A guide to...

The daily routine for children and young people with diabetes and how to manage hyperglycaemia (above target blood glucose)

Patient Information

How to contact us

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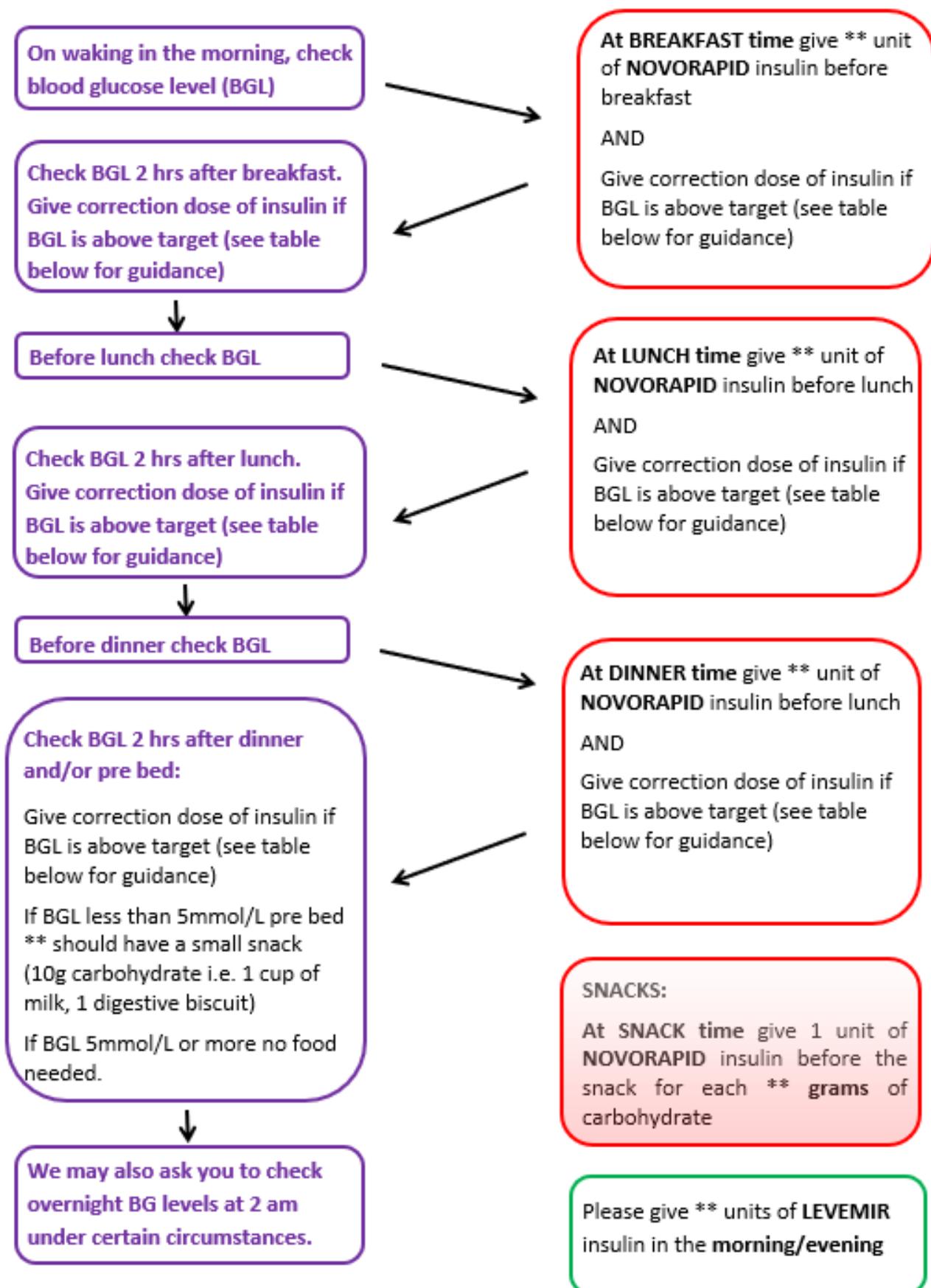**Tel:** 01442 287425
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Daily routine

On waking in the morning, check blood glucose level (BGL)

At BREAKFAST time give ** unit of NOVORAPID insulin before breakfast

AND

Give correction dose of insulin if BGL is above target (see table below for guidance)

Check BGL 2 hrs after breakfast. Give correction dose of insulin if BGL is above target (see table below for guidance)

Before lunch check BGL

At LUNCH time give ** unit of NOVORAPID insulin before lunch

AND

Give correction dose of insulin if BGL is above target (see table below for guidance)

Check BGL 2 hrs after lunch. Give correction dose of insulin if BGL is above target (see table below for guidance)

Before dinner check BGL

At DINNER time give ** unit of NOVORAPID insulin before lunch

AND

Give correction dose of insulin if BGL is above target (see table below for guidance)

Check BGL 2 hrs after dinner and/or pre bed:

Give correction dose of insulin if BGL is above target (see table below for guidance)

If BGL less than 5mmol/L pre bed ** should have a small snack (10g carbohydrate i.e. 1 cup of milk, 1 digestive biscuit)

If BGL 5mmol/L or more no food needed.

SNACKS:

At SNACK time give 1 unit of NOVORAPID insulin before the snack for each ** **grams** of carbohydrate

We may also ask you to check overnight BG levels at 2 am under certain circumstances.

Please give ** units of **LEVEMIR** insulin in the **morning/evening**

Calculating Correction Insulin Dose

If your blood glucose levels (BGL) are high before a meal (or two hours after a meal), you will need to give yourself an additional bolus of (rapid-acting) insulin to bring your BGL back down to target range. To calculate this, you will need an insulin sensitivity factor (ISF).

Your ISF will be given to you by a member of your Children and Young Persons Diabetes team.

Correction dose = number of mmol I want to lower blood glucose ÷ my ISF

> Formula for calculation:
> Correction dose = (blood glucose – target) ÷ ISF

Example:
Your blood glucose level is 13. Your target BGL is 6.0. Your ISF is 5 (1 unit insulin lowers BGL by 5mmol/L).

Correction dose = (13 – 6) ÷ 5
Correction dose = 1.4 = 1 unit

I would need 1 unit extra of bolus insulin to bring my blood glucose into target range.

How to calculate addition insulin dose to correct for above target blood glucose levels using the ISF table

Line up your ISF with your blood sugar level (in mmol/L) to see how much insulin you require to correct your high blood sugar (to blood sugar of 6). See example of: ISF of 5 and blood glucose 15 mmol/L (note: if blood glucose is not a round number, round down).

		Insulin Sensitivity factor (ISF) to target BGL of 6										
		12	11	10	9	8	7	6	5	4	3	2	1
	<4	treat hypo										
	4 to 7	0	0	0	0	0	0	0	0	0	0	0	0
Blood	8	0	0	0	0	0	0	0	0	0.5	0.5	1	2
Glucose	9	0	0	0	0	0	0	0.5	0.5	0.5	1	1.5	3
Level	10	0	0	0	0	0.5	0.5	0.5	0.5	1	1	2	4
mmol/L	11	0	0.5	0.5	0.5	0.5	0.5	0.5	1	1.5	1.5	2.5	5
	12	0.5	0.5	0.5	0.5	0.5	0.5	1	1	1.5	2	3	6
	13	0.5	0.5	0.5	0.5	0.5	1	1	1	1.5	2	3.5	7
	14	0.5	0.5	0.5	0.5	1	1	1	1.5	2	2.5	4	8
	15	0.5	0.5	0.5	1	1	1	1.5	1.5	2	3	4.5	9
	16	0.5	0.5	1	1	1	1	1.5	1.5	2.5	3	5	10
	17	0.5	1	1	1	1	1.5	1.5	2	2.5	3.5	5.5	11
	18	1	1	1	1	1.5	1.5	2	2	3	4	6	12
	19	1	1	1	1	1.5	1.5	2	2.5	3	4	6.5	13
	20	1	1	1	1.5	1.5	2	2	2.5	3.5	4.5	7	14

Putting it all together: Calculating insulin for meals with correction

To put it all together you need to add **insulin for meals + correction dose**

Total insulin dose = insulin for meal + insulin correction dose

High BGL (more than 14mmol/L):

If BGL above 14mmol/L on two consecutive readings, check for blood ketones.

If Ketones are more than 0.6mmol/L:

Follow the **Sick Day Rules Advice**

AND

Call the diabetes team on the emergency number **01442 287442** or the "on call" number out of hours (after 5pm or at weekends) on **01438 285000** for advice.