

Diabetes Management Plan (DMP) : Insulin Pump

YPSO
CamAPS FX
Auto Mode

School:

First name:

Last name:

Date of birth (D/M/Y): School Year:

Click to add photo

Target range for glucose is 3.9 - 8.0 mmol/L

NEVER LEAVE ALONE IF UNWELL. TREAT ON THE SPOT.

GLUCOSE MONITORING

In addition to the daily schedule, monitoring of glucose levels and blood ketones should be performed if the student is unwell

DAILY SCHEDULE // PLEASE GIVE INSULIN: MINUTES BEFORE FOOD

Contact 1:

Contact 2:

PCH Clinic:

6456 1111 Opt 2

Time	Meal	Glucose Check	Insulin	Action	Responsible Person

Type of insulin pump: **Ypso Cam APS FX**

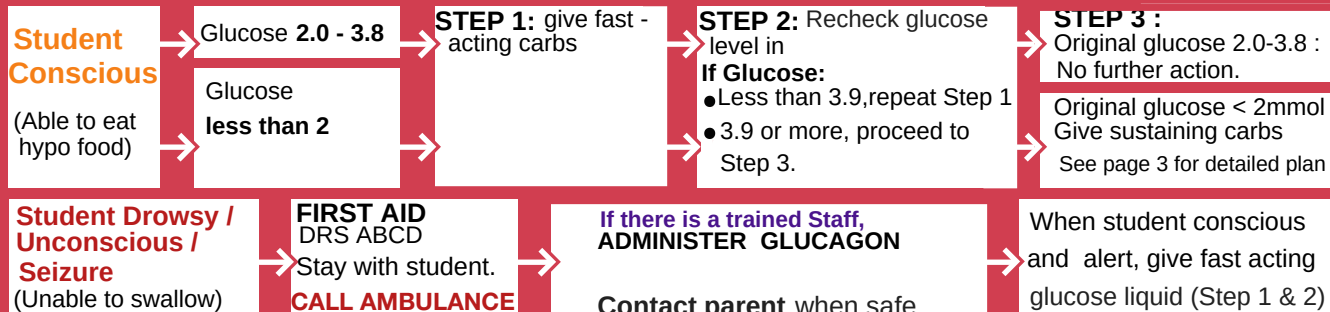
Type of sensor/monitor:

Low glucose levels to be confirmed by

Enter each hypo treatment on the App as
≡ → Add Meal → Hypoglycaemia Treatment

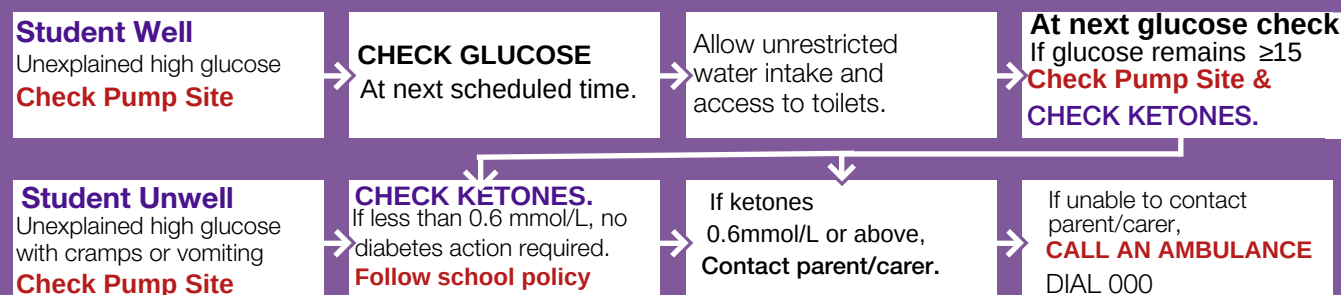
LOW (HYPO) // Glucose less than 3.9 mmol/L // DO NOT DELAY TREATMENT // TREAT ON THE SPOT

Symptoms: Feeling sick Pale Headache Shaky Sweaty Drowsy



HIGH (HYPER) // Glucose 15.0 mmol/L or above, before a meal/snack : Check Pump Site *(See below)

Symptoms: Feeling sick Thirsty Increased urine production Headache Irritable Lethargic



* For unexplained high glucose, pump site should be checked for leakage, dislodged needle/cannula or redness/swelling. If any of these occur, the pump site must be changed immediately. Contact parent/carers.

PHYSICAL ACTIVITY Check Glucose Levels 10-15 minutes before the activity

3.9 - 5.0 mmol/L

5.1 - 8.0 mmol/L

If any fast acting or sustaining carbohydrates are given to prevent hypos, each of those should be entered on the App as
 ☰ → Add Meal → Hypoglycaemia Treatment

Once above 5.0 mmol/L exercise can start.

Exercise can be started.

8.1 - 14.9 mmol/L

15.0 mmol/L or above

Exercise can be started.

CHECK BLOOD KETONE LEVELS

Ketones less than 0.6 mmol/L

Exercise can start.

Ketones 0.6 mmol/L or above

CONTACT PARENT

AUTHORITY TO ACT // SCHOOL STAFF WHO HAVE COMPLETED DIABETES IN SCHOOLS LEVEL 3 TRAINING

Name	Level 3 Training Date

Perth Children's Hospital Trainer:

Date:

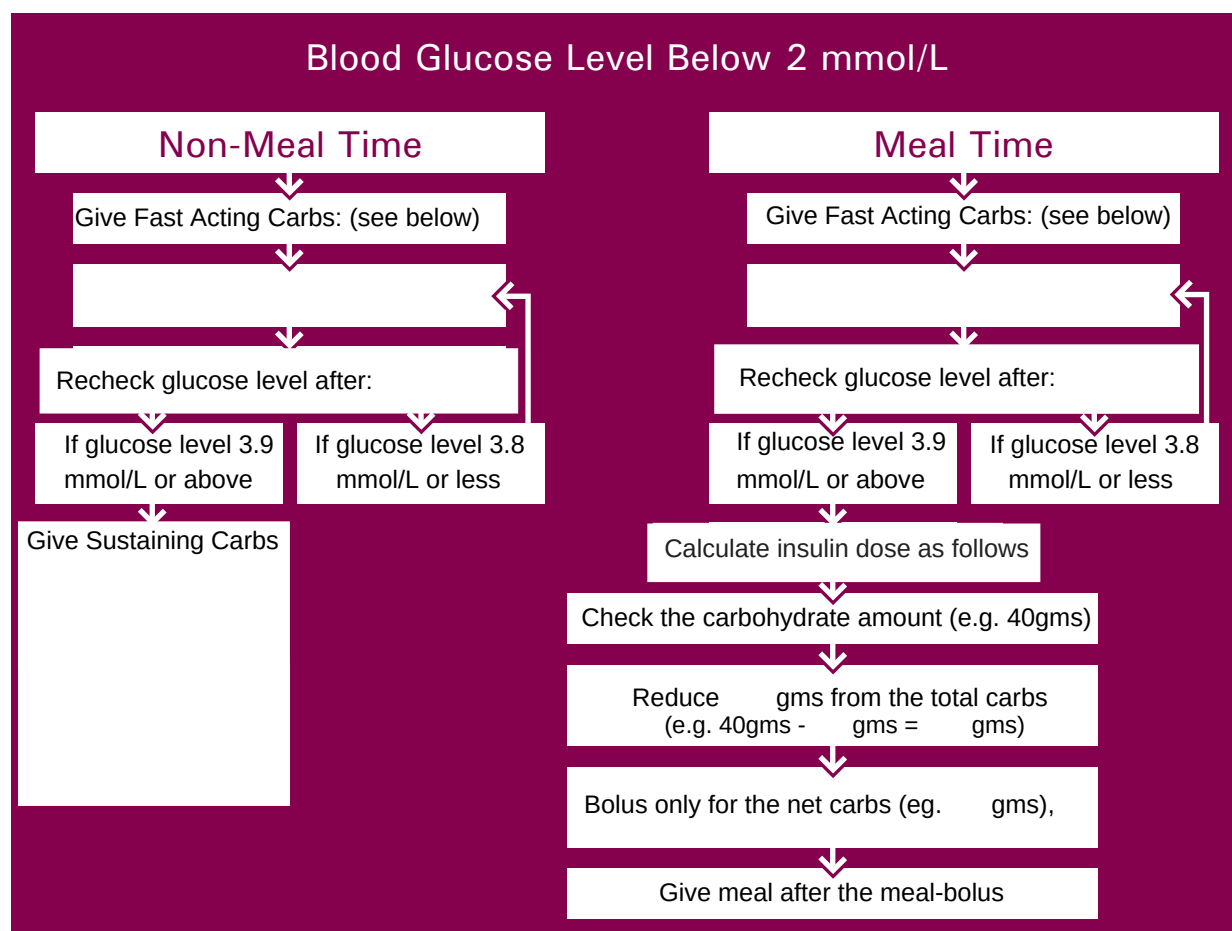
Digital Signature:

REVIEW DATE: _____

This diabetes management and safety plan authorises school staff to follow this advice and that of the medical team. School staff are not expected to manage a student's diabetes as comprehensively as at home. This plan is sanctioned as being safe and reasonable. It is valid for one year or until the school is advised of a change to the student's health care requirements.

HYPO MANAGEMENT - INSULIN PUMP

The below plan is to be used if the student's glucose level is below 2mmol/L.



INSULIN PUMP : Ypsomed on Cam APS FX

The student wears a Hybrid Closed Loop insulin pump that continually delivers insulin.

Is staff involvement required for pump navigation?

If YES, the responsible staff need to:

Student Insulin Pump Skills

Able to independently count carbohydrate foods

Able to enter glucose levels and carbohydrate grams into pump

Able to do a 'Correction Bolus'

Able to disconnect & reconnect pump if needed

Able to Suspend & Restart pump manually

Able to prepare and insert a new infusion set if needed

Able to troubleshoot pump alarms and malfunctions

Able to give an insulin injection if needed

Low Glucose Suspend

Ypso on Auto-Mode is programmed to STOP insulin delivery when the Sensor Glucose Level is low or predicted to go low.

GLUCOSE LEVEL CHECKING

Glucose levels outside of the target range are not unusual.

Glucose levels will vary day-to-day and be dependent on a number of factors such as:

- Insulin dose
- Excitement / stress
- Level of activity
- Illness/ infection
- Type/quantity of food
- Growth spurts
- Age

Times to check glucose levels (tick all those that apply):

- ✓ Anytime, anywhere
- ✓ Before snack
- Before exams/tests
- ✓ Before activity
- ✓ Before lunch
- ✓ When feeling unwell
- ✓ Anytime hypo suspected
- Beginning of after-school care session

Other routine times – please specify:

SENSOR GLUCOSE

Continuous Glucose Monitor (CGM)

The student is wearing:

- CGM consist of a small sensor that sits under the skin and measures glucose levels in the fluid surrounding the cells (interstitial fluid)
- With CGM a transmitter sends data to either a receiver, phone app or insulin pump.
- A sensor glucose reading can differ from a finger prick blood glucose reading during times of rapidly changing glucose levels e.g. eating, after insulin administration, during exercise.
- These devices are not compulsory management tools.

ALARMS

Alarms may be 'on' or 'off' . It is suggested that high alarms are turned off during school.

CGM reading ' LO/LOW ' : glucose level is too low to be measured by the sensor (<2.2mmols)

CGM reading ' HI ' : glucose level is too high to be measured by the sensor (>22.2mmols)

ACTION FOR ALARMS : Check glucose level and follow front page for management.

USE AT SCHOOL

- Staff are not expected to do more than the current routine diabetes care as per the student's Diabetes Management Plan.
- Staff do not need to put CGM apps on their computer, smart phone or carry receivers .
- Parents/carers are the primary contact for any questions regarding CGM/FGM use
- Some CGM devices can be monitored remotely by family members.
They should only contact the school if they foresee a prompt response is required.
- If the sensor/transmitter falls out, inform the parent and use finger prick blood glucose levels.
- If the Dexcom G6 sensor falls out, staff are required to keep it in a safe place to give to parents/carers.
- The sensor can remain on the student during water activities.

FINGER PRICK GLUCOSE

The student should always wash and dry their hands before doing a finger prick check.

Is the student able to do their own glucose check independently?

If NO, the responsible staff member needs to:

- Further action is required if glucose level is **less than 3.9 mmol/L** or **15.0 mmol/L or above**. Refer to front page.
- If the meter reads **'LO'** this means the glucose level is too low to be measured by the meter : follow the low (Hypo) treatment on the front page.
- If the meter reads **'HI'** this means the glucose level is too high to be measured by the meter follow high (Hyper) treatment on the front page.

LOW GLUCOSE LEVELS (Hypoglycaemia / Hypo)

Hypo kit should be kept with student at all times Follow the front page if glucose less than 3.9 mmol/L.

A mild to moderate low/hypo can be treated by using supplies from the student's HYPO KIT.

Fast Acting Carbohydrate Food & Amount to be given

Sustaining Carbohydrate Food & Amount to be given

Mild hypoglycaemia is common.

- If the student requires more than 2 consecutive fast acting carbohydrate treatments, as per their front page, call the student's parent/carer. Continue hypo treatment if needed while awaiting further advice.
- All hypo treatment foods should be provided by the parent/carer.
- Ideally, packaging should be in serve size bags or containers and labelled as fast acting carbohydrate food and sustaining carbohydrate food.
- If the student is having more than 3 episodes of low glucose levels at school in a week, make sure that the parent/carer is aware.

SEVERE HYPO/LOW MANAGEMENT

Severe hypoglycaemia is not common.

Follow the front page for any episode of severe hypoglycaemia.

DO NOT attempt to give anything by mouth to the student or rub anything onto the gums as this may lead to choking.

HIGH GLUCOSE LEVELS (Hyperglycaemia / Hyper)

- Although not ideal, glucose levels may be above the target range.
 - Glucose levels may be above target if food has been consumed within the last two hours.
 - **If glucose levels are 15.0 mmol/L or above**, follow the front page.
 - If insulin has been given allow two hours for glucose levels to return to target.
 - If the student is experiencing frequent episodes of high glucose levels at school, make sure the parent/carer is aware.
 - For unexplained high glucose, pump site should be checked for leakage, dislodged needle/cannula or redness/swelling.
- If any of these occur, contact parent/carer **immediately** to change the infusion set.

KETONES

- Ketones occur most commonly when there is not enough insulin in the body.
- Ketones are produced when the body breaks down fat for energy.
- Ketones can be dangerous in high levels.

You will be required to check the student's ketone level if:

- Student is unwell **or**
- Glucose levels remains at 15.0 mmol/L or above

ACTION: If ketones **0.6 mmol/L or above** follow action steps on the front page.

EATING AND DRINKING

- The student will need to have an insulin bolus from the insulin pump before carbohydrate foods are eaten.
- The insulin dose will be determined by the pump based on the grams of carbohydrate food they will be eating and the current glucose level.
- For younger students, all carbohydrate food should be clearly labelled by the parent/carer with carbohydrate amount in grams. It is not the responsibility of school staff to count carbohydrates, although they may need to assist the student to add up the food amounts that they wish to eat.
- Younger students will require supervision to ensure all food is eaten.
- The student should not exchange food/meals with another student.
- Seek parent/carer advice regarding appropriate foods for parties/celebrations that are occurring at school.
- Always allow access to drinking water and toilet (high glucose levels can cause increased thirst and extra toilet visits).

Does the student have coeliac disease?

***Seek parent/carer advice regarding appropriate food and hypo treatments.**

PHYSICAL ACTIVITY

A glucose meter and hypo treatment should always be available.

- Check glucose level before physical activity.
- Physical activity **may alter** glucose levels depending on type, duration and intensity.
- The student may require an extra serve of carbohydrate food before every 20 - 30 minutes of planned physical activity or swimming as provided by the family.
- Physical activity should not be undertaken **if glucose levels are less than 5.1 mmol/L**
Refer to page 2.
- Vigorous activity should **not** be undertaken **if the student is unwell or the blood ketones are 0.6 mmol/L or above.**
- Disconnect & suspend the pump for vigorous activity/swimming; and resume when reconnected
* The student can be disconnected from the pump for up to 90 minutes.

EXCURSIONS / INCURSIONS

It is important to plan for extracurricular activities and discuss these in advance with parents/carers

Consider the following:

- Ensure blood glucose meter, blood glucose strips, blood ketone strips, hypo and activity food are readily accessible.
- Plan for meal and snack breaks.
- Always have hypo treatment available.
- Consider Ease Off - discuss with the parent.

CAMPS

It is important to plan for school camps and consider the following:

- Parents/carers need to be informed of any school camps at the **beginning of the year.**
- A separate and specific **WA Diabetes School Camp Checklist and Management Plan** is required, and should be completed by the family in partnership with the school and the health care team
- Parents/carers will need a copy of the camp menu and activity schedule.
- At least 2 responsible staff attending the camp should have a general understanding of type 1 diabetes and the support that the student requires to manage their condition for the duration of the camp including **Glucagon administration**
- An application for skills based training is available online at **DiabetesInSchools.com.au**
- School staff will need to discuss any training needs at least **at least 6-8 weeks** before the camp with the student's parents/carers or Diabetes Treating Team.

ASSESSMENT / EXAMS

- Glucose levels should be checked before commencing.
- Glucose levels should be _____ mmol/L or above before commencing.
- Blood glucose meter, monitoring strips, hypo treatments and water should be available.
- Continuous Glucose Monitoring (CGM) or Flash Glucose Monitoring (FGM) devices and receivers (smart phones) should be available if applicable.

APPLICATIONS FOR SPECIAL CONSIDERATION

- The School Curriculum and Standards Authority's Guidelines for Disability Adjustments for Timed Assessments includes type 1 diabetes and is available at www.scsa.wa.edu.au
- Where required, schools should apply in advance for special provisions for all externally set assessments (e.g NAPLAN, OLNA, WACE)
- It is advisable to check and record glucose levels prior to (and during, if unwell) WACE assessments as medical evidence, in the event that an Application for Sickness/Misadventure is necessary.

EXTRA SUPPLIES

Provided for diabetes care at the school by parent/carer

Finger prick device	Blood glucose strips	Blood ketone strips
Blood glucose meter	Sharps container	Hypo food
Batteries / charger (for the controller/phone)		
Infusion sets and lines :		
Inserters and/or Reservoir :		
Insulin pen & pen needles :		

GLOSSARY OF TERMS

- Basal :** Background insulin delivered continuously.
- Bolus :** Insulin for food delivered following entry of glucose levels and carbohydrate food amount to be eaten.
- Cannula :** A tiny plastic or steel tube inserted under the skin to deliver insulin. Held in place by an adhesive pad.
- Line failure :** Disruption of insulin delivery due usually to line kinking or blockage.
- Line or Tubing :** The plastic tubing connecting the pump reservoir/cartridge to the cannula.
- Correction bolus :** Extra insulin dose given to correct an above target glucose levels and/or to clear ketones.

AGREED ADDITIONAL ACTIONS

Parent/Carer Signature:

AGREEMENTS

PARENT/CARER

I have read, understood and agree with this plan.

I give consent to the school to communicate with the Diabetes Treating Team about my child's diabetes management at school.

I acknowledge that school staff who administer insulin and / or glucagon do so:

- 1) after receiving training from their clinical treating team.
- 2) to the best of their ability.

NAME

FIRST NAME (PLEASE NOTE)

FAMILY NAME (PLEASE NOTE)

SIGNATURE

DATE

SCHOOL REPRESENTATIVE

I have read, understood and agree with this plan.

NAME

FIRST NAME (PLEASE NOTE)

FAMILY NAME (PLEASE NOTE)

ROLE

Principal

Associate principal

Other (please specify)

SIGNATURE

DATE

DIABETES TREATING MEDICAL TEAM

NAME

FIRST NAME (PLEASE NOTE)

FAMILY NAME (PLEASE NOTE)

SIGNATURE

DATE

REVIEW DATE : SEE PAGE 2

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This management plan has been adapted from original work created by these organisations.



NAME _____

DATE OF BIRTH _____

DATE PLAN CREATED _____

