

# NON-TYPE 1 DIABETES MELLITUS (NT1DM)

## CANADIAN PAEDIATRIC SURVEILLANCE PROGRAM

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## REPORTING INFORMATION

(To be completed by the CPSP Senior Coordinator)

Report number: \_\_\_\_\_

Month of reporting: \_\_\_\_\_

Province: \_\_\_\_\_

Today's date: \_\_\_\_\_

**Please complete the following sections for the case identified above.**  
**Strict confidentiality of information will be assured.**

### CASE DEFINITION FOR NON-TYPE 1 DIABETES MELLITUS (NT1DM)

Report any patient 0 to 17.9 years of age with a diagnosis of non-type 1 diabetes, either new or revised, with clinical features that are **not** consistent with classic type 1 diabetes (non-obese child with symptomatic acute hyperglycemia).

#### Canadian Diabetes Association definition of diabetes

- fasting plasma glucose (FBG)  $\geq 7.0$  mmol/L\* or
- random plasma glucose  $\geq 11.1$  mmol/L\* or
- two hour plasma glucose  $\geq 11.1$  mmol/L\* after a standard (75g) oral glucose tolerance test

\* Requires a second, confirmatory test if child is asymptomatic

**Clinical features suggestive of non-type 1 diabetes mellitus are listed below.** If you are uncertain whether your patient has NT1DM, please report the case for study investigators to review and classify.

- Obesity (body mass index  $> 95^{\text{th}}$  percentile for age and gender)
- Family history of T2DM in a first or second degree relative(s)
- Belonging to a high-risk ethnic group (e.g., Aboriginal, African, Hispanic, South-Asian)
- A history of exposure to diabetes in utero (diagnosed before or during pregnancy)
- Acanthosis nigricans
- Polycystic ovarian syndrome
- Diabetes in a person with a syndrome often associated with type 2 diabetes (Prader-Willi Syndrome)
- Diabetes in a non-obese patient with at least one first-degree relative and/or two second-degree relatives with diabetes
- Minimal or no insulin requirement with a normal or near normal A1c level (4-6%) one year after diagnosis
- A diagnosis of diabetes while on medical therapy with a known diabetogenic medication (e.g., glucocorticoid, L-asparaginase, cyclosporine, tacrolimus, atypical antipsychotic, anticonvulsant)

**Exclusions:** Do not report any cystic fibrosis-related diabetes or patients in critical care settings requiring short-term insulin therapy for stress hyperglycemia

## SECTION 1 – DEMOGRAPHIC INFORMATION

1.1 Date of birth: \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
DD MM YYYY

1.2 Sex: Male \_\_\_\_ Female \_\_\_\_

1.3 Province/Territory of residence: \_\_\_\_\_

1.4 Ethnicity

Caucasian \_\_\_\_ Hispanic \_\_\_\_ Middle Eastern \_\_\_\_ African/Caribbean \_\_\_\_

Aboriginal – If known: First Nations \_\_\_\_ Inuit \_\_\_\_ Métis \_\_\_\_

Asian – If known: Chinese \_\_\_\_ Japanese \_\_\_\_ Filipino \_\_\_\_ Vietnamese \_\_\_\_

Indian \_\_\_\_ Pakistani \_\_\_\_

**SECTION 1 – DEMOGRAPHIC INFORMATION (cont'd)**

## 1.4 Ethnicity (cont'd)

Mixed (specify) \_\_\_\_\_

Other (specify) \_\_\_\_\_

Unknown \_\_\_\_\_

**SECTION 2 – FAMILY HISTORY OF TYPE 2 DIABETES**

	No	Yes	Unknown
2.1 Mother with gestational diabetes during the pregnancy with this child	___	___	___
2.2 Mother with diabetes (type 1 or type 2) before pregnancy	___	___	___
2.3 Father with diabetes	___	___	___
2.4 Second-degree family member with diabetes	___	___	___

**SECTION 3 – PATIENT DIAGNOSIS OF NON-TYPE 1 DIABETES MELLITUS**

Date of diagnosis (DD/MM/YYYY)

## 3.1 Specify diagnosis (if known) and date of diagnosis (if known):

\_\_\_ Diagnosis unknown or unconfirmed \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

\_\_\_ Type 2 diabetes mellitus (evidence of insulin resistance) \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

\_\_\_ Monogenic diabetes (confirmed/suspected gene mutation) \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

\_\_\_ Diagnosis secondary to medical treatment

Please specify: \_\_\_ glucocorticoids \_\_\_ tacrolimus

\_\_\_ L-asparaginase \_\_\_ atypical antipsychotic

\_\_\_ cyclosporine \_\_\_ anticonvulsant

\_\_\_ other: \_\_\_\_\_

## 3.2 Is there a co-existing genetic syndrome (e.g., Prader-Willi syndrome)? Yes \_\_\_ No \_\_\_

Please specify: \_\_\_\_\_

## 3.3 Is this a revised diagnosis if type 1 diabetes mellitus? Yes \_\_\_ No \_\_\_

If yes, please answer below:

3.3.1 Date of diagnosis of type 1 diabetes mellitus: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
DD MM YYYY

## 3.3.2 Reason that prompted a revised diagnosis:

\_\_\_ low or lack of insulin requirement

\_\_\_ excellent control on minimal insulin

\_\_\_ non-obese child with an affected parent

\_\_\_ other (specify) \_\_\_\_\_

**SECTION 4 – SIGNS AND SYMPTOMS AT FIRST PRESENTATION**4.1 Height: \_\_\_\_\_ cm Weight: \_\_\_\_\_ kg Date measured: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
DD MM YYYY

4.2 Symptom	No	Yes	Unknown	Symptom	No	Yes	Unknown
4.2.1 Asymptomatic	___	___	___	4.2.5 Diabetic ketoacidosis (ph < 7.35)	___	___	___
4.2.2 Polyuria	___	___	___	4.2.6 Acanthosis nigricans	___	___	___
4.2.3 Polydypsia	___	___	___	4.2.7 Obesity	___	___	___
4.2.4 Weight loss	___	___	___	4.2.8 Fatigue	___	___	___
4.2.9 Skin/genital infection (e.g., vaginal yeast infection)	___	___	___				
4.2.10 Other (specify) _____							

**SECTION 5 – INVESTIGATIONS AT PRESENTATION**

The list of investigations below is an inclusive list and all investigations may not apply. Please fill in the results of investigations that are available for your patient.

Test	Results (with units)	Unknown
5.1 Random blood glucose	_____	_____
5.2 Fasting blood glucose	_____	_____
5.3 Oral glucose tolerance test (fasting value/2-hour value)	_____/____	_____
5.4 Glucosuria	_____	_____
5.5 Ketonuria	_____	_____
5.6 pH/bicarbonate	_____/____	_____
5.7 Insulin	_____	_____
5.8 C-peptide	_____	_____
5.9 A1c (please provide normal range)	_____	_____
5.10 If antibody investigations were done, please complete below. If no antibody investigations were done, please check here: _____		
5.10.1 Glutamic acid decarboxylase (GAD)	_____	_____
5.10.2 Islet cell antibody (ICA)	_____	_____
5.10.3 Insulin antibody	_____	_____
5.10.4 Tyrosine phosphatase antibody (IA-2 $\forall$ )	_____	_____
5.11 If genetic testing for monogenic forms of diabetes was done, please indicate the mutation identified:	_____	

**SECTION 6 – MANAGEMENT WITHIN THE FIRST MONTH OF PRESENTATION (please check all that apply)**

Treatment	Yes	No	Unknown
6.1 Insulin	_____	_____	_____
6.2 Oral hypoglycemic	_____	_____	_____
6.3 Lifestyle counseling (diet and exercise)	_____	_____	_____

If you have investigated your patient for metabolic co-morbidities, please complete Section 7.

**SECTION 7 – ASSOCIATED METABOLIC CO-MORBIDITIES AT PRESENTATION**

Co-morbidity	Yes	No	Unknown
7.1 Polycystic ovarian syndrome	_____	_____	_____
7.2 Dyslipidemia	_____	_____	_____
7.3 Hypertension	_____	_____	_____
7.4 Non-alcoholic fatty liver disease (ALT > 90 or “fatty liver” on U/S)	_____	_____	_____
7.5 Renal disease (micro/macroalbuminuria)	_____	_____	_____
7.6 Other (e.g., pancreatitis) – please specify: _____			

**SECTION 8 – REPORTING PHYSICIAN**

First name \_\_\_\_\_ Surname \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ Province \_\_\_\_\_ Postal code \_\_\_\_\_  
 Telephone number \_\_\_\_\_ Fax number \_\_\_\_\_  
 E-mail \_\_\_\_\_ Date completed \_\_\_\_\_

**Thank you for completing this form.**