

Experience and Impact of HCL in a Secure Unit

National Technology CYP Diabetes Training Day for HCPs

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Diabetes Type 1 – Different Journey

- 16 years +
- Transfer into the area November 24

Age at diagnosis: 10 Yrs 3 Months (Islet and GAD positive)

Duration of diabetes: 5 Yrs 11 Months

Basal Bolus Regime and Libre 2 sensor

Background

Poor engagement with Diabetes team

A1c more than 130mmol/mol

Last annual review Sept 24

Faints with blood tests

Social care support in place

Family solutions support worker, Psychology support and CAMHS

TIR 16%, High 19% and Very high 60%

- Dad some support
- Parents Separated
- Frequent DNA to clinic
- 6 ED attendances in 10 months
- Mother busy with 5 children
- Food access and wants to put on weight
- Substance abuse engagement work and how funded (Weed, tobacco and vaping)
- Court to Secure Unit

HCL Onboarding - Progress

Wanted a Pump
Dexcom

68% Time in range,
2% very low and
2% low,
6% very high

Secure unit training
register for
Omnipod 5

(19+9 staff with 2
sessions on the same
day)

Tips and Troubleshooting

- Everyday Management, Hypoglycaemia, Hyperglycaemia
- Omnipod 5, Libre 2plus, Care plan
- Carb counting / Digibete / My life app, technology access - Glooko

- Discussed exercise and management of glucose levels if on Gold behaviour - able to use the gym.

Paediatric Diabetes Team journey

Access

Process – Technology , education

Communication with YP, family, SW, Unit

Safety for the YP – PDM

Monitoring BG – Cloud (FSL2 /Dexacom)

Engagement of YP – BG journey

Governance



PDM ACCESS- SAFETY



EMAIL YP -IG



CLINIC -MDT
PROGRESS
MONITORING



REGIMENTED SUPPORT
- RE-INTRODUCTION
INTO COMMUNITY



DIETITIAN - KITCHEN
STAFF, COOKING
EXERCISE, APPS

Milestone

- Pump start with PDSN – 8 weeks of move

Virtual Pump Tech staff

Day 2 – Changed pod, Happy with POD
(PDM issues)



Week 3

- BG target range 6.7 to 6.1
- Carb ratio adjusted for breakfast
- Dry skin – Cavlon

Glucose (CGM)



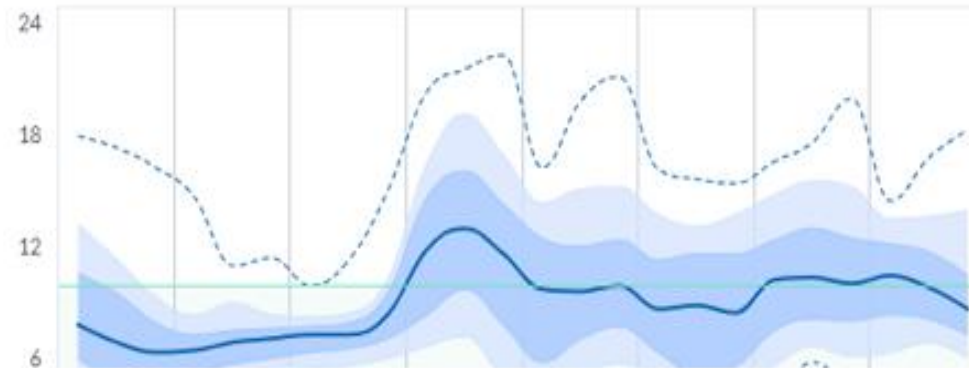
% Time CGM Active 88.2% (12.3 days)

GMI ?	7.2% (55.3 mmol/mol)
Average	9.1 mmol/L
SD	3.4 mmol/L
CV	37.9%
Median	8.2 mmol/L
Highest	21.7 mmol/L
Lowest	2.8 mmol/L

AGP

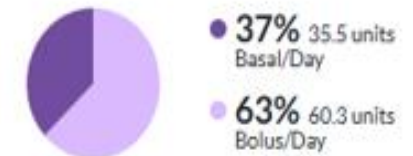
Glucose (mmol/L)

[What is AGP?](#)



Insulin - Device ?

From Insulin Pump



Insulin/day	95.7 units
Overrides (%)	1% (1 boluses)
# Bolus/Day	6.3

System Details

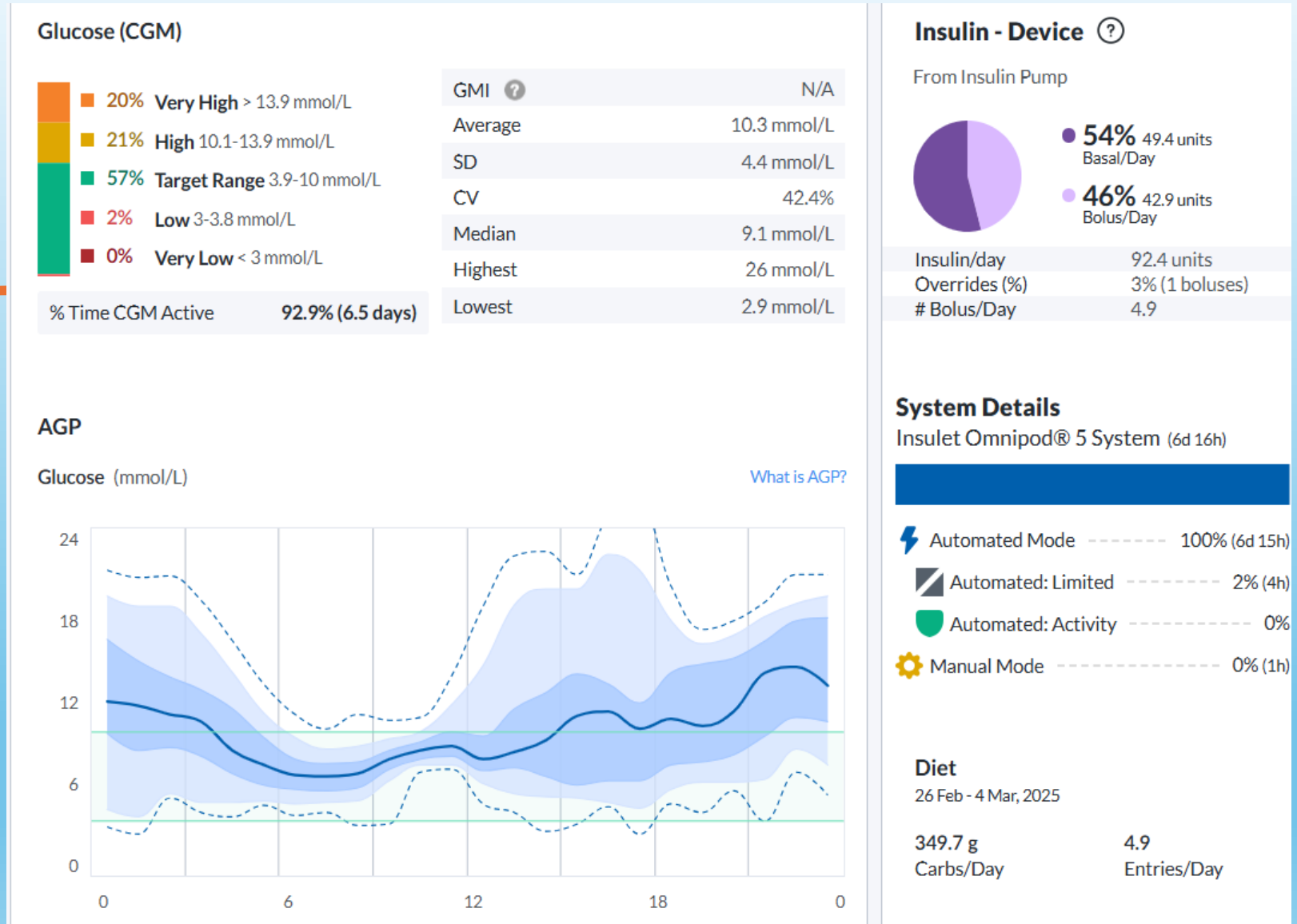
Insulet Omnipod® 5 System (13d 9h)

⚡ Automated Mode	-----	100% (13d 8h)
⚡ Automated: Limited	-----	4% (14h)
🛡 Automated: Activity	-----	1% (4h)
⚙ Manual Mode	-----	0% (1h)

Diet

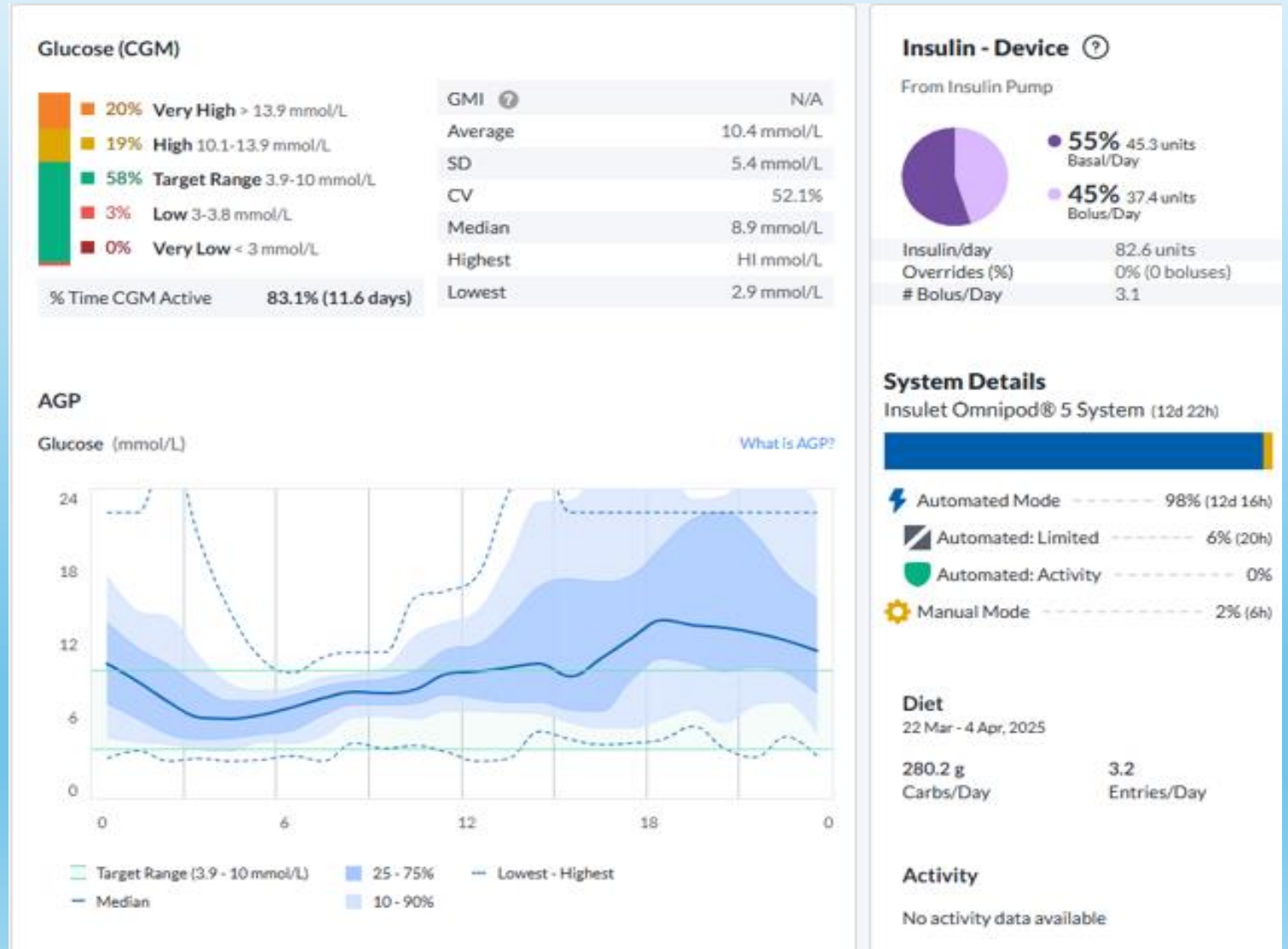
Week 5

- Optimized carb ratios and ISF
- Food swaps discussed
- Food review - Positive challenge to carb counting with staff - rewarding



Week 10

- Annual Review normal – Vit D supplements (TTG insufficient)
- Carb ratio, portion sizes and insulin before meals



Week 12– PDSN review

Dietitian – worked with the Kitchen staff

Psychology declined

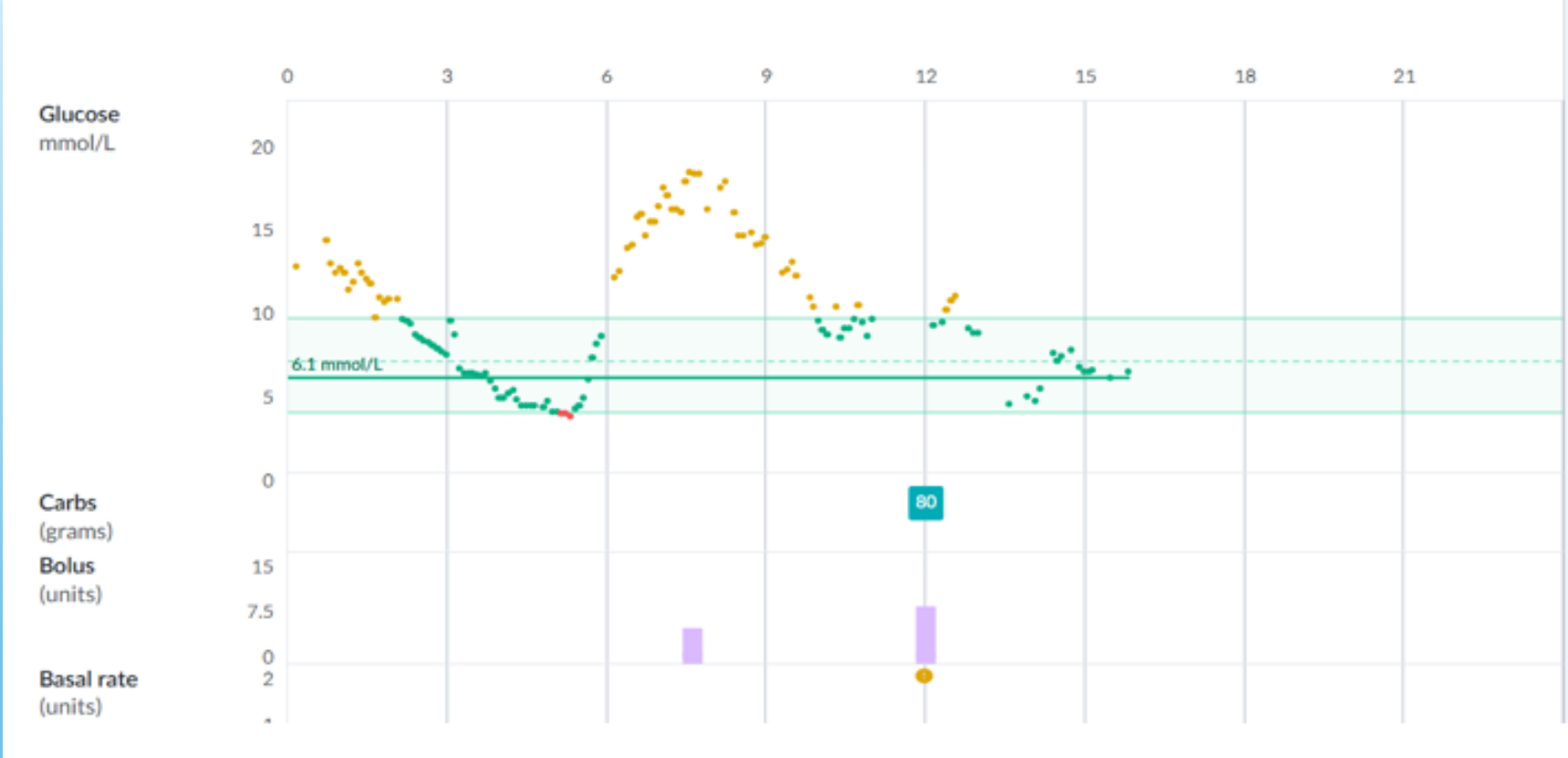
POD Sites rotation change advised - declined

Full ownership by YP emphasised and supported

Carbohydrate entered – underestimated – review rather than change ratios

Conversation with Safeguarding for MDT

Week 13



Sensor issues
losing signal
confirmed on Glooko

Week 15

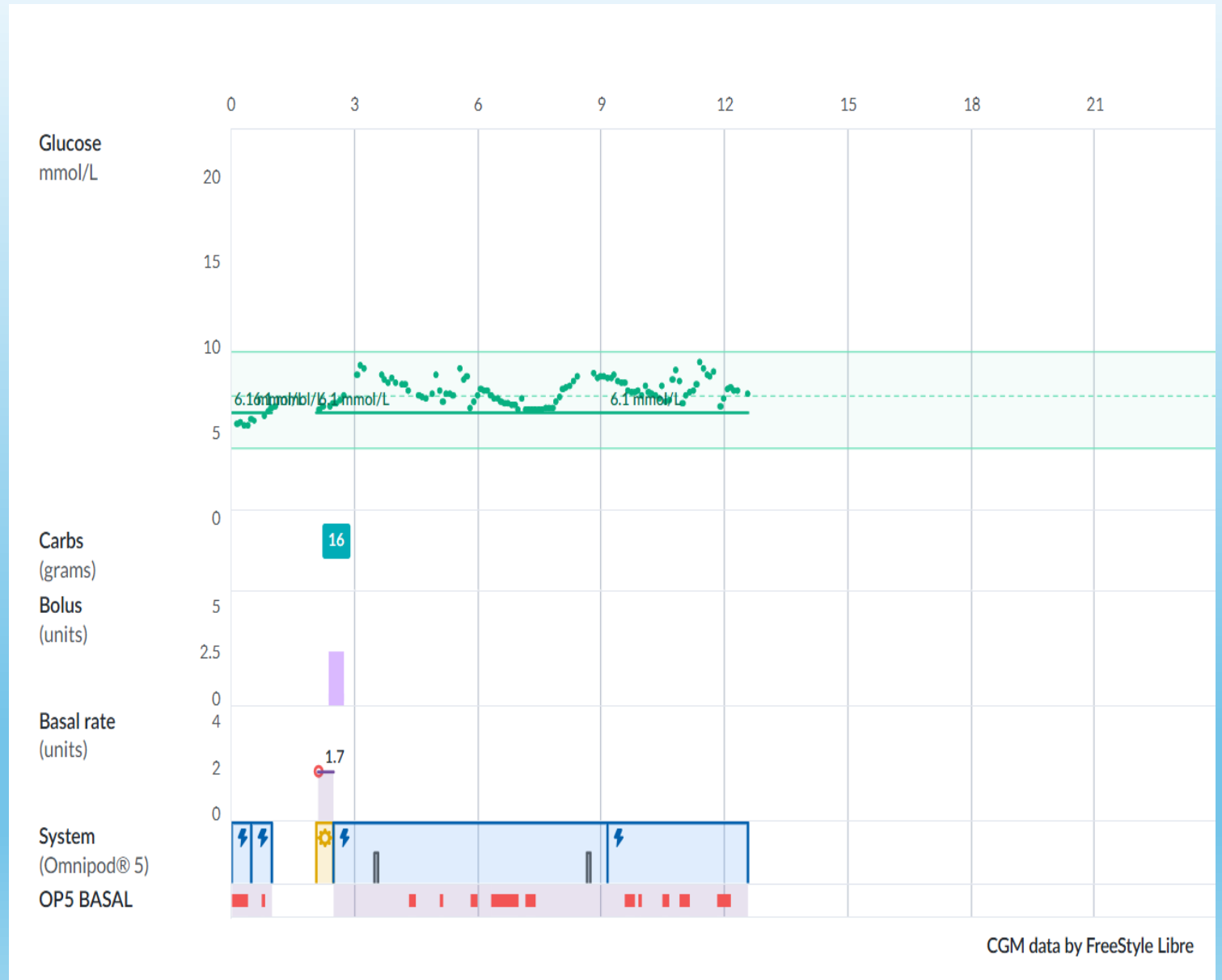
- Care plan - education - with Short day trips and Long trips

Set back

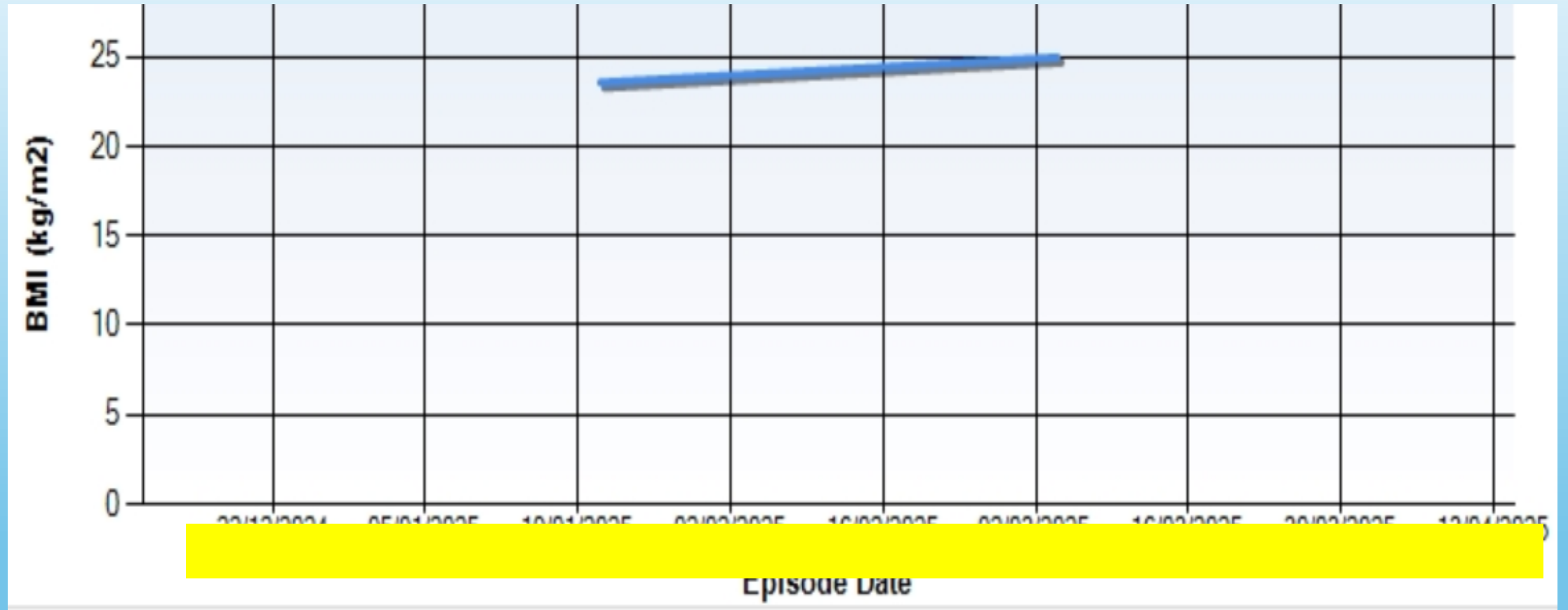
- ED review low BP
- Young person incident

Recovery

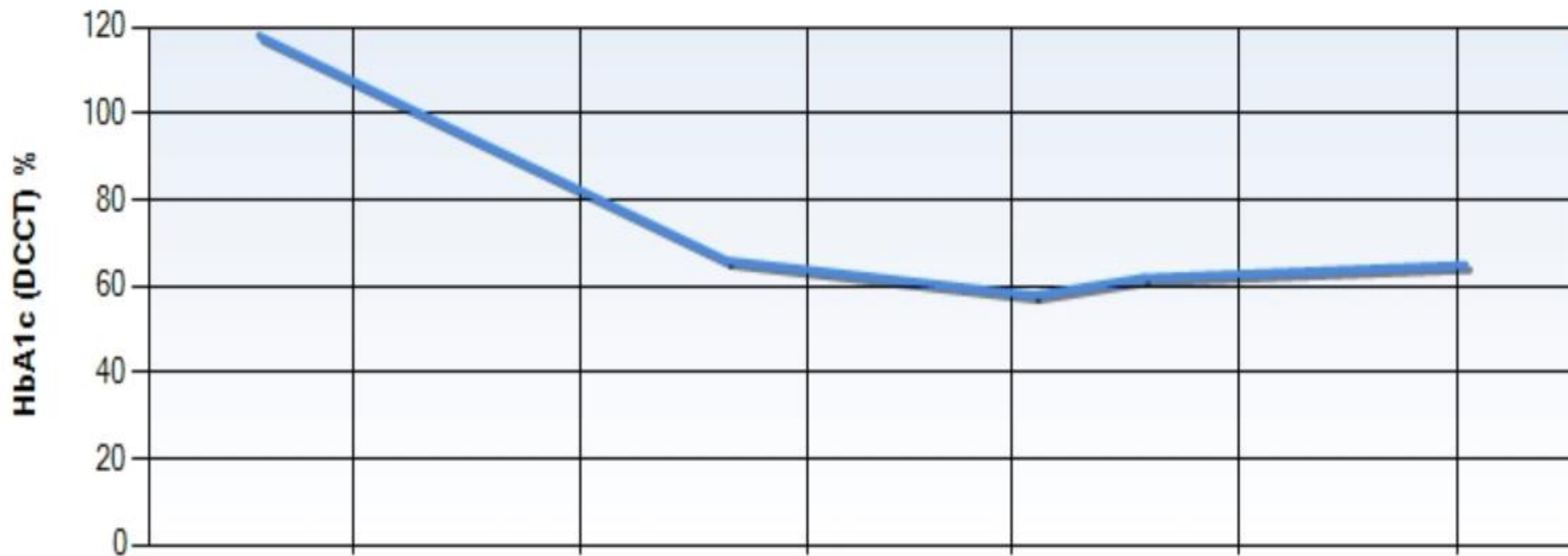
- Glooko reviewed PDSN



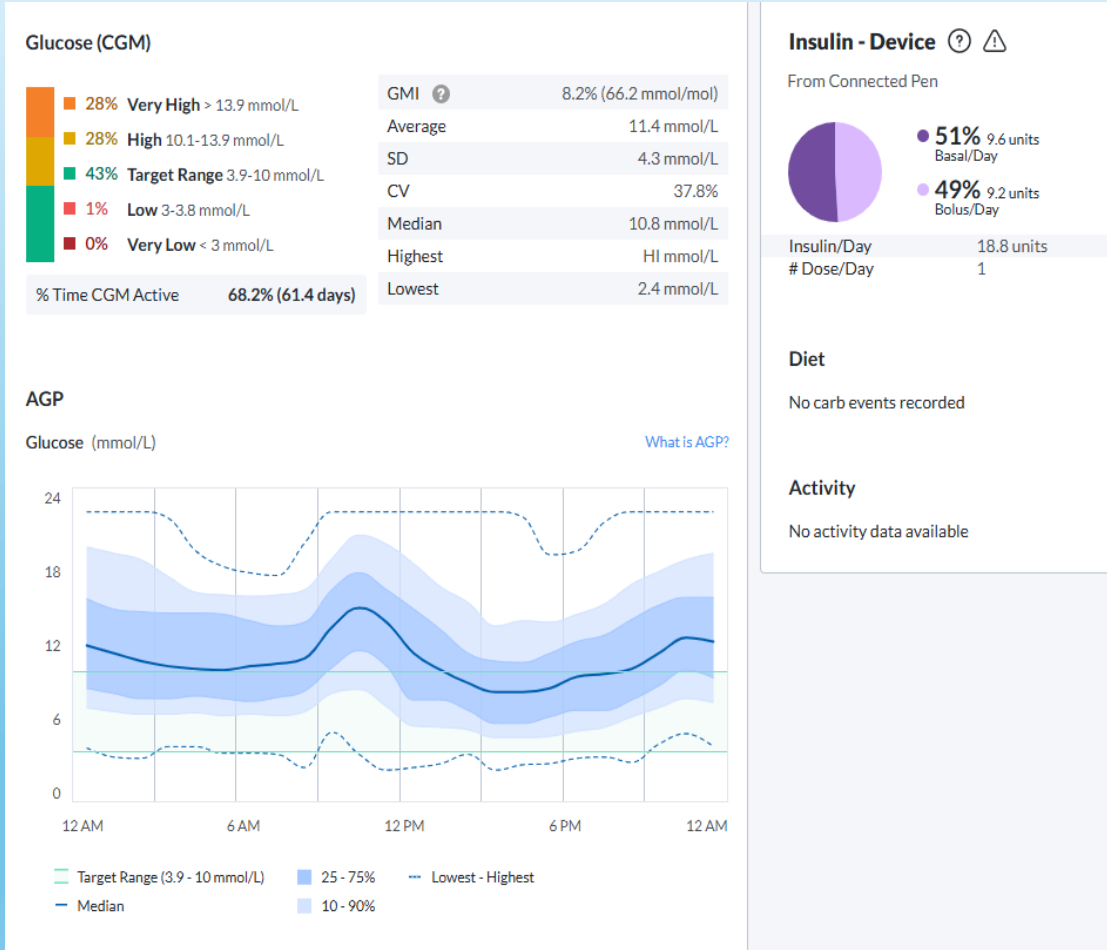
BMI



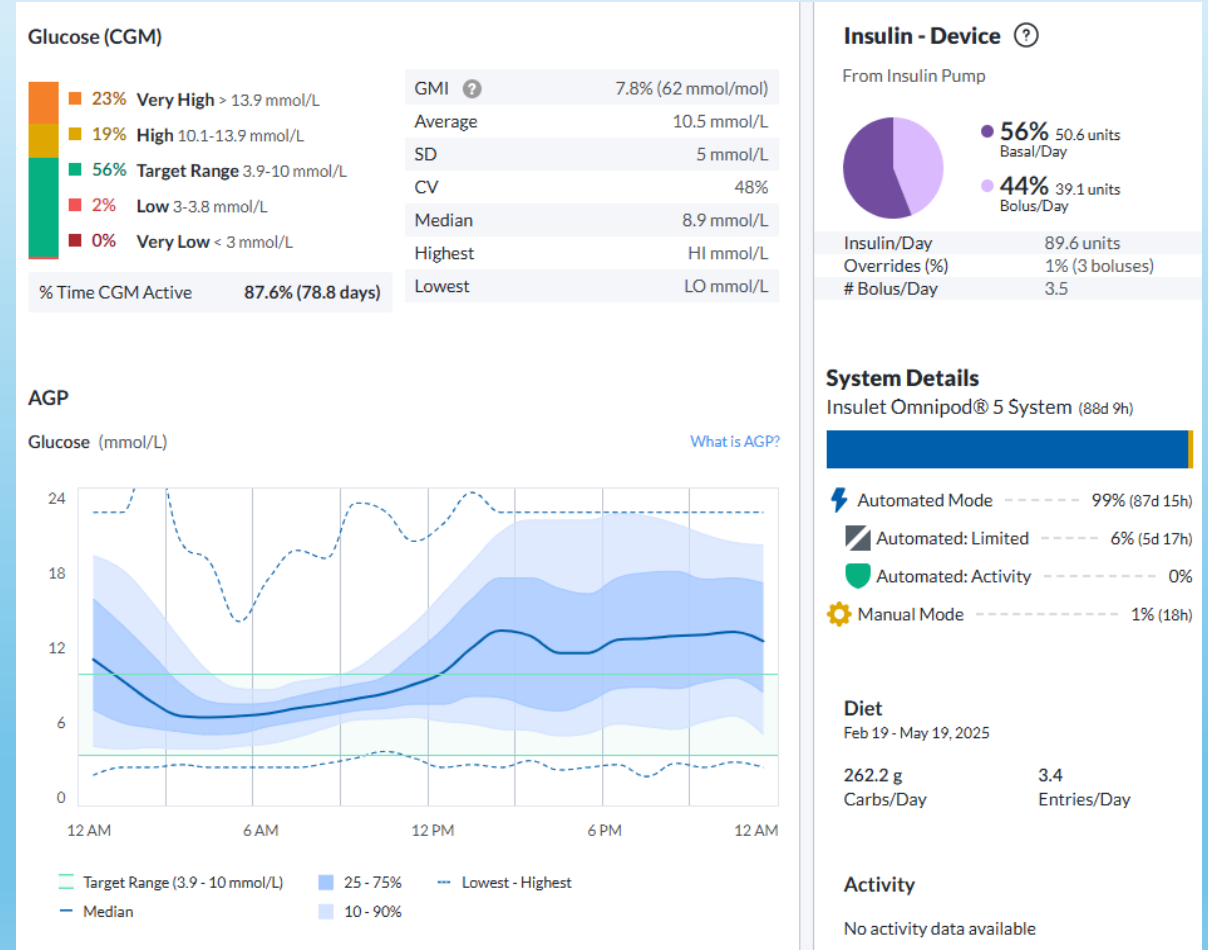
HbA1c



3 Months before



3 Months after



Themes

Anxieties

unusual environment
– restrictions , rules,
safety versus quality
of contacts

**Young Person -
Engagement,
Empowerment**

**Secure Unit staff –
Safety, Education
and Training**

2 calls from the unit

Several emails

14 contacts to the unit

17 Visits to the unit

Paediatric Diabetes Team

- Access
- Process – Technology , education
- Communication with YP, family, SW, Unit
- Monitoring BG – Cloud (FSL2 /Dexacom)
- Safety for the YP - PDM
- Engagement of YP – BG journey
- Governance

Key Outcomes

Mindset

(YP wanted the pump, MDT work)

Access

Multiprofessional team working

Successful HCL journey (blips)

Resilience building of the team and the young person

Transition service

Re-introduction into the community

