GUIDANCE REGARDING FREESTLYE LIBRE 2:

As many will be aware, Abbott Diabetes Care have released the FreeStyle Libre 2 sensor for use in the UK. When compared to its predecessor, FreeStyle Libre 2 offers improved accuracy as well as the option for alarms which can alert the user to low and high glucose as well as loss of signal. These additional benefits are offered at the **same** cost to the NHS. DTN-UK recognises the pressure on UK health services at the moment, and understands that there may be administrative reasons which may delay prescriptions being switched from FreeStyle Libre sensors to FreeStyle Libre 2 sensors. However, **DTN-UK wishes to reassure both healthcare professionals and FreeStyle Libre users that the switch does not need to be delayed until further assessment or training have been carried out by a healthcare professional**. Key reasons for this are:

- The alarms are switched OFF by default. This means the default position for a person switching from FreeStyle Libre to FreeStyle Libre 2 is that they will access a similar system with improved accuracy.
- Where users would like to use the alarms, information is provided via the FreeStyle Libre Academy. Registration is free and available at https://progress.freestylediabetes.co.uk/consumer/academy/
- Further information, which can be provided to users, is attached to this statement.

It should be noted that FreeStyle Libre 2 can be used either with a compatible mobile phone which has the LibreLink App v 2.5 or above, or a FreeStyle Libre 2 reader. The FreeStyle Libre 2 reader is incompatible with FreeStyle Libre sensors. In order to obtain a FreeStyle Libre 2 reader, users should contact Abbott Diabetes Care directly, either via the online request form at FreeStylelibre.co.uk/replacement, or by telephone on 0800 170 1177.

Please note that users should use up their full supply of FreeStyle Libre sensors before switching to the FreeStyle Libre 2.

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Alarm function:

The default setting is for the alarms to be off. To activate the alarms, the user needs to choose the alarm section from the menu on the reader or the app and turn the alarms on. Ensure that bluetooth is turned on.

The aim of the alarms is to alert the user to times when they need to take action It is important that the number of alerts protects against very high or low readings, but at the same time does not become a burden.

The chart below will give you a suggested starting point for setting alarms. If unsure please discuss with your clinical team.
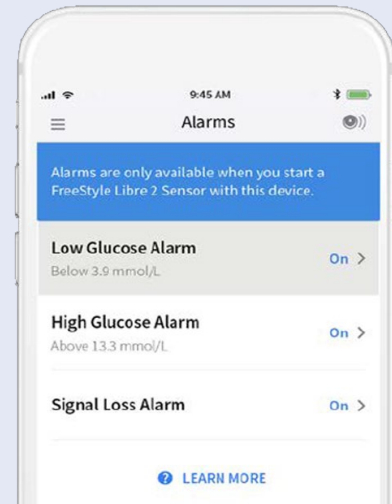
⚠ Setting high alerts:

- We recommend that people new to Flash glucose monitoring do not set the high alert for the first few days and just get used to using the system

- When you set the alert, it should be clear what the purpose of the alert should be. If the alert goes off, it should lead to a clear action

- We recommend for most people, setting the "high" alert between 18-20 mmo/l/l.

- At this level, a high alert should be unusual and lead to a clear action.

- As glucose levels improve, the alert can be gradually lowered.

- For most people with HbA1c between 7.5 – 9.0% (58-75 mmol/mol), post meal glucose levels often reach up to 15-18mmol/l, and the system generates alerts that there is no action for.

- People who have HbA1c < 7.5% (58 mmol/mol) may feel that they want to set the high alert at a lower level - often people choose a level between 13-15 mmol/l - but there needs to be an individual discussion about the balance between alerts and burden
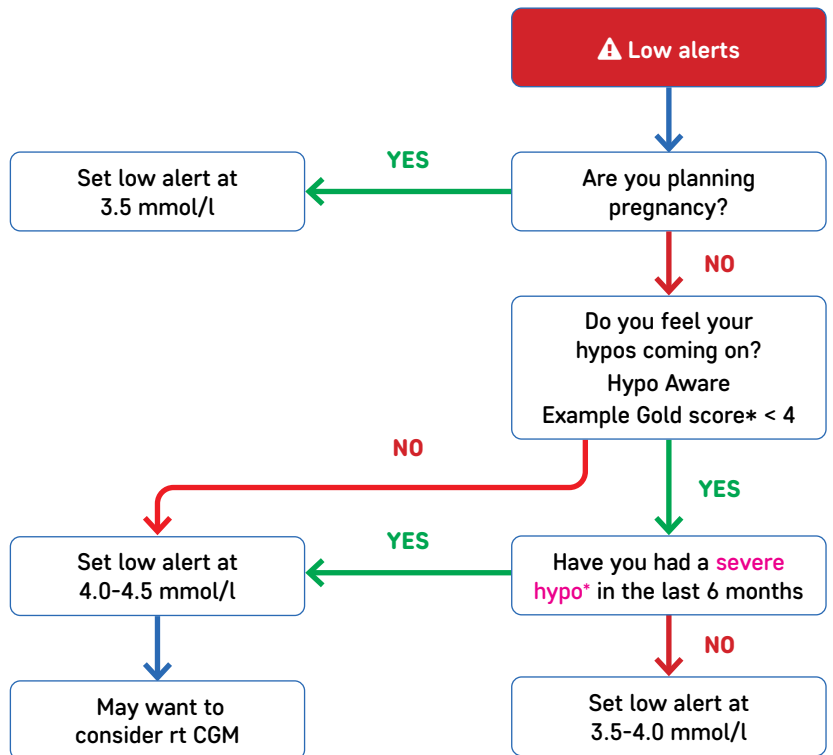
↻ Response to HIGH alert:

- Think of the reasons for the high alert. Common reasons are:
    › Missed injection or post meal bolus
    › Inadequate rapid acting insulin for the meal
    › Illness or stress
    › For insulin pump users – infusion set failure

- Take a correction dose of rapid acting insulin

- Recheck glucose in 2 hours to make sure glucose is dropping and back in range.

⚠ Setting low alerts.

- We recommend reviewing hypoglycaemia risk and hypoglycaemia awareness status using the 'Gold" score. This asks the simple question – *does the person usually recognise the onset of hypoglyceamia* - with 1 meaning always and 7 meaning never.

- For those with good awareness of hypoglycaemia (Gold score <4), we recommend setting the low alert between 3.5 – 4.0 mmol/l.

- For those with IMPAIRED awareness OR a severe hypoglycaemia in the last year, or extreme fear of hypoglycaemia, we recommend setting the low alert between 4.0-4.5 mmol/l.

↺ **Response to LOW alert:**

- Treat with rapid acting carbohydrate

  › If glucose is below 4 mmol/l, take 15 gms of rapid acting carbohydrate and recheck in 15 minutes
  › If glucose is between 4 – 6mmol/l, but showing a downwards arrow – take 5 -10 gms of carbohydrate and recheck in 15 minutes.

- Think of the reason for the "low" alert. Common reasons are

  › Took more rapid acting insulin than needed
  › Exercise or alcohol

- If in doubt, check glucose with a finger-stick reading

⚠ **Low alerts**

Are you planning pregnancy?

YES → Set low alert at 3.5 mmol/l

NO ↓

Do you feel your hypos coming on? Hypo Aware Example Gold score∗ < 4

NO → Set low alert at 4.0-4.5 mmol/l → May want to consider rt CGM

YES ↓

Have you had a **severe hypo∗** in the last 6 months

YES → Set low alert at 4.0-4.5 mmol/l

NO ↓

Set low alert at 3.5-4.0 mmol/l
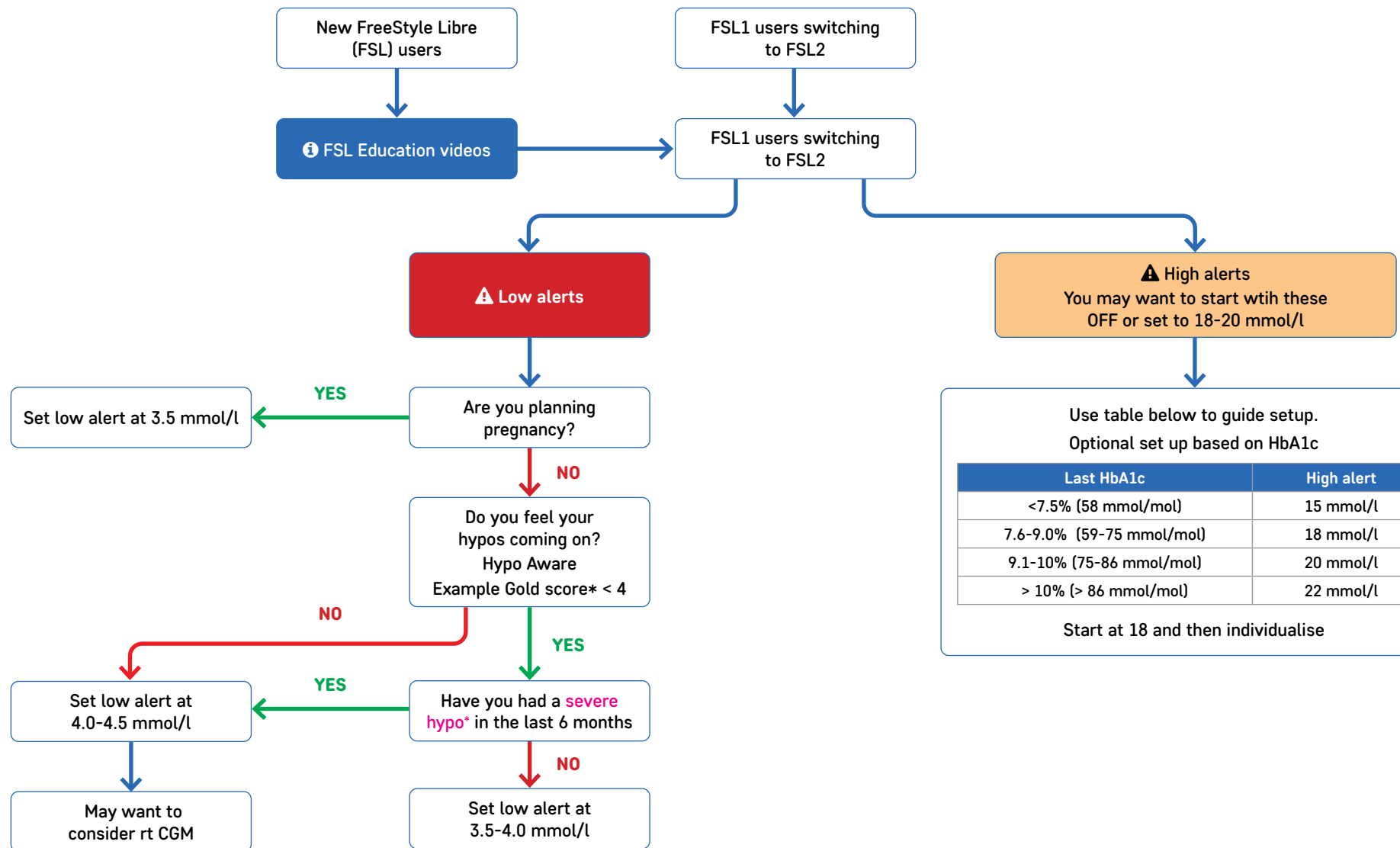
Expectations:

Based on data from Libre 1, we would expect most people to get 4-5 high and a similar number of low readings each week. If you are getting more than this – consider why :

- Do the insulin doses need to be changed?
- Do the alarms need to be changed?

Please review your data on libre view and have a look at the online videos https://abcd.care/dtn/patient-education

FreeStyle Libre 2 Setup

New FreeStyle Libre (FSL) users

FSL1 users switching to FSL2

ℹ FSL Education videos

FSL1 users switching to FSL2

⚠ Low alerts

⚠ High alerts
You may want to start wtih these
OFF or set to 18-20 mmol/l

YES → Set low alert at 3.5 mmol/l

Are you planning pregnancy?

NO

Do you feel your hypos coming on?
Hypo Aware
Example Gold score∗ < 4

NO →

YES ↓

Have you had a **severe hypo**∗ in the last 6 months

YES → Set low alert at 4.0-4.5 mmol/l

NO ↓

Set low alert at 3.5-4.0 mmol/l

May want to consider rt CGM

Use table below to guide setup.
Optional set up based on HbA1c

Last HbA1c	High alert
<7.5% (58 mmol/mol)	15 mmol/l
7.6-9.0% (59-75 mmol/mol)	18 mmol/l
9.1-10% (75-86 mmol/mol)	20 mmol/l
> 10% (> 86 mmol/mol)	22 mmol/l

Start at 18 and then individualise

*Severe hypo=a hypoglycaemic episode that required third party assistance for treatment

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