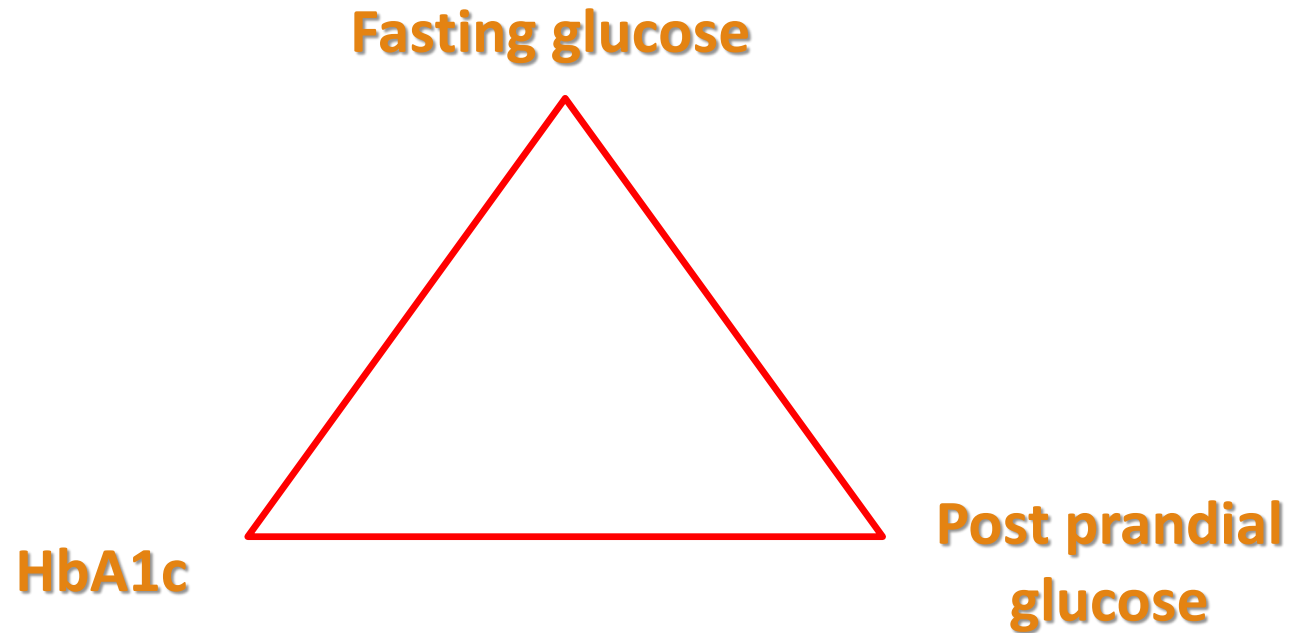


Smartly monitored blood glucose (SMBG)

**Maximising the benefit
Minimising the pain**

Glucose triad



SMBG – why not

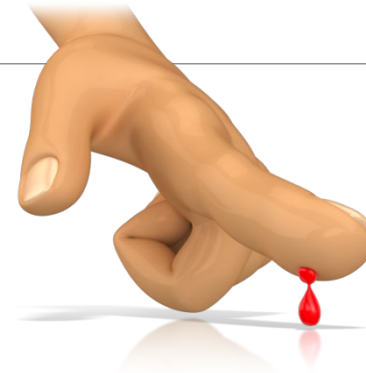
Painful

Scary

Cost

Unless supervised, reviewed and regimented, do not assist in management

Unless supervised, reviewed and regimented, do not lead to improvement in glycaemic control



SMBG – why?

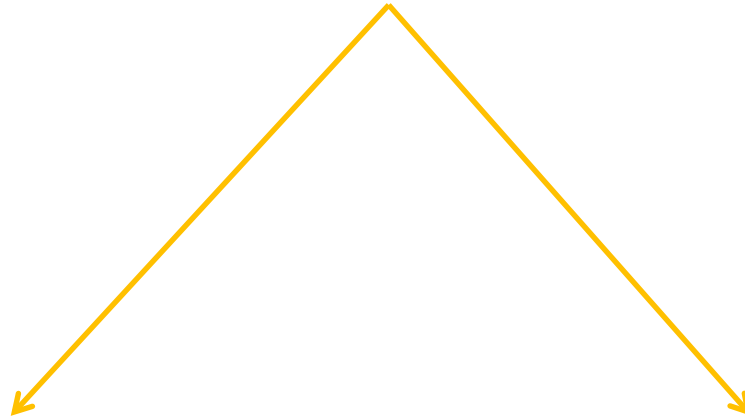
1. Patient education - explore relation with diet and exercises
2. Track progress
3. Explore glucose profile
4. Explore glycaemic control
5. Detect hypoglycaemia
6. When HbA1c is not valid
7. Medical legal issues



Smart monitoring of blood glucose

1. Planned
2. Structured
3. Reviewed
4. Linked to management change

Types of testing



Paired testing

Intensive testing

Paired testing

	Self - monitored blood glucose (mmol/L)								Comments
	Breakfast		Lunch		Dinner		Before Bed	Overnight	
	Before	After	Before	After	Before	After			
Day 1	6.8	10.2							
Day 2			7.2	8.1					
Day 3					7.0	10.5	9.9		
Day 4	6.8	10.2							
Day 5			7.6	7.7					
Day 6					6.3	11.3	8.8		
Day 7	6.2	10.8							

Intensive testing

	Self - monitored blood glucose (mmol/L)								Comments
	Breakfast		Lunch		Dinner		Before Bed	Overnight	
	Before	After	Before	After	Before	After			
Day 1	6.8	10.2	7.6	7.7	5.9	9.1	9.4		
Day 2	6.4	10.5	7.2	8.1	6.3	11.3	8.8		
Day 3	6.2	10.8	7.4	8.3	7.0	10.5	9.9		

When should we used SMBG?

1. T1D
2. Newly diagnosed
3. Education
4. Suboptimal HbA1c
5. Inconsistent HbA1c
6. Look for Hypoglycaemia
7. Sick day management
8. Preparation for insulin therapy
9. When HbA1c is not valid – red blood cell survival problem

Who doesn't need SMBG?

1. Diet controlled T2D and well controlled
2. Well controlled T2D and not on agents with hypoglycaemic risk

Who needs SMBG?

T1D

Newly diagnosed

Education

Suboptimal HbA1c

Inconsistent HbA1c

Unstable Glycaemic Control

HbA1c “too good”

Sick day management

Medication change

Preparation for insulin therapy

When HbA1c is not valid – red cell survivor issues

NDSS

Glucometer strips now accessed through NDSS

The process:

- Patient **register** with NDSS
- All patients will have 200 strips when first registered
- Subsequent strips (200) will be available by filling in **6 month approval** forms
- Patients on insulin needs to fill in **change of medication form** and no further forms filling is required

Flash Glucose Monitoring



AGP – looking better

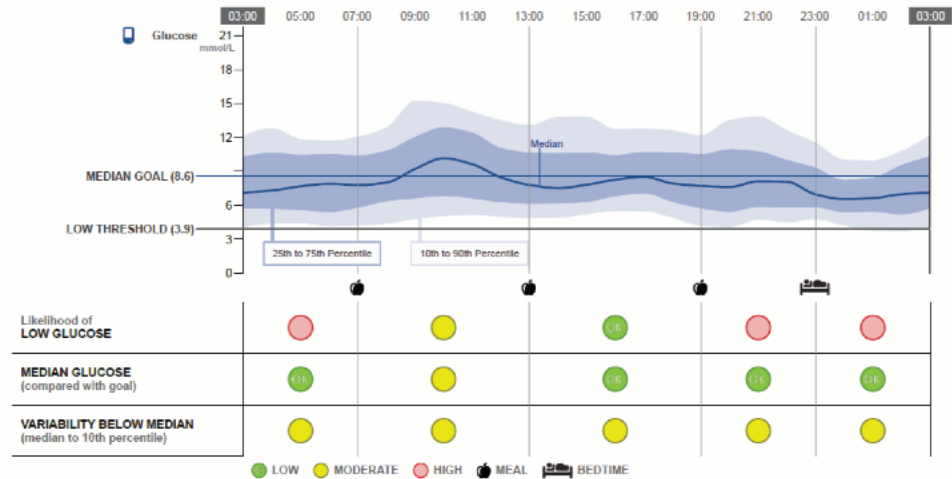
Glucose Pattern Insights

17 July 2015 - 16 October 2015 (92 days)

LOW-GLUCOSE ALLOWANCE SETTING: Medium
 MEDIAN GOAL SETTING: 8.6 mmol/L (A1c: 7.0% or 53 mmol/mol)



Estimated A1c 7.0% or 53 mmol/mol



Snapshot

1 May 2018 - 14 May 2018 (14 days)

 **Glucose**

Estimated A1c 6.7% or 50 mmol/mol

AVERAGE GLUCOSE

8.0 mmol/L

% above target

50 %

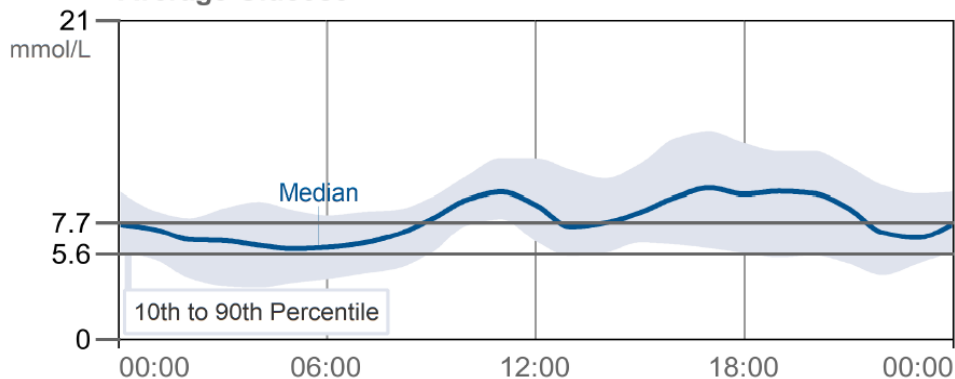
% in target

35 %

% below target

15 %

Average Glucose



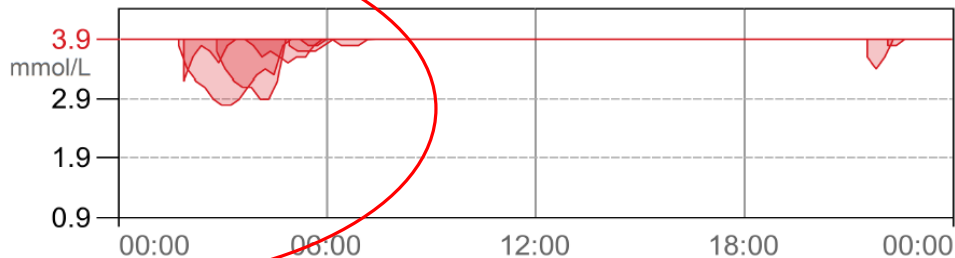
LOW-GLUCOSE EVENTS

6

Average duration

167 Min

Low-Glucose Events



Glucose

Estimated A1c **8.7%** or **72 mmol/mol**

AVERAGE GLUCOSE

11.2 mmol/L

% above target

71 %

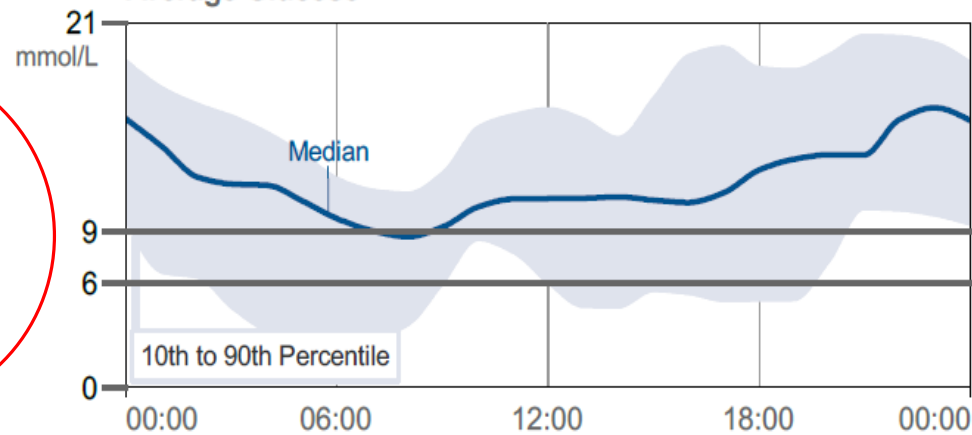
% in target

11 %

% below target

18 %

Average Glucose



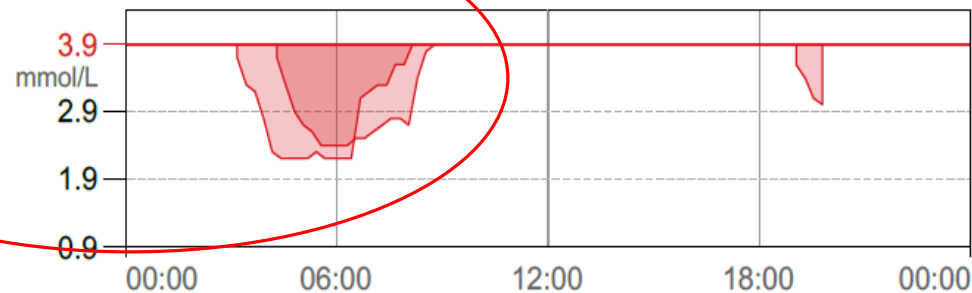
LOW-GLUCOSE EVENTS

3

Average duration

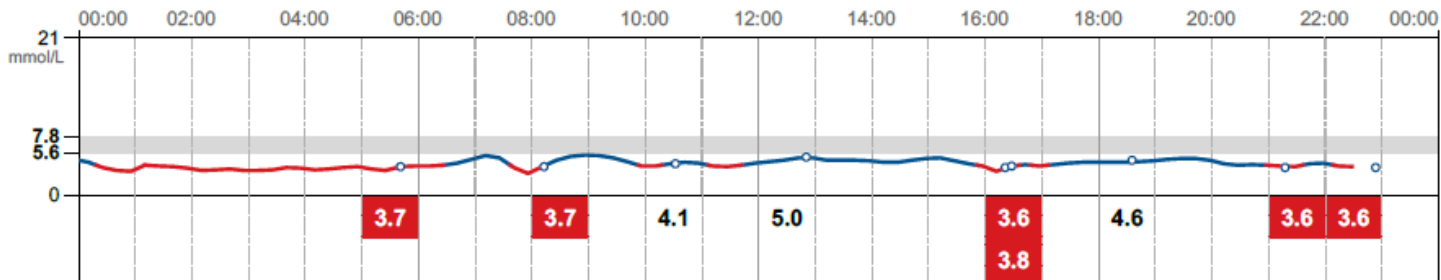
223 Min

Low-Glucose Events



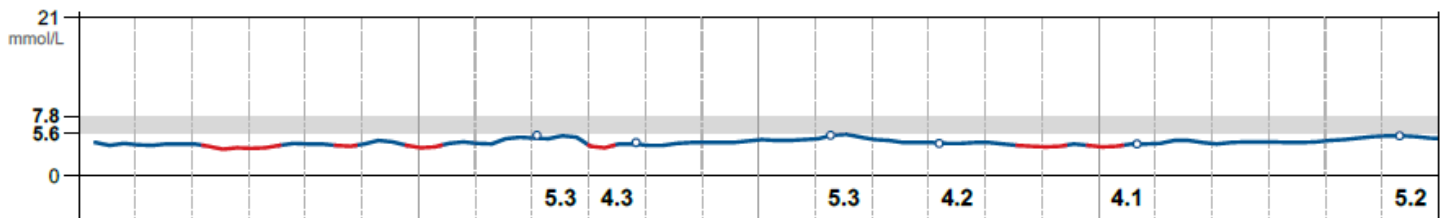
Tue 13 Aug

Glucose
mmol/L



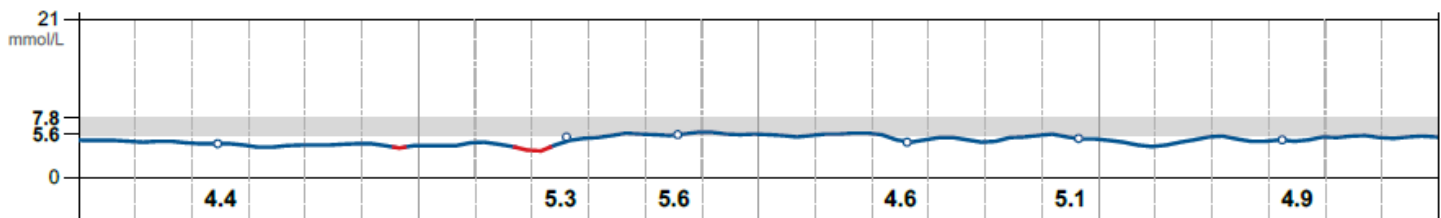
Wed 14 Aug

Glucose
mmol/L



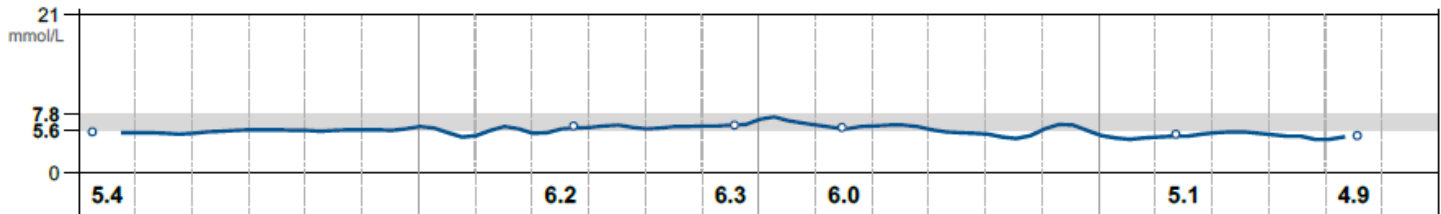
Thu 15 Aug

Glucose
mmol/L



Fri 16 Aug

Glucose
mmol/L



Who might benefit from FGM?



Severe or frequent hypoglycaemia suspected or expected



HbA1c too good to be true



Hypoglycaemia unawareness



Suboptimal glycaemic control despite multiple daily injections (MDI)



High glucose variability



Erratic lifestyles



Travelling across time zones



Patient preference

In summary

- Finger prick glucose monitoring is painful
- Smartly monitored blood glucose can be a vital tool in the management of patients with diabetes
- SMBG should only be used if it leads to management changes
- SMBG can either be intensive or paired
- Flash glucose monitoring is a new tool in the management of patients with diabetes (including patients with T2D)