Abstract 403 Table 2 Showing distribution of lupus pro-bands in relation to serological parameters and disease activity.

Parameter	Familial Autoimmunity present	No familial Autoimmunity present	P value	Familial Lupus pro-bands	Sporadic Lupus Pro-bands	P value
Anti SSA positivity- n,%	9/25 (36.0%)	29/85 (34.1%)	0.86	3/13(23.1%)	35/97 (36.1%)	0.35
Anti SSB positivity- n,%	4/25 (16.0%)	10/80 (12.5%)	0.65	1/13 (7.7%)	13/92 (14.1%)	0.5
Anti Sm positivity- n,%	4/7 (57.1%)	5/20 (25.0%)	0.17	3/4 (75.0%)	6/23(26.1%)	0.09
Anti RNP positivity- n,%	6/13 (46.2%)	28/47 (59.6%)	0.38	4/8 (50.0%)	30/52 (57.7%)	0.68
Lupus Anticoagulant positivity- n,%	16/39 (41.0%)	35/118 (29.7%)	0.18	7/19 (36.8%)	44/138 (31.9%)	0.66
Anti-cardiolipin positivity- n,%	6/36 (16.7%)	21/116 (18.1%)	0.84	2/18 (11.1%)	25/134(18.7%)	0.43
Baseline Anti DS DNA titres in IU/ml (mean)	480.259	529.582	0.87	520.067	516.516	0.83
Baseline SLEDAI at first presentation (mean)	12.545	15.152	0.33	12.333	14.777	0.81

before CLE; 4) CLE and SLE, temporality unclear; 5) CLE with <2 SLE claims.

Results The universe contained 42 871 patients (Figure 1). Each cohort had >50 (range: 51.5–67.3) mean months of database observation time. Approximately one-third (27.4%) were “CLE only”, with no previous/subsequent SLE diagnosis (Cohort 1), while a further 10.3% had <2 SLE claims thus not meeting the SLE case definition (Cohort 5). Only 11% percent had CLE before SLE (Cohort 2). Elapsed mean time from CLE to SLE in Cohort 2 was 12.8 (median: 6) months.

Conclusions About a third of CLE patients identified by DLE ICD-9 coding appeared to never develop SLE during observation time. Our “real world” study adds to sparse evidence on this topic.

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INCIDENCE OF LUPUS NEPHRITIS FLARES AFTER COMPLETE RESPONSE TO INDUCTION AND RECEIVING 18 MONTHS OF MAINTENANCE PHASE IN CLINICAL PRACTICE

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Background Lupus nephritis (LN) is relapsing remitting disease. The standard regimen for LN treatment comprises of induction and maintenance phases.

Aims To study the incidence of LN flare in patients who had renal complete remission (CR) after receiving standard regimens for LN, time from renal remission to flare and to

Abstract 403 Table 3 Showing distribution of lupus pro-bands in relation to co-existent auto-immune disease.

Parameter	Familial Autoimmunity present	No familial Autoimmunity present	P value	Familial Lupus pro-bands	Sporadic Lupus pro-bands	P value
Secondary APS co-existence - n,%	6/39 (15.4%)	20/118 (16.9%)	0.82	3/19 (15.8%)	23/138(16.7%)	0.92
Coexistent organ-specific AID in the family- n,%	12/39 (30.8%)	34/118 (28.8%)	0.81	4/19 (21.1%)	42/138 (30.4%)	0.4
Co-existent organ specific AID in lupus pro-bands- n,%	9/39 (23.1%)	21/118 (17.8%)	0.46	4/19 (21.1%)	26/138 (18.8%)	0.81

Abstract 405 Figure 1

identify factors associated with renal flare after CR in clinical practice.

Methods We observed the clinical outcomes of patients who had 1st LN episode and achieved CR (24 hour urine protein <0.5 gm/day with normal renal function), within 12 months

after receiving induction phase, and received the maintenance phase for at least 18 months. Demographic characteristics, clinical, laboratories and treatments variable, every 3 months from the time of CR to flare or to last follow-up were recorded.

Results Among 548 patients who were currently follow-up, 171 patients had 1st LN episode. Of these, 87 patients (96.6% female with mean age 29.5 ± 10.8 years) met the inclusion criteria. During 6.1 ± 3.4 years of observation, the incident of LN flare was 48.3%. The mean time from CR to flare was 3.14 years (min 0.5, max 9.5). Logistic regression analysis revealed remaining dose of prednisolone ≥ 7.5 mg/day after remission reduced incidence of renal flare (Odd ratio 0.26 (95%CI 0.08–0.85), $p=0.025$), while demographic characteristics, clinical variables, and other treatments variables were not associated with incidence of LN flare.

Conclusions Although achieving CR with standard treatment, almost half of patients had LN flare within a few years. This study emphasise that maintenance phase in LN is crucial.

407 USING DECISION TREE TO IDENTIFY THE ITP WITH HIGH PROBABILITY OF SLE DEVELOPMENT FROM A NATIONWIDE COHORT STUDY

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Background and aims Idiopathic thrombocytopenic purpura (ITP) is an immune-related thrombocytopenia which may herald the development of systemic lupus erythematosus (SLE), and thus regular following up has been suggested. Whereas widespread surveillance on all ITP patients would be time and cost-consuming; therefore identifying those with high probability of development of SLE among ITP patients should be more practical.

Methods We enrolled ITP patients without previous SLE diagnosis from the Taiwan National Health Insurance research database between 1997 and 2012 and identified those with SLE diagnosis during follow up. We also analysed the symptoms and comorbidities as well as the dose of average oral steroid to derive the decision trees, which classified the ITP patients with different probability of development of SLE.

Results A total of 10 265 ITP patients were enrolled, among whom 80 patients developed SLE while following-up. The whole ITP patients were allocated to development group (7186 patients including 57 with SLE) and validation group (3079 patients including 23 with SLE); the former was used for derivation of the decision-tree based model (Figure 1) and the latter for validation of the previously mentioned model (Figure 2), and provided high sensitivity (78.2%), specificity (99.2%) and negative prediction value (99.8%). To reduce the complexity, we also proposed another models with different complexity parameters (Figure 3).

Conclusions We derived different decision tree models exempt from the necessity of laboratory data and adequate for various clinical scenarios of ITP patients, among whom those with high probability of development of SLE could be identified.

408 ANALYSIS OF INFLUENCING FACTORS ON QUALITY OF LIFE OF PATIENTS WITH SLE

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Background and aims To investigate the influencing factors of quality of life (QOL) of patients with systemic lupus erythematosus (SLE).

Methods QOL of 104 SLE patients were investigated by SF-36 scale (Chinese version). Depression, anxiety, social support, sleep quality and fatigue were evaluated by PHQ-9, GAD-7, social support rating scale (SSRS), Pittsburgh sleep quality index (PSQI) and VAS respectively. The demographic and clinical data were also recorded. SLE disease activity was assessed by SLEDAI.

Results In SF-36 scale, scores of SLE patients were lower than normal people in global score and in all dimensionalities ($p<0.05$). SLEDAI, PHQ-9, GAD-7, PQSI and fatigue correlated negatively with SF-36 scores ($p<0.01$). SSRS correlated positively with SF-36 scores ($p<0.01$). In binary logistic regression analyses, disease activity, anxiety, social support, sleep quality and fatigue were the independent determinants of QOL in SLE ($R^2=0.860$, $p<0.01$).

Conclusions QOL of SLE patients are lower than normal people. Disease activity, anxiety, social support, sleep quality and fatigue are the major influencing factors of QOL in SLE.

409 DISEASE SEVERITY AND BURDEN IN JAPANESE PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS FROM CLAIMS DATABASE

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Background and aims Disease burdens in Japanese patients with systemic lupus erythematosus (SLE) remain unclear. This study assessed disease burden of Japanese SLE patients with different disease activity in claims database.

Abstract 409 Table 1 Demographics and characteristics.

Total number		295
Disease severity		
Mild	N(%)	28 (9.5)
Moderate	N(%)	134 (45.4)
Severe	N(%)	133 (45.1)
Female	N(%)	256 (86.8)
Age at the index	(mean year $\pm$ SD)	41.6 $\pm$ 10.3
Treatment period at the index	(mean year $\pm$ SD)	6.5 $\pm$ 6.0
Principle insurer (full time worker)	N(%)	107 (36.3)
Hospitalization during the study period	N(%)	116 (39.3)
CNS lupus	N(%)	12 (4.5)
Lupus nephritis	N(%)	110 (41.2)