

Unexplained Hyperglycaemia and Sick day rules (Hybrid Closed Loop)

Blood glucose above 14mmol/L
and not responding to bolus
corrections or feel unwell?
Check ketones

If you are vomiting and unable
to keep fluids down or unable
to control blood
glucose/ketones you must go to
hospital as an emergency

Ketones below 1.5 mmol/L

MINOR ILLNESS: Stay in closed loop mode

Change cannula, infusion set and reservoir

- The closed loop system will try and cope with raised glucose by increasing your basal and giving corrections
- Check sensor glucose matches blood glucose
- Take additional corrective doses via bolus calculator if glucose is raised, even if not eating
- Usual bolus if eating carbohydrate
- Check glucose and ketones every 2-4 hours

Sip sugar free fluids (at least 100ml/hour)

If blood ketones
below 1.5 mmol/L

Stay in closed loop

If blood ketones
1.5 mmol/L or
above

Ketones 1.5 mmol/L or above

SEVERE ILLNESS: Exit closed loop mode

Calculate Average Total Daily Dose (TDD)

Blood ketones
1.5 - 3.0 mmol/L

Give 10% of TDD
of quick acting
insulin using
insulin pen or
syringe

Blood ketones
above 3 mmol/L

Give 20% of TDD
of quick acting
insulin using
insulin pen or
syringe

Change cannula, infusion set and reservoir
DO NOT RESTART CLOSED LOOP MODE
Use usual I:C ratio when eating
Check glucose and ketones every 2 hours

Blood ketones
1.5-3 mmol/L

Give 10% of TDD as
bolus via pump
every 2 hours &
increase basal by
30%
+ usual bolus if
eating (override
bolus calculator)

Blood ketones
above 3 mmol/L

Give 20% of TDD as
bolus via pump
every 2 hours &
increase basal by
50% or more + usual
bolus if eating
(override bolus
calculator)

Sip sugar free fluids (at least 100ml/hour)
Eat as normal if you are able with usual bolus
If you don't feel like eating, try to have some
carbohydrate (eg.20g) with bolus insulin every 2-4 hrs

Blood ketones
1.5 - 3 mmol/L

Blood ketones
above 3 mmol/L

Blood ketones below 1.5 mmol/L
Before re-entering closed loop mode you must
wait 4 hours after the last manual (pen/syringe)
injection of quick acting insulin

If you have been trying to address hyperglycaemia for
more than 4 hours with no improvement please seek help.

If you are vomiting and are unable to keep fluids down, or
unable to control your blood glucose or ketones you must
go to the hospital as an emergency.