Individual Health Care Plan

Name:

Age (years)

 Insulin name:

 DOB:

School:

Year Group:

Date of Plan:

Review Date:

Insert Photo here

FAMILY CONTACT INFORMATION

Name		
Relationship		
Telephone number	Home: Work:	Mobile:
Email		
Name		
Relationship		
Telephone number	Home: Work:	Mobile:
Email		

Other essential contact information

JOB TITLE	NAME	TELEPHONE NUMBER
Paediatric Diabetes Nurse		
Paediatric Diabetes Nurse		
Diabetes Office no:		
Consultant		
GP		
Other relevant Health Professional		
Class Teacher		
School Nurse		
SEN Co-ordinator		
Other Relevant Teaching Staff		
Other Relevant Non-Teaching Staff		
Head Teacher		

Description of condition and details of individual treatment

Watch me: What is diabetes

- This young person has Type 1 Diabetes
- The young person manages their condition with a healthy diet, exercise and insulin injections
- Insulin injections are required as follows:

  Continuous subcutaneous insulin infusion (CSII) requires insulin with all meals & snacks

- **Glucose levels** need to be tested throughout each day
- Clinic appointments are every 3 months as a minimum, but may be more frequent
- In accordance with **National Guidance**, school staff should be released to attend diabetes training sessions

Glucose Monitoring

Watch me: Blood glucose monitoring
Watch me: Blood glucose test

The child/young person uses a Dexcom continuous glucose monitor (CGM). How to use the Dexcom is covered in the next few pages. There maybe times when a blood glucose test is required such as when Dexcom is not operating effectively or symptoms do not match the glucose reading on the Dexcom. At these times a blood glucose test will be required.

The child/young person has a blood glucose monitor, so they can test their blood glucose (BG). BG monitoring is an essential part of daily management: **THEIR EQUIPMENT MUST NOT BE SHARED AND SHOULD BE AVAILABLE AT ALL TIMES – NOT LOCKED AWAY.**

This young person is NOT independent in glucose monitoring

This young person is independent in glucose monitoring

Watch me: Lancet device (if performed by pupil only)
Watch me: Fastclix lancet device (if performed by school staff or pupil)
Watch me: Unistix lancet device (f performed by school staff)

This procedure should be carried out:

- In class or if preferred, in a clean private area with hand washing facilities
- **Hands must be washed prior to the test**
- **Gloves to be worn by the adult**
- Blood glucose testing lancets and blood glucose strips should be disposed of safely

Target range for blood glucose is   to   mmol/L

Watch me: Using the Dexcom & t slim x2
Glucose Monitoring

The child/young person has a continuous glucose monitor (CGM) that will update their glucose level every 5 minutes on a mobile phone or receiver. The CGM values completely replace the need to do blood glucose monitoring and can be trusted.

The only exception is if the child/young person feels **symptomatically different** to the CGM reading. Then a blood glucose reading should be performed. This should be a very rare occurrence. Therefore, they also have a blood glucose monitor, so they can test their blood glucose (BG) if they feel their CGM reading does not match with how they feel.

Monitoring Glucose is an essential part of daily management: **THEIR EQUIPMENT MUST NOT BE SHARED AND SHOULD BE AVAILABLE AT ALL TIMES – NOT LOCKED AWAY – THEY MAY ALSO NEED TO BE ABLE TO USE THEIR MOBILE PHONE DURING SCHOOL HOURS.**

This young person uses a t-Slimx2 insulin pump that has an integrated CGM using the Dexcom G6 (shown below). The young person may also have a mobile phone connected to the Dexcom so the readings can be transmitted to patents, **please ask the young person if this if they also use a mobile phone.**

## Sensors and meters measure glucose in different places
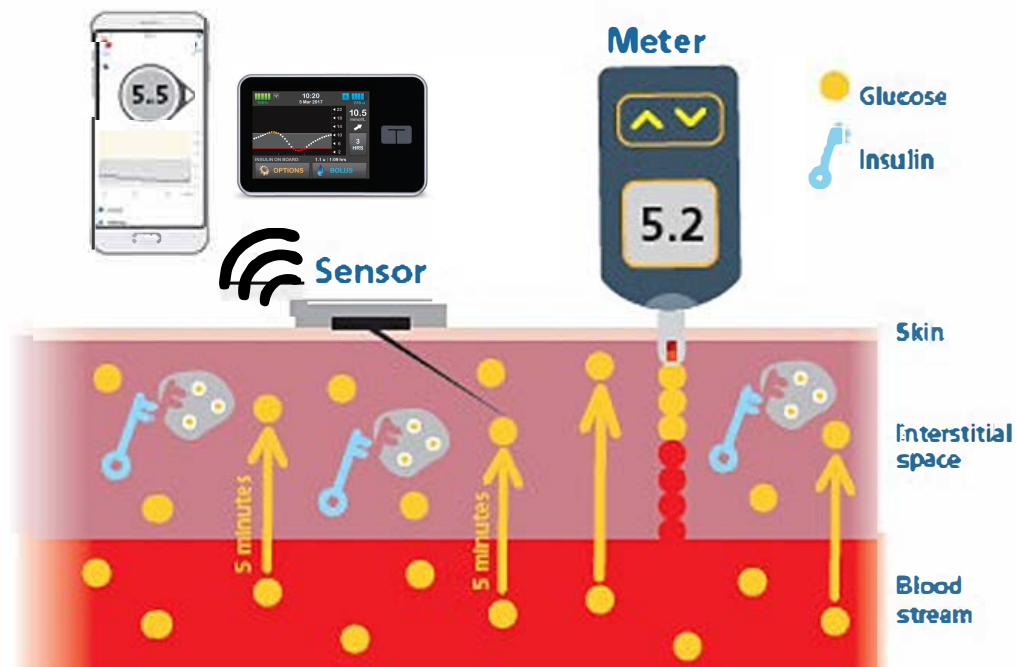
Accuracy

G6 readings and meter values may not be the same, and that's ok

The G6 and a meter measure glucose from two different types of body fluids: interstitial fluid and blood.

CGM and meters both have a range in which they are considered accurate. Readings can be different and still fall into their accurate range.
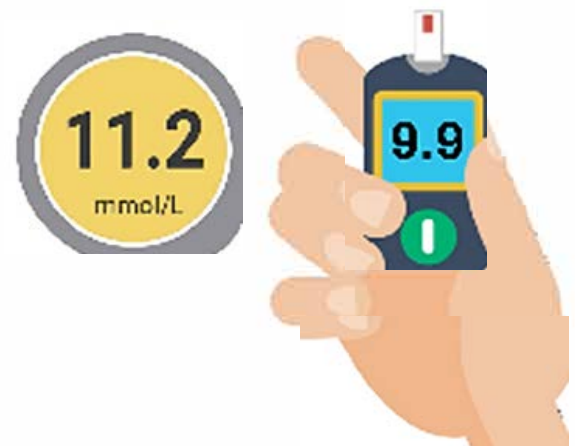
The CGM Display

- The trend arrows will help you predict where the glucose level will be in 10 minutes.
- The dotted line will allow you to see where the glucose has been in the last 1, 3, 6, 12 and 24 hours.
- The glucose value will be grey when in target, red when it's low, and yellow when its high.

Dexcom Share

Alert Status

Current Glucose — 6.1 — Trend Arrow

High Glucose Alert Level

Low Glucose Alert Level

Current Glucose

Red = Low   Yellow = High   Grey = In Target

What do the trend arrows mean?

- The CGM device will tell you how fast the glucose is moving by trend arrows
- The trend arrows allow you to predict where the glucose will be in 10 minutes
- You can use the trend arrows to:
    - Predict and prevent hypos.
    - Change carbohydrate amounts for exercise.
    - Give peace of mind that no highs are lows are coming up.
    - Decide when to give meal-time insulin.
    - And much more.

Trend arrow APP	Description	Where the glucose will be in 10 minutes
⬆️⬆️	Rapidly rising	more than 2.0mmol/l higher
⬆️	Rising	1.5mmol/l higher
↗️	Slowly rising	1mmol/l higher
➡️	Stable	Same
↘️	Slowly falling	1 mmol/l lower
⬇️	Falling	1.5 mmol/l lower
⬇️⬇️	Rapidly falling	more than 2.0mmol/l lower

When you will need to test blood glucose levels

• There will be times when the difference between the CGM and blood glucose is greater than is acceptable:

      o When there is a faulty sensor.

      o When there is a faulty transmitter.

      o When you are very dehydrated.

      o When the device cannot pick up the sensor readings.

      o If a calibration is entered that is inaccurate.

• You must test your blood glucose when:

      o Your symptoms do not match the CGM reading.

            • You may feel hypo when the reading says 5.5mmol/l.

            • You may feel really high when the CGM reads 11.0mmol/l.

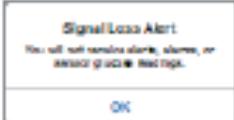   o There is no glucose value or arrow on the CGM device.

If you have both a CGM and blood glucose reading, use the blood glucose reading.

No number or arrow?
Use your meter

Symptoms don't
match readings?
Use your meter

When you see		Notice
		No number
		No arrow
App 	Receiver 	No number or arrow

Usual times to check CGM are:

☒ Before meals

☒ Before/ After P.E/Swimming

☐ Other times – please state:

Times to take action on the CGM readings and alarms

☒ When glucose level falls to   mmol/l a low alert sounds – Follow the hypoglycaemia flow chart

☒ When glucose level rises to   mmol/l a high alert sounds follow the hyperglycaemia flow chart

☒ Blood ketones should only be checked if the CGM stays above 14.0mmol/l for 90 minutes. A repeat alarm is set to notify if the CGM reading has been above 14.0mmol/l for 90 minutes. If the reading comes below 14.0mmol/l, no alarm will sound.

- Parents may follow the CGM readings by the Dexcom SHARE APP and will only contact when:
    - CGM reading has been below 4.0mmol/l for more than 45 minutes
    - CGM readings have been above 14.0mmol/l for more than 90 minutes

- If using the Dexcom APP by a mobile phone the pupil and parents must follow these rules whilst in school:
    - The phone is only to be used for the Dexcom APP
    - Parents not to contact the pupil by their mobile and go through official communication.

Insulin Administration

☐   Insulin to be given before eating lunch & snacks

☐   Insulin to be given independently by student

- Insulin dose varies depending on what is being eaten

Insulin Name:	

At meal times, the child/young person requires variable amounts of quick acting insulin, depending on how much they eat; insulin to carbohydrate ratio **(ICR)** and on what their blood glucose level is; insulin sensitivity ratio (**ISF** or often called a 'correction')

Insulin to carbohydrate ratio:	

Watch me: Carbohydrate counting

Insulin sensitivity ratio:	

Storage of insulin injections and Blood Glucose Kit

☐   Insulin to be kept in secure place in the classroom or other

☐   Insulin to be carried on person

☐   Blood glucose monitoring kit to be kept in the class room or other

☐   Blood glucose monitoring kit to be carried on person

☐   All sharps to be disposed of in a sharps box

View Status

The instructions below are provided as an additional quick reference, following **t:slim X2™ Insulin Pump** training. Not all screens are shown. For more detailed information on the operation of t:slim X2™ Insulin Pump, please visit: www.airliquidehealthcare.co.uk/diabetes-support
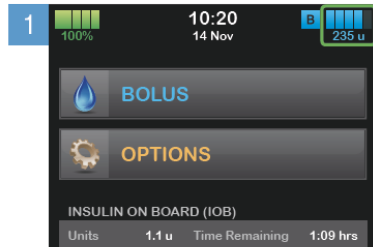
Tap the insulin level icon in the upper right corner of the Home Screen.
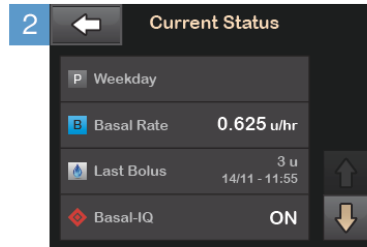
Your t:slim X2 Pump will display the name of your active profile, your current basal rate, the time and amount of your last bolus, and whether or not you are entering boluses based on carbohydrates.

If you have an active Extended Bolus, this screen will show how much insulin has been delivered out of the total amount requested.

Tap the **Down Arrow** to display your current Correction Factor, Carb Ratio, Target BG, and Insulin Duration.

Explanation of Icons

The following icons may appear in the areas to the left or right of the time and date on your t:slim X2 Pump's Home Screen.

! A system reminder, alert, error, or alarm is active. Unlock screen to view.

A bolus is being delivered.

! All insulin deliveries are stopped.

B Basal insulin is programmed and being delivered.

0 A basal rate of 0 u/hr is active.

T A temporary basal rate is active.

T A temporary basal rate of 0 u/hr is active.

Indicates the Basal-IQ™ feature is turned on. When insulin is suspended, the bottom half of the diamond will turn red.

S Indicates that all insulin delivery has been suspended when Basal-IQ™ technology is turned on.

Bolus

The instructions below are provided as an additional quick reference, following **t:slim X2™ Insulin Pump** training. Not all screens are shown. For more detailed information on the operation of t:slim X2™ Insulin Pump, please visit: www.airliquidehealthcare.co.uk/diabetes-support

1

Tap **0 Grams** to enter the carbs for your bolus.

NOTE: If this reads "units," the carb feature is turned off in the active profile.

2

Enter desired value. Be sure 'grams' is displayed above keypad for food boluses.

Tap ✔ to continue.

3

Tap **Add BG** to enter your blood glucose (BG).

NOTE: If you have a CGM session active, and if there is both a CGM value and a CGM trend arrow available on the CGM Home Screen, your glucose value is autopopulated in the GLUCOSE field.

4

Enter desired value. Be sure 'mmol/L' is displayed above keypad when entering BG values.

5

If a BG is entered that is below the target, but above or 3.9 mmol/L, you will be offered the option to reduce the bolus amount. To accept that reduction tap ✔; otherwise, tap ✖.

6

Tap ✔ to continue. Tap the calculated units value to manually adjust recommended dose.

7

Verify the dose and tap ✔ to confirm.

NOTE: Calculations above are based on preset insulin-to-carb ratios and correction factors, which may be set in Personal Profiles.

8

Tap ✔ to deliver the food bolus immediately.

The BOLUS INITIATED screen will appear to confirm delivery has started.

9

To cancel the undelivered portion of the bolus, tap the **white X** next to **BOLUS** on the Home Screen, then tap ✔ to confirm canceled bolus.

Suggested Daily Routine

Watch me: Daily routine

	Time	Notes
Arrive School		
Morning Break		
Lunch		
Afternoon Break		
School Finish		
Other		

PE Guide for Control IQ

1. Enter weight in kilograms into this box

2. Start Exercise Activity before and stop after.
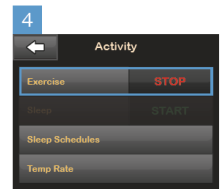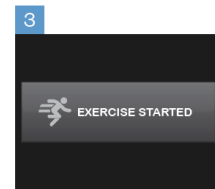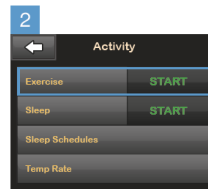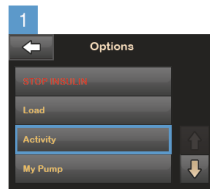
3. Check glucose just before and every 20 minutes during exercise.

4. If swimming suspend the pump before and resume after

Sensor glucose Levels	Rate of glocose change trend arrow & action to take	Carbohydrate grams needed for 20 minutes		
less than 4.0 mmol/l	**No exercise: Treat hypoglycaemia**			
4.0 - 6.4 mmol/l	↓↓			
	↓			
	↘			
	→			
	↗			
	↑			
6.5 - 9.9 mmol/l	↓↓			
	↓			
	↘			
	→			
	↗			
10.0 - 13.9 mmol/l	Ok to exercise with any arrow			
>14.0mmol/l	**Check ketones: If less than 0.6mmol/l**	**Ok to exercise**		
	Chck ketones: If 0.6mmol/l or above	**No exercise until the ketones have been corrected and are less than 0.6mmol/l**		

Control-IQ Technology

For the t:slim X2 Insulin Pump

How does Control-IQ technology work?

Control-IQ™ technology is designed to help increase time in range (3.9-10.0 mmol/L)* using Dexcom G6 continuous glucose monitoring (CGM) values to predict glucose levels 30 minutes ahead and adjust insulin delivery accordingly, including delivery of automatic correction boluses† (up to one per hour).

		Control-IQ Technology		
		Enabled	Sleep Activity Enabled	Exercise Activity Enabled
◈ ◻	**Delivers** an automatic correction bolus if sensor glucose is predicted to be above ____ mmol/L	10.0	N/A	10.0
◈ B	**Increases** basal insulin delivery if sensor glucose is predicted to be above ____ mmol/L	8.9	6.7	8.9
◈ B	**Maintains** active Personal Profile settings when sensor glucose is between ____ - ____ mmol/L	6.25 - 8.9	6.25 - 6.7	7.8 - 8.9
◈ B	**Decreases** basal insulin delivery if sensor glucose is predicted to be below ____ mmol/L	6.25	6.25	7.8
◈ 0	**Stops** basal insulin delivery if sensor glucose is predicted to be below ____ mmol/L	3.9	3.9	4.4

Control-IQ Technology Pump Icons

Symbol	Meaning
◈	Control-IQ technology is enabled but not actively increasing or decreasing basal insulin delivery.
◈	Control-IQ technology is increasing basal insulin delivery.
◈	Control-IQ technology is decreasing basal insulin delivery.
◈	Control-IQ technology has stopped basal insulin delivery.
zzz	The Sleep Activity is enabled.
🏃	The Exercise Activity is enabled.

Symbol	Meaning
B	Basal insulin is programmed and being delivered.
B	Control-IQ technology is increasing basal insulin delivery.
B	Control-IQ technology is decreasing basal insulin delivery.
0	Basal insulin delivery is stopped and a basal rate of 0 u/hr is active.
◻	Control-IQ technology is delivering an automatic correction bolus.†
BOLUS Control-IQ: 2.8 u	Control-IQ technology is delivering an automatic correction bolus.†

You know Control-IQ is not active when the diamond is grey
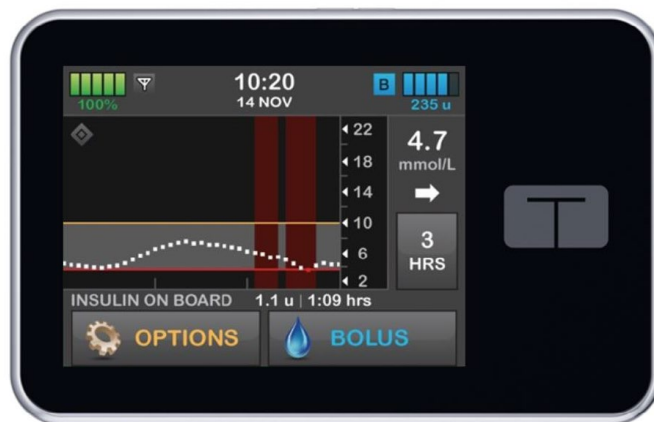
You know Control-IQ is increasing insulin when the diamond is blue

You know Control-IQ has stopped the insulin when the diamond is red

If the transmitter is having trouble communicating with the pump this is the message you will see. You will have to use finger prick blood glucose if you require a reading, for example at a meal time.

If the Control IQ is not successful in preventing the low glucose level a low glucose alert will sound. If this happens follow the hypoglycaemia flow chart.
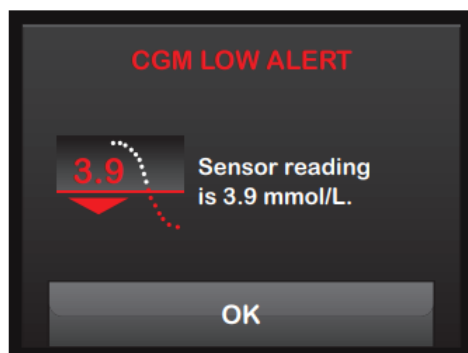
If the glucose level goes to 14.0mmol/L or higher the high alert will sound. If this happens follow the hyperglycaemia flow chart.
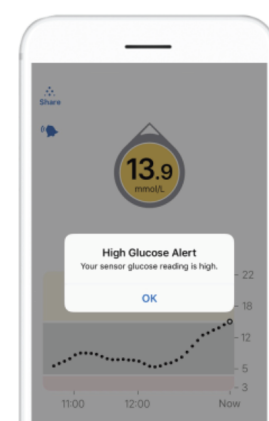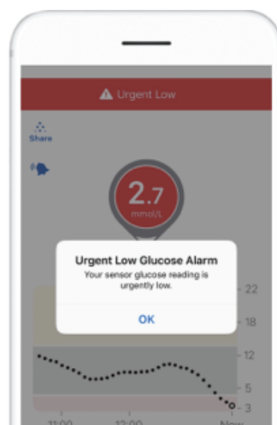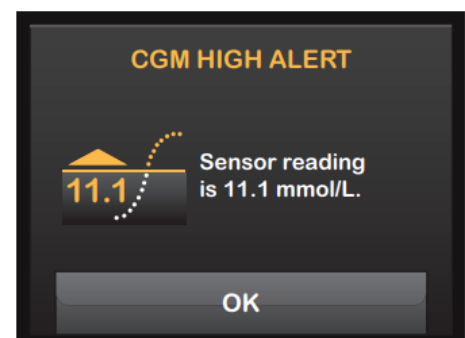
Hypoglycaemia (Low Blood Glucose) Management

BELOW   mmol/L

Watch me: hypoglycaemia

Tick the symptoms the young person currently experiences when hypoglycaemic. These symptoms may change over time and require updating.

If any of these symptoms are displayed check blood glucose immediately.

Sweating	Pallor
Trembling	Anxiety
Weakness	Headache
Confusion	Sleepiness
Slurred speech	Blurred Vision
Personality Change	Nausea and Vomiting

Note any other symptoms

- **Check blood glucose to confirm hypo, and treat promptly**

- **Do not move the location of the young person to treat a hypo**

- Hypos are described as mild, moderate or severe depending on this young person's ability to treat themselves

- The aim is to treat, and restore the blood glucose level to   mmol/L or above

A hypo box should be kept in school. Contents of hypo box should include:

      Fast acting glucose

      Glucogel

- All staff must be aware of where the hypo box is kept
- The hypo box should be taken with the young person if moving around the school premises
- **It is parents responsibility to ensure that the hypo box is adequately stocked**

ALWAYS TREAT THE HYPO THEN CONSIDER WHAT HAS CAUSED IT:
- Too much insulin?
- Not eating enough carbohydrates?
- Missed or delayed meal?
- Intense exercise?

Severe Hypoglycaemia:

- This is where the young person is unconscious, having a seizure or is unable to take fast acting glucose orally
- This is an **extremely rare occurrence** but we need to make you aware
- How to manage severe hypoglycaemia is on the flow chart on the next page

<p align="center">**Watch me**</p>

Preventing or treating hypoglycaemia flow chart

<p align="center">('Hypo' or Low 'Blood Glucose')</p>

In any of the below circumstances please refer to the **Mild Hypo** green box (as long as the child is conscious & cooperative):

1. Low glucose alarm sounds
2. Glucose value below 4.0mmol/L
3. Glucose 4.0-6.0mmol/L with a downward trending arrow at usual times of checking e.g. break-time, lunch, mid afternoon

Step 1:

Using the glucose value and arrow, treat or prevent hypoglycaemia using **one** of the options from the table below (options can be changed)

Glucose mmol/L	Arrow	Treatment Glucose (grams)	Choose only one	
4.0 - 6.0	↓↓			
	↓			
	↘			
Less than 4.0	↓↓			
	↓			
	↘			
	→			
	↗			

Mild Hypo

The child can eat and drink and is cooperative

Step 2: Look at CGM in 20 minutes .

Step 3: If CGM is still below 4.0mmol/L after 20 minutes, repeat 1& 2

Moderate Hypo

The child is conscious but not cooperative

Step 1: Give   tubes of GlucoGel®

Step 2: Look at CGM in 20 minutes.

Step 3: If CGM is still below 4.0 mmol/L after 20 minutes repeat Steps 1 & 2.

Severe Hypo

The child is unconscious and/or having a seizure and so unable to swallow

Step 1: Place child in the recovery position.

Step 2: Ensure the airway is open and that the child is breathing.

Step 3: Call 999 and Stay with the child while someone waits to direct the ambulance and informs parents.

Hyperglycaemia (High Blood Glucose) Management
14mmol/L or above

Watch me: Hyperglycaemia

Tick the symptoms the young person currently experiences when hyperglycaemic.
These symptoms may change over time and require updating.

If any of these symptoms are displayed check blood glucose immediately.

Excessive Thirst
Tiredness/lethargy
Nausea & vomiting
Weight Loss

Passing urine frequently
Blurred vision/headache
Abdominal pain
Changes in behaviour

Note any other symptoms

General advice when managing hyperglycaemia

- If this young person is well there is no need to send him/her home

- Parents should be informed that this young person has had high blood glucose levels

- This young person should be encouraged to drink sugar free fluids

- This young person should be allowed to use the toilet as needed

- This young person should not exercise if his/her blood glucose level and ketones are high:

   o   Blood glucose 14mmol/L or above and ketones 0.6mmol/L or above

Watch me: What are ketones?

Advice for hyperglycaemia with illness

- If has high blood glucose levels and:

   ➢ Ketones > 1.5mmols

   ➢ Headaches

   ➢ Abdominal Pain

   ➢ Nausea or Vomiting

CONTACT PARENTS IMMEDIATELY

- The young person needs to be taken home

- Parents need to monitor blood glucose and ketone levels

- Extra insulin will be required

- Parents should contact the diabetes team for advice

Watch me
Hyperglycaemia Flowchart

('Hyper' or 'High blood glucose')

Step 1: Notified CGM above 14mmol/l by first alarm. Give a correction by the pump

Step 2: Wait 90 minutes

Step 3: Act if alarms after 90 minutes as still above 14.0mmo/l - Check for Ketones

Signs and symptoms can include:

Excessive Thirst	Passing urine frequently
Tiredness/lethargy	Blurred vision/headache
Nausea & vomiting	Abdominal pain
Weight Loss	Changes in behaviour

Watch me: How to do a ketone test

High blood glucose 14mmol/L or above Blood ketones less than 0.6mmol/L	Step 1: Drink sugar free fluids. Step 2: Correct blood glucose by the pump. Step 3: Check blood glucose levels 1-2 hours later.
High blood glucose 14mmol/L or above Blood ketones 0.6 – 1.5mmol/L Child well and no vomiting/child unwell	Step 1: Drink sugar free fluids. Step 2: Correct high blood glucose and ketone levels with corrective dose by INJECTION, as advised by Diabetes Home Care or parents, and change cannula. Step 3: Contact parents or Diabetes Home Care to discuss action if unwell. Step 4: Check blood glucose levels 1-2 hours later.
High blood glucose 14mmol/L or above Blood ketones over 1.5mmol/L Child and/or unwell/vomiting	Step 1: Contact parents to collect as child SHOULD NOT BE IN SCHOOL. Step 2: If vomiting and/or having difficulty breathing call 999. Step 3: Correct high blood glucose and ketone levels with corrective dose of insulin by INJECTION and change cannula.

Watch me

Please use this box for any additional information

I give permission to the school nurse, trained diabetes personnel, and other designated staff to perform and carry out the diabetes care tasks as outlined by this Diabetes Health Care Plan.

I also consent to the release of the information contained in this Diabetes Health Care Plan to all staff members and other adults who have custodial care of my child and who may need to know this information to maintain my child's health and safety.

Plan Approved By:	Name	Signature	Date
Young Person			
Parents/ Guardian			
Diabetes Team Member			
School Representative			
School Nurse			

Who is responsible in an Emergency?

- School staff will take the action detailed above
- Parents should attend school when requested to do so

t slim x2 Alerts & Alarms
Watch me

26.7   Calibration Required Alert

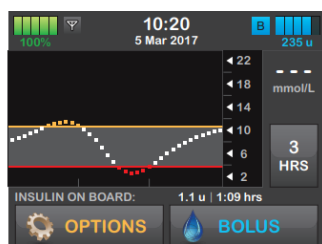| What will I see on the screen?	
CALIBRATE CGM Enter a BG to calibrate CGM sensor. **OK**	**What does it mean?** The System needs a blood glucose value to calibrate. Sensor glucose readings will not be displayed at this time.
	How will the System notify me? 1 vibration, then vibration/beep every 5 minutes until confirmed.
	Will the System re-notify me? Yes, every 15 minutes.
	How should I respond? Tap OK and enter a blood glucose value to calibrate the System.

26.15 Unknown Sensor Reading

| What will I see on the screen?	
10:20 5 Mar 2017 100% 235 u 22 18 14 - - - 10 mmol/L 6 2 3 HRS INSULIN ON BOARD: 1.1 u | 1:09 hrs **OPTIONS** **BOLUS**	**What does it mean?** The sensor is sending sensor glucose readings that the System does not understand. You will not receive sensor glucose readings.
	How will the System notify me? On screen only with no vibration or beep.
	Will the System re-notify me? The 3 dashes will remain on the screen until a new glucose reading is received and displayed in their place.
	How should I respond? Wait 30 minutes for more information from the system. Do not enter blood glucose values for calibration. The system will not use blood glucose values for calibration when "- - -" appears on the screen.

26.16 Out of Range Alert
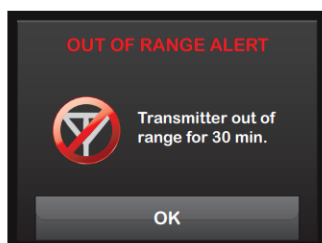
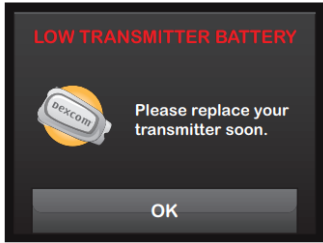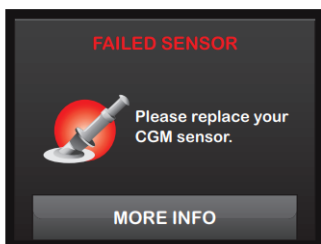| What will I see on the screen?	
OUT OF RANGE ALERT Transmitter out of range for 30 min. **OK**	**What does it mean?** The transmitter and pump are not communicating and you will not receive sensor glucose readings.
	How will the System notify me? 1 vibrate, then vibration/beep every 5 minutes until the transmitter and pump are back in range.
	Will the System re-notify me? Yes, if the transmitter and pump remain out of range.
	How should I respond? Tap OK to confirm and move the transmitter and pump closer together, or remove the obstruction between them.

26.17 Low Transmitter Battery Alert

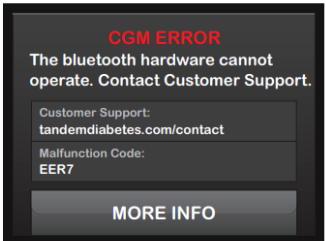| What will I see on the screen?	What does it mean?
LOW TRANSMITTER BATTERY Please replace your transmitter soon. OK	Transmitter battery is low.
	How will the System notify me?
	1 vibration, then vibration/beep every 5 minutes until confirmed.
	Will the System re-notify me?
	Yes, the alarm will notify you when there are 21, 14, and 7 days of transmitter battery life remaining.
	How should I respond?
	Tap ᴼᴷ to confirm. Replace the transmitter as soon as possible.

26.18 Transmitter Error

What will I see on the screen?	What does it mean?
TRANSMITTER ERROR Please replace your transmitter now. MORE INFO	The transmitter has failed and the CGM session has stopped.
	How will the System notify me?
	1 vibration, then vibration/beep every 5 minutes.
	Will the System re-notify me?
	No.
	How should I respond?
	Tap MORE INFO. A screen notifying you that your CGM session has stopped but insulin delivery continues will appear.
	Replace the transmitter immediately.

26.19 Failed Sensor Error

What will I see on the screen?	What does it mean?
FAILED SENSOR Please replace your CGM sensor. MORE INFO	The sensor is not working properly and the CGM session has stopped.
	How will the System notify me?
	1 vibration, then vibration/beep every 5 minutes.
	Will the System re-notify me?
	No.
	How should I respond?
	Tap MORE INFO. A screen notifying you that your CGM session has stopped but insulin delivery continues will appear.
	Replace the sensor and begin a new CGM session.

26.20 CGM System Error

What will I see on the screen?	What does it mean?
CGM ERROR The bluetooth hardware cannot operate. Contact Customer Support. Customer Support: tandemdiabetes.com/contact Malfunction Code: EER7 **MORE INFO**	Your CGM System is not working properly; the CGM session has stopped and the system can no longer be used.
	How will the System notify me? 1 vibration, then vibration/beep every 5 minutes.
	Will the System re-notify me? No.
	How should I respond? Tap **MORE INFO**. A screen notifying you that your CGM System cannot operate but insulin delivery continues will appear. Contact your local Tandem Diabetes Care representative.