SWEET – ISPAD JENIOUS Joint International Project

Impact of COVID19 pandemic on pediatric type 1 diabetes outcomes

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Background:
The current COVID-19 pandemic has forced us to modify established ways in which safe and effective diabetes management is delivered. During these challenging times both general healthcare and specifically diabetes care can be less accessible and efficient what can negatively impact the glycemic control of our patients. Additionally, delayed diagnosis of new onset type 1 diabetes may result in more frequent diabetic ketoacidosis at clinical presentation.

Medical teams, including diabetic multidisciplinary teams, try to overcome these challenges on various ways, especially through digital or virtual clinic visits (telehealth). Modern platforms have become easily accessible and useful and together with the availability of uploaded continuous glucose monitoring data, insulin pumps, and glucometer data can facilitate effective diabetes management remotely.

The aim of this project is to evaluate the impact of COVID 19 pandemic on glycemic control of children with type 1 diabetes in SWEET registry and additional JENIOUS centers, on the rate of DKA at new-onset type 1 diabetes and the role of availability of telehealth.

Research Questions
Individuals with type 1 diabetes included in the SWEET registry database will be selected for this study with additional data from up to 4 ISPAD JENIOUS centers.

Following parameters will be compared between two periods (2019 and 2020): number of new type 1 diabetes cases, DKA at onset severity, SH and DKA rate in patients with established type 1 diabetes, HbA1C, Time in range and other CGM data, TDD, BMI. Additional data regarding diabetes management modifications during COVID19 epidemic in the SWEET and JENIOUS centers will be collected using a simple online survey.

Deadline for data transfer
31st January 2021
Study period
Between 1st January 2019 and 31st December 2020

Required Data per Center – person-level data of least 70% of individuals managed at the center; a detailed xls spreadsheet compatible with the SWEET database will be shared:
- Demographics data (month and year of birth, sex, death and date of death)
- T1D onset data (month and year of T1D, presentation at onset)

Follow-up visits data (2019-2020):
Weight, height, systolic and diastolic blood pressure, HbA1c, time in ranges (raw data file CGM upload for patients wearing a CGM), number of injections per day, pump treatment (y/n), daily insulin dose (total, basal, bolus), number of SMBG per day, severe hypoglycemia (number since last data entry, maximum last 12 months), DKA leading to hospitalization

Center level data: center name and address, number of patients with T1D treated in center, laboratory method of HbA1c, unit of HbA1c, SD and range of HbA1c in healthy subjects,

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