

**SCHOOL SETTING**

**Insulin pump therapy**

Use in conjunction with Action Plan



# DIABETES MANAGEMENT PLAN 2017

Name of student: \_\_\_\_\_ Date of birth: \_\_\_\_\_  
First name (please print) Family name (please print)

Name of school: \_\_\_\_\_ Grade/Year: \_\_\_\_\_

Insulin pump model: \_\_\_\_\_

This plan should be reviewed and updated at least once per year.

## EMERGENCY MANAGEMENT

Please see the Diabetes School Action Plan as to the treatment of severe hypoglycaemia (hypo). The child/student should not be left unattended.

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

If the school is located more than 30 mins from reliable ambulance service, then school staff should discuss Glucagon training with the diabetes health team.

If the child/student has high blood glucose levels please refer to the Diabetes Action Plan.

## BLOOD GLUCOSE MONITORING

Is the child/student able to perform their own blood glucose monitoring?  Yes  No

If yes, the teacher/nominated adult needs to:  Remind  Observe

If no, the teacher/nominated adult needs to do the check:  Yes

Name of adult assisting with/checking BGLs: \_\_\_\_\_

Target range for blood glucose levels (BGLs): **4-8 mmol/L**

### BGL results outside of this are not uncommon

Further action is required if BGL is <4.0mmol/L or >15.0mmol/L. (Refer to Diabetes Action Plan)

### Times to check BGLs

(tick all those that apply)

- Anytime, anywhere
- Prior to recess/snack
- Prior to lunch
- Anytime hypo suspected
- Prior to activity
- Prior to exams/tests
- When feeling unwell
- Beginning of after school care session (OHSC)
- Other routine times – please specify: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### PLEASE NOTE

Blood glucose checking should not be restricted to the sick bay.

Checking should be available where the child/student is (in the classroom), whenever needed.

Blood glucose ranges will vary day to day for the individual with diabetes and will be dependent on a number of factors such as:

- Insulin
- Age
- Level of activity
- Type / quantity of food
- Stress
- Growth spurts
- Puberty

Parent / guardian will determine insulin doses and any adjustments that need to be made.

## HYPO TREATMENTS TO BE USED

- All hypo treatment foods should be provided by parents
- Ideally, packaging should be in serve size bags or containers
- Please use one of the items provided as listed below

Fast acting carbs

Sustaining carbs

- If the above options are not available for some reason, use any alternative hypo treatment - e.g. lemonade, jelly beans

## EATING AND DRINKING

The insulin pump is programmed to deliver insulin using:

**Set meal plan**

The child/adolescent will have a set meal plan where they eat an amount of carbohydrate for recess and lunch in accordance with the insulin pump. The insulin pump is pre-programmed to deliver an amount of insulin for the carbohydrate at these set times (recess & lunch).

**Please ensure all meals and snacks are eaten and on time if the child/student is on a set meal plan.**

**Carbohydrate counting and button pushing**

The child/adolescent will need to have an insulin bolus prior to all carbohydrate foods being consumed. The insulin dose will be determined by the pump based on the grams of carbohydrate they will be eating and the current blood glucose level.

Is supervision required for bolusing?       Yes       No

If supervision/assistance is needed, the teacher/nominated adult needs to:

Remind       Observe       Assist       Button push  
(parent/guardian to provide additional instruction)

Name of adult/s to supervise or assist with pump \_\_\_\_\_  
\_\_\_\_\_

Does the child have coeliac disease:

- No
- Yes (Seek parent/guardian advice regarding appropriate foods and hypo treatments)

## CHILD/STUDENT INSULIN PUMP SKILLS

- Able to independently count carbohydrates  Yes  No  
(parent/guardian will label all food)
- Able to enter BGL and carb info into pump  Yes  No  
(adult assistance required)
- Able to prepare reservoir & tubing for line insertion  Yes  No  
(adult assistance required)
- Able to insert a new infusion set if needed  Yes  No  
(needs to be undertaken at home)
- Able to disconnect & reconnect pump if needed  Yes  No  
(adult assistance required)
- Able to give an injection of insulin with a syringe/pen if needed  Yes  No  
(adult assistance required)
- Able to troubleshoot pump alarms or malfunctions if needed  Yes  No  
(contact parent/guardian)

## PHYSICAL ACTIVITY AND SWIMMING

- Physical activity usually **lowers** blood glucose levels. The drop in blood glucose may be immediate or delayed as much as 12-24 hours.
- The child will require an extra serve of sustaining carbohydrate before every 30 minutes of physical activity which they **DO NOT** bolus for via the pump.
- Vigorous activity should not be undertaken if BGL >15.0mmol/L and blood ketones >0.6mmol/L.
- A blood glucose meter and hypo treatment should always be available. If a hypo does occur (BGL <4.0mmol/L), treat as per action plan.
- **Prior to swimming, 1 serve of fast acting carb needs to be eaten before every 30 mins of swimming activity WITHOUT A BOLUS.**
- **DO NOT ENTER BGL into pump within 1 hour of completing activity;** if lunch occurs immediately after sport/PE, only enter the carbs to be eaten for a food bolus WITHOUT entering the BGL.
- The pump can be temporarily disconnected (+/- suspension) for contact sports for **up to 90 mins**
- **Remember** to reconnect (and unsuspend) the pump when the activity has finished.

## EXCURSIONS AND CAMPS

It is important to plan ahead for extracurricular activities and consider the following:

- Ensure BG meter, blood glucose strips, blood ketone strips, hypo and activity food are readily accessible during the excursion day
- Diabetes care is carried out as usual during excursions off-site school premises
- Always have extra hypo treatment available
- Permission maybe required to eat on bus – inform bus company in advance
- Staff /parents/guardians to collaborate and plan well in advance of the activity.
- Additional supervision will be required for swimming and other sporting activities (especially for younger children/students) either by a ‘buddy’ teacher or parent/guardian
- Early and careful planning with parents/guardians and medical team is required prior to school camps and **a separate and specific management plan for camps is required.**
- Students are best able to attend camps when they are reliably independent in the management of their own diabetes; otherwise a parent/guardian could attend or a school staff member can volunteer to assist with diabetes care activities.
- Investigate local medical services

## EXAMS AND TESTS

- BG should be checked prior to an exam or tested at school and documented
- BG should be  $>4.0\text{mmol/L}$
- Blood glucose meter, test strips and hypo food should be available in the exam setting if required
- Considerations for extra time if a hypo occurs should be discussed in advance
- Applications for special consideration for NCEA exams must be completed in term 1 or 2 in the year they are being undertaken – check NZQA requirements

## EXTRA SUPPLIES PROVIDED FOR DIABETES CARE AT THE SCHOOL

- Infusion sets and lines
- Reservoirs
- Inserter (if applicable)
- Batteries
- Insulin and syringes/pens
- Finger prick device
- Blood glucose meter
- Blood glucose strips
- Blood ketone strips
- Hypo food / Sport/ Activity box

## AGREEMENTS

I have read, understood and agree with this plan. I give consent to the school to communicate with the treating team about my child's diabetes management at school.

Parent/Guardian

\_\_\_\_\_  
Signature \_\_\_\_\_ Date \_\_\_\_\_  
First name (please print)      Family name (please print)

RN Diabetes Nurse Specialist

\_\_\_\_\_  
Signature \_\_\_\_\_ Date \_\_\_\_\_  
First name (please print)      Family name (please print)

School Representative

Name \_\_\_\_\_  
First name (please print)      Family name (please print)

Role:       Principal       Vice principal       Other \_\_\_\_\_  
(please specify)

Signature \_\_\_\_\_ Date \_\_\_\_\_

## COMMON INSULIN PUMP TERMINOLOGY - GLOSSARY OF TERMS

**Pump** - small battery operated, computerized device for delivering insulin

**Cannula** - plastic tube inserted under the skin

**Reservoir** - syringe-like container which holds the insulin within the pump

**Line** - plastic tubing connecting the pump reservoir to the cannula

**Line failure** - disruption of insulin delivery due usually to line kinking or blockage

**Basal** - background insulin delivered in small amounts continuously

**Bolus** - insulin for food delivered following data entry of BG level and carb amount to be eaten

**Correction** - extra insulin dose given to correct an out-of-target BGL and/or to clear ketones

**Suspend** - temporary stopping of insulin delivery (e.g. in severe hypo or during contact sport)