EarLy Surveillance for autoimmune type 1 diabetes — paediatric screening in the UK

Background
Children with pre-symptomatic type 1 diabetes can be identified through testing for circulating islet autoantibodies. Identifying children at risk reduces the rates of diabetic ketoacidosis at presentation and allows participation in clinical trials for type 1 diabetes prevention.

Aim
The Early Surveillance for Autoimmune diabetes study (ELSA) is exploring feasibility and acceptability of UK paediatric general population screening.

Method
The ELSA study runs from July 2022 to August 2024 and aims to recruit 20 000 children aged 3–13 years. ELSA is screening for islet autoantibodies via dried blood spot (DBS) and subsequent staging via oral glucose tolerance testing. ELSA is exploring feasibility and acceptability of UK paediatric general population screening.

Results
At the time of writing, 2582 children have been consented to the study. In the preliminary beta version (July–October 2022), there were 59 expressions of interest, 37 children consented (63%) and 22 kits returned (59%). Of the consented children, 17 families were invited and 8 were passive recruits through friends/family. Reasons for not returning the kit included issue with home-testing ($n=1$) and concern about the lancet ($n=1$). One of the DBS kits screened positive (4.5%), but the serum confirmation did not detect autoantibodies. The study launched nationally via social media on 14 November 2022 (World Diabetes Day) leading to a surge in expressions of interest ($n=3070$). Of these, 2141 children were consented within 36 hours.

Conclusion
Social media has been an effective route to recruitment. Community outreach to schools and general practices will be implemented as this study evolves, to explore optimal recruitment modalities and acceptability.

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