

Abstract 447 Table 1

Physician-Behavioral Metrics		1/1/2015 to 6/31/2015	1/1/2016 to 6/31/2016	Z-Test for Proportions (Independent Groups)
Metric 1	Rate of SLE patients having office visits at least 1x/6 months.	42.0%	48.7%	Statistically Significant Difference 95% confidence (p = .0318)
Metric 2	Rate of SLEDAI application at least 1x/6 months.	13.8%	18.7%	Statistically Significant Difference 95% confidence (p = .0341)
Metric 3	Rate of administration of influenza vaccination in the last 12 months.	13.9%	18.0%	Statistically Significant Difference 90% confidence (p = .0740)
Metric 4	Rate of administration of pneumococcal vaccination (ever)	30.4%	31.5%	Not Statistically Significant
Metric 5	Rate of patients with prednisone dose > 7.5 mg/day.	11.5%	7.4%	Statistically Significant Difference 95% confidence (p = .0254)

Abstract 447 Table 2

Patient Outcomes Metrics		1/1/2015 to 6/31/2015	1/1/2016 to 6/31/2016	Z-Test for Proportions (Independent Groups)
Metric 6	Rate of hospitalization among all lupus patients	5.9%	3.7%	Statistically Significant Difference 85% confidence (p = .1006)

- Patient Campaigning: Identification of patients who are due for various SLE-specific testing or management activities and proactive contact in order to prompt an office visit.

Results We demonstrated a “tighter” management of SLE patients through statistically significant improvement in the rate of key SLE management behaviours (95% CI).

“Tighter” management, in turn, prompted statistically significant improvement in hospitalisation (85% CI).

Conclusions Time-structured, IT-enhanced, and QI indicator-driven interventional modalities prompted a more frequent, more comprehensive, and guideline-adherent point of care interaction with SLE patients (i.e. “tighter” management). “Tighter” management manifested as improved patient outcomes in the form of a diminished rate of hospitalisation among SLE patients.

448 BONE MARROW MEGAKARYOCYTES MAY PREDICT THERAPEUTIC RESPONSE OF SEVERE THROMBOCYTOPENIA IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background and aims To analyse the predictive value of megakaryocyte counts in bone marrow (BM-MK) for determining the therapeutic response of severe thrombocytopenia (TP) in patients with systemic lupus erythematosus (SLE).

Methods Thirty-five patients with SLE with severe TP (platelet count $\leq 50 \times 10^9/l$) from the Peking Union Medical College Hospital admitted between 2007 and 2014 with appreciable bone marrow aspiration results were analysed retrospectively. The associations between therapeutic response and clinical

manifestations, laboratory findings including BM-MK counts, were evaluated.

Results Seventeen (49%) and 8 (23%) patients achieved a complete response (CR) and a partial response (PR), respectively, and 10 had no response (NR). The BM-MK counts in each group were 102 ± 25 (0–322), 136 ± 48 (2–419), and 28 ± 12 (0–105) per slide, respectively. Significant differences were observed in the counts of BM-MK between patients who achieved a clinical response (CR + PR) and those who did not (NR; $p=0.007$). Patients in the NR group exhibited fewer BM-MK compared with those in the CR and PR groups ($p=0.017$ and $p=0.006$, respectively). A receiver-operation characteristic analysis identified that a cutoff value of BM-MK counts at 20 performed pretty well in discriminating patients with differential responses to immunotherapy, with sensitivity and specificity and area under the curve of 88%, 70%, and 0.798, respectively.

Conclusions BM-MK count may serve as a good predicting factor for immunotherapeutic response in patients with SLE with severe TP. Patients with BM-MK counts <20 per slide tend to exhibit poor clinical response.

449 EFFECT OF DISEASE REMISSION ON ORGAN DAMAGE AND QUALITY OF LIFE IN CHINESE PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background and aims To study the effect of disease remission on organ damage and quality of life (QOL) in Chinese patients with SLE.

Methods Adult patients who fulfilled the ACR criteria for SLE were identified and their remission status at last visits was

determined by the European consensus criteria (complete/clinical remission \pm immunosuppressive drugs). The increase in SLE damage index (SDI) in the preceding 5 years was compared between patients who were and were not in remission for ≥ 5 years. QOL of patients as assessed by the validated Chinese version of the SF36 and the LupusPRO.

Results 769 SLE patients were studied (92% women; age 46.4 ± 14.6 years, SLE duration 12.6 ± 8.1 years). Clinical remission (serologically active) was present in 259 (33.7%) patients (median 43 months) and complete remission (clinically and serologically inactive) was present in 280 (36.4%) patients (median 51 months). Clinical and complete remission for ≥ 5 years was achieved in 64 (8.3%) and 129 (16.8%) of the patients, respectively. 53 (6.9%) patients in remission ≥ 5 years were taken off all medications including HCQ. Patients remitted for ≥ 5 years were older, and had significantly lower prevalence of renal and haematological disease. Moreover, these patients had significantly less SDI increment than those who did not remit (0.17 ± 0.53 vs 0.67 ± 1.10 ; $p < 0.001$). Among 453 patients who had QOL assessment within 6 months of last visits, remission for ≥ 5 years was associated with significantly better SF36 and the health-related scores of the LupusPRO.

Conclusions Durable drug-free remission in SLE is uncommon. Patients with complete or clinical remission for ≥ 5 years have significantly less damage accrual and better QOL.

450 SERUM 25-HYDROXYVITAMIN D3 LEVELS AND FLARES OF SYSTEMIC LUPUS ERYTHEMATOSUS: A LONGITUDINAL COHORT ANALYSIS

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Background and aims To study the relationship between serum 25-hydroxyvitamin D3 levels and flares of SLE in a longitudinal cohort of Chinese patients.

Methods Patients who fulfilled the ACR criteria for SLE were recruited and serum levels of 25-hydroxyvitamin D3 were assayed by liquid chromatography tandem mass spectrometry. Patients were stratified according to the 25-hydroxyvitamin D3 levels (group I: <15 ng/ml, deficiency; group II: $15\text{--}30$ ng/ml, insufficiency; and group III: >30 ng/ml, adequate) and were serially assessed for disease activity and flares. Baseline and summated SLEDAI over time, and the annual incidence of lupus flares was compared among these groups.

Results 276 SLE patients were studied (94% women; age 41.0 ± 13.8 years; SLE duration 8.7 ± 6.6 years). 25-hydroxyvitamin D3 levels of <15 , $15\text{--}30$ and >30 ng/ml occurred in 26%, 54% and 20% of the patients, respectively. Group I had significantly higher baseline SLEDAI. After a follow-up of 32.5 ± 5.5 months, 153 mild/moderate and 91 severe flares developed. The mean summated SLEDAI was 3.2 ± 2.0 in group I, 2.4 ± 1.9 in group II and 2.7 ± 2.1 in group III patients ($p = 0.02$). The annual incidence of mild/moderate and severe flares was 0.26 ± 0.39 and 0.20 ± 0.45 (group I); 0.20 ± 0.33 and 0.09 ± 0.22 (group II); and 0.20 ± 0.32 and 0.14 ± 0.46 (group III), respectively ($p > 0.05$). In a subgroup of 73 patients who were clinically and serologically quiescent at baseline, a similar trend of more flares was again observed in group I. New

damage or vascular events did not differ significantly among the three groups.

Conclusions Vitamin D deficiency was frequent in SLE patients and was associated with more active disease at baseline and over time, as well as a trend of more severe lupus flares.

451 PROLONGED REMISSION IN PATIENTS WITH LUPUS NEPHRITIS

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Background and aims The aim of this study is to assess the prevalence of prolonged remission in patients with lupus nephritis (LN) and its relationship with damage accrual.

Methods 318 patients diagnosed with LN between 1990 and 2015 were included in the study. We defined remission as prolonged when lasting ≥ 5 consecutive years. (proteinuria ≤ 0.03 g/L and serum creatinine ≤ 133.6 μ mol/L) Three levels of remission were defined using the SLE Disease Activity Index-2000 (SLEDAI-2K): complete remission: no disease activity in corticosteroid-free and immunosuppressant-free patients; clinical remission off corticosteroids: serologically active clinical quiescent (SACQ) disease in corticosteroid-free patients and clinical remission on corticosteroids: SACQ disease in patients taking prednisone 5–10 mg/24 hour. Damage was measured by the SLICC/American College of Rheumatology Damage Index (SDI).

Results 318 patients (293 women) fulfilled inclusion criteria. During the 10 year follow-up, 52 patients (16.35%) achieved prolonged complete remission, 107 (33.65%) prolonged clinical remission off corticosteroids and 114 (35.85%) prolonged clinical remission on corticosteroids. SDI increased more frequently in unremitted than in remitted patients ($p < 0.05$); SDI median increase was higher in unremitted than in remitted patients. At multivariate analysis, unremitted disease and high-dose corticosteroid intake were risk factors for damage accrual.

Conclusions Patients with prolonged remission was associated with a better outcome in terms of damage accrual.

452 INCREASED CYSTATIN C/CREATININE RATIO REFLECTS HIGH DISEASE ACTIVITY IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background and aims To investigate relationship between cystatin C (Cys)/creatinine ratio and disease activity of systemic lupus erythematosus (SLE).

Methods Clinical and laboratory data were collected from 52 patients with SLE who had been examined their Cys at least once. Female rate was 96.2% and the average age \pm standard deviation was 47.9 ± 13.2 years old. Estimated GFR (eGFR) was calculated based on Cys (eGFRcys) and creatinine