DIABETES ACTION PLAN 2019 SCHOOL SETTING

Use in conjunction with Diabetes Management Plan. This plan should be reviewed every year.

Insulin pump

LOW Hypoglycaemia (Hypo)

Blood Glucose Level (BGL) less than 4.0 mmol/L

SIGNS AND SYMPTOMS Pale, headache, shaky, sweaty, dizzy, drowsy, changes in behaviour

Note: Symptoms may not always be obvious

DO NOT LEAVE STUDENT ALONE
DO NOT DELAY TREATMENT

Student conscious
(Able to eat hypo food)

Step 1: Give fast acting carbohydrate
e.g. _____
_____

Step 2: Recheck BGL in 15 mins

If BGL **less than** 4.0 repeat **Step 1**

If BGL **greater than** or equal to 4.0, go to **Step 3**

Step 3:
If starting BGL between **2.0–4.0**
No follow up sustaining carbohydrate required

Step 3:
If starting BGL **less than 2.0**
Give sustaining carbohydrate
e.g. _____
_____
_____
_____

Student unconscious / drowsy
(Risk of choking / unable to swallow)

First Aid DRSABCD
Stay with unconscious child

CALL AN AMBULANCE
DIAL 000

Contact parent/carer
when safe to do so

HIGH Hyperglycaemia (Hyper)

Blood Glucose Level (BGL) greater than or equal to 15.0 mmol/L

SIGNS AND SYMPTOMS Increased thirst, extra toilet visits, poor concentration, irritability, tiredness

Note: Symptoms may not always be obvious

HIGH BGLs ARE COMMON

Check blood ketones
Blood ketones greater than or equal to 0.6 mmol/L requires immediate treatment

Blood ketones less than 0.6
- Enter BGL into pump
- Accept Correction bolus
- 1–2 glasses water per hour; extra toilet visits may be required
- Recheck BGL in 2 hours

BGL less than 15.0
No further action

BGL greater than or equal to15.0

Blood ketones greater than or equal to 0.6
- Potential line failure.
- Contact parent/carer for further advice
- May need injected insulin and line change
- This is the parent/ carer responsibility

IF UNABLE TO CONTACT PARENT/ CARER
CALL AN AMBULANCE
DIAL 000

IF UNWELL (E.G. VOMITING), CONTACT PARENT/ CARER TO COLLECT STUDENT

Government of South Australia SA Health · Women's & Children's Hospital · Government of South Australia Department for Education · diabetes victoria · The Royal Children's Hospital Melbourne · Monash Children's Hospital

STUDENT'S NAME _____

DATE OF BIRTH _____ GRADE / YEAR _____

NAME OF SCHOOL _____

_____

INSULIN The insulin pump continually delivers insulin. The pump will deliver 'extra' insulin based on carbohydrate food amount and BGL entries.

Pump button pushing:
☐ independently ☐ with supervision ☐ with assistance

THIS STUDENT IS WEARING

☐ Continuous Glucose Monitoring (CGM)
☐ Flash Glucose Monitoring (FGM)

ROUTINE BGL (FINGERPRICK) CHECKING TIMES

These are still required if student is using CGM/FGM

- Anytime, anywhere in the school
- Before main meal
- Anytime hypo is suspected
- Confirm sensor glucose hypo reading
- Before physical education / sport
- Before exams or tests (e.g. NAPLAN).

PHYSICAL EDUCATION / SPORT

- 1 serve of sustaining carbohydrate food before every 30 mins of planned activity.
  DO NOT BOLUS for the carbohydrate food serve.
- Vigorous activity should not be undertaken if BGL is greater than or equal to 15.0 **and** blood ketones are greater than or equal to 0.6.

PARENT / CARER NAME _____
CONTACT NO. _____
OTHER CONTACT NAME & NO. _____
TREATING MEDICAL TEAM _____
CONTACT NO. _____
DATE _____

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DIABETES MANAGEMENT PLAN 2019 SCHOOL SETTING

Use this plan in conjunction with Diabetes Action Plan. This plan should be reviewed and updated at least once per year or if insulin delivery regimen changes. Please tick appropriate boxes.

INSULIN PUMP

Insulin pump model: _____

The student wears an insulin pump that continually delivers insulin.

Is supervision/assistance required for pump button pushing?

☐ Yes ☐ No

If assistance is needed the responsible trained staff need to:

☐ Remind ☐ Observe ☐ Button push

Name/s of responsible trained staff assisting with insulin pump:

_____

STUDENT INSULIN PUMP SKILLS

Able to independently count carbohydrate foods ☐ Yes ☐ No **(Parent/Carer will label all food)**

Able to enter blood glucose levels (BGL) and carbohydrate grams into pump ☐ Yes ☐ No **(Adult assistance required)**

Able to do a 'Correction Bolus' ☐ Yes ☐ No **(Adult assistance required)**

Able to disconnect & reconnect pump if needed ☐ Yes ☐ No **(Adult assistance required)**

Able to prepare and insert a new infusion set if needed ☐ Yes ☐ No **(Contact Parent/Carer)**

Give an insulin injection if needed ☐ Yes ☐ No **(Adult assistance required)**

Able to troubleshoot pump alarms or malfunctions ☐ Yes ☐ No **(Contact Parent/Carer)**

If the cannula comes out and the parent/carer cannot be contacted, contact the student's Diabetes Treating Medical team.

STUDENT'S NAME

_____

DATE OF BIRTH GRADE / YEAR

_____

NAME OF SCHOOL

_____

EMERGENCY MANAGEMENT

Please see the Diabetes Action Plan for the the treatment of **severe hypoglycaemia** (hypo).

The student should not be left alone and requires adult supervision until hypoglycaemia has resolved.

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 minutes from a reliable ambulance service, then staff should discuss Glucagon injection training with the student's Diabetes Treating Medical Team.

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BLOOD GLUCOSE CHECKING

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

☐ Yes ☐ No

If NO, the responsible trained staff needs to

☐ Do the check ☐ Assist ☐ Observe ☐ Remind

Name/s of responsible trained staff to check Blood Glucose Levels (BGLs):

_____

_____

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

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

Target range for blood glucose levels (BGLs): _____

BGL results outside of this target range are common.

Further action is 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 hypoglycaemia (Hypo) treatment on Diabetes Action Plan.

If the meter reads '**HI**' this means the BGL is too high to be measured by the meter – follow hyperglycaemia (Hyper) treatment on Diabetes Action Plan.

Prior to BGL checking, ensure student has washed and dried their hands.

TIMES TO CHECK BGLS (tick all those that apply)

☑ Anytime, anywhere
☐ Before snack
☐ Before lunch
☐ Before activity:
☐ Anytime hypo suspected
☐ When feeling unwell
☐ Before exams/tests
☐ Beginning of after-school care session
☐ Other routine times – please specify:

_____ _____

_____ _____

PLEASE NOTE

Blood glucose checking should be available where the student is, whenever needed.

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

KETONE CHECKING

☐ Blood ketone check ☐ Urine ketone check

Check if the child is

☐ unwell regardless of BGL
☐ unwell and has a BGL greater than or equal to 15.0 mmol/L

Follow hyperglycaemia treatment on Diabetes Action plan

INTERSTITIAL SENSOR GLUCOSE MONITORING

Some students will be using a sensor to measure interstitial glucose levels.

A glucose reading from Continuous Glucose Monitoring (CGM) or Flash Glucose Monitoring (FGM) 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 suspected **LOW** or **HIGH** sensor glucose readings must be confirmed by a finger prick blood glucose check.

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

☐ Refer to Continuous Glucose Monitoring (CGM) section
☐ Refer to Flash Glucose Monitoring (FGM) section

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Continuous glucose monitoring (CGM)

Some students will attend school wearing a continuous glucose monitoring (CGM) device.

Parents /carers are the primary contact for any questions regarding CGM use.

While these devices provide additional information on glucose trends, they are not compulsory management tools.

Staff are not expected to do more than the current routine diabetes care as per the student's Diabetes Action and Management plans.

It is not necessary for staff to put CGM apps on their computer, smart phone, or carry receivers.

CGM consists of a small sensor that sits under the skin and measures glucose levels in the fluid surrounding the cells (interstitial fluid).

A transmitter sends data to either a receiver, phone app or insulin pump.

Some CGM devices can be monitored remotely by family members.

CGM devices can be programmed to alarm if glucose levels go below or above set targets.

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.

CGM ALARMS

CGM alarms may be 'on' or 'off'.

If 'on' the CGM will alarm if interstitial glucose is less than 4.0mmol/L.

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

Alerts for high glucose levels or in response to changing glucose trends are not recommended in this setting.

THE STUDENT HAS A

- ☐ **Guardian Connect** This system uses a sensor, transmitter and smart phone app.
- ☐ **Dexcom G4** This system uses a sensor, transmitter and dedicated receiver.
- ☐ **Dexcom G5** This system uses a sensor, transmitter, insulin pump receiver or smart phone app.
- ☐ **Other:** _____

THE STUDENT HAS A

- ☐ **MiniLink**
- ☐ **Guardian 2 Link**

These systems use a sensor, transmitter and insulin pump receiver.

THE STUDENT HAS

- ☐ **Low Glucose Suspend (LGS)** on a
  - ☐ **Medtronic 554/754 pump**
  - ☐ **Medtronic 640G pump**

Certain pumps may be programmed to **stop** insulin delivery when the glucose level is low or predicted to go low.

ACTION for any **low alert** is a finger prick blood glucose check.

- If BGL **less than 4.0 mmol/L**. Treat hypo as per Diabetes Action plan (do not give an insulin bolus for this treatment)
- The trained responsible staff will need to restart the pump manually
- If BGL **greater than or equal to 4.0 mmol/L**. The pump will automatically restart when the sensor glucose level rises.

Should a mealtime insulin bolus be required (e.g. for snack or lunch) the trained responsible staff will need to restart pump manually for this mealtime bolus to occur.

continued over…

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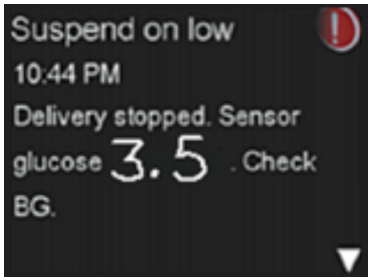
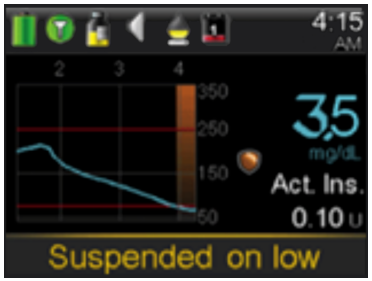
Continuous glucose monitoring, continued

RESUMING INSULIN MANUALLY AFTER LOW GLUCOSE SUSPEND (LGS)



The insulin pump screen will show "Suspend on low".

Press 'down' arrow on pump to clear alert message.



After the "Suspend on low" alert message is cleared, the screen will display: "Suspended on low" at the bottom of the screen in yellow print.

To resume insulin delivery, select "Suspended on low".

Press 'down' arrow.
Highlight "Resume Basal".
Press Right to "Yes" and press "Select".

Insulin bolusing for a meal can now occur.

Flash glucose monitoring (FGM)

This system uses a sensor, and reader (which can also be used as a blood glucose / ketone meter).

Some students will attend school wearing a flash glucose monitoring (FGM) device.

Parents /carers are the primary contact for any questions regarding FGM use.

While these devices provide additional information on glucose trends, they are not compulsory management tools.

Staff are not expected to do more than the current routine diabetes care as per the student's Diabetes Action and Management Plans.

FGM consists of a small sensor that sits on the upper outer arm and measures glucose levels in the fluid surrounding the cells (interstitial fluid). The device will only give the wearer a glucose reading when the sensor disk is scanned.

This device does not have alarm settings but has trend arrows for high or low glucose levels.

If the sensor/transmitter falls out, staff are required to keep it in a safe place to give to parents/carers.

The sensor is water resistant for 30 minutes to a depth 1 meter of water.

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HYPOGLYCAEMIA (HYPO) TREATMENTS

- All hypo treatment foods should be provided by parent/carer.
- Ideally, packaging should be in serve size bags or containers and labelled as **fast acting carbohydrate** food and **sustaining carbohydrate** food.
- Please use one of the options listed below:

FAST ACTING CARBOHYDRATE FOOD	AMOUNT TO BE GIVEN

SUSTAINING CARBOHYDRATE FOOD	AMOUNT TO BE GIVEN

- **DO NOT give an insulin bolus for the fast acting carbohydrate food being eaten to treat a hypo.**
- **If a student requires more than two (2) consecutive fast acting carbohydrate treatments, as per their Diabetes Action plan, call the student's parent/carer or the student's Diabetes Treating Medical team, for further advice.**

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 blood glucose level.
- 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.
- Allow access to drinking water and toilet at all times (high glucose levels can cause increased thirst and urination).

Does the student have coeliac disease? ☐ No ☐ Yes*

***Seek parent/carer advice regarding appropriate foods and hypo treatments**

PHYSICAL ACTIVITY

- Physical activity **may lower** glucose levels.
- The student may require an extra serve of carbohydrate food before every 30 minutes of planned physical activity or swimming.

PHYSICAL ACTIVITY

CARBOHYDRATE FOOD TO BE USED	AMOUNT TO BE GIVEN

- Vigorous activity should **not** be undertaken if BGL greater than or equal to 15.0 mmol/L **and** blood ketones greater than or equal to 0.6 mmol/L.
- Physical activity should not be undertaken if BGL less than 4.0 mmol/L. (refer to the Diabetes Action plan for hypo treatment).
- A blood glucose meter and hypo treatment should always be available.
- Disconnect the pump for vigorous activity/swimming. The student can be disconnected from the pump for up to 90 minutes.
- **Do not enter BGL into pump within 1 hour of completing activity**; if lunch occurs immediately after physical activity, only enter the carbohydrate food to be eaten.

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EXCURSIONS

It is important to plan ahead for extracurricular activities and staff/parents/carers to discuss well in advance of the excursion.

Consider the following:

- Ensure blood glucose 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.
- Always have hypo treatment available.
- Additional supervision will be required for swimming and other sporting activities (especially for younger students).

CAMPS

It is important to plan ahead 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 Diabetes Camp Management Plan is required.
- The student's Diabetes Treating Medical Team will prepare the Camp Management Plan and require at least 4 weeks' notice to do so.
- Parents/carers will need to be provided with a copy of the camp menu and activity schedule for preparation of this plan.
- 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.
- School staff will need to discuss any training needs at least 4 weeks before the camp with the student's parents/carers or Diabetes Treating Medical Team. In particular, should school staff be required to either administer or supervise insulin via pump button pushing or injections, when on camp.
- If the camp location is more than 30 minutes from a reliable ambulance service, school staff attending the camp should discuss the need for Glucagon injection training at least 4 weeks before the camp with the student's Diabetes Treating Medical Team.

EXAMS

- BGL should be checked before an exam.
- BGL should be greater than 4.0 mmol/L before exam is undertaken.
- Blood glucose meter, monitoring strips, hypo treatments and water should be available in the exam setting.
- Continuous Glucose Monitoring (CGM) or Flash Glucose Monitoring (FGM) devices should be available in the exam setting, if being used.
- Considerations for extra time, if a hypo occurs or for toilet privileges, should be discussed in advance.
- Applications for special consideration for the South Australian Certificate of Education (SACE) exams should be submitted at the beginning of Year 11 and 12 — check SACE Board requirements.

EXTRA SUPPLIES

PROVIDED FOR DIABETES CARE AT SCHOOL

- ☐ Finger prick device
- ☐ Sharps container
- ☐ Blood glucose meter
- ☐ Blood glucose strips
- ☐ Blood ketone strips
- ☐ Hypo food
- ☐ Sport/activity food
- ☐ Infusion sets and lines (for parent/carer use)
- ☐ Reservoirs (for parent/carer use)
- ☐ Inserter (for parent/carer use)
- ☐ Batteries (for insulin pump)
- ☐ Insulin pen and pen needles

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GLOSSARY OF TERMS

COMMON INSULIN PUMP TERMINOLOGY

Insulin pump
also known as continuous subcutaneous insulin infusion (CSII)
Small battery operated, computerized device for delivering insulin.

Cannula
A tiny plastic or steel tube inserted under the skin to deliver insulin. Held in place by an adhesive pad.

Line or Tubing
The plastic tubing connecting the pump reservoir to the cannula.

Reservoir
Container which holds the insulin within the pump.

Basal
Background insulin delivered continuously.

Bolus
Insulin for food delivered following entry of BGL and carbohydrate food amount to be eaten.

Correction bolus
Extra insulin dose given to correct an above target BGL and/or to clear ketones.

Line failure
Disruption of insulin delivery due usually to line kinking or blockage.

AGREEMENTS

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

PARENT/CARER
NAME

FIRST NAME (PLEASE PRINT) _____ FAMILY NAME (PLEASE PRINT) _____

SIGNATURE _____ DATE _____

DIABETES TREATING MEDICAL TEAM
NAME

FIRST NAME (PLEASE PRINT) _____ FAMILY NAME (PLEASE PRINT) _____

SIGNATURE _____ DATE _____

SCHOOL REPRESENTATIVE
NAME

FIRST NAME (PLEASE PRINT) _____ FAMILY NAME (PLEASE PRINT) _____

ROLE ☐ Principal ☐ Vice principal
☐ Other (please specify) _____

SIGNATURE _____ DATE _____

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