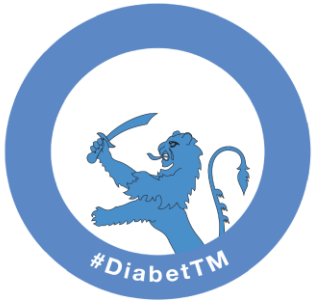
Inteligența Artificială Astăzi! Exemple pragmatice de intervenție în Diabetul Zaharat tip 1

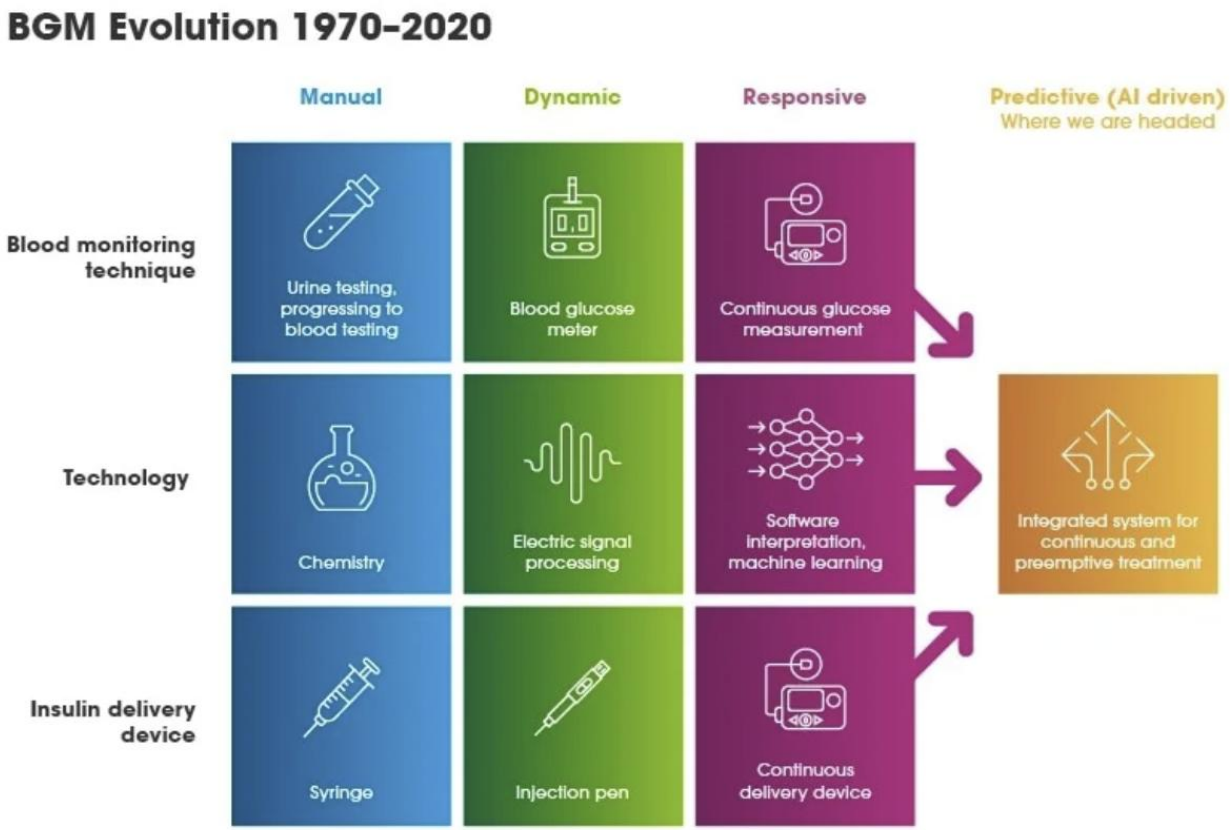
S.L. Dr. Vlad Avram

"Victor Babeș"
University of Medicine
and Pharmacy | Timișoara

Clinical Diabetes Center
TIMIȘOARA

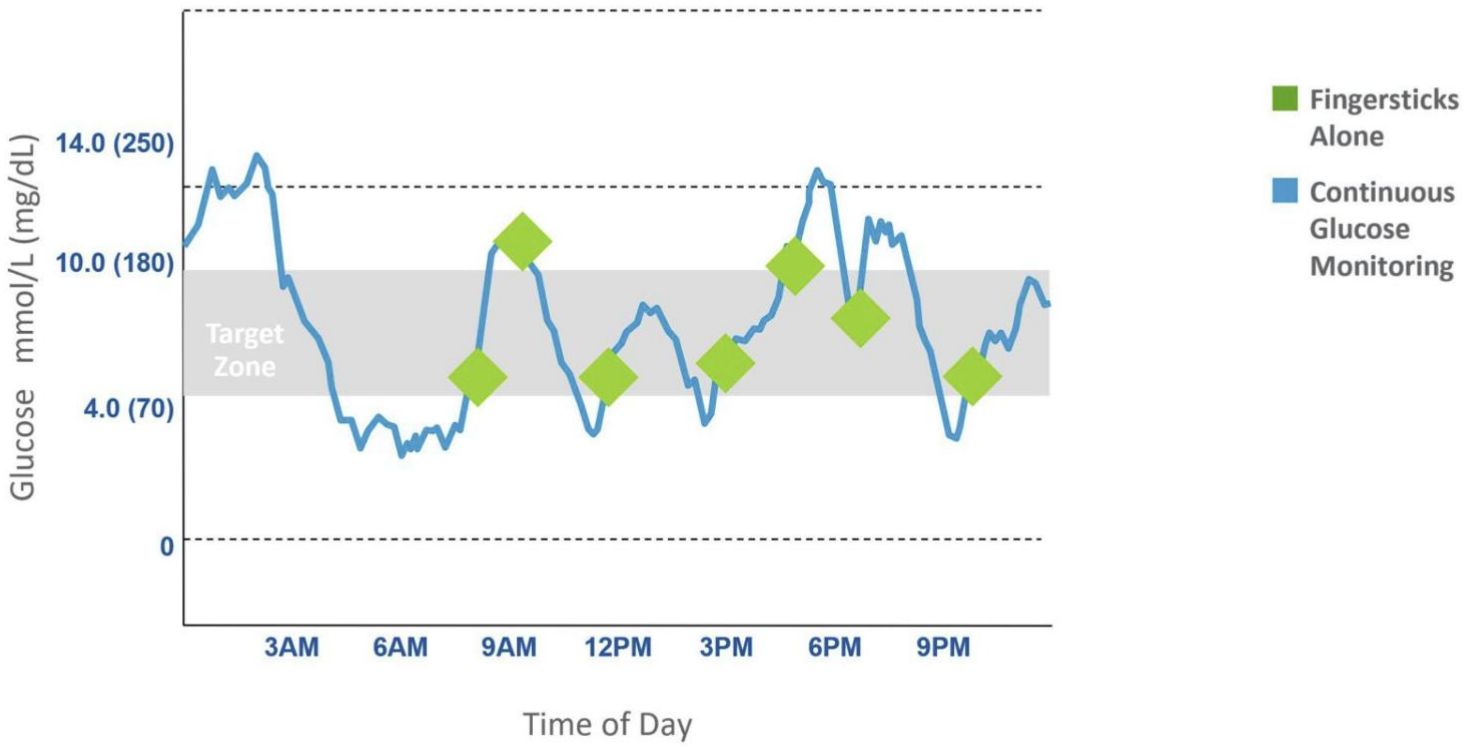


Ever-evolving



https://flex.com/resources/blood-glucose-meters-50-years-of-transformation

CGMs identify trends

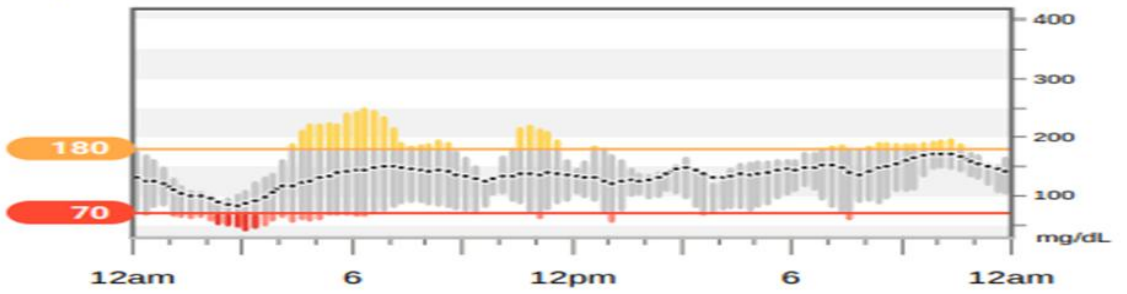


Trend arrows

Libre	Dexcom	Medtronic	Description	Where the glucose will be in 10 minutes
		↑↑↑	Rapidly rising	more than 2.0mmol/l higher (40mg/dL)
↑		↑↑	Rising	1.5mmol/l higher (30mg/dL)
↗		↑	Slowly rising	1mmol/l higher (20mg/dL)
→			Stable	Same
↘		↓	Slowly falling	1 mmol/l lower (20mg/dL)
↓		↓↓	Falling	1.5 mmol/l lower (30mg/dL)
		↓↓↓	Rapidly falling	more than 2.0mmol/l lower (40mg/dL)

Useful in identifying nighttime hipos

7 days Wed Oct 14, 2020 - Tue Oct 20, 2020



Glucose

Average Glucose
134 mg/dL

Standard Deviation
56 mg/dL

GMI
N/A

Time in Range

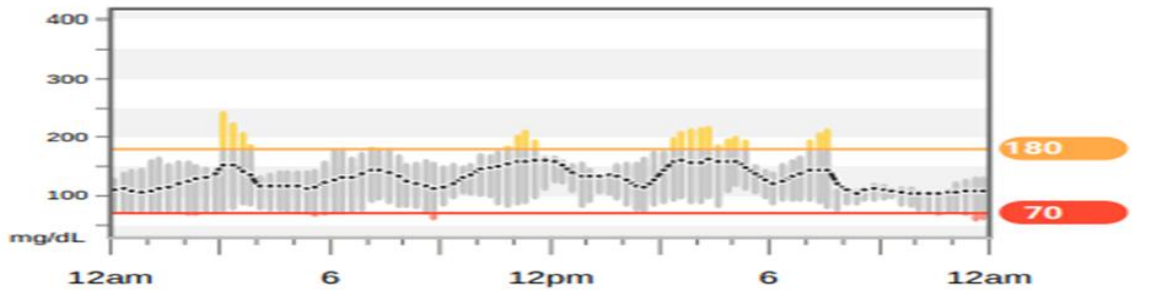
3% Very High
16% High
70% In Range
8% Low
3% Very Low

Target Range:
70-180 mg/dL

Sensor Usage

Days with CGM data	**100%**	7/7
Avg. calibrations per day	**0.0**	

7 days Wed Oct 21, 2020 - Tue Oct 27, 2020



Average Glucose
130 mg/dL

Standard Deviation
50 mg/dL

GMI
N/A

Time in Range

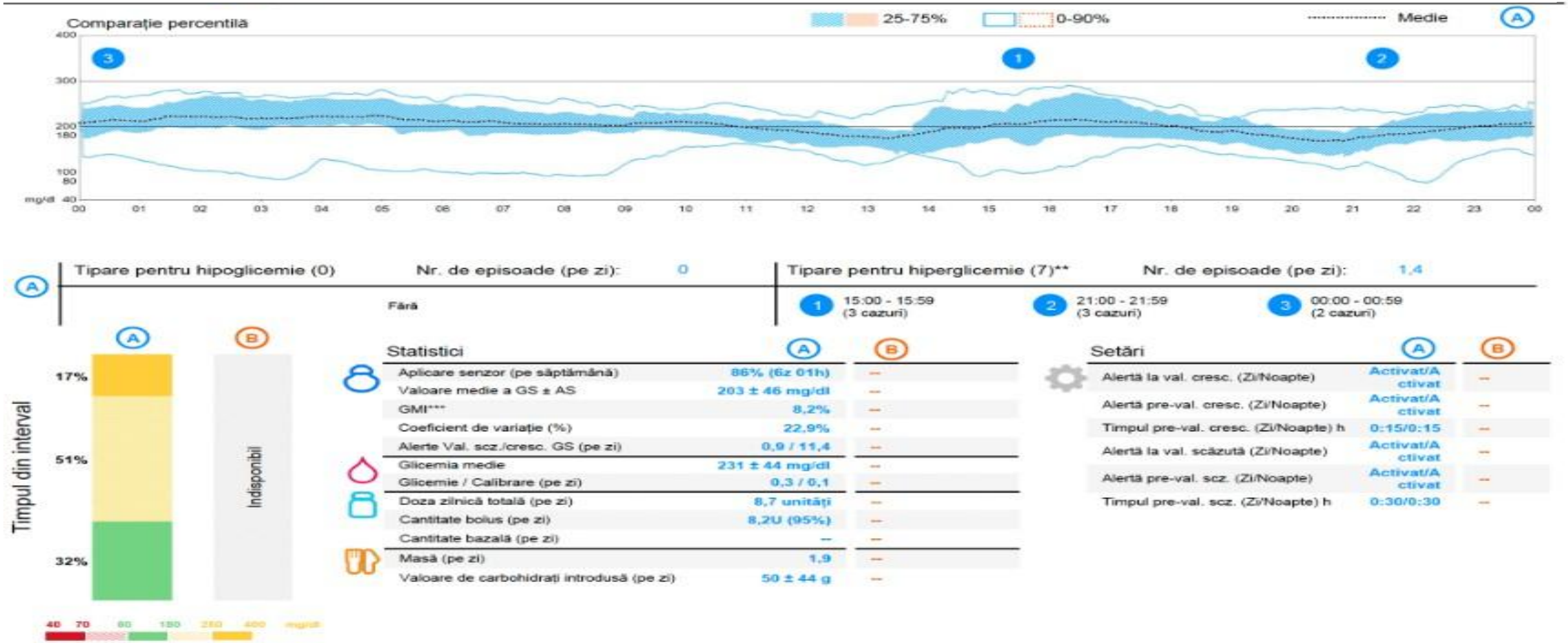
2% Very High
13% High
78% In Range
6% Low
<1% Very Low

Target Range:
70-180 mg/dL

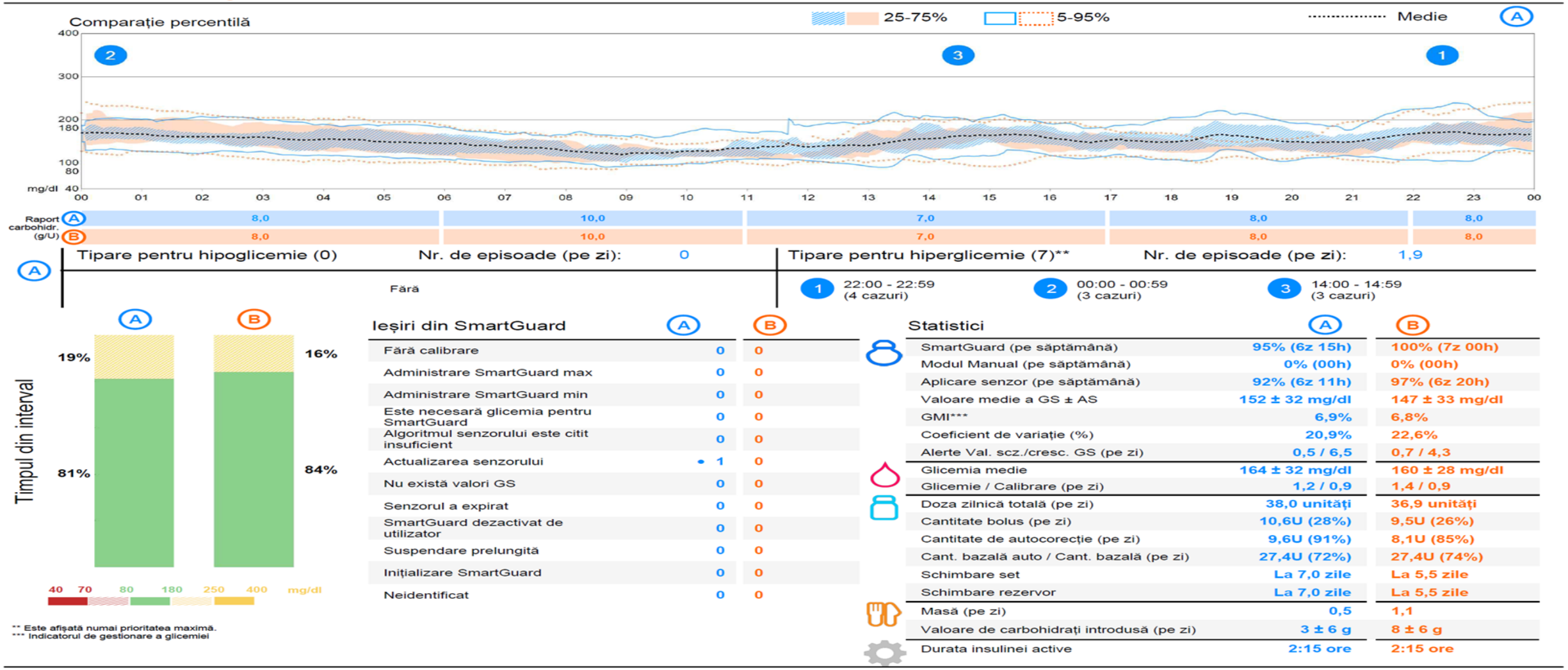
Sensor Usage

Days with CGM data	**100%**	7/7
Avg. calibrations per day	**0.0**	

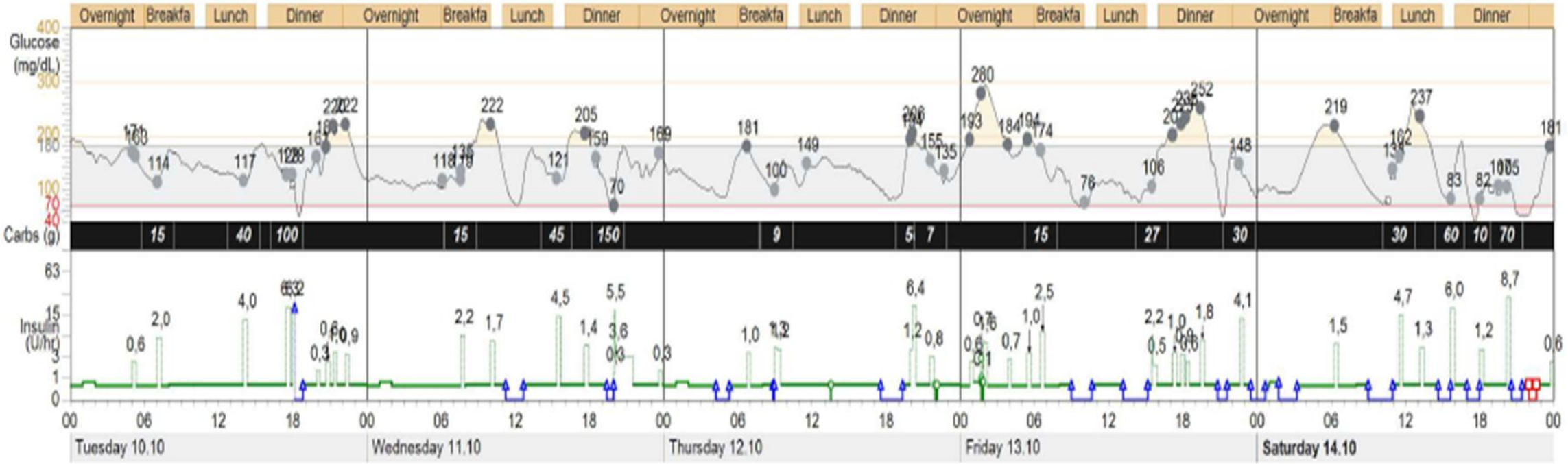
Useful in treating fear of lows



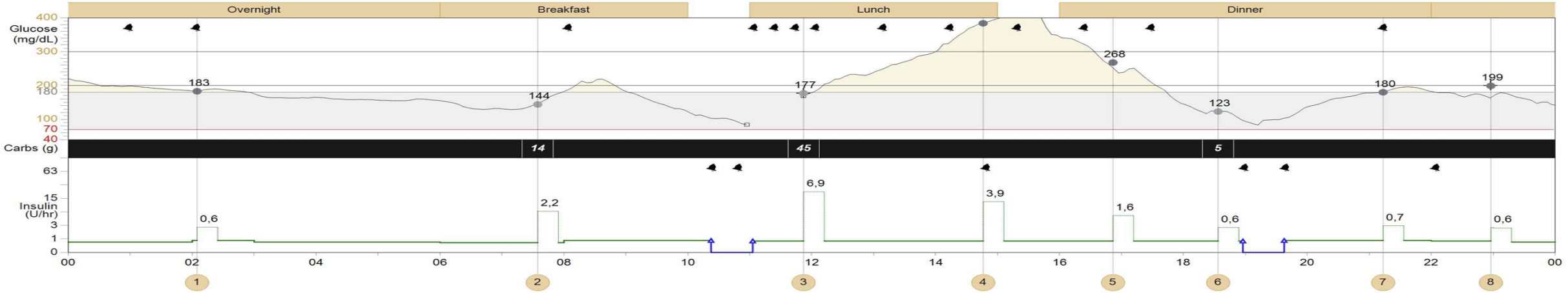
Useful in treating fear of lows

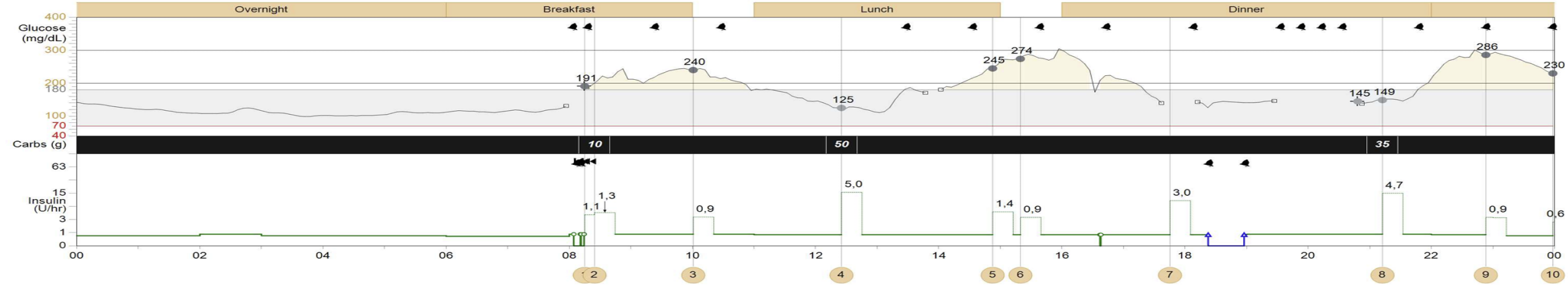


Useful in reducing hypos



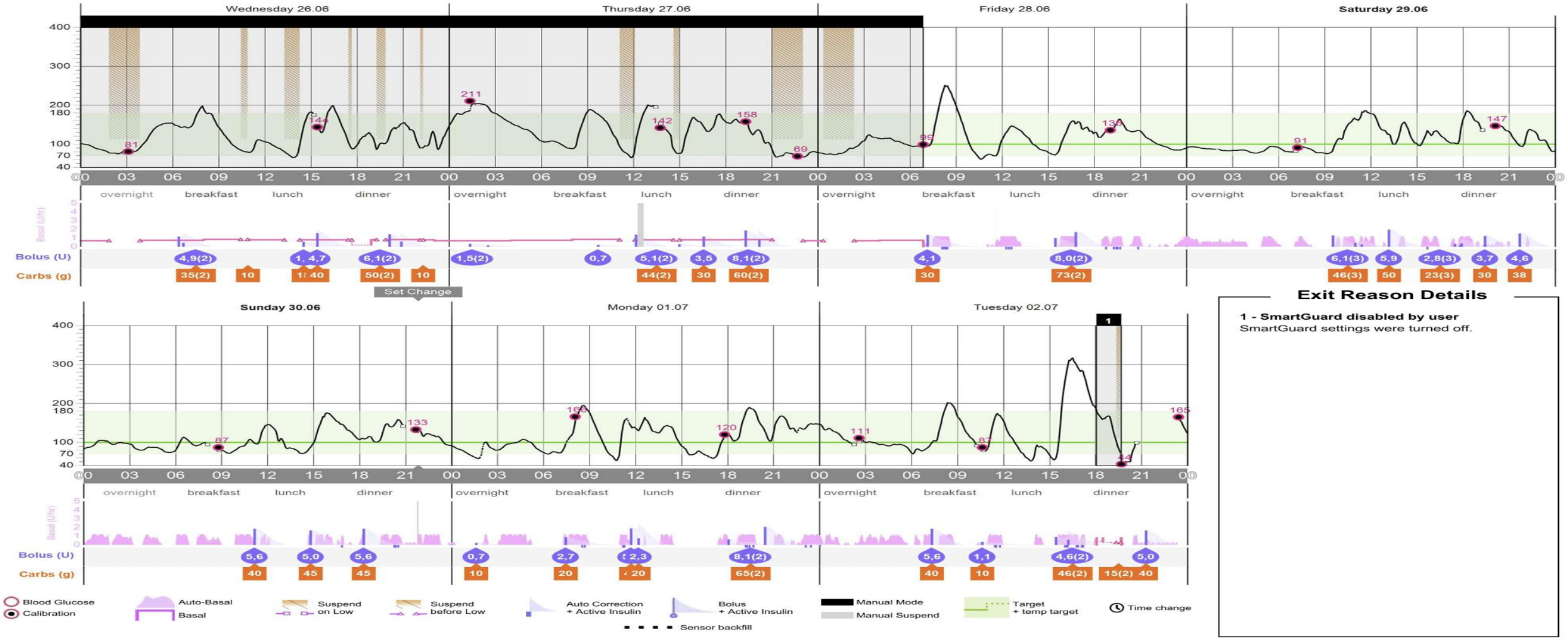
Pregnant 3 weeks



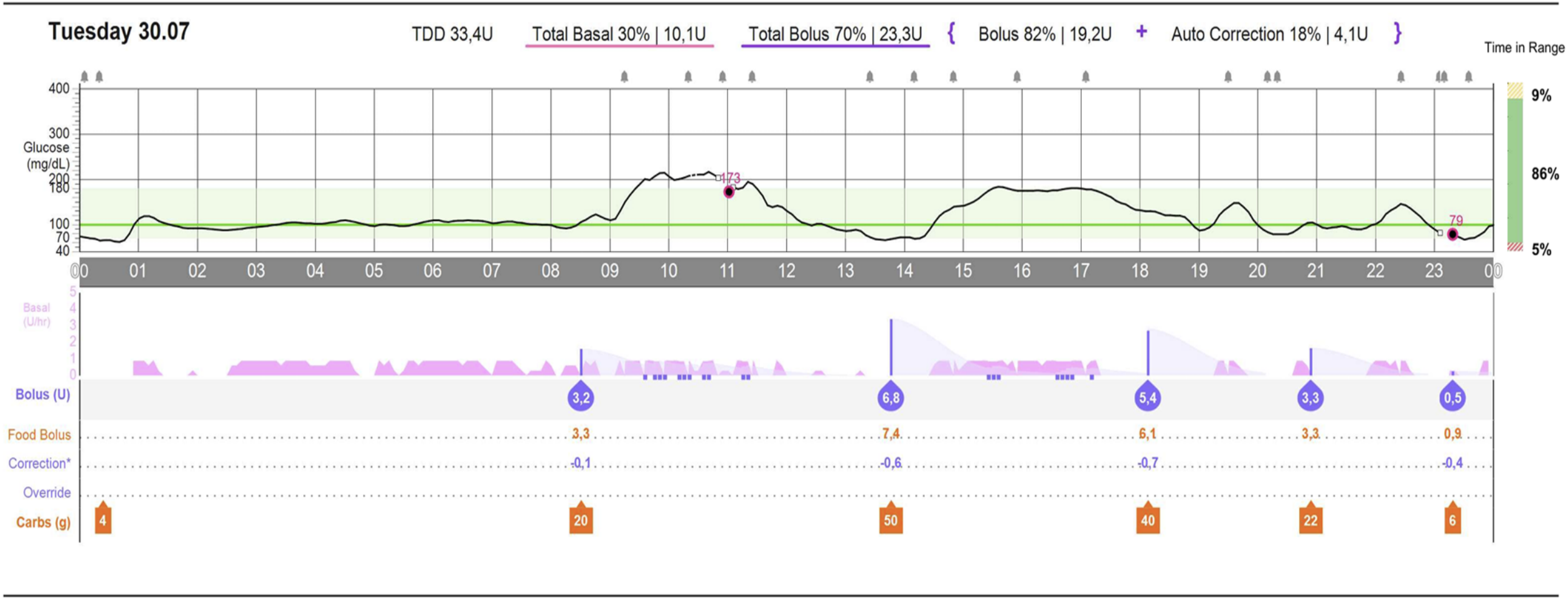


Author’s personal archive

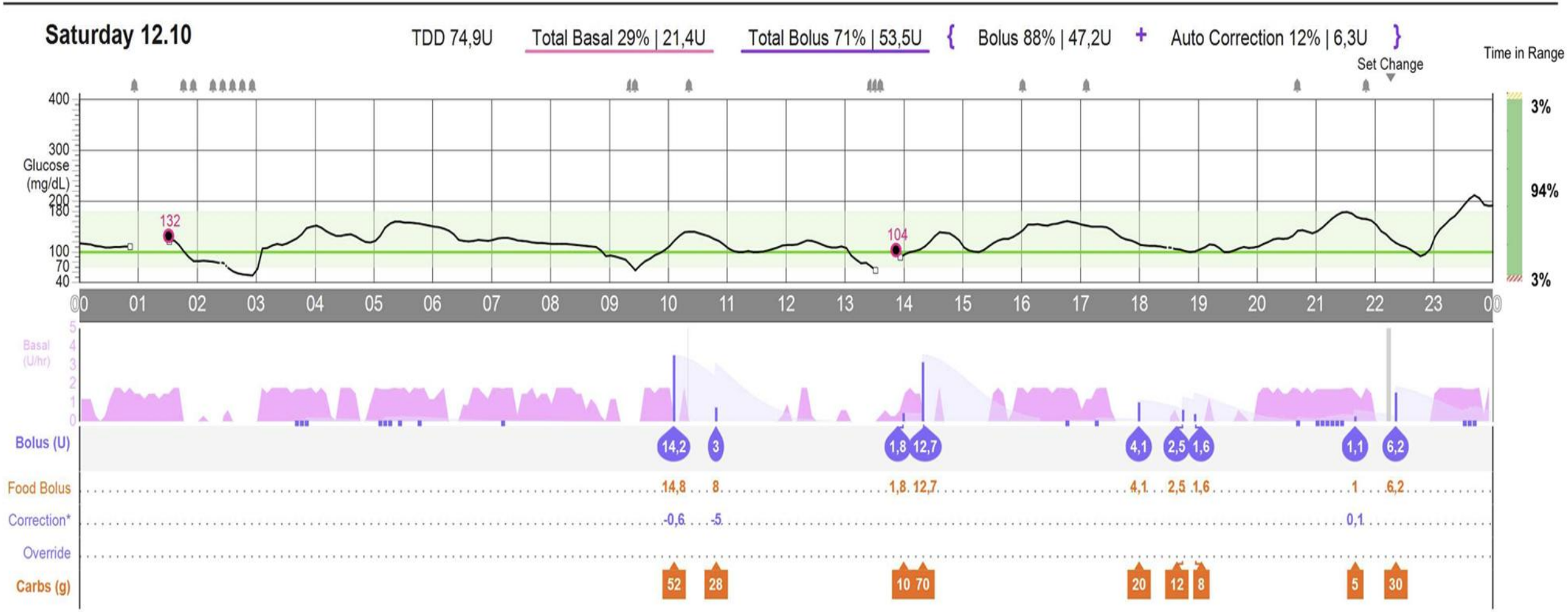
Pregnant 9 weeks



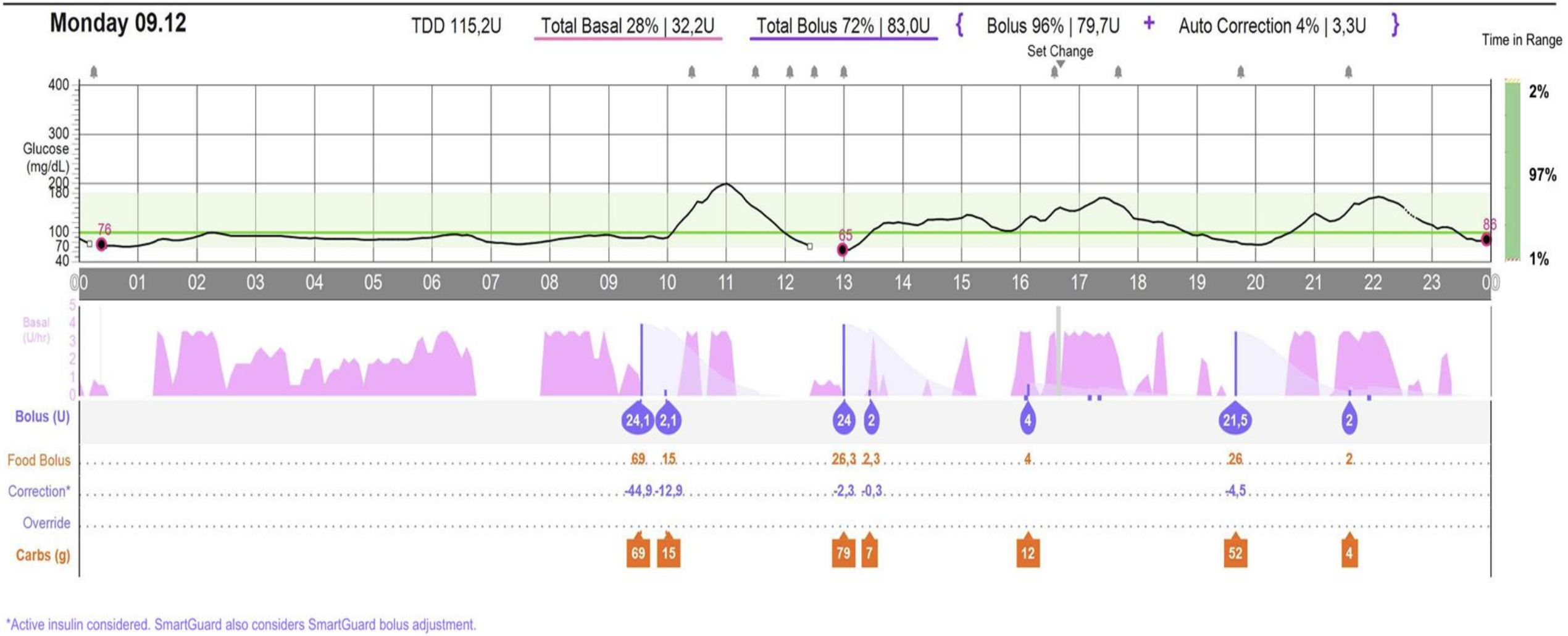
Pregnant 13 weeks



Pregnant 24 weeks

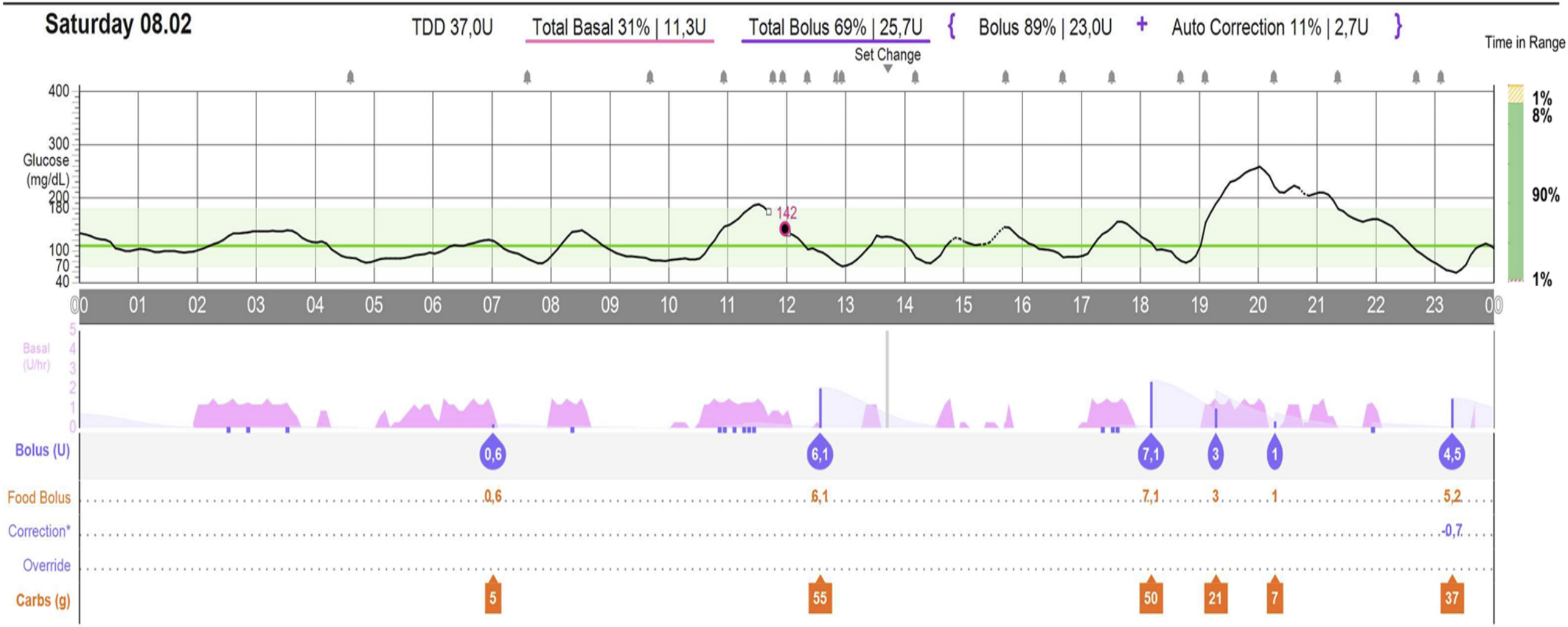


Pregnant 33 weeks

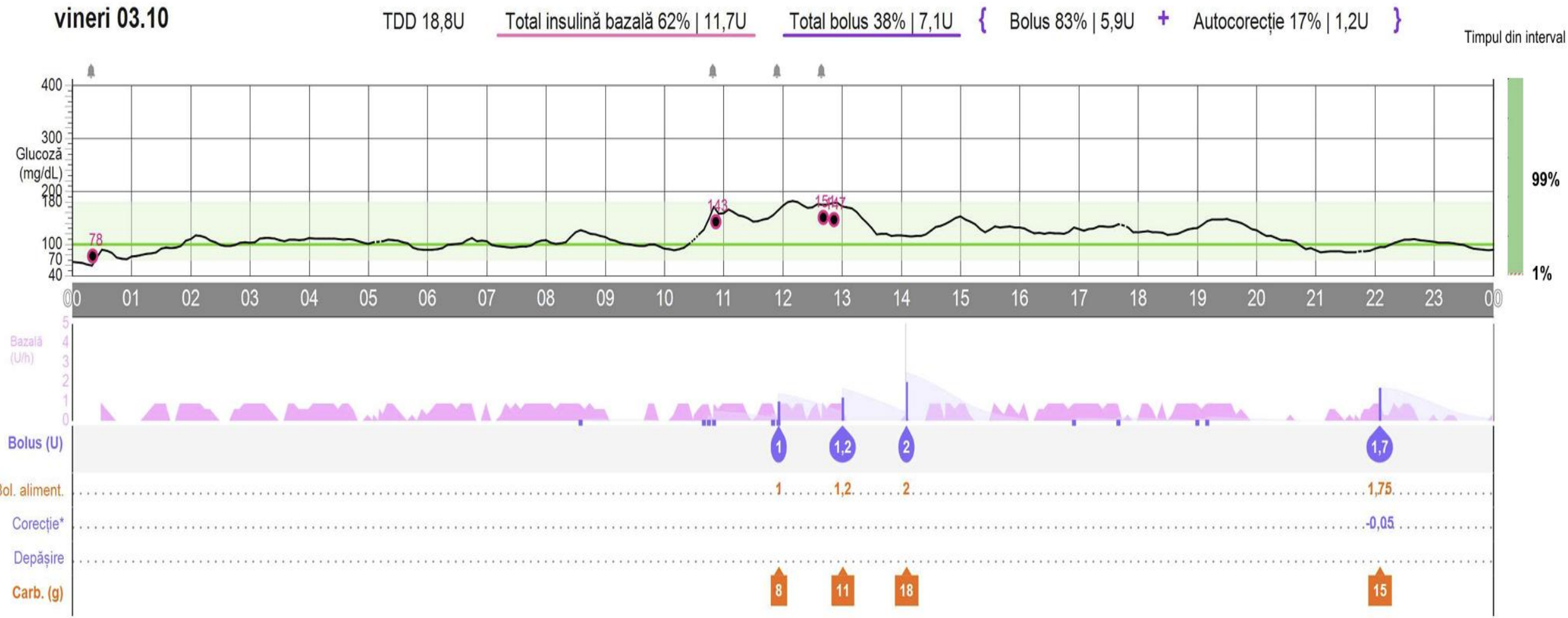


*Active insulin considered. SmartGuard also considers SmartGuard bolus adjustment.

Back to normal?



Forgotten meal bolus



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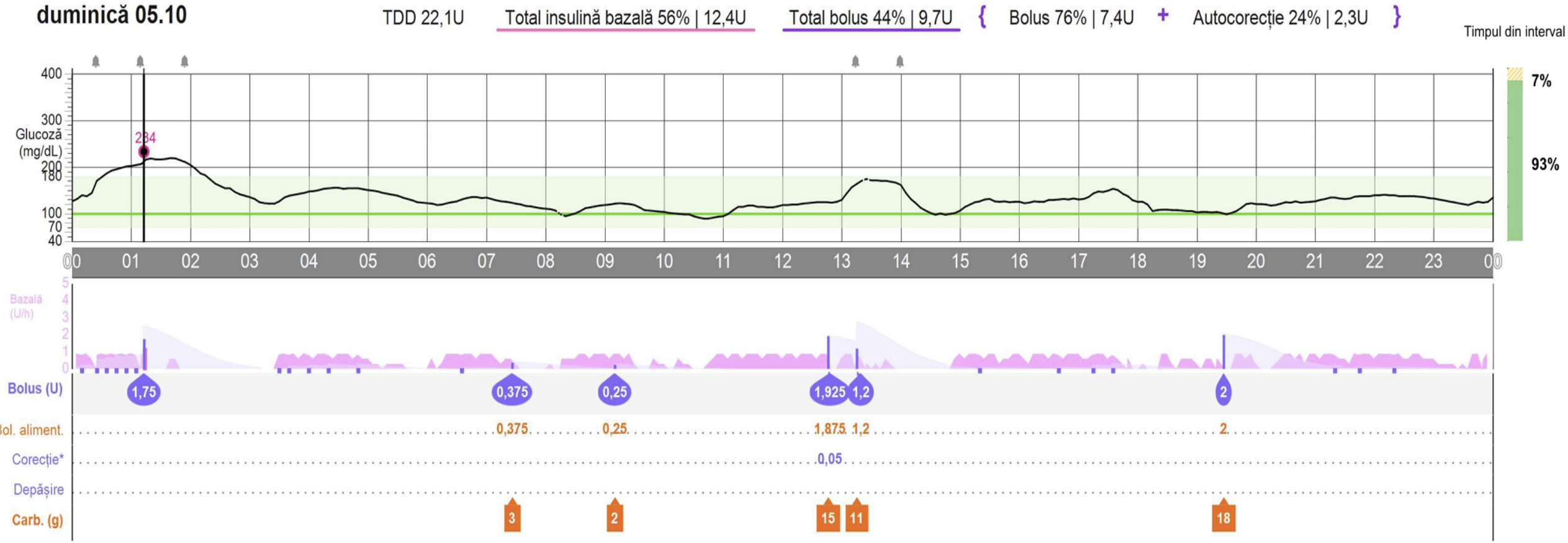
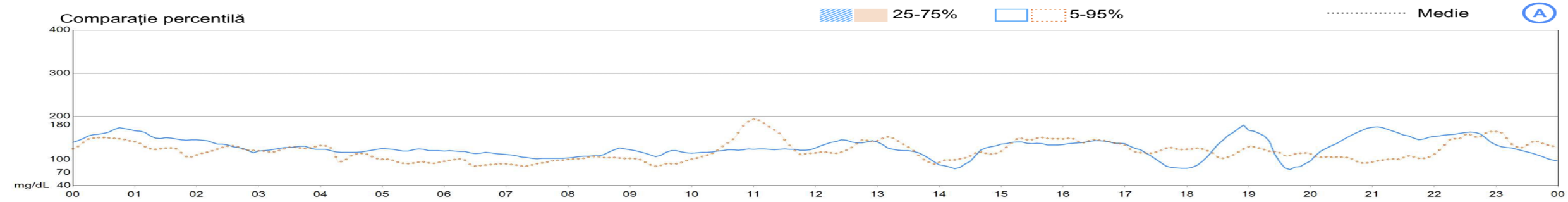


100% TIR is achievable

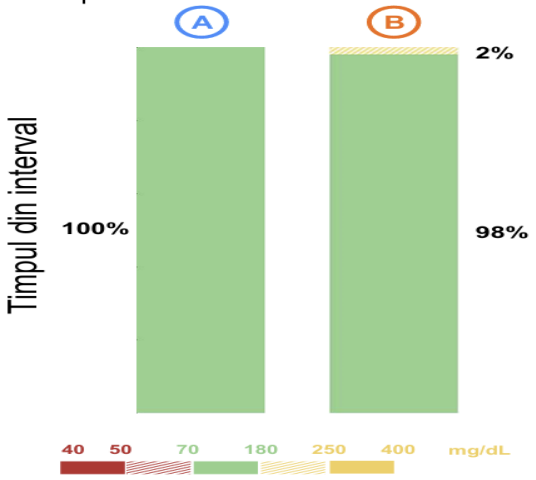


Tipare pentru hipoglicemie (0) — Nr. de episoade (pe zi): 0

Fără

Tipare pentru hiperglicemie (0) — Nr. de episoade (pe zi): 0

Fără



Ieșiri din SmartGuard	A	B
Fără calibrare	0	0
Administrare SmartGuard max	0	0
Administrare SmartGuard min	0	0
Este necesară glicemia pentru SmartGuard	0	0
Algoritmul senzorului este citit insuficient	0	0
Actualizarea senzorului	0	0
Nu există valori GS	0	0
Senzorul a expirat	0	0
SmartGuard dezactivat de utilizator	2	1
Suspendare prelungită	0	0
Inițializare SmartGuard	0	0
Neidentificat	0	0

Statistici	A	B
SmartGuard (pe săptămână)	79% (5z 13h)	98% (6z 20h)
Modul Manual (pe săptămână)	21% (1z 11h)	2% (04h)
Aplicare senzor (pe săptămână)	100% (7z 00h)	100% (7z 00h)
Valoare medie a GS ± AS	128 ± 22 mg/dL	120 ± 22 mg/dL
GMI[3]	--	--
Coeficient de variație (%)	17,1%	18,5%
Alerte Val. scz./cresc. GS (pe zi)	1,0 / 4,0	0,0 / 2,0
Glicemia medie	117 ± 30 mg/dL	153 ± 11 mg/dL
Glicemie / Calibrare (pe zi)	6,0 / 6,0	4,0 / 4,0
Doza zilnică totală (pe zi)	34,6 unități	25,2 unități
Cantitate bolus (pe zi)	15,2U (44%)	12,6U (50%)
Cantitate de autocorecție (pe zi)	1,6U (11%)	2,2U (17%)
Cant. bazală auto / Cant. bazală (pe zi)	19,4U (56%)	12,6U (50%)
Înlocuire set/rezervor	-- / --	-- / --
Valoare de carbohidrați introdusă/Mese (pe zi)	119 g / 8,0	89 g / 7,0
Durata insulinei active	2:00 ore	2:00 ore
Insul. baz. man. programată 24 h[4]	24,900U	20,400U
Țintă SmartGuard	100 mg/dL	100 mg/dL

3 Indicatorul de gestionare a glicemiei
4 Totalul pe 24 h în modul manual, programat pe baza tiparului bazal activ

Acest raport este compatibil cu calculele pentru Profilul glicemic ambulator utilizate de Centrul Internațional pentru Diabet.