

**Abstract 419 Table 2** Cox Regression analysis results for mortality risk factors in SLE patients with incident hospital admissions compared to controls.

Univariate Cox Regression				
	Hazard Ratio	95.0% CI for Exp(B)		P-value
		Lower	Upper	
Lupus Diagnosis	1.636	1.447	1.895	<0.001
Multivariate Cox Regression				
	Hazard Ratio	95.0% CI for Exp(B)		P-value
		Lower	Upper	
Lupus Diagnosis	1.991	1.473	2.693	<0.001
Age	1.070	1.060	1.080	<0.001
Year of Incident Hospitalisation	1.047	1.007	1.088	0.020
Males	1.357	1.022	1.802	0.035
Length of Stay	1.016	1.006	1.026	<0.001
Uninsured	1.648	1.389	1.956	0.001

The role of anti-RNP/Sm antibodies in thrombosis deserves further studies

#### 423 **INDONESIAN EPIDEMIOLOGIC DATA OF PAEDIATRIC SYSTEMIC LUPUS ERYTHEMATOSUS**

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**Background and aims** To estimate the epidemiological data of paediatrics systemic lupus erythematosus (SLE) in Indonesia.

**Methods** A nationwide prospective registry study for the epidemiological data of paediatric SLE was undertaken in Indonesia. Registry data from health service centres in 12 provinces were collected through online registry database since 2012.

**Results** Two hundred and ten cases of paediatric SLE were identified during the period of 2012–2015. The SLE frequency in girls was 9 times higher than in boys (18:172). The mean age was  $11.2 \pm 3.2$  years, with the peak incidence in 13 years old. Most patients were from West Java province, followed by North Sumatra, Jakarta, and South Sulawesi provinces, respectively. The chief complaints were mostly fever, skin disorder, and paleness.

**Conclusions** This national registry of paediatric SLE in Indonesia provided a good starting point to improve our understanding of the epidemiology of autoimmune diseases in Indonesia. Diagnosis and documentation of this disease are difficult due to challenges in disease recognition and lack of diagnostic facilities; hence, there is a possibility that SLE cases are under-diagnosed in some provinces. Future studies are needed to gain more comprehensive data on nationwide epidemiology of SLE.

#### 424 **COULD PRETERM DELIVERY BE A SURROGATE MARKER FOR ACCELERATED DEVELOPMENT OF CARDIOVASCULAR EVENTS IN WOMEN WITH SLE?**

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Abstract 420 Table 1 Patient Characteristics (at index hospitalisation) and study outcomes.

	Lupus was secondary to the Admitting Diagnosis	Matched Controls	$\chi^2$ or t-test
	MoCT or n(%)	MoCT or n(%)	(p-value)
Age	54.31 $\pm$ 18.76	54.32 $\pm$ 22.13	0.120
Female	1911 (82.3%)	1755 (82.8%)	0.210
Indigenous Status	82 (3.5%)	26 (1.2%)	<0.001
Length of Stay (days)	5 (IQR 2, 11)	2 (IQR 1, 5)	<0.001
Privately Insured	438 (35.4%)	469 (48.8%)	<0.001
Diagnosed with an Ischaemic Heart Disorder	184 (7.9%)	73 (3.4%)	<0.001
Diagnosed with a Cerebral Ischaemic Disorder	33 (1.4%)	18 (0.8%)	0.074
Diagnosed with a Hypertension Disorder	348 (15.0%)	136 (6.4%)	<0.001
Diagnosed with an Atherosclerotic Disorder	158 (6.8%)	19 (0.9%)	<0.001
Diagnosed with a Kidney Disorder	295 (12.7%)	39 (1.8%)	<0.001
Diagnosed with a Thrombotic Disorder	54 (2.3%)	4 (0.2%)	<0.001
Patient died during the hospital admission	87 (3.7%)	40 (1.9%)	<0.001
MoCT: Measure of Central Tendency, i.e. mean $\pm$ standard deviation or median (interquartile range).			

**Background and aims** Women with SLE are at greater risk of premature cardiovascular disease and adverse pregnancy outcomes including preterm delivery.

In the general population, preterm delivery is associated with an increased risk of maternal cardiovascular events (CVE).

Therefore, we sought to determine if preterm delivery was a surrogate marker for accelerated CVE in women with SLE.

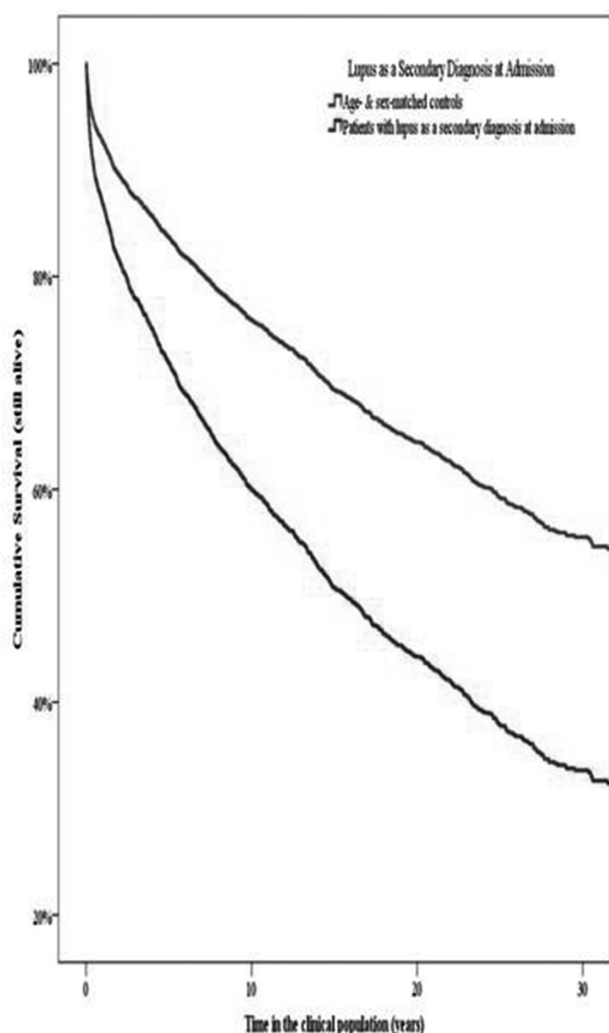
**Methods** Utilising linked population-based registries from Sweden between 1973–2011, women with SLE born between 1951 – 1971 were included. Preterm delivery was defined as delivery <34 weeks' gestation. Outcome was any CVE (i.e. coronary artery disease, stroke, peripheral vascular disease and death from these causes). Multivariate analysis adjusting for cardiovascular risk factors and SLE-related morbidity (inclusive

of inpatient admissions, duration of SLE, renal disease, infection and cancer) was performed.

**Results** There were 3224 women, median age 49 years (IQR 44–54); 72% had a previous pregnancy and 6% had delivered <34 weeks' gestation. The prevalence of CVE was 10.4%. Despite being of a similar age distribution, women with <34 week deliveries had longer duration of SLE, greater SLE-related morbidity and cardiovascular risk factors.

Those with <34 week deliveries had the highest incidence of CVE at the median age of 40.5 years. However, the non-parous group developed CVE earliest.

**Conclusions** The women with preterm deliveries <34 weeks displayed a more severe clinical phenotype of SLE; despite adjusting for these factors, they had an increased hazard of CVE with an accelerated rate of development of CVE



**Abstract 420 Figure 1** Kalpan-Meier survival analysis of mortality outcomes for SLE patients and age- & sex-matched controls (free of rheumatic disease conditions) from index hospitalisation (Log Rank (Mantel-Cox)  $\chi^2$ 158.265,  $p < 0.001$ ).

compared to those who delivered later. Preterm delivery could be a surrogate marker for active SLE in pregnancy.

#### 425 AUTOANTIBODIES PROFILE IN SYSTEMIC LUPUS ERYTHEMATOSUS (SLE) PATIENTS: A STUDY IN MALARIA ENDEMIC AREA

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**Background and aims** Systemic lupus erythematosus is an autoimmune disorder characterised by elevated levels of autoantibodies. Association of specific autoantibodies with different clinical manifestations of SLE has been documented. Malaria infection is associated with raised levels of autoantibodies. It is not known what happens to autoantibody productions in SLE patients residing in malarial endemic areas and its

association with disease manifestation. In the present study, we enrolled SLE patients residing in from different areas of Odisha state, India and investigate possible association of *P. falciparum* endemicity with autoantibodies profile of SLE patients.

**Methods** A total of 190 SLE patients from different districts of Odisha, which is endemic for *P. falciparum* malaria were enrolled in the present study. Clinically assessed, and autoantibodies levels were quantified by standard laboratory procedures. They were grouped as 1) Patients from low endemic area based on Annual Parasite Index (API) as low (API <4) and 2) High (API >4) and the data was analysed.

**Results** The mean age and disease duration of SLE patients were 28.44 and 1.67 years, respectively. 128 patients resided in lower endemic areas and 62 in high endemic areas. 62% of patients from higher endemic areas had nephritis and other major manifestations like NPSLE and myocarditis. Interestingly, SLE patients from areas (API >4) displayed higher levels of anti-Sm. Other auto antibodies levels were comparable among the two groups.

**Conclusions** The results of the present study revealed an association of malarial endemicity with differential production of autoantibodies, namely Sm. However, the role of malaria in the pathogenesis of SLE needs to be validated in a prospective study.

#### 426 RENAL ACTIVITY AND DAMAGE INCUR HIGHEST MEDICAL COSTS AMONG FILIPINO PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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**Background and aims** Systemic lupus erythematosus (SLE) predominantly affects individuals at peak age of productivity, and medical costs negatively impact on personal, family and community resources. This study aimed to identify annual medical costs and cost predictors among Filipino SLE patients.

**Methods** Direct annual healthcare costs were determined by survey questionnaires conducted among patients aged >18 years with minimum 1 year illness duration, consecutively seen at Lupus Clinics of University of Santo Tomas (UST) Hospital, Manila, Philippines from February to July 2016. Excluded were costs related to biologics. Predictors of cost were estimated using multiple regression analysis.

**Results** Respondents included 300 SLE patients (93.7% female) with mean age  $32.84 \pm 9.89$  (11-62) at diagnosis, mean disease duration  $5.87 \pm 5.58$  (1-36) years. Median and mean annual direct medical cost was Php 90 950 and Php 1 33 040 respectively (range Php 17 440–859,050). Annual cost was higher in those requiring dialysis ( $n=16$ ) compared to nephritis without dialysis ( $n=150$ ) vs without nephritis ever ( $n=134$ ), (median Php 5 95 400 vs 1 44 700 vs 55 020),  $p < 0.001$ . End stage renal disease (ESRD) ( $p < 0.001$ ), mycophenolate use ( $p < 0.001$ ), clinic visits ( $p = 0.016$ ) and hospitalisation ( $p = 0.018$ ) were independent variables which significantly contributed to annual costs. [Php47.5 = USD1]

**Conclusions** Nephritis especially if requiring dialysis was the most important cost predictor in this cohort, increasing annual costs up to 7 times. Mycophenolate use, frequency of hospitalisation and clinic visits increased annual costs by 147.2%, 173.8% and 2.6% respectively. This study reinforces need for