of infection were unknown focus, urinary tract, abdomen, and lower respiratory tract respectively. The mortality rate was 25%. Compared with 272 SLE controls, the bacteremia group had a longer SLE duration and a larger number of active major organ involvement. Active lupus nephritis, renal failure, lymphopenia, prior use of prednisolone 15 mg or more and pulse methylprednisolone increased risk for bacteremia significantly (table 1). The overall 30 day survival was 77.9% after bacteremia and the survival probability was poorer than controls (figure 1).

Conclusions Risk for bacteremia in SLE patients comprises both SLE disease factors and treatment factors. To improve survival, early recognition and prevention strategies in the high-risk patients is crucial.

195 SYSTEMIC LUPUS ERYTHEMATOSUS AND NEUROMYELITIS OPTICA SPECTRUM DISORDERS

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Background and aims Neuromyelitis optica spectrum disorder (NMOSD) is a group of uncommon demyelinating disorders characterised mainly by myelitis and opticus neuritis together with highly specific anti-aquaporin-4 antibodies. Case reports of patients with systemic lupus erythematosus (SLE) and NMOSD have been reported. Though myelitis and opticus neuritis are well described, they are rare manifestations of SLE and it is not known to what extent NMOSD contributes to these symptoms. We investigated the occurrence of NMOSD in a large cohort of patients with SLE.

Methods We identified all cases of myelitis and opticus neuritis in a single centre cohort comprising 610 SLE patients, identified during the period 1995–2014. Medical files were reviewed and frozen serum samples from patients with these symptoms were investigated for the presence of anti-aquaporin-4 antibodies.

Results 3 of 5 patients with myelitis and 0 of 1 patient with opticus neuritis were positive for IgG anti-aquaporin-4 antibodies. All patients positive for anti-aquaporin-4 antibodies presented with longitudinal extended transverse myelitis; lesions extending for more than three spinal segments.

Conclusions Among 6 cases with SLE and typical NMOSD symptoms we detected anti-aquaporin-4 antibodies in 3/5
patients with myelitis but not in any of the opticus neuritis cases. NMOSD seems to be a fairly common cause of SLE associated myelitis, accounting for 60% of SLE cases with myelitis in our study. SLE patients with engagement of the spinal cord or optic nerve should be screened for anti-aquaporin-4 antibodies. This is important since rituximab rather than cyclophosphamide is the preferred treatment for NMOSD.

### Abstracts

#### FACTORS INFLUENCING ON HEALTH-RELATED QUALITY OF LIFE IN FEMALE SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS WITH FIBROMYALGIA

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**Background and aims** Health-related quality of life (HRQoL) among systemic lupus erythematosus (SLE) patients is reduced, and fibromyalgia contribute to the decreased HRQoL. The objective of the present study is to evaluate the contributing factors for reduced HRQoL in female SLE patients regarding the presence of fibromyalgia.

**Methods** The HRQoL measurement was made using the SF-36 and Euroqol EQ-5D. Sleep quality, fatigue severity, fibromyalgia severity, and SLE disease associated variables were measured.

**Results** The scores of HRQoL, including overall scores as well as the physical component summary (PCS) and mental component summary (MCS), were lower in female SLE patients with fibromyalgia (n=41), than in those without fibromyalgia (n=111). SLE patients with fibromyalgia showed higher SLE disease activity, and more severe fatigue score, depressive mood and deteriorated sleep quality, compared with patients without fibromyalgia. In SLE patients with fibromyalgia, education level, SLE organ damage, fatigue severity, sleep quality and fibromyalgia severity were significantly correlated with EQ-5D, whereas age, income, SLE disease activity, steroid dose, and disease duration were not correlated with EQ-5D. On the other hand, education level did not show significant correlation with EQ-5D in SLE patients without fibromyalgia. Multivariate logistic regression analysis revealed that depressive mood is only independent contributing factors for deteriorated HRQoL in female SLE patients with fibromyalgia. Interestingly, in SLE patients without fibromyalgia also showed same result.

**Conclusions** The quality of life in SLE patients can be improved by managing depressive mood both in patients with fibromyalgia and in those without fibromyalgia.

#### A RETROSPECTIVE ANALYSIS ON SYSTEMIC LUPUS ERYTHEMATOSUS IN THE INDIGENOUS AND NON-INDIGENOUS POPULATION IN CENTRAL AUSTRALIA FOCCUSING ON TREATMENT AND OUTCOMES OF LUPUS NEPHRITIS

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**Aim** To analyse and compare the prevalence, manifestations and outcomes of systemic lupus erythematosus (SLE) in the Indigenous and non-Indigenous population in Central Australia.

**Background** SLE is a common autoimmune condition worldwide. With the development of better immunosuppression, outcome of the disease has significantly improved. There is a high prevalence of SLE in the Indigenous population in Central Australia.

**Methods** The medical records of all patients diagnosed and/or being treated for SLE at Alice Springs Hospital from 1999 to March 2016 were reviewed. Only those with definite SLE, defined by the 2012 Systemic Lupus International Collaborating Clinics (SLICC) were included in this study.

**Results** 39 patients fulfilled the criteria, 31 were Indigenous. 37 were female. The prevalence of SLE was 1:601 in the Indigenous and 1:4051 in the non-Indigenous. Both the groups fulfilled an average of 6 SLICC criteria. 18 patients 17 of whom were Indigenous, had biopsy proven lupus nephritis. The ISN-RPS 2003 lupus nephritis Class IV and V was most prevalent, followed by Class III. Various immunosuppressive regimes were used to treat lupus nephritis with varying responses. The Indigenous group had a high predisposition to infections, and the risk increased with immunosuppressive therapy. Non-adherence to treatment was a significant problem in the Indigenous group. 5 patients were deceased, 4 of whom were Indigenous.

**Conclusions** There is a high prevalence of SLE in the Indigenous population in Central Australia. A low threshold for renal biopsy is recommended for classification and treatment purposes. Treatment regimes and response varied between individuals.

#### TTP SECONDARY TO SLE: RITUXIMAB IMPROVES OVERALL BUT NOT RENAL SURVIVAL

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**Background and aims** Thrombotic thrombocytopenic purpura (TTP), a form of thrombotic microangiopathies (TMA), is a series of life-threatening disorders. Systemic lupus erythematosus (SLE) is one of most common acquired causes. To identify predictors of prognosis in patients with TTP secondary to SLE, we conducted a single-centre historical study.

**Methods** Using the electronic medical record system which includes all clinical data of patients who were hospitalised in the department of Rheumatology in Ren Ji Hospital from 2013 January to 2016 June, we identified patients with the query terms “SLE”, “schistocyte”, “TTP”, and “TMA”. Of 2182 SLE patients, a total of 21 consecutive patients with TTP secondary to SLE were enrolled.

**Results** The 90 day short-term mortality was 33.3%. The kidney involvement (66.7%) was associated with poor prognosis, while the administration of rituximab (n=13) was an independent protective factor according to logistic regression analysis. Although compared to conventional treatment, i.e., plasma exchange, high dose glucocorticoids and intravenous immunoglobulin, the overall survival is significantly higher among patients receiving rituximab add-on (92.2% vs 25%,...