

ESM Methods 3: Prevalence of MODY in patients diagnosed ≤ 35 y:

A population-based dataset in Tayside indicated the prevalence of diabetes in patients diagnosed ≤ 35 y is 5272 cases per million, comprising 74% Type 1 and 26% Type 2 diabetes (written communication E Pearson & R. McAlpine, 2011). The overall minimum UK prevalence of all MODY is estimated to be 108 cases per million[1] with 84% of cases of MODY being diagnosed ≤ 35 y, suggesting 91 cases per million (1.7% of diabetes in this age group). 30% of MODY subjects were insulin treated in a way that they fitted “Type 1” criteria (i.e. 0.51% overall), whereas the remaining 70% did not receive insulin treatment shortly after diagnosis and hence fitted “Type 2” criteria (i.e. 1.19% overall). Given 74% have Type 1 diabetes within this group, prevalences for MODY can be calculated as 0.7% ($0.51/74$) and 4.6% ($1.19/26$) for MODY fitting “Type 1” and “Type 2” criteria, respectively.

References:

[1] Shields BM, Hicks S, Shepherd MH, Colclough K, Hattersley AT, Ellard S (2010) Maturity-onset diabetes of the young (MODY): how many cases are we missing? *Diabetologia* 53: 2504-2508