Methods A total of 1,392 SLE patients were included in the analysis. At the first visit when vitamin D was measured, 76.7% had levels of 25-hydroxyvitamin D<40 ng/mL. The SLE patients were: 92% female, mean age 42.9 years, and ethnicity 50% Caucasian, 41% African American. 27% patients had a history of thrombosis; 7% stroke, 4% MI and 14% DVT.

Results Vitamin D, measured either as a continuous variable or as ‘low’ (<40 ng/mL) vs normal, was associated with any thrombosis and with DVT.

We next looked prospectively: this analysis excluded thrombotic events before the first vitamin D measurement. It allowed for vitamin D to be a time-varying variable, as replacement therapy was given if it was low. After adjustment for race, age and sex, the adjusted hazard ratio remained significant for any thrombosis: 1.75 (1.04,2.92).

Conclusion Low vitamin D was significantly associated with any thrombosis and with DVT (even after adjustment for lupus anticoagulant). In prospective models it remained significantly associated with any thrombosis. As supplementation with vitamin D was proven to reduce thrombosis in an oncology randomised clinical trial, vitamin D replacement should become routine in SLE patients at risk for thrombosis.

Abstract SSD:5 BACTEREMIA IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS FROM RELESSER REGISTRY: RISK FACTORS, CLINICAL AND MICROBIOLOGICAL CHARACTERISTICS AND OUTCOMES

1A Lois Iglesias, 1JM Pego-Reigosa, 2FJ López-Longo, 3M Galindo, 4V del Campo-Pérez, 5J Torres-Cisneros, 6E Uriarte, 7P Vela, 8E Tomero, 9C Enausquín, 10A Narango, 11V Calvo-Alén, 12A Fdez-Nebro, 13R Rúa-Figueroa. 1University Hospital A Coruña, Spain; 2University Hospital Reina Sofía, Córdoba, Spain; 3University Hospital Melideo-EOVI Vigo, Spain; 4University Hospital Gregorio Marañón, Madrid, Spain; 5University Hospital 12 de Octubre, Madrid, Spain; 6University Hospital Reina Sofia, Córdoba, Spain; 7University Hospital Donostai, San Sebastián, Spain; 8University Hospital Alicante, Spain; 9University Hospital La Princesa, Madrid, Spain; 10University Hospital Dr Negrín, Gran Canaria, Spain; 11University Hospital Alava, Spain; 12University Hospital Malaga, Spain

Background In RELESSER (Spanish Society of Rheumatology Systemic Lupus Erythematosus-SLE-Registry) bacteremia is the main cause of death by infection. The available information about this severe infection in SLE patients is scarce.

Methods Retrospective nested case-control study of SLE patients (ACR97 criteria) with at least a bacteremic episode and random controls from RELESSER. Descriptive, bivariate and multivariate analysis (logistic regression).
Results 114 bacteremic episodes in 83 patients were found. Incidence rate: 2.7/1,000 patient-years (total n:3658). At the time of the bacteremia: median age: 40.5 (8Ð90) years, 88.6% female, disease duration: 9.7 (IR16.7), severe flare (SFI criteria): 66%, active nephritis: 16.7%, median SLICC/ACR DI: 3 (IR4), any comorbidity: 64% (McCabe-Jackson criteria: 28.1% rapidly/ultimately fatal), more frequently renal failure (15.8%) or diabetes (11.4%). SLE treatment at bacteremia: 88.6% corticosteroids (68.6%>10 mg/day), 57% immunosuppressors (mycophenolate 17.5% and cyclophosphamide (CYP) 12.3%), 27% antimalarials. 44.7% suffered invasive procedures, more frequently intravascular catheter (24.6%). Nosocomial bacteremia in 35.1%, more frequently urinary source (27.2%). 64% developed systemic inflammatory response syndrome, 35% needed intensive care unit admission, 22.8% had multiorganic failure. The most frequent microorganisms were E.coli (29.8%), Staphylococcus aureus (16.7%) (22% methicillin-resistant) and Salmonella spp. (10.5%). 16% of the gram-negative enteric bacilli were extended-spectrum b-lactamase positive. 17.5% were multidrug resistant. 68.4% started the antibiotherapy before blood culture results, resulting finally active in susceptibility testing in 56 (71.8%), indicating an appropriate empirical antibiotic therapy in 49%. The bacteremia-related mortality was 14%. Risk of death was higher in patients with severe sepsis (Pitt index >8) (OR: 13, 95% CI: 3.71 to 45.17). Bacteremia was recurrent in 26.3%. Associations with bacteremia in bivariate analysis (114 bacteremias vs 688 controls) are shown in table 1. Antimalarials were protective. In the multivariable analysis (adjusted for disease duration), only elevated creatinine (OR: 1.31 (95% CI: 1.01 to 1.70) p=0.045), diabetes (OR: 6.01 (95% CI: 2.26 to 15.95) p=0.000), cancer (OR: 5.32 (95% CI: 2.23 to 12.70), p=0.000), immunosuppressors (OR: 6.35 (95% CI: 3.42 to 11.77) p=0.000), CYP (OR: 9.37 (95% CI: 5.12 to 17.14) p=0.000) and SLICC/ACR DI (OR: 1.65 (95% CI: 1.31 to 2.09) p=0.000) remained statistically significant.

Conclusion Bacteremia occurred mostly in active SLE, frequently in the context of a severe flare. Gram negative bacilli predominated, with high rate of multidrug resistance. The empiric treatment was inappropriate in a half of the cases. Recurrence and mortality were high. Immunosuppressors use, comorbidity and damage were all associated to bacteremia.

Objective To investigate the rate of serious infections (SI) in systemic lupus erythematosus (SLE) compared to the general population.

Methods Individuals with incident SLE were identified from the Swedish National Patient Register (NPR) if they had two or more visits listing an SLE ICD code, at least one of which with a specialist, the first visit occurring Jan 2006 through Dec 2013. A non-SLE comparator group living in Sweden at the time the SLE case was diagnosed was matched on age, sex and county. We defined SI as a hospitalisation listing infection as main diagnosis from the NPR. Rates of SI per 1000 person-years (py) were calculated and age- and sex-adjusted Cox models were used to estimate hazard ratios and 95% confidence intervals (HR, 95% CI) comparing SLE to non-SLE. Because individuals can experience more than one SI, we also calculated the rate of infection by year since SLE diagnosis including multiple infections.

Results We identified 2846 individuals with SLE and 13 696 general population comparators. The average age at start of follow-up was 49% and 85% were female. Compared to the general population, individuals with SLE were more likely to have had a history of SI within a year before their first SLE visit (7.8% vs 0.8%). The incidence rate for SI in SLE was...