

Incidence of Type 1 Diabetes Mellitus in Children \leq age 14 years in Nova Scotia 1992-2000

SONIA SALISBURY, PEGGY DUNBAR, DALE CLAYTON, GEORGE KEPHART, MARK SMITH, JOHN LEBLANC. The Diabetes Care Program of Nova Scotia (DCPNS), Halifax, NS.*

Confirmation of earlier reports of the very high incidence of type 1 diabetes (DM) in Nova Scotia is the purpose of this report. Since 1992, the DCPNS has registered all incident cases of type 1 DM \leq age 18 yrs in Nova Scotia, reported from each of the 37 Diabetes Education Centres (DECs). On an annual basis, each DEC forwards information on all new cases of DM in those \leq age 18 yrs. This is in addition to the usual monthly reporting of new cases where a standard referral form is completed in triplicate and the non-person identified copy forwarded to the DCPNS. The annual data is then entered centrally into a specific DCPNS database for new cases of DM in persons \leq age 18 yrs.

From 1992 to 2000 we have noted a very high incidence rate of 26.39/100,000 for children \leq 14 yrs. This has been relatively stable since the registry's inception. Nineteen counties, divided into 4 health regions, showed little variation in incidence, with the range of 23.02/100,000 to 30.63/100,000. For the age group \leq 18 yrs, the incidence was estimated as 23.81/100,000. The mean age at diagnosis from 1992-2000 was 9.82 yrs, and the percentage in each age grouping for all yrs was as follows: 18.8%, < 5; 29.3%, 5-9; 38.1%, 10-14; and 13.9%, for ages 15-18.

Preliminary analysis of administrative data (1992-1998), identifying physician billing codes (ICD9 250) for subjects with DM \leq age 18 yrs, showed an inability to define an acceptable rule reflective of incident cases in comparison to the true incidence as reported in the DCPNS database. For a rare disease such as type 1 DM in children, a registry is the only accurate means to calculate incidence rates. The intensity of care needed by children/youth with type 1 DM ensures referral to health professionals with an expertise in diabetes management (DEC staff), thus making reporting to a registry an accurate estimate of incidence. This information is essential for health care resource planning.

Poster presentation: CDA/CSEM Professional Conference and Annual Meetings, Edmonton, AB, (Oct. 17- 20, 2001).