

# 2016 Results of the Multi-Centric Study RENACED Diabetes Tipo 1



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## INTRODUCTION

The information regarding treatment practices and follow-up of type 1 diabetes (T1D) patients in Mexico is limited. An online system, **RENACED Diabetes Tipo 1** was created to have a longitudinal T1D registry with real-life data in Mexico.

## METHODS

Descriptive analysis of 474 T1D patients registered on RENACED DT1 in 10 Mexican States (12 different medical units), until 10/5/2016. Registries without data were considered as lost.

## RESULTS

Fifty nine percent of patients were women (Fig. 1), mean age 25 years. Fifteen percent have family history of T1D and 58% of T2D.

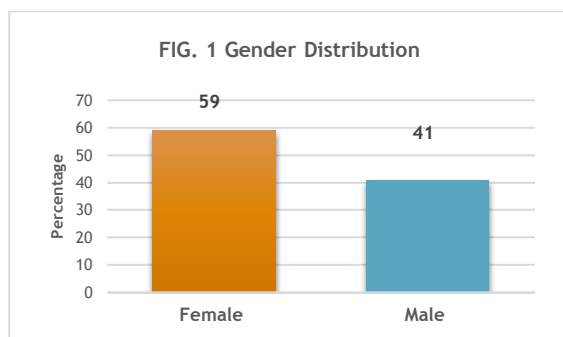


Table 1, shows patients' characteristics at diagnosis:

TABLE 1: Descriptive Characteristics of the Population at Diagnosis	
Mean age at diagnosis (years)	12.5
Diagnosis Mean HbA1c (%)	12.0
DKA at diagnosis (%)	53.3
Hospital Admissions at diagnosis (%)	68.4

Table 2 shows current associated diseases, tobacco and alcohol use.

TABLE 2: Associated diseases, tobacco and alcohol use	
	%
Hypothyroidism	43.2
On levothyroxine	20.5
Hypertension	3.4
Alcohol intake	17.2
Tobacco use	9.9

Table 3 shows see patients' most recent metabolic data:

TABLE 3: Most Recent Metabolic Data	
Mean HbA1c in the last visit (%)	8.5
Mean daily insulin dose (UI/kg)	0.7
Continuous Glucose Monitor (%)	15.6
Counts Carbohydrates (%)	72.4
Exercise (%)	45.5

Thirty-three percent performs SMBG (self-monitor of blood glucose)  $\geq 4$  times/day, 32% uses an insulin-pump and 67% are on basal-bolus regimen.

Patients that perform SMBG  $\geq 4$  times/day, had lower HbA1c levels (8.04; CI95% 7.7–8.4) than those that monitor less (8.6; CI 95% 8.4–8.9) ( $p < 0.05$ ).

A lower HbA1c level ( $< 0.05$ ) was observed in patients that use a continuous glucose monitor (CGM) (7.8; CI 95% 7.4–8.1) than in those who do not (8.7; CI 95% 8.5–9.0).

A total of 19% and 32% of patients had HbA1c level  $< 7\%$  and  $< 7.5\%$ , respectively.

The presence of mild/moderate hypoglycemia is high (68.8%), as well as that of severe hypoglycemia (18%), the presence of chronic complications was low (6.5%) (Table 4).

TABLE 4: Diabetes Complications	
	%
Mild/Moderate hypoglycemia events	68.8
Severe hypoglycemia events	18.0
DKA post diagnosis	10.7
Chronic Complications	6.5

## CONCLUSIONS

According to the literature, the percentage of patients with HbA1c at goal is lower than desired, even though they are on state-of-the-art treatment. Performing SMBG  $\geq 4$  times/day and CGM use are associated with better glycemic control. Less painful and less costly glucose monitoring technics and more access to them can lead to better glycemic control.

This is the first online system for T1D registry in Mexico. A larger number of cases will lead to better national representation.