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Background and Aims: Long-term use of continuous glucose monitors (CGM) can cause different skin reactions. In this study, we compared the risk of experiencing skin reactions between Dexcom and Freestyle Libre (FSL) users.

Methods: Participants included in the analysis were adults (≥18) with type 1 diabetes, followed in an outpatient clinic in the Region of Southern Denmark, who responded to a questionnaire in 2024, and reported current use of either a Dexcom (G6 or G7) or a FSL sensor (Freestyle Libre 1 or 2). Patient-reported outcomes included itching, wounds, scars, nodules, eczema with erythema, infection, pigmentary changes, lipohypertrophy, and no skin reaction. Associations were examined using logistic regression adjusted for age, sex, and diabetes duration when the number of events allowed. For outcomes with <30 events, Fisher's exact test was applied.

Results: Of 2298 respondents, 1859 used Dexcom (n=744) or FSL (n=1115). Compared to FSL, Dexcom users had higher odds of experiencing any skin reaction (OR 0.77 for no skin reactions, CI 0.62-0.95, p<0.02). For specific skin reactions, Dexcom was associated with higher odds of experiencing itching (OR 1.52, CI 1.20-1.93, p<0.01) and eczema with erythema (OR 2.11, CI 1.56-2.85, p<0.00). For rare outcomes, Dexcom users were more likely to report nodules (p<0.01) and infections (p<0.01). No significant differences were observed for wounds, scars, pigmentary changes, and lipohypertrophy.

Conclusions: Freestyle Libre use was associated with a higher chance of not experiencing skin reactions, while Dexcom use was associated with a higher risk of experiencing itching, eczema with erythema, nodules, and infections.

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OP040 / #102

Oral Presentation Topic: ***AS05. Continuous Glucose Monitoring (CGM) in Practice in Type 1 Diabetes***

GRI (GLYCEMIA RISK INDEX) ZONES ACCORDING TO TING (TIME IN NORMAL GLYCEMIA) TARGET IN TYPE 1 DIABETES BEFORE CLOSED LOOP INITIATION: CIRDIA-BFH STUDY BASELINE DATA

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Background and Aims: TING (Time in Normal Glycemia) 70-140 mg/dL is a new AGP (Ambulatory Glucose Profile) parameter, but no definite target has been set yet. TING targets >45%, >50% and >55% were associated with GMI respectively <7%, <6.8% and <6.5%. The GRI (Glycemia Risk Index) is a single metric representing the hypo/hyperglycemic risk (0: minimal,100: maximal risk). GRI zones have been defined, ranging from low (0-40, zones A-B) and intermediate risk (41-60, zone C) to high risk (>60, zones D-E). We assessed the association between TING targets and GRI zones just before closed loop (CL) initiation in a population of persons with T1D.

Methods: This is an ongoing rolling retrospective study. Patients who initiated CL therapy in a CIRDIA (out-of-hospital multisite CL initiation) center were included after documenting informed non-opposition. AGP parameters including TING were reported and GRI was calculated.

Results: Data was available for 134 participants (62%F, 98.5% pump, 1.5% MDI). Mean±SD values were: age 44.1±14.8 years, T1D duration 22.9±13.7 years, BMI 26.2±4.5 kg/m^2, TIR$^{70\text{-}180}$ 54.3±15.3%, TBR$^{<70}$2.8±2.9%, TING$^{70\text{-}140}$ 32.2±12.8%, GMI 7.6±0.8%, GRI 53.4±20.1. The percentage of participants reaching TING>45%, >50%, >55% was 14.9%, 8.2%, 3.7% respectively. No participant with a TING>45% had a GRI in zones D-E. The percentage of participants with a GRI in zones A-B was 75% for TING>45%, 72.7% for TING>50% but dropped to 60% for TING>55%.

Conclusions: Targeting a TING>45% or even >50% seems safe for people who are not (yet) on CL, as it was associated with a GRI in zones A-B for about 75% of the participants.

OP041 / #958

Oral Presentation Topic: ***AS05. Continuous Glucose Monitoring (CGM) in Practice in Type 1 Diabetes***

INTEGRATING SYMBOLIC STATISTICAL AND MACHINE LEARNING TO ANALYSE CGM DATA FROM YOUNG CHILDREN WITH PRE-SYMPTOMATIC TYPE 1 DIABETES

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Background and Aims: Continuous glucose monitoring (CGM) of children with pre-symptomatic type 1 Diabetes (T1D) identifies early glycemic anomalies linked with clinical