

Finding the right formula: Personalised care using HCL and adjunct therapies

Claire Gibson-May

PDSN - Great North Childrens Hospital

SETTING THE SCENE 2021

For the purpose of confidentiality, I will refer to this patient as Tom

► 13 yrs

Type 1 diabetes (double antibody +ve)

MDI

Insulin resistant

Obese

History of fatty liver

Wt: 83.7 kg BMI 33.83 (3.23sds) HBA1C 77mmol TDD 100-125 u/d

SETTING THE SCENE 2022 (14 yrs)

Feb

MDI- metformin over 5mths reduced HBA1C from 70 to 51mmol

Discontinued due to side effects

Wt:86.1kg

BMI:34.45

TDD 110u/d

Nov

Commenced Omnipod dash

Wt: 86.5kg

BMI: 35.89

HBA1C: 65

SETTING THE SCENE 2023 (15 yrs)

May

Weight continues to increase referred for dietitian support

Wt: 97.2 kg BMI: 36.58 HBA1C: 66 TDD 140 u/d

Aug

Diagnosis of epilepsy- commenced treatment. Weight stabilised

Wt: 98Kg BMI: 36.44 HBA1C: 74 TDD 134u/d

Oct

Commenced HCL OP5

Wt: 101.4Kg BMI: 38.16 (3.4sds) HBA1C: 73 TDD: 134u/d

SETTING THE SCENE 2024 (16 yrs)

Feb

Using high doses of insulin- Pod change every 1 day

Wt: 107.2Kg

BMI: 39.28

HBA1C: 62

TDD: 158u/d

SETTING THE SCENE 2025 (17 yrs)

FEB

OP5 & Degludec commenced

Degludec start dose 10 u (Aim to increase up to 50u)

Wt: 117.2Kg BMI: 39.66(sds 3.5) HBA1C: 67 TDD: 153u/d

June

Deg – 30u

Wt: 122Kg BMI: 40.3 HBA1C: 54 TDD: 167u/d

Aug

referred to the CEWS clinic – Degludec 35u

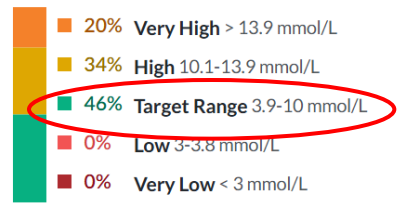
Wt: 124.4Kg BMI: 42.05 (3.55sds) HBA1C: 63 TDD: 174u/d

Last appointment before starting GLP1 (Wygovy)

Glooko summary 1 mth prior to commencing GLP1

(20.10.26-20.11.26)

Glucose (CGM)



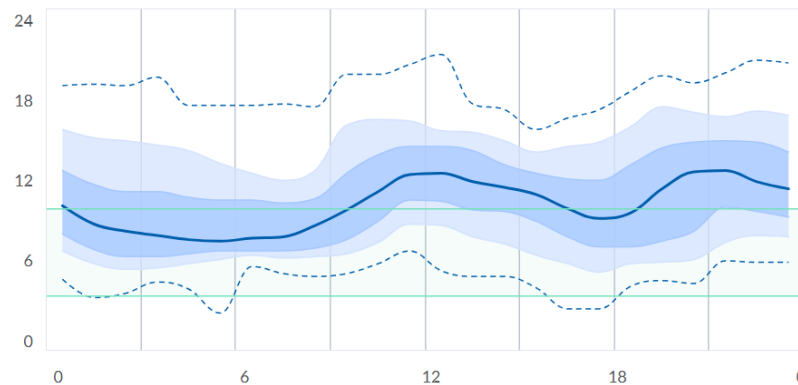
% Time CGM Active 92.1% (29.5 days)

GMI ?	7.9% (62.8 mmol/mol)
Average	10.7 mmol/L
SD	3.4 mmol/L
CV	31.8%
Median	10.4 mmol/L
Highest	20.9 mmol/L
Lowest	2.6 mmol/L

AGP

Glucose (mmol/L)

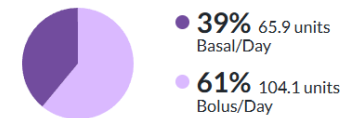
What is AGP?



Target Range (3.9 - 10 mmol/L) 25 - 75% Lowest - Highest
Median 10 - 90%

Insulin - Device ?

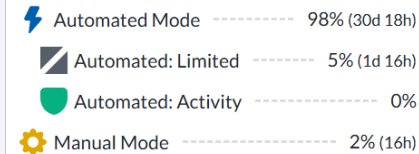
From Insulin Pump



Insulin/day	170 units
Overrides (%)	35% (60 boluses)
# Bolus/Day	5.3

System Details

Insulet Omnipod® 5 System (31d 10h)



Diet

20 Oct - 20 Nov, 2025

216.1 g Carbs/Day 4 Entries/Day

Activity

No activity data available

Starting Wygovy

2025 (17 yrs)

18th Nov – Degludec dose stopped as GLP1 decreases insulin resistance

20th Nov – 1st Dose of wygovy (0.25mg)

Wt: 128.5Kg BMI: 42.3 HBA1C: 65 TDD: 170u/d

25th Nov- Degludec recommenced 10u to reduce TDD/ pod change

18th Dec-(Wygovy 0.5mg) Degludec now 17 u

23rd Dec – Degludec increased to 20 u

2026 (18yrs)- Last Clinic appointment:

March

Wygovy 2.4 mg (4 mths on GLP1) Degludec 20 u (increasing)

Wt: 120Kg BMI: 40.09 HBA1C: 48 TDD: 140u/d

May

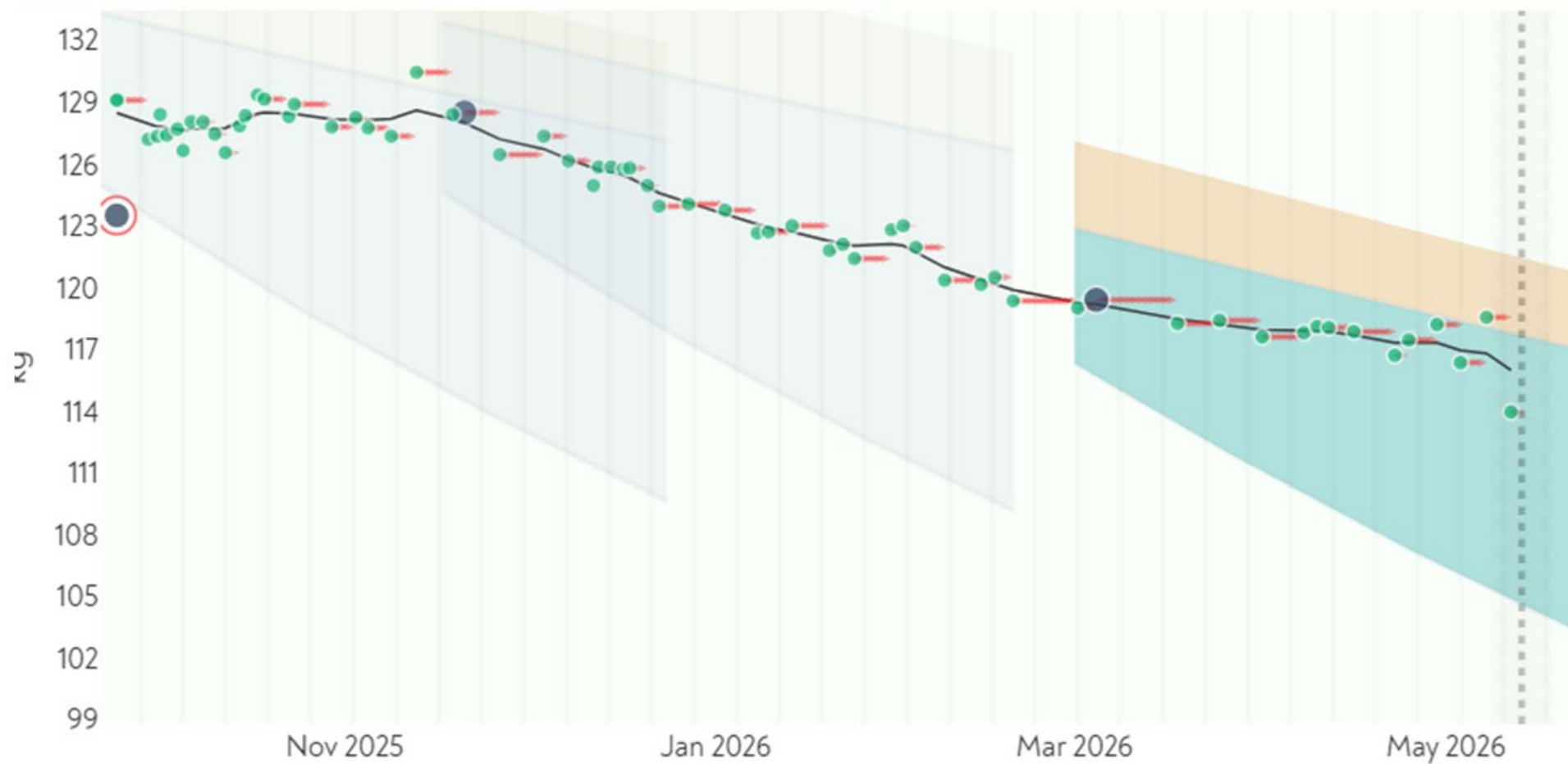
6months of GLP1-Wygovy- 25 u Degludec

Wt: 113Kg BMI: 37.7 HBA1C: 55 (predicted) TDD:141u/d

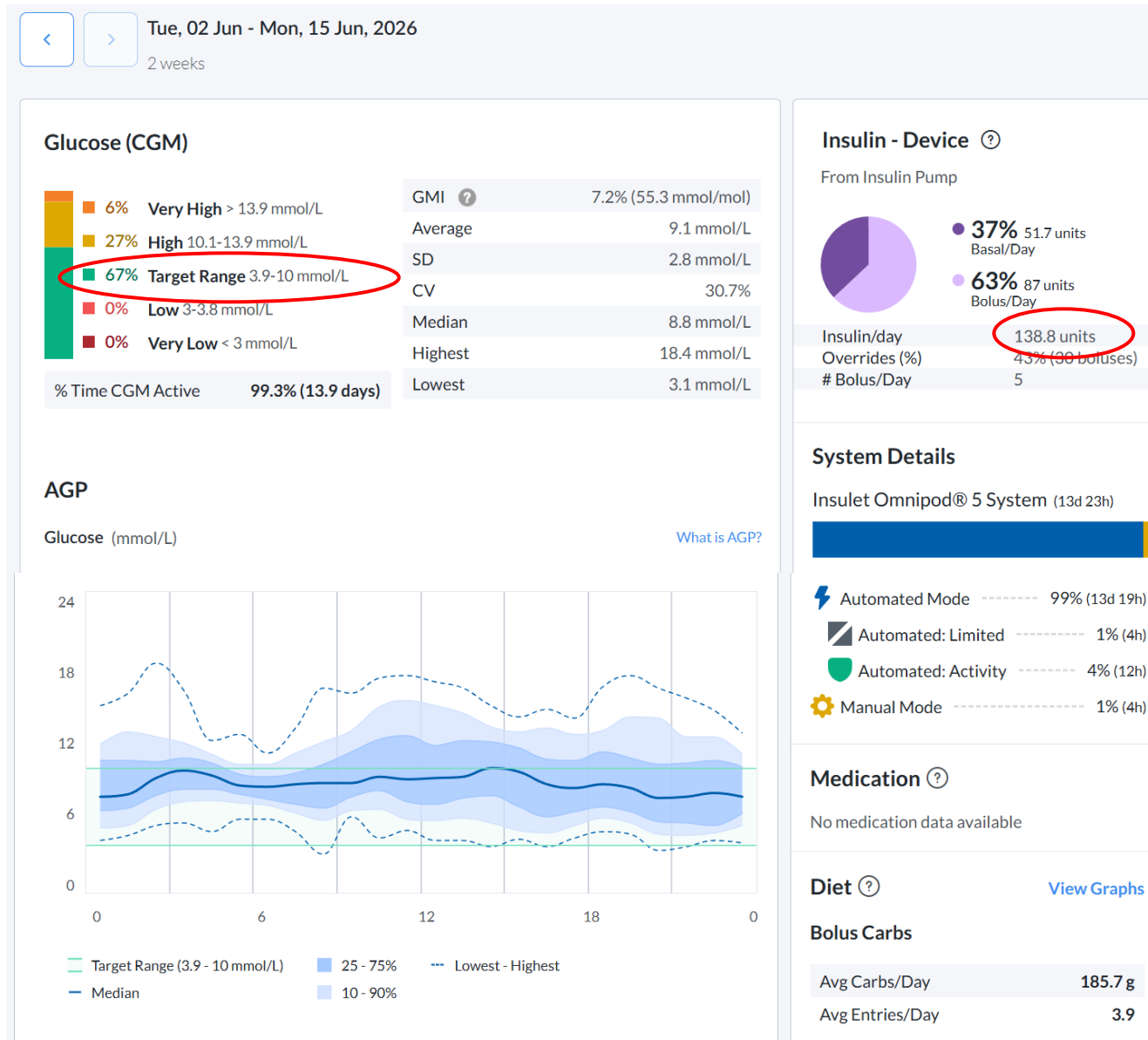
BMI reduction over 6 months



Weight Loss over 6 months



Glooko summary – last 2 weeks



Tom's personal statement

Since starting Wegovy with the weight I have lost so far it has made a massive improvement towards my mental health and my physical wellbeing. I am less tired during the day which has made everyday activities much easier such as going for a walk or a jog during the day.

While using Wygovy my Hba1c has dropped to the range it should be and It has helped with my insulin resistance. I am using less insulin, and I am getting more use out of my insulin pods than what I used to before.

I still struggle with my weight today because every time I go to do exercise my levels would go low. Then I would take treatment to bring my levels back up to normal range, but they would go way to high because I have had too much glucose to bring my levels back to normal range and that cycle repeats itself over and over again. This is what makes it so hard to lose the weight.

Overall, I think that the Wygovy weight loss jab is a brilliant idea for diabetics especially for people with Type 1 diabetes because it adds that little boost and gives them an extra step to make their weight loss journey that little bit easier.

CEWS Team Statement

The CEWS team are delighted with Tom's progress in the CEWS clinic. He and his family have engaged well with the CEWs team while managing multiple other medical appointments and conditions.

We know some families in a similar situation may not manage such a burden.

Tom has made great progress managing the highest dose of Wegovy well. He has made changes to his diet to support this and we will continue to offer dietary and lifestyle advice to maximise the benefits gained from access to this drug.

We hope that associated benefits will be seen and that this will contribute to a better health prognosis moving forwards making it easier to manage his other conditions.

NPDA National Paediatric Diabetes Audit

National Paediatric Diabetes Audit (NPDA)

Report on Care and Outcomes 2024/25

(Published March 2026)

Type 1 Diabetes

- ▶ **44%** - BMI in the overweight or obese range
- ▶ **14%** - blood pressure above the 95th centile
- ▶ **8%** - micro- or macro-albuminuria

Type 2 Diabetes

- ▶ **94%** - BMI in the overweight or obese range
- ▶ **29%** - blood pressure above the 95th centile
- ▶ **19%** - micro- or macro-albuminuria

Food for thought

With childhood obesity increasing, what therapy do we offer our patients to reduce insulin resistance, ensure the reduction of diabetes complications and better health outcomes for the future?

Any Questions?

