTYRICUM ON INTESTINAL FLORA OF PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS ZHANG MINGXING*[1], XU-FANG YIN[1], XIAO-FENG LI[2]

zhang mingxing[1], Xu-Fang Yin[1], LI Xiao-Feng[2]. *[1]2The Second Hospital of Shanxi Medical University, Tai Yuan, China*; *[2]The Second Hospital of Shanxi Medical University, Taiyuan, China* **Objectives:** To investigate the effect of Clostridium butyricum on intestinal flora in patients with systemic lupus erythematosus.
Methods: Forty-four patients with systemic lupus erythematosus who were randomly selected from our hospital were given the oral administration of Clostridium butyricum live capsule 840mg twice a day. The concentration of methane and hydrogen at each time point before and after treatment for 44 patients was detected and compared by hydrogen and methane in lactulose breath test (LBT).
Results: After 28 days of treatment with Clostridium butyricum capsules, there was no significantly statistical difference in exhaled hydrogen concentration or methane concentration between 0 min, 30 min, 60 min and 90 min before and after treatment. See Table 1.
Conclusion: Numerous studies have shown that taking probiotics can promote the growth of normal flora and reduce the reproduction of other abnormal flora, which has a certain impact on the structure and quantity of There was no significantly statistical difference in exhaled hydrogen concentration or methane concentration at various points in time between the 44 patients before and after treatment, suggesting that there was no significant change in the structure and quantity of intestinal flora.
intestinal flora, which may be resulted from our low dose Clostridium butyricum live capsules or short treatment time, or need to be combined with other probiotics. These hypothesis above need us to further explore, in general, using microbes as a therapeutic target spot to regulate the illness of SLE by interfering with intestinal flora through diet, probiotics or fecal transplantation provides a promising prospect for clinical treatment of SLE.

Table 1. Methane and hydrogen concentrations before and after intervention by the experimenter[*PPM,Md(P25,P75)]*

	before intervention	after intervention	p
H2(0min)	16(8.5,30)	21(5.5,35)	0.697
H2(30min)	27(13,45)	27(6,61)	0.872
H2(60min)	27(11,49.5)	21(5.5,58.5)	0.977