AB1124 A UK STUDY: VOCATIONAL EXPERIENCES OF YOUNG ADULTS WITH JUVENILE IDIOPATHIC ARTHRITIS

L.E. Lunt^{1,2}, M. Bezzant³, A. Bosworth³, J.E. McDonagh^{1,2}, K. Hyrich^{1,2}, W. Thomson^{2,4}, S. Verstappen^{1,2}, ¹Arthritis Research UK Centre for Epidemiology, Centre for Musculoskeletal Research, Manchester Academic Health Science Centre, The University of Manchester; ²NIHR Manchester Biomedical Research Centre, Manchester University NHS Foundation Trust, Manchester Academic Health Science Centre, Manchester; ³National Rheumatoid Arthritis Society (NRAS), Maidenhead; ⁴Arthritis Research UK Centre for Genetics and Genomics, Centre for Musculoskeletal Research, The University of Manchester, Manchester, UK

Background: Little is known about the experiences of young adults living with Juvenile Idiopathic Arthritis (JIA) preparing for employment and career development.

Objectives: The purpose of this study was to understand the impact JIA has on career planning and early employment experiences of young adults (16–30 years).

Methods: Using existing literature (including grey literature), an online survey (consisted of 152 questions, 29 items related to young adults two of which were free text questions) was developed and sent to UK National Rheumatoid Arthritis Society (NRAS) members and distributed to non-members via social media tools including Facebook, Twitter and HealthUnlocked. Data collected included views and experiences in career planning and employment. The data pertaining to young adults are presented here.

Results: Of 1241 respondents 19 were young adults with JIA (range 16–30 years), 89% were female and 84% had university or equivalent qualifications. Due to incomplete responses there is missing data on all 19 young adults. 4/13 young adults were studying at university, 9/13 were in paid employment. 9/17 respondents reported their school did not offer additional work-related activities to students with disabilities and/or additional needs. 10/14 young adults felt their school did not provide advice about coping with possible limitations on placements/traineeships due to their arthritis. 11/14 respondents did consider their condition when thinking about future career plans e.g. "I wanted to work as a ranger or similar for the National Trust but it's a fairly physically demanding job and I knew my joints would suffer so I changed track slightly". However, 8/14 felt their career advisors at school/university did not take their arthritis into account e.g. "I had to cease my physiotherapy master's degree as my arthritis got too bad to continue and change career choice. I wish there would have been more discussion about it not being a reasonable choice for me at the time as we just didn't have the information then". 8/14 young adults changed their career plans because of their arthritis with managing JIA symptoms and a physically demanding role, as well as wanting to stay healthy, being the main reasons for changing career. Important aspects of employment included: "good relationships with your line manager, work you like doing and a job you can use your initiative".

Conclusions: Despite small numbers these results highlight potential current unmet vocational needs of young adults with JIA in the UK and the need for further research with this age group. There appears to be a lack of structured support within schools and universities offered to students with disabilities and/or additional needs, about work-related activities and careers. Young adults with JIA actively consider their condition whilst thinking about career opportunities and value a productive and challenging job with a good working environment, including relationships with colleagues and supervisors.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.2099

AB1125 URINARY SOLUBLE CD25 AS A BIOMARKER OF ACTIVE LUPUS NEPHRITIS IN EGYPTIAN CHILDREN WITH JUVENILE SYSTEMIC LUPUS ERYTHEMATOSUS

W.A. Hassan¹, M.Y. Mahgoub¹, E.G. Behiry², ¹Rheumatology and Rehabilitation; ²Clinical and Chemical Pathology, Benha University, Benha, Egypt

Background: Lupus nephritis (LN) is more prevalent and severe in children than adult and considered a major predictor of poor outcome. Thus, early diagnosis and treatment is associated with better outcome. Soluble CD25 (sCD25), also known as Interleukin-2 receptor alpha chain, is a type I transmembrane protein present on activated T lymphocytes that play important role in the pathogenesis LN.¹

Objectives: This study aimed to measure urinary levels of sCD25 in children with juvenile systemic lupus erythematosus (JSLE) and to investigate its role as a potential biomarker of activity in LN.

Methods: We measured sCD25 using enzyme-linked immunosorbent assay in urine samples from 53 JSLE patients and in urine samples from 30 healthy controls and these levels were normalised to creatinine excretion in urine. All JSLE patients underwent thorough clinical examination and disease activity assessment using Systemic Lupus Erythematosus Disease Activity Index (SLEDAI).

Systemic Lupus International Collaborating Clinics (SLICC) renal activity score² was used to assess activity of LN.

Results: Urinary sCD25 normalised levels were highly significantly increased in JSLE patients (278.38±133.68 pg/mg) compared to urinary level in the healthy controls (187.33±83.59 pg/mg), p<0.001. Also, patients with active LN had significantly higher normalised urinary sCD25 levels (402.69±139.58 pg/mg) compared to urinary level in active JSLE patients without LN (262.18±98.35 pg/mg), p=0.002 and inactive JSLE patients (192.7±66.4 pg/mg), p<0.001. In JSLE patients, urinary sCD25 normalised levels significantly correlated with SLEDAI (r=0.48, p<0.05), renal SLEDAI (r=0.61, p<0.001), SLICC renal activity score (r=0.68, p<0.001) and C3 (r=-0.48, p<0.001).

Conclusions: JSLE patients have significantly increased urinary levels of sCD25 especially in those with active LN. Urinary sCD25 levels are remarkably correlated with the renal disease activity scores suggesting that it could be a useful marker to reflect active renal involvement in JSLE patients.

REFERENCES:

- [1] - Gupta R, Yadav A, Misra R, Aggarwal A. Urinary sCD25 as a biomarker of lupus nephritis disease activity. *Lupus* 2015; Mar;24(3):273–9.
- [2] - Petri M, Kasitanon N, Lee SS, Link K, Magder L, Bae SC, et al. Systemic Lupus International Collaborating Clinics (2008) Systemic lupus international collaborating clinics renal activity/response exercise. Development of a renal activity score and renal response index. *Arthritis Rheum* 2008; 58 (6):1784–88.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4494

AB1126 NO RADIOGRAPHIC WRIST DAMAGE AFTER TARGETED TREATMENT IN JUVENILE IDIOPATHIC ARTHRITIS

W.G. van Braak¹, D. Schreurs², P. Hissink Muller^{2,3}, C. Nusman^{1,4}, R. Hemke¹, D. Schonenberg¹, J. van den Berg¹, T. Kuijpers⁴, Y. Koopman⁵, M. van Rossum⁶, L. van Suijlekom-Smit³, D. Brinkman², C. Allaart⁷, R. ten Cate², M. Maas¹.

¹Department of Radiology, Academic Medical Center, Amsterdam; ²Department of Pediatric Rheumatology, Leiden University Medical Center, Leiden; ³Department of Pediatrics/Pediatric Rheumatology, Sophia Children's Hospital Erasmus Medical Center, Rotterdam; ⁴Department of Pediatric Hematology, Immunology, Rheumatology and Infectious Diseases, Emma Children's Hospital AMC, Amsterdam; ⁵Department of Pediatrics, Hagaziekenhuis Juliana Children's Hospital, The Hague; ⁶Department of Pediatric Rheumatology, Amsterdam Rheumatology and Immunology Center location Reade, Amsterdam; ⁷Department of Rheumatology, Leiden University Medical Center, Leiden, Netherlands

Background: Juvenile idiopathic arthritis (JIA) is characterised by chronic inflammation of the joints which can lead to structural bone damage.

Objectives: The objective of this study was to evaluate the response of new onset JIA patients to an early targeted treatment by conventional radiography.

Methods: JIA patients participating in the BeSt for Kids study (NTR 1574) were eligible in case of wrist involvement at inclusion and if conventional radiographs were available at baseline or within 6 months before or after study inclusion. Follow-up radiographs of hands and wrists after 12–36 months were available for comparison. Radiographic bone damage as reflected by carpal length was assessed using the Poznanski score¹, providing 'Z' as indication of the deviation from a healthy population as measured by radiometacarpal length relative to the second metacarpal length (RM/M2). BoneXpert method² was used to automatically determine bone age and bone mineral density (BMD) of the wrist.

Abstract AB1126 – Table 1

	Baseline Z-score (95% CI)	Compared to healthy population	Follow-up Z-score (95% CI)	Compared to healthy population	Change in Z-score
Poznanski score	0.047 (-0.32 to 0.41)	p=0.795	0.055 (-0.28 to 0.39)	p=0.744	p=0.937
BMD	-0.71 (-1.12 to -0.30)	p=0.001	-0.44 (-0.75 to -0.12)	p=0.008	p=0.032
Bone age	-0.08 (-0.44 to 0.28)	p=0.651	-0.25 (-0.59 to 0.09)	p=0.574	p=0.092

Results: Forty JIA (27 female) patients were evaluated for Poznanski score and BMD (mean age 7.2±3.4 years), 26 patients (15 female) were evaluated for bone age (mean age 9.3±2.2 years). Assessed by the mean Z-score of RM/M2, we did not detect wrist damage at baseline nor at follow-up. Assessed by the mean Z-score of the bone age, we did not detect deviating bone age at baseline nor at follow-up. At baseline BMD was significantly diminished compared to healthy