Supplemental Materials

Supplemental Table: Selected completed birth cohorts – relatives and general population now completed or in follow up*							
Program: Location	Population screened	Location	Number screened	Screening material	Screening assays	Rates of positive screens	Comments
BABYDIAB 1989-2000 (1)	Newborn children of those with T1D	Germany	2364	Cord blood then venous blood	ICA and RBA: IAA, GADA, IA-2A, ZnT8A and TTG AA	• AA+: 220(9%) • ≥2 AA+: 123(5%)	• AA screening in cord blood, at 9 months and 2, 5, and 8 years • From 3 yrs, yearly oral glucose tolerance test monitoring if AA+
DAISY 1993-2004	Newborn general population (GP) and relatives <4 yrs	Colorado, US	Newborns : 32,114	Cord blood for HLA and serum for AA	• RBA and ECL: IAA, GADA, IA-2A, ZnT8A, tTGA	• 1,424 GP newborns and 1,123 relatives identified and followed • AA+: 8% • ≥2 AA+: 5%	• Genetically at-risk newborns based on HLA genotyping and relatives followed at 9, 15, 24 months and annually thereafter until age 20 y • AA+ followed q3-6 mo until 30 y
DEW-IT (2) 1995-2001 2010-2012	GP newborn blood spots	Washington, US	42000 blood spots tested (3)	Dried new born screening blood spots, then serum for AA	HLA genotyping; RBA: IAA, GADA, IA-2A, and later, ZnT8A	• 14.2% of children eligible for AA surveillance(3) • 3748 followed over time (3) • AA+: 173 (5%) • ≥2 AA+: 170 (5%)	Cover letter and consent form mailed to Washington families. Consenting families received HLA genotyping of dried newborn blood spots followed by AA monitoring of at-risk individuals.
DiPiS (4) 2000-2004	GP newborns	Sweden	35688	Cord blood for HLA, blood spots for GADA and IA2A, serum for IAA and ZnT8	HLA genotyping; RBA: IAA, GADA, IA-2A, ZnT8A	• 7826 positive screens(3) • 4359 followed over time •AA+: 184 (4%) •≥2 AA +: 100 (2%)	• Children identified for surveillance based on risk score that include HLA genotype and environmental, demographic, and historical risk factors. • Positive screens with yearly follow up. Those with ≥2 AA+ followed every 3 months.
TEDDY (5) 2004-2010	Newborns in both relatives and GP	Clinical centers in US Finland, Germany, Sweden	424,788	Capillary blood spots	HLA genotyping; RBA: IAA, GADA, IA-2A, tTGA	21589 (0.05%) of screens with high-risk HLA; 8676 parents consented to follow up.	• High-risk newborns followed every 3-6 months for 15 yrs for AAs and T1D, with documentation of potential environmental contributors. • 90% without a known relative with T1D

Recent follow up data obtained from recent published references (3; 5) and personal communications (M Rewers)

GP=general population; AA- autoantibody; Study Acronyms: DAISY: Diabetes Autoimmunity Study in the Young; DEWIT: Diabetes Evaluation in Washington Study; DiPiS: Diabetes Prediction in Skane; TEDDY: The Environmental Determinants of Diabetes in Youth

References

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