**Title: Do families participate in follow-up autoantibody testing for Type 1 Diabetes in general population children after genetic risk screening?**

*Aims:*  The Type 1 Diabetes National Screening Pilot identified newborns and infants at increased genetic risk of type 1 diabetes (T1D). This study aimed to explore uptake, parental anxiety and perceptions around follow-up antibody testing.

*Methods:* Newborns and infants with an increased genetic risk of T1D, defined as a polygenic risk score of > 90th centile, were followed up with annual islet autoantibody (IA) testing through home based capillary detection kits. Parents completed questionnaires prior to genetic screening, when results were received and at each annual follow up. The State Anxiety Inventory (SAI) was also administered at each time point. A score ≥ 40 points denoted elevated anxiety symptoms. Binary logistic regression was used to examine associations between categorical variables.

*Results:* 325 newborns and infants were identified as having increased genetic risk. 74% of infants (n=112) and 55% of newborns (n=89) completed the first annual follow up at age 1y. Almost all parents who completed questionnaires (n=93) felt that screening was worthwhile, acceptable and should be widely available (99% for all). This had increased from perceptions at time of screening (93%, 97% and 94% respectively).

Median anxiety was lowered after the first annual follow up (34.9 [IQR 19.6]), compared to when genetic results were received (51.7 [IQR 16.8]) but had not returned to at-screening levels (26.5 [IQR 14.0]). Parental sex, marital status and education levels were not associated with high anxiety levels.

*Conclusions:* This is one of the first population based T1D screening programs to show high uptake rates for follow up IA testing in children with increased genetic risk, compared to 7% in other studies(1), as well as demonstrating high levels of acceptance in those returning for IA testing. Anxiety levels fell with follow up testing.

Word Count: 287

1. Guertin KA, et al. Implementation of type 1 diabetes genetic risk screening in children in diverse communities: the Virginia PrIMeD project. Genome Med. 2024;16(1):31.