



Abstract P58:157 Figure 1 The correlation between ferritin and RDW with anaemia

Clinic at University College London Hospital, UK. Standard haematological measures including Haemoglobin (Hb), Red Blood Cell Distribution Width (RDW) and Mean Corpuscular Volume (MCV) were recorded. Anaemia was defined by World Health Organisation (WHO) criteria; Hb <120 g/L in women and <130 g/L in men. Iron status was assessed by serum Ferritin and Transferrin saturations.

Results A total of 284 patients were recruited. 93% (265/284) of patients were female with ages ranging between 16–82 years old (median 44; IQR 32–56). Hb ranged from 88–167 g/L (median 127; IQR 117–135). A third of patients (33%; 95/284) were found to be anaemic. Of those who were anaemic, 89 were female and 6 were male. A low MCV is suggestive of iron deficiency; 5.6% (16/284) of patients were microcytic while 19% (54/284) were macrocytic. In those who were anaemic, 13% were microcytic (12/95) and 18% were macrocytic (17/95). RDW was typically at the upper limit of the normal range (median 14.1%; NR 11.5%–14.5%). 38% (107/284) of patients had an elevated RDW (>14.5%). Ferritin levels were highly variable, ranging from 6–2536 ng/mL (median 62 ng/mL; IQR 38–123 ng/mL). Ferritin <20 ng/mL (suggestive of iron deficiency) was seen in 12% (35/284) of patients. Transferrin saturations <16% (suggestive of iron

deficiency) were seen in 20% (57/284) of patients. These results are summarised in figure 1.

Conclusions Anaemia is a common feature of SLE (affecting one third of patients in this cohort). It is however difficult to verify how many cases are due to iron deficiency. Ferritin is a poor marker of total iron and is likely to be elevated in the context of inflammation. RDW (a marker of early iron deficiency) is however elevated in 38% of patients with SLE in this cohort.

PS8:158 DEVELOPING A CAUSE DIFFERENTIATION OF FATIGUE IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS (SLE) – A RETROSPECTIVE SINGLE CENTRE ANALYSIS

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10.1136/lupus-2018-abstract.201

Fatigue is the main symptom in up to 80% of SLE patients. Its origin is presumably multifactorial and it is an important factor in the reduced quality of life. This study tries to identify possible causes of fatigue in SLE patients.

In preparation of this study, the literature discussing fatigue in SLE patients was reviewed to identify possible associated factors. These and supposed additional factors were then investigated in a retrospective study of 332 SLE outpatients from the Poliklinik for Rheumatology of the medical faculty of the Heinrich-Heine-University Düsseldorf. This study population included 297 females and 35 males aged 19–81 years with an average disease duration of 13 years (range 0–41 years). Patient data were collected during their baseline visits in 2014 and 2015. The Fatigue Severity Scale (FSS) was used to measure fatigue. This instrument covers nine items associated with fatigue and allows patients to assess its severity on a scale from 1–7. An average result in the FSS ≥ 4 points is considered as severe fatigue. In this population the average result of the FSS was 3.76 points (range 0.89–7.0), in total 44% of all patients reached 4 points or more. In a univariate logistic regression a pathological result in the FSS ≥ 4 was then compared with patients' demographic and clinical data such as age, gender, disease activity and duration, depression, physical activity, pain, anaemia, vitamin D deficiency, sleep quality, target organ damage, obesity, hypothyroidism, infection, and current medication. A linear regression analysis was adjusted for potential confounders such as age, sex and disease activity

Abstract P58:158 Table 1

<i>Patient data</i>	<i>Associations with FSS ≥ 4</i>
Reduced physical well-being	OR = 1.59 95%-CI 1.42 – 1.79 (p < 0.0001)
Reduced psychological well-being	OR = 1.52 95%-CI 1.36 – 1.70 (p < 0.0001)
Pain	OR = 1.38 95%-CI 1.26 – 1.51 (p < 0.0001)
Sleeping disorders	OR = 1.30 95%-CI 1.20 – 1.40 (p < 0.0001)
Disease activity	OR = 2.00 95%-CI 1.55 – 2.58 (p < 0.0001)

using the Systemic Lupus Erythematosus Activity Questionnaire (SLAQ). Multiple significant correlations of fatigue could be demonstrated with age, gender, sleep disorders, pain, physical activity, disease activity, obesity, NSAIDs intake, physical and psychological well-being, overall health status and restrictions on everyday life. The 5 strongest associations with fatigue are given in the table.

Based on these results, further research should be conducted to analyse the mentioned factors in more detail. It remains an interesting hypothesis that therapy aimed to improve one or more associated factors identified will also improve patients' reported fatigue.

PS8:159 MOVING WITH THE TIMES: SOCIAL MEDIA USE AMONGST LUPUS PATIENTS

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10.1136/lupus-2018-abstract.202

Background Over the last decade the rise in social media use has been almost exponential. There are numerous online platforms where patients can interact for support and information gathering. A study presented at the ACR in 2013 showed lupus patients were willing to participate in Facebook chats for the purposes of disease education.¹ We sought to discover current usage of social media amongst an ethnically mixed population attending an inner city tertiary lupus centre.

Methods Questionnaires were distributed to consecutive patients attending the Barts Lupus Centre from October 2016 to February 2017. 17 questions asked about patient demographics and patients use of online information and support services, particularly social media platforms, with regards to lupus.

Results 84 completed questionnaires were returned. 83% respondents were female. There were 28 South Asians, 26 Whites and 24 Blacks, 2 of other ethnic groups and 2 of mixed race. 64% (n=54) of patients accessed online lupus information and support sites. 45% percent (n=38) of patients reported using social media sites (26% South Asians, 34% Blacks and 34% Whites). Of those using social media 22% (n=8) patients used these tools daily and 30% (n=11) reported weekly use. Facebook (n=20), blogs (n=9), youtube (n=9), and Instagram (n=7) were cited as the most frequently used applications. Most patients (n=30) sought information on the disease, 17 (45%) wanted to find out about new treatments for lupus, 16 (42%) sought new ways to self-manage their disease, 14 (37%) sought interactions with other patients, and 10 (26%) were seeking support online. Patients most commonly wanted information on skin and joint complaints and family planning. 66% (n=56) thought their rheumatology team should have an online social media application to communicate with their patients.

Conclusions A significant proportion of our lupus patients (45%) use social media to access information and support for their disease. Facebook, blogs, Instagram and Youtube are commonly used. Social media applications can provide physicians with a tool to interact with lupus patients to improve accessibility to health care and better health outcomes.

REFERENCE

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PS8:160 HEALTH CARE RESOURCE USE (HRU) AND MEDICAL COST ANALYSES AS A FUNCTION OF SYSTEMIC LUPUS ERYTHEMATOSUS (SLE) DISEASE SEVERITY: ANALYSIS OF CLAIMS DATA OF A GERMAN SICKNESS FUND

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10.1136/lupus-2018-abstract.203

Purpose Real-world HRU and medical cost analyses support drug development in SLE. The economic burden of SLE as a function of disease severity was quantified for a German cohort.

Methods HRU and cost analyses were performed for patients (≥ 18 years old) with SLE and compared with those of matched controls for 2009–2014 using the Betriebskrankenkassen (BKK) German Sickness Fund Database. BKK is a branch of the statutory German health insurance. SLE was confirmed in 2009 using the diagnosing physician's specialty, repeated SLE-related claims, co-diagnosis codes, laboratory tests, or prescriptions. At least 3 years' data was also required prior to 2009. SLE cases were control matched by age, sex, and baseline Charlson comorbidity index (CCI). Continuous outcomes were compared with nonparametric tests.

Results 1160 patients (mean age: 52 years; median baseline CCI: 2 [females], 3 [males]; baseline CCI range: 1–13) with SLE met all inclusion criteria. Most patients were female (84%) and were diagnosed with SLE before 2009 (85%). In 2009, SLE prevalence was 37.32/100,000 and incidence was 5.96/100,000. Prevalence increased progressively to 47.36/100,000 in 2014. SLE disease severity was characterised as mild, moderate, and severe for 148, 484, and 528 patients, respectively, per ICD-10-GM and medication/procedures codes. Patients with moderate and severe SLE had greater mean annual medical costs in 2009–2014 than matched controls (e.g., in 2009, moderate SLE: € 4867 vs € 3,380, $p < 0.0001$; severe SLE: € 10 001 vs € 4,239, $p < 0.0001$). Mean costs and number of outpatient visits, hospital stays, outpatient prescriptions and other benefits, and total number of hospital days were significantly greater for the full SLE population and moderate and severe SLE subpopulations than for matched controls. For example, mean costs for hospital stays, outpatient prescriptions, and other benefits in 2009 were € 4335 vs € 1,414, € 2582 vs € 1,087, and € 1068 vs € 691, respectively, for patients with severe SLE vs controls.

Conclusions Economic burden was greater for patients with moderate to severe SLE than for matched controls. Patients with SLE had greater HRU and costs than matched controls. HRU increased with increasing SLE disease severity. New therapeutics that decrease disease activity could reduce economic burden.

PS8:161 THE DISEASE BURDEN IN PATIENTS WITH LONGSTANDING SYSTEMIC LUPUS ERYTHEMATOSUS: FOCUS ON HEALTH RESOURCE USE AND COSTS

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10.1136/lupus-2018-abstract.204