DIABETES MANAGEMENT PLAN FOR SCHOOL CAMP

As kaitiaki (carers/guardians) of diabetes related services, it is a collective responsibility to establish an environment that facilitates a pathway for people with diabetes to navigate te ao mate huka - the world of diabetes[1].

This Camp Management Plan is to be used alongside "Preparing for School Camp" checklists and the school action plan. Parents/caregivers should meet with the school to discuss the camp or excursion well before the event. This Camp Management Plan is completed in consultation with the whānau and with the diabetes clinical team if required.

STUDENT'S NAME:	AGE:	SCHOOL YEAR:
RESPONSIBLE STAFF:		
Staff name/s:		
Staff name/s:		
Staff name/s:		

BLOOD GLUCOSE CHECKING

- **Target ranges for blood glucose levels (BGLs): 4 – 8 mmol/L**
- **BGL results outside of this target range are common**
- BGL checks should be done where the student is, whenever needed
- **Always ensure the student's hands have been washed and dried before doing the BGL check**

	Yes	No	With Support
Is the student able to check glucose levels?	☐	☐	☐
Is the student able to identify their own hypoglycaemia symptoms?	☐	☐	

Times to check BGLS

☐	Anytime, anywhere	☐	Before meals & snacks	☐	When feeling unwell
☐	Before activity	☐	Before Bed	☐	Upon waking
☐	Overnight _____ pm	☐	Overnight _____ pm/am	☐	Any time hypo suspected
☐	Other routine times:				

FURTHER ACTION REQUIRED IF:

BGL is **less than 4.0 mmol/L or greater than or equal to 15.0 mmol/L.** Refer to Diabetes Action Plan

If the meter reads **LO** this means the BGL is too low to be measured by the meter.

Follow the **Hypoglycaemia (**Hypo) treatment on the Diabetes Action Plan.

If the meter reads **HI** this means the BGL is too high to be measured by the meter.

Follow the **Hyperglycaemia** (Hyper) treatment on the Diabetes Action Plan.

[1] Te Kaiwhakahaere Māori te Roopu mate huka
Debbie Rawiri - Te Whatu Ora Waitaha Canterbury

Students name:

BEDTIME AND OVERNIGHT

Preferred **pre-bed** BGL target range:

Management if glucose level is below preferred target range:

Glucose Level:	Carbohydrate food to be used:	Amount to be given:

Further information or comments:

Preferred **overnight** BGL target range:

Management if glucose level is below preferred target range:

Glucose Level:	Carbohydrate food to be used:	Amount to be given:

Further information or comments:

SENSOR GLUCOSE (SG) MONITORING

Some students will be wearing a small sensor that sits under the skin and measures glucose levels in the fluid surrounding the cells (interstitial fluid). A sensor glucose (SG) 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. Therefore, LOW or HIGH SG readings must be confirmed by a finger prick blood glucose check. Hypo treatment is based on a blood glucose finger prick result.

Is the student is wearing a glucose sensor?	☐	Yes	☐	No

Type:

☐	Dexcom G6®	☐	ISGM/Freestyle Libre	☐	Dexcom G7®	☐	Aidex CGM
☐	Guardian™ Connect	☐	Guardian™ Sensor 3	☐	Guardian ™ Sensor 4		

- With CGM, a transmitter sends data to either a receiver, phone app or insulin pump.
- With ISCGM, the device will only give a glucose reading when the sensor disc is scanned by a reader or phone app.
- These devices are not compulsory management tools.

CGM ALARMS

- CGM alarms may be 'on' or 'off'.
- If 'on' the CGM will alarm if interstitial glucose is low or high.

ACTION: Check finger prick blood glucose level (BGL) and if less than 4.0 mmol/L, treat as per Diabetes Action Plan for treatment.

USE OF SENSOR GLUCOSE MONITORING AT CAMP

- Sensor glucose monitoring can be beneficial in a camp environment, although staff are not expected to do more than the current routine diabetes care as per the student's Diabetes Action and Management plans.
- 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/ISCGM use.
- Some CGM/ISCGM devices can be monitored remotely by whānau members. They should only contact the school if they foresee a prompt response is required.
- If the sensor/transmitter 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.

INSULIN ADMINISTRATION

The student will need insulin at main meals and possibly snack times

Type of device: ☐ Syringe ☐ Pen ☐ Pump

	Yes	No	With Support
Is the student able to calculate own insulin dose?	☐	☐	☐
Is the student able to administer own insulin?	☐	☐	☐

How Much Insulin to be Administered

Basal Insulin	Type:		Time:	Units:		
Bolus Insulin	**Breakfast**	**Morning Tea**	**Lunch**	**Afternoon Tea**	**Dinner**	**Other**
Insulin: CHO Ratio (1 unit: g CHO)						
Correction Ratio (1 unit: mmol/L)						

Additional Insulin Adjustments/Corrections whilst at camp:

FOOD AND MEALS AT CAMP

- The camp menu should have been reviewed by the parents/caregivers prior to the camp. This will help with decisions about carbohydrate amounts and portion sizes as well as whether adjustments need to be made for food preferences.
- Additional long-acting carbohydrate foods should be supplied by the whānau or be available if a meal/snack is delayed or activities are intense requiring additional carbohydrate.
- Fast-acting carbohydrate foods should be supplied by the whānau to treat hypoglycaemia.
- Overnight access to carbohydrate containing foods is important.

	Yes	No	With Support
Is the student able to count carbohydrates?	☐	☐	☐
Does the student have coeliac disease or additional allergies?	☐	☐	

Management of above and additional considerations for meal times when at camp:

ACTIVITY

- Activity decreases glucose levels and activity levels at camp are usually higher than usual.
- Depending on the intensity of the activity, glucose levels may drop quickly or up to 24 hours later.
- It is important to check glucose levels during the night following daytime exercise.
- It is important to check GL at least 15 minutes prior to exercise or high intensity activity and respond appropriately.
- Vigorous activity should **NOT** be commenced if BGL >15mmol/L **AND** blood ketones of > 1.0mmol/L
- Vigorous activity should **NOT** be commenced if BGL <4mmol/L
- Pump users should suspend and disconnect pump during water-based activity.
- Pump should not be disconnected or suspended for longer than 90 minutes. **Check ketones if the pump is disconnected or suspended for more than 90 minutes.**

Preferred pre-activity GL target range:

THE FOLLOWING RECOMMENDATIONS SHOULD BE DISCUSSED WITH THE STUDENT'S DIABETES TEAM AND WHĀNAU AND INDIVIDUALISED AS NEEDED

Recommendations for insulin adjustments for planned activity:		
☐	MDI	Reduce the pre exercise **bolus** insulin dose by 25-50% (start with 25% and increase as needed) if activity is within 1 hour of insulin injection (for example meal bolus)
☐	Pump	Reduce the basal insulin dose by up to 25-50% (start with 25% and increase as needed) from 90 minutes prior to exercise (via temp basal feature) Consider a 25 – 50% bolus reduction if activity is within 1 hours of meal
☐	Hybrid Closed Loop	Reduce the pre exercise **bolus** insulin dose by 25% Switch on exercise mode or temp target 90 – 120 minutes prior to activity Turn off at end of the planned activity If the whole camp day is "active" consider switching on exercise mode or temp target at breakfast and continue through to dinner time

Recommendations to prevent hypoglycaemia:		
☐	MDI	To prevent post exercise hypo, reduce the nighttime long acting (basal) insulin dose by 20%
☐	Pump	To prevent post exercise hypo, reduce the basal insulin dose by 25 - 50% until 3am (via temporary basal feature)

☐	Hybrid Closed Loop	• Consider continuing exercise mode or temp target for 1 – 4 hours post exercise, depending on length of exercise and potential for hypoglycaemia.
		• Also consider a 25 – 50% reduction of meal bolus following exercise
		• If consistently running "low" during the day despite using exercise mode or temp target the following additional strategies can be considered:
		  ○ Medtronic 780G: Use a higher algorithm set point
		  ○ Control IQ: Running a personal profile of 25% basal reduction, with a 25% CHO ratio and ISF weakening

Recommendations for unplanned activity:		
☐	MDI	Consume 10 – 15g long acting CHO if BGL is 4-7mmol/L and recheck in 30 minutes
☐	Pump	Consume 10 – 15g long acting CHO if BGL is 4-7mmol/L and recheck in 30 minutes
☐	Hybrid Closed Loop	Turn on exercise mode or temp target as soon as able Consume 10 – 15g long acting CHO if BGL is 4-7mmol/L and recheck in 30 minutes Consider 25% bolus reduction with meal post-exercise NOTE; For Control IQ; turning on the exercise mode will NOT switch off autocorrections, and carbohydrate intake may result in an unintended algorithm derived autocorrection Therefore, consider using the smallest possible manual bolus (0.05Units) with the CHO (and therefore locking out autocorrection for 60 minutes)

Additional comments for unplanned activity:

- For most children, the time in range for glucose levels is 3.9 – 10.0 mmol/L.
- Provide additional 10-15 grams carbohydrate if glucose levels are at the lower end of the target range (4.0 – 7.0 mmol/L) to avoid hypoglycaemia and recheck in 30 minutes.
- **Food ideas include:** Small muesli or fruit bar, 2 plain biscuits or crackers, UHT milk tetrapack or breakfast drink, Le Snaks, small packets of plain popcorn or trail mix.

Additional comments relating to specific exercise on camp, i.e. times of sustained or high intensity activity:

- Monitor glucose levels regularly across the day and follow hypoglycaemia treatment guidelines as required.
- Ensure snacks are available for those who need additional carbohydrate after treating hypoglycaemia.

Further information or comments:

DIABETES SUPPLIES

ALL OF THESE ITEMS SHOULD BE LABELLED AND PACKED TOGETHER			
☐	New vials/cartridges of insulin (2 vials/cartridges of each type)	☐	Container for Sharps Disposal
☐	CareSens Dual Meter (& spare batteries) + Finger Pricker (& spare lancets)	☐	Prefilled Insulin Pens and/or Syringes + Pen Needles
☐	2 Boxes of Blood Glucose Testing Strips	☐	2 Boxes of CareSens Ketostrips
☐	Glucose Monitoring Device (if using) plus charger (& spare sensor if able to change)	☐	Pump Batteries or Charger (Clearly Labelled)
☐	Battery Powered USB Charger for Pump or CGM Receiver if possible	☐	Dressings/ Tape for Pump or Glucose Monitoring Device
☐	Cooler bag for insulin if out in hot weather	☐	Baby-wipes or equivalent
☐	Pump Supplies - sites, reservoirs, etc (if person is present who can change sites). Student and whānau should change the site and reservoir prior to camp, but not immediately before, e.g. please change the night before, or at least three hours before leaving for camp.		
HYPO-MANAGEMENT SUPPLIES			
☐	Fast-Acting Carbohydrate – (10-15g CHO)	☐	Long-Acting Carbohydrate (10-15g CHO)*
☐	Glucose Tablets	☐	Small muesli bars
☐	125 ml Juice Boxes	☐	Fruit bars
☐		☐	
☐	Hypofit Gel	☐	Glucagon Hypokit
ADDITIONAL FOOD SUPPLIED FOR ACTIVITY AND OVERNIGHT SUPPLEMENTS*			
☐		☐	
☐		☐	
☐		☐	
☐		☐	
☐		☐	
*Pre-packaged food is useful in a camp environment			

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 student's diabetes management at camp.

First Name	Family Name	Signature	Date

SCHOOL REPRESENTATIVE

☐ I have read, understood, and agree with this plan.

First Name	Family Name	Signature	Date

DIABETES TREATING MEDICAL TEAM

This management plan has been developed by specialist diabetes clinicians.

Contact Details of Diabetes Treating Team

Name		Phone Number	
Name		Phone Number	
Name		Phone Number	