

SCHOOL SETTING

Insulin pump therapy

Use in conjunction with Action Plan



The Royal Children's
Hospital Melbourne

Monash
Children's
Southern Health

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 or preschool 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 Assist

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)

If the meter reads '**LO**' this means the blood glucose level is too low to be recorded – follow hypo treatment on Action plan

If the meter reads '**HI**' this means the blood glucose level is too high to be recorded – follow hyper treatment on Action plan

CGM

Some children may be using a glucose sensor.

This is **not** a substitute for finger prick blood glucose checking when confirming a suspected low or high BGL.

Hypo treatment is based on a *blood* glucose finger prick result.

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
- Illness / infection

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 parent/guardian
- Ideally, packaging should be in serve size bags or containers
- Please use one of the items provided as listed below

Fast acting carb	Amount	Sustaining carb	Amount

- If hypo treatments listed in the table are not available for some reason, use any alternative hypo treatment – e.g. ½ cup lemonade, 5-6 jelly beans
- If needing to repeat the treatment more than twice, phone the parent/guardian or the child’s treating diabetes educator for further advice. These phone numbers will be found on the students Diabetes Action Plan

EATING AND DRINKING

The child/student will need to have an insulin bolus from the insulin pump prior to carbohydrate foods being consumed.

Is supervision/assistance required for button pushing? 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 teacher/nominated adult assisting with insulin pump: _____

The insulin pump is programmed to deliver insulin using:

- Carbohydrate counting and button pushing**

The child/student 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.

- Set meal plan**

The child/student is on 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 that will be eaten at these set times (recess & lunch).

Please ensure all meals and snacks are eaten and on time.

Seek parent/guardian advice regarding appropriate foods for parties/celebrations that are occurring whilst in your care.

Does the child have coeliac disease:

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

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/student will require an extra serve of carbohydrate before every 30 minutes of physical activity or swimming provided in the sport/activity box. They **do not** bolus for this carbohydrate.

Carbohydrate to be used	Amount to be given

- Check blood ketones if BGL > 15.0 mmol/L and vigorous activity planned
- 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.
- Activity should not be undertaken if BGL is <4.0mmol/L (refer to action plan for hypo treatment)
- Disconnect the pump for vigorous activity/swimming. The student can be disconnected from the pump for no longer than 90 minutes.
- 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.

CHILD/STUDENT INSULIN PUMP SKILLS

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

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 VCE exams should be attended to at the beginning of year 11 and 12 – check VCAA requirements

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 centre 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.

EXTRA SUPPLIES PROVIDED FOR DIABETES CARE AT THE SCHOOL

- Finger prick device
- Blood glucose meter
- Blood glucose strips
- Blood ketone strips
- Hypo food
- Sport/activity food
- Infusion sets and lines
- Reservoirs
- Inserter
- Batteries (for insulin pump)
- Pen insulin and needles

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 (Credentialed) Diabetes Nurse Educator

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)