Perth Children's Hospital

diabetesWA by your side

Name :

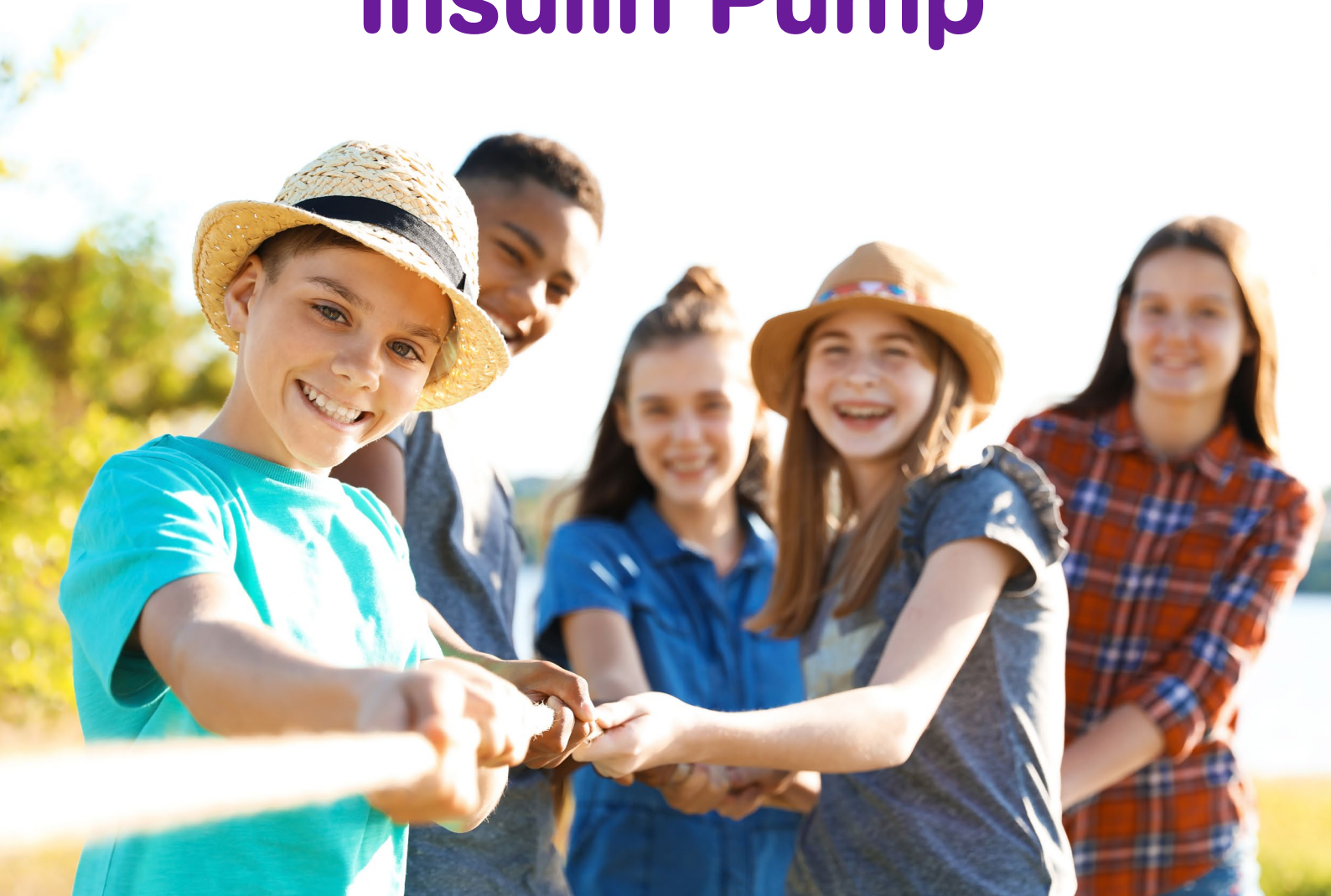
Date/s :

Location :

Closest medical facility to camp & contact number :

Type 1 Diabetes and School Camp Management Plan:

Insulin Pump



SCHOOL CAMP MANAGEMENT PLAN AND CHECKLISTS FOR TYPE 1 DIABETES: INSULIN PUMP

Understandably, most students will want and should be given every opportunity to attend school camps or overnight excursions, as a part of the school's learning program.

Camps and excursions will vary from school to school and camp situations will vary between year groups and schools.

Most camps for younger students may be close to medical facilities, and some schools will encourage or allow parent participation and support.

For older students, camps may involve greater independence, no parents, perhaps no nursing staff, more remote locations and often physically demanding situations over an extended time period.

For this reason, preparationrequirements for camps will vary. In all cases, schools should refer to their education sector's camp/excursion policy in conjunction with this Camp Management Plan and Checklists.

Students with Type 1 Diabetes can participate fully in a camp program. It is recommended that schools preparing for camp undertake appropriate education. This can be access at **DiabetesInSchools.com.au**

This education will include:

- Blood Glucose Monitoring
- Insulin Administration
- Continuous Glucose Monitoring
- Glucagon Administration
- Type 1 Diabetes and School Camp

PLANNING FOR SCHOOL CAMPS (KEY MESSAGES)

- Pre-planning is essential for the student with type 1 diabetes to safely attend camp.
- A camp meeting with parents/carers and school staff should be held well in advance.
- A camp checklist will assist in planning.
- There are extra specific responsibilities for school staff at camp.
- Camp activities, different foods and changes in routine can have a significant impact on student's glucose levels.
- The student's individualised camp diabetes management plan is specific to that student and that camp. It is developed by their diabetes treating team in collaboration with the parents/carers and student, in consultation with the school.
- Good communication between all parties is vital both before and during camp.
- School Camp Management Plan.

SCHOOL CAMP MANAGEMENT PLAN FOR TYPE 1 DIABETES: INSULIN PUMP

- This document is to be read in conjunction with the School Camp Checklists for Type 1 Diabetes and your education sector's camp/excursion policy.
- It is recommended the schools arrange a meeting between relevant school staff and the family to discuss the contents of this document well in advance of the camp.
- This form is to be completed in consultation with the family. If needed, families should speak to their clinical treating team for assistance.

The use of this camp management plan is to assist in risk management when supervising a student with Type 1 Diabetes while on excursion from the regular school environment.

Diabetes WA and PCH do not accept any liability for any injury, loss or damage incurred by use or misuse of this plan.

Diabetes Camp Management Plan : Insulin Pump

School:

click to add photo

First name: _____ **Last name:** _____ Date of birth: _____ School Year: _____

Target range for glucose level is 4 - 8 mmol/L

Never leave alone if UNWELL // Treat on the spot

Contact Details : Parent/Carer
Contact 1 :
Contact 2 :
Contact 3 :

PCH Diabetes Contact Details
PCH Clinic : 6456 1111 Opt 2
Afterhours on call diabetes consultant : 6456 5993
PCH Switchboard : 6456 2222

GLUCOSE MONITORING

In addition to the daily schedule, monitoring of glucose levels and **Blood Ketone Levels** should be performed if the student is unwell.

Low glucose levels to be confirmed by : Select

DAILY SCHEDULE :PLEASE GIVE INSULIN MINUTES BEFORE FOOD

Type of insulin pump: **Type of Sensor:**

Glucose levels will be checked routinely during the following times:

- Before breakfast, lunch, dinner & snacks.
- Before bed.
- At midnight and 3 am (supervised by an adult).
- Any time student is showing or feeling signs of a "hypo", "hyper" or illness.

Staff member/s allocated to supervise :

When	Glucose Check	Insulin	Action	Responsible Person
Before Breakfast	Select	Select	Select	
Before Morning tea	Select	Select	Select	
Before Lunch	Select	Select	Select	
Before Afternoon Tea	Select	Select	Select	
Before Dinner	Select	Select	Select	
Before Supper	Select	Select	Select	
Before Bed	Select	Select	Select	
Midnight	Select	Select	Select	
3am	Select	Select	Select	

Preferred pre-bedtime and overnight glucose level range:

GLUCOSE MONITORING AND MANAGEMENT

LOW GLUCOSE LEVELS (Hypoglycaemia / Hypo)

ACTION is needed if the glucose level is less than 4.0 mmol/L.

Low glucose levels to be confirmed by : Sensor Check

LOW (HYPO) // Glucose less than 4.0 mmol/L // **DO NOT DELAY TREATMENT**

Symptoms: ☐ Feeling sick ☐ Pale ☐ Headache ☐ Shaky ☐ Sweaty ☐ Drowsy ☐

Student Conscious (Able to eat hypo food)

- Glucose 2.0-3.9. → STEP 1 Give fast acting carbs: **See the chart below**
- Glucose less than 2 → STEP 1 Give fast acting carbs: **See the chart below**

STEP 2: Recheck glucose level in Select

If Blood Glucose:

- Less than 4 repeat step 1.
- 4 or more, proceed.

→ Original BG 2.0-3.9: No further action.

→ Original BG less than 2.0: Give sustaining carbs, see page 8

Drowsy / Seizure / Unconscious (Unable to swallow Choking risk) → **FIRST AID** DRS ABCD Stay with student. **CALL AMBULANCE** → **Administer GLUCAGON** Select Select Dose **Contact Parent** when safe to do so. → When student conscious and alert, give fast acting glucose liquid (Step 1 & 2)

HYPO KIT – **Hypo kit should be kept with student at all times**

FAST ACTING CARBOHYDRATE FOOD	AMOUNT TO BE GIVEN

SUSTAINING CARBOHYDRATE FOOD	AMOUNT TO BE GIVEN

- If the student requires more than 2 consecutive fast acting carbohydrate treatments, as per the instructions above, 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.

Mild hypoglycaemia is common.

SEVERE LOW/HYPO MANAGEMENT

Severe hypoglycaemia is not common.

Follow the instructions as above page for any episodes 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)

ACTION is needed if the glucose level is 15mmol/L or above.

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

Symptoms: ☐ Feeling sick ☐ Thirsty ☐ Increased urine production ☐ Headache ☐ Irritable ☐ Lethargic

Student Well
Unexplained high glucose level. **Check Pump Site**

→ **Check Blood Glucose and Pump Site**
At next scheduled time.

→ (Allow unrestricted water intake and access to toilet) **At next Blood Glucose Check** if glucose 15.0 mmol/L or more **Check Pump Site** **CHECK KETONES**

Student Unwell
Unexplained high glucose level with cramps/vomiting
Check Pump Site

→ **CHECK BLOOD KETONES**
If less than 0.6, no diabetes action required.
Follow school/camp policy

→ If Ketones 0.6 or above, CONTACT PARENT.

→ If unable to contact parent, CALL AMBULANCE

- Although not ideal, glucose levels above target range are not unusual.
- Glucose levels may be above target if food has been consumed within the last two hours.
- If insulin has been given, allow two hours for glucose levels to return to target.
- Remember, if the student is frequently above 15mmol/L to contact the parent/carer.

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.

Check blood ketone level if:

Student unwell or glucose levels remain at 15.0 mmol/L or above for two or more consecutive glucose checks.

ACTION: If ketones are **0.6 mmol/L or above**, follow action for ketones as above.

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

GLUCOSE MONITORING

Glucose levels outside of the target range are common.
Glucose levels will vary day-to-day and be dependent on a number of factors such as:

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

FINGER PRICKS

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? Select

If NO, the responsible staff member needs to: Select

A finger prick is needed when:

- TAG (Trend, Arrow, Glucose) unavailable
- Symptoms don't match the sensor reading
- Sensor has fallen off

- Further action is required if glucose level is less than 4 mmol/L or 15.0 mmo/L or above.
- If the meter reads 'LO' this means the glucose level is too low to be measured by the meter - see page 4
- If the meter reads 'HI' this means the glucose level is too high to be measured by the meter - see page 5

SENSOR GLUCOSE CHECKING

The student is wearing a sensor : Select Select

Select

- CGM and FGM consist of a small sensor that sits under the skin and measures glucose levels in the fluid surrounding the cells (interstitial fluid).
- **These devices are NOT compulsory management tools.**
- With CGM, a transmitter sends data to either a receiver, phone app or insulin pump.
- With FGM, the device will only give a glucose reading when the sensor disc is scanned by a reader or phone app.
- 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.

Will the sensor need changing during camp? Select

It is recommended that families change the sensor prior to camp.

PHYSICAL ACTIVITY

A blood glucose meter and hypo treatment should always be available.

- Physical activity may alter glucose levels.
- Physical activity should not be undertaken if glucose levels are less than 5.0 mmol/L. Refer to diagram below.
- Vigorous activity should not be undertaken if the student is unwell or ketones are 0.6mmol/L or above.
- The student may require an extra serve of carbohydrate food before every 30 minutes of planned. physical activity or swimming as provided by the family.
- If glucose levels are consistently below 4.0 mmol/L or above 15.0mmol/L parents should be contacted to discuss a change to insulin doses.

Please check glucose levels 10 - 15 minutes prior to the activity

4.0 - 5.0 mmols/L

Once above 5 exercise can start.

5.1 - 8.0 mmols/L

Exercise can be started.

8.1 - 14.9 mmols/L

Exercise can be started.

15.0 mmols/L or above

Check Blood Ketone Levels

Ketones less than 0.6 mmol/L, exercise can start.
Ketones 0.6 mmol/L or above, CONTACT PARENT.

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PUMP

It is recommended that the family upload the pump prior to camp to ensure most recent settings are recorded.

Pump (Type or model) : _____

Is supervision/assistance required for pump navigation? Select If yes, the responsible staff need to: Select

INSULIN ADJUSTMENTS/CORRECTIONS WHILST ON CAMP:

The student's insulin needs will change on camp due to the change in exercise, eating and sleep patterns.
If you wish, please note any changes in dose that your child may implement.

Temporary basal rates can be used to assist in management.

Temporary basal rates to be used during camp? Select

If Yes :

If the Glucose Levels are consistently above ____ mmols : ____ % for ____ hours
If the Glucose Levels are consistently below ____ mmols : ____ % for ____ hours

Temporary basal rates can be ceased once the glucose level returns to within the target range of: ____

STUDENT INSULIN PUMP SKILLS

Able to independently count carbohydrate foods	Select
Able to enter glucose levels and carbohydrate grams into pump	Select
Able to do a 'Correction Bolus'	Select
Able to disconnect & reconnect pump if needed	Select
Able to Suspend & Restart pump manually	Select
Able to prepare and insert a new infusion set if needed	Select
Able to give an insulin injection if needed	Select
Able to troubleshoot pump alarms and malfunctions	Select
Able to utilise temporary basal rates?	Select
Does the infusion site require changing during camp?	Select

If yes, what date/s does this need changing?

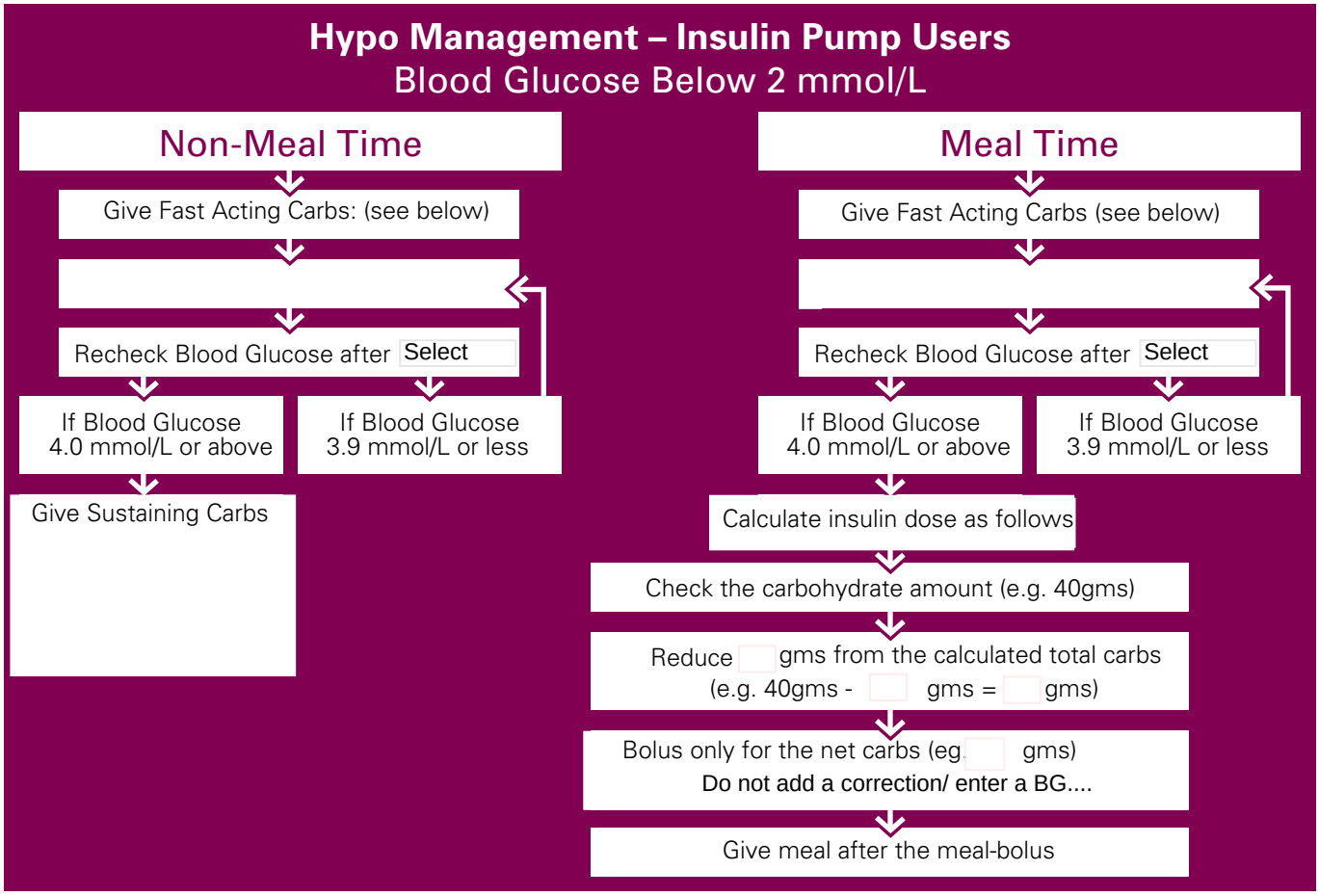
If NO to any of the above, please enable your child to learn or practice these skills.

It is recommended that families insert a new pump site before attending camp.

Low Glucose Suspend:

The automated pumps are programmed to STOP insulin delivery when the Sensor Glucose Level is low or predicted to go low.

HYPO MANAGEMENT APPENDIX



CHECKLIST FOR FAMILIES

CAMP MEALS AND SNACKS

Discuss food and meal needs with schools so that they can make necessary arrangements with camp catering staff. Arrange for extra fast and slow acting carbohydrate food to be available to treat hypos and prepare for exercise. Overnight access to carbohydrate containing foods will also be necessary. For example: If accessto food is limited during an extended activity the student will need to carry or have access to additional carbohydrates at all times.

SUPPLIES

Arrange for the supplies your child will need whilst on camp. In most cases, they will need:

Long acting insulin pens x 2	Fast acting insulin pens x 2	A blood glucose meter
Hypo foods and snacks	A blood ketone meter	Lancets / finger pricker
Glucose test strips	Ketone test strips	Charging cable
Infusion sets and/or lines	Inserter and/or Reservoir	Glucagon
Fast Acting Carbs	Sustaining Carbs	Extra batteries

A means to keep the insulin cool in hot weather if a refrigerator is not available.
A means to keep the insulin pump safe if/when disconnected from the body.

Make arrangements so your child or staff can contact you. The family will be the contact point to discuss glucose levels and insulin doses while at camp. The family can contact PCH as needed for advice.

REMOTE LOCATIONS

In cases where camps are in remote locations, you will need to discuss with the Principal whether there is a need for additional staff training. In cases where no medical staff are attending camp and/or the camp is not near medical facilities, extra training will be necessary. Usually in cases of severe hypoglycaemia, the Ambulance Service would be called and ambulance officers would give glucagon or a glucose infusion.However, on a remote camp where medical help may be delayed, staff will need to be trained in how to administer a glucagon injection in cases of severe hypoglycaemia.

CHECKLIST FOR SCHOOLS

SKILLS REFRESHER

Revise and refresh diabetes management skills for staff. Check that all staff responsible for the student's care on camp know when to call for help, the emergency medical evacuation procedures, and are familiar with correct injection technique so they can appropriately supervise the student.

Are staff:

Familiar with blood glucose monitoring Select

Familiar with insulin delivery via pump Select

Confident to treat a hypo Select

Familiar with blood ketone testing Select

Familiar with medical emergency procedures Select

REMOTE LOCATIONS

In cases where camps are in remote locations you will need to discuss with the Principal the process of calling for help in an emergency.

Consider the use of a satellite phone.

Is there limited access to emergency medical care? Select

If yes, has a staff member(s) completed Glucagon training? Select

CAMP MEALS AND SNACKS

Does the student have coeliac disease? Select

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

Provide the family with a detailed meal program (including estimated timing of meals and access to food outside of these times). Carbohydrate foods should be served at every meal and snack time.
For example; if meal times fluctuate each day of the camp, some additional planning may be required.

Additional carbohydrate foods are needed for exercise and must be readily available where the exercise is taking place.

CAMP PROGRAM

Provide the family with a detailed activity program. The extra exercise at camps increases the risks of hypos. Insulin dosages are usually reduced by a quarter to a third.

HYPO KIT

A hypo kit is a pack containing fast acting and sustaining carbohydrates. Arrange for a hypo kit/s to be available at the camp. In cases of severe hypo, follow the Diabetes Camp Management Plan "Low Glucose Levels" on page 3.

The student should have a hypo kit on their person at all times.

On a remote camp where medical help may be delayed, a trained staff member must be available to give glucagon injection in cases of emergency. As per page 3.

CONTACT DETAILS

Make arrangements so staff can contact the child's parents to discuss glucose levels and insulin doses while at camp if required.

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 camp.
- ☐ 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 _____