

Hypoglycaemia

Patient information Leaflet

June 2020

Definition

Hypoglycaemia (hypo) in children with diabetes is a blood glucose of less than 4.0mmol/L. The first time your child has a hypo will be an anxious and frightening time. We hope this guide will give you the confidence to treat their hypo.

Signs and symptoms of hypoglycaemia

Symptoms vary between individuals and may change with age. Your child may show some of the symptoms or none of them. Below are examples of some signs and symptoms:

(The list is not exhaustive and if you suspect your child is experiencing a hypo their blood glucose MUST still be checked)

Pale	Headache	Irritable
Sweaty/clammy	Confusion	Mood change
Hungry	Weakness, lethargy	Erratic behaviour
Tremor	Glazed expression	Nausea
Restlessness	Visual/speech disturbances	Combative behaviour
	Seizure	
	Unconsciousness	

Alcohol can have an effect on blood glucose levels in particular an increased risk of hypoglycaemia whilst sleeping

The treatment varies with the degree of severity. Severity can be classed as mild, moderate or severe. Mild and moderate hypos should receive the same treatment

Mild/moderate hypo:- child able to tolerate oral fluids

Severe hypo:- unconscious or fitting child requires 3rd party help (consider ringing 999)

Also remember:

Do not leave your child alone when they are having a hypoglycaemia episode.

Do inform Paediatric Diabetes Nurse Specialists of any patients with diabetes presenting with hypoglycaemia to the ED, even if not admitted.

Treatment of Mild or Moderate Hypoglycaemia**Step 1a – If your child is co-operative and able to tolerate oral fluids:**

Give 10-20g of fast acting oral carbohydrate such as:

3-4 glucose tablets

200 ml (½ cup) sugary drink (not diet) such as cola (20g) or Lucozade (15g)

3 jelly babies

NB Chocolate or milk WILL NOT bring glucose levels up quickly enough

Step 1b - If your child refuses to drink, is uncooperative, but is conscious:

Give Glucogel® or Dextrogel® (formerly known as Hypostop®).

This is a fast acting sugary gel, in an easy twist top tube. Each tube contains 10g glucose. Squirt tube contents in the side of each cheek evenly and massage gently from outside enabling glucose to be swallowed and absorbed quickly.

DO NOT use Glucogel if your child is unconscious or fitting.

Step 2 - After 10-15 minutes recheck blood glucose:

If still low (<4 mmol/l) and able to take oral fluids repeat step **1a** above (once) If still low (<4 mmol/l), refuses to take oral but is conscious, follow step **1b** (once)

If deteriorated after first run through above or not responded after having administered 2nd dose of above then proceed to treatment for severe hypo

If feeling better and blood glucose level above 4.0mmol/L, follow step 3

Step 3.

If feeling better and blood glucose level above 4.0mmol/L, if on injections follow step A and if using insulin pump follow step B

Step A. (on injections)

If hypo was before a meal give insulin for food then eat meal (do not give correction for high sugar after hypo)

If hypo was between meals give 10 -15g slow acting carbohydrate snack with no insulin such as:-

One slice of toast

One piece of fresh fruit (not a banana)

A cereal bar (max 15g CHO)

One plain digestive or hobnob biscuit

Glass of milk (200ml)

Step B. (on insulin pump)

No slow carb snack needed

If your child wants a snack then give snack with insulin

Consider temporary reduction on basal rate

POST HYPO.....

Retest **20-30 minutes** later to confirm blood glucose above 4.0 mmol/L is maintained.

Treatment of hypo should increase blood glucose by 3-4mmols

If hypo is just before a meal time (when insulin is usually given) the hypo should be treated first and once the blood glucose is above 4.0 mmol/L the insulin should be given as usual.

DO NOT OMIT INSULIN, especially important with an early morning hypo.

If the cause can be identified discuss with diabetes team and if necessary review insulin doses. (e.g. for early morning/night-time hypo consider if extra exercise the evening before and what your child had for bedtime snack.)

Treatment of Severe Hypoglycaemia

If your child unconscious or fitting or not responded to steps 1 and 2.

Check blood glucose and confirm below 4 mmol/l

Call emergency services - 999

Place in the recovery position if possible

DO NOT attempt to give any oral fluid or Glucogel®

Stay with your child

If you are able to give Glucagon (Glucagen) by Intramuscular injection:

Check expiry date and make up as per instructions

Administer intramuscularly in the thigh

Dose:

Age <8 yrs give 0.5mg glucagon by IM injection (0.5mls)

Age >8 yrs give 1mg glucagon injection (1ml)

Glucagon is a fast acting drug and your child should respond after 5 minutes.

After your child has regained consciousness leave him/her on one side as one of the common side effects of glucagon is nausea/vomiting

Further monitoring:

Check blood glucose after 5minutes 15minutes then half hourly until glucose stable

If not improving will need hospital admission and intravenous glucose

When blood glucose above 4.0mmol/l and your child able to tolerate oral fluids:

Offer clear fluids, and once tolerating clear fluids offer simple carbohydrates, such as toast, crackers (see step 3)

After a hypo.....

Try to identify the cause of hypoglycaemia and discuss this with your child if appropriate

Contact diabetes team for review of treatment, advice or education

Check for ketones if unwell (if ketones present refer to sick day leaflet if unwell)

Do not omit normal insulin unless instructed to do so by diabetes team

Also remember:

Consider stopping any physical activity your child is due to take part in.

Do let the Paediatric Diabetes Nurse Specialists know when your child has attended accident and emergency with hypoglycaemia or has an illness causing vomiting/low blood sugars

References:

T&GIC NHS Foundation Trust (2020) Management of hypoglycaemia in children and young people with type 1 Diabetes. Adapted from ACDC guidance (May 2018).

If you have a visual impairment this leaflet can be made available in bigger print or on audiotape. If you require either of these options please contact the Patient Information Centre on 0161 922 5332

Contact Diabetes team for further advice:-

Karen Wright

Office 0161 922 4844

Mobile 07760991621

Jenny Butterworth

Office 0161 922 5433

Mobile 07775032136

Out of hours:

Call hospital switchboard on
0161 922 6000 and ask for on call Paediatric Registrar (Doctor)

If you have any questions you want to ask, you can use this space below to remind you

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If you require an interpreter, please ask an appropriate person to contact our central booking office between Monday to Friday 8am to 5pm on 0161 922 6991 to arrange this for you.

語言 翻譯及病者支持服務 (LIPS):

如果閣下需要翻譯員在您的預約當日幫助您的話 請找一名合適的家庭成員 0161 922 6991 聯絡本中央預約辦事處來您您安排 我們的辦公時間是星期一至星期五 上午 8 時至下午 5 時

Językowo Tłumaczeniowa Usługa Pomocy dla Pacjenta (Language, Interpretation and Patient Support Service LIPS):

Jeśli potrzebujesz pomocy tłumacza w trakcie swojej wizyty, proszę poprosić odpowiedniego członka rodziny o skontaktowanie się z Centralnym Biurem Zamówień (Central Booking Office), w celu zorganizowania tłumacza pomiędzy poniedziałkiem a piątkiem w godzinach od 08:00 - 17:00 pod numerem 0161 922 6991.

لیٹگوئج، انٹریپریٹیشن اینڈ پیٹینٹ سپورٹ سروس (Lips)

اگر آپ کو اپنی اپائنٹمنٹ کے لئے مترجم کی مدد کی ضرورت ہو تو براہ مہربانی اپنے خاندان کے کسی موزوں فرد سے کہیں کہ وہ ہمارے سنٹرل بنگ آفس سے پیر سے جمعہ 8.00 بجے صبح سے 5.00 بجے شام کے دوران 0161 922 6991 پر فون کر کے اس کا بندوبست کریں۔

Document control information

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