

## PAEDIATRIC RHEUMATOLOGISTS' PERSPECTIVE ON CARDIOVASCULAR RISK ASSESSMENT AND MANAGEMENT IN YOUNG PEOPLE WITH CHILDHOOD ONSET SYSTEMIC LUPUS ERYTHEMATOSUS – A PRES/CARRA SURVEY

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**Introduction:** Atherosclerosis is an early manifestation of cardiovascular disease (CVD) which can be detected in young people (YP), suggesting that cardiovascular risk (CVR) management should start earlier in life. Childhood onset systemic lupus erythematosus (cSLE) has a 100-300-fold increased CVD mortality vs. age-matched population. Although progress has been made in assessing CVR for primary prevention of CVD, there is less guidance for CVR assessment in YP.

**Objectives:** The survey aimed to explore paediatric rheumatologists' perspective on CVR assessment/management in YP with cSLE, as well as potential geographical differences.

**Methods:** A 17-question survey addressing the objectives above was distributed electronically through contact lists to the Paediatric Rheumatology European Society (PReS) and the Childhood Arthritis and Rheumatology Research Alliance (CARRA) members. Respondents were asked to rate some of their choices from 5 - "very important" to 1 - "unimportant". Findings are reported using descriptive statistics.

**Results:** Out of 170 respondents, 161 (95%) completed the survey (62% were from Europe, 34% from US/Canada and 4% from other countries). The majority (67%) were fully trained paediatric rheumatologists, 9% dually trained, 23% were paediatric rheumatology trainees and 1% allied health professionals; 72% respondents reported seeing up to 10 cSLE patients/month. There was a significant agreement that YP with cSLE have a higher CVR compared to age-matched population (95%), and that CVR assessment in cSLE is warranted (95%), with the annual assessment being the most preferred option (70%). Despite 50% of respondents not being aware of any CVD-risk scores, 90% agreed with the need of validating a CVR score in YP with cSLE, and 70% of respondents indicated that they would use such a tool to guide lifestyle changes, while 50% would use it to either assess response to CVR management interventions or calculate the patients' theoretical CVR. Previous CVD events (99%), smoking (98%), obesity and hyperglycaemia (87%), atherosclerosis lesions on vascular scans (86%), hypertension and BMI (85%), and increased LDL-cholesterol level (79%) were the top factors rated as "very" or "moderately important" for CVR assessment in cSLE. The most preferred CVR management interventions were tight control of cSLE and diabetes (78%), increase in physical activity (77%), followed by diet (72%) and tapering steroids (65%), with 51% respondents supporting the use of statins. Interestingly, 66% rated deprivation (1) as "very" or "moderately important" in determining CVR (98% from US vs. 21% from Europe  $p < 0.001$ ) with no differences between trainees and consultants (78% vs. 80%,  $p = 0.89$ ). No other significant geographical or training level differences were noted.

**Conclusion:** This is the first worldwide survey investigating paediatric rheumatologists' perspective on CVR in cSLE, which provided preliminary evidence for good consensus for most of the proposed strategies for CVR assessment and management in cSLE. There was a significant geographical difference in recognising the role of patient's deprivation in determining CVR, which may require further exploration.

**Patient Consent:** Not applicable (there are no patient data)

**References:** (1). Kimenai DM, et al. *Circulation*. 2022 Jul 19;146(3):240-248

**Disclosure of Interest:** None declared