

# Ketone Management

## Correction Bolus in the Presence of Ketones

You will need to check your ketone level any time that you have an unexpected blood glucose > 15 mmol/l.

If you use a meter to measure your blood ketones then the interpretation guidelines are as follows:

<0.6mmol/l	Readings below 0.6mmol/l are within the normal range. (i.e. considered negative)
0.6-1.5mmol/l	When your blood ketone reading is between 0.6 and 1.5mmol/l you are positive for ketones. This may indicate the development of a problem that may require medical assistance but generally manageable at home
>1.5mmol/l	When your blood ketone reading is >1.5mmol/l you are positive for ketones and you may be at risk of developing diabetic ketoacidosis. Contact your healthcare professional immediately for advice.

The presence of ketones will make you more resistant to insulin so often a larger dose of insulin is required to bring you back down to your target blood glucose. We do this by adding an extra 50% to the correction dose if ketones are present.

Current BG	-	Target BG	=	Gap	÷	CF	x 1.5	Units Needed
	-		=		÷		x 1.5	
	-		=		÷		x 1.5	
	-		=		÷		x 1.5	

If ketones are present you must assume there is a problem with insulin delivery and inject manually. **DO NOT USE THE PUMP**. Once the pump and infusion set can be ruled out as the cause of the ketones eg ketones induced by illness, then the pump can be used for further corrections.

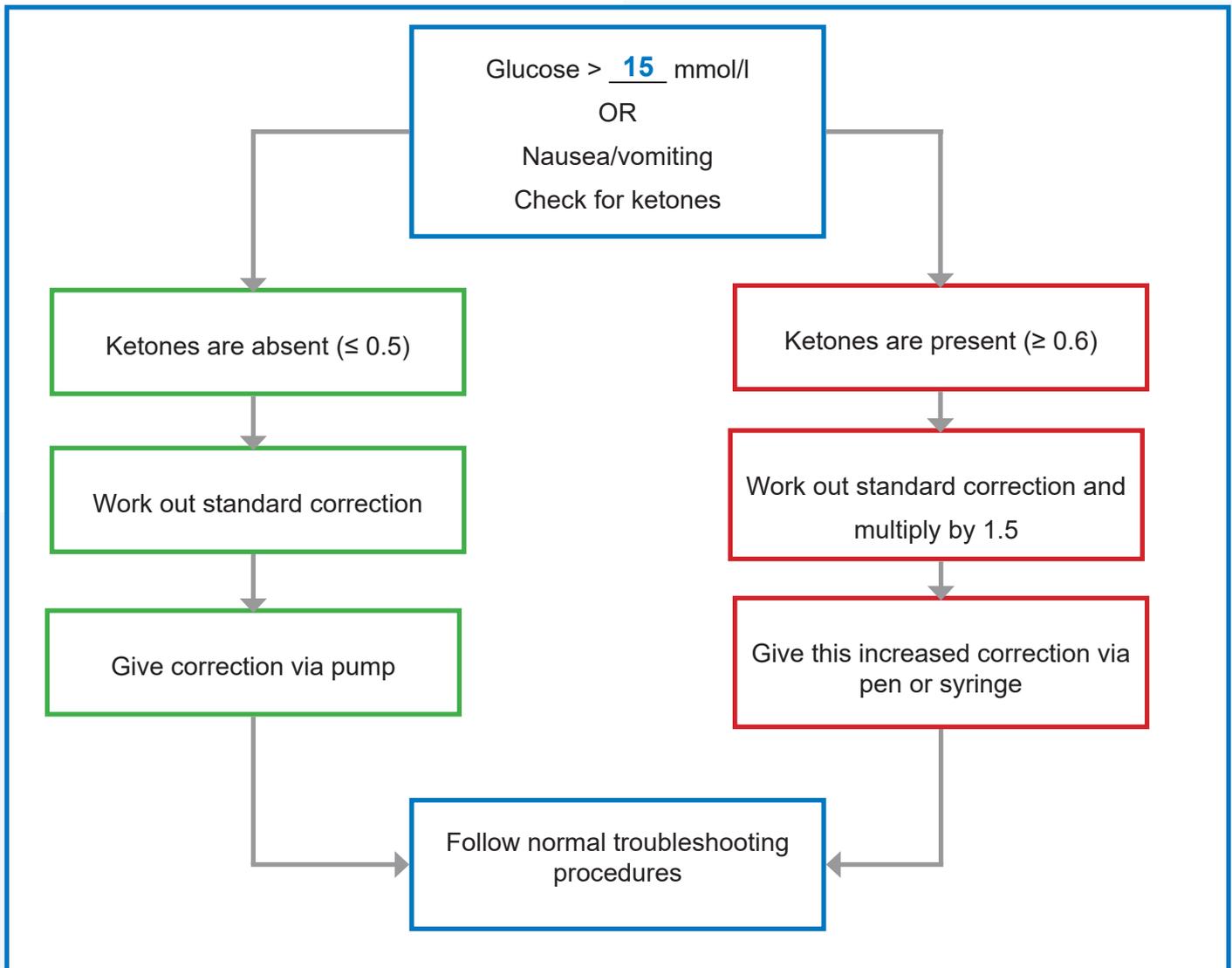
After injection, follow the troubleshooting circle and seek medical advice if needed or if you are unsure about anything.

# Hyperglycaemia Treatment Summary

When using pump therapy high blood sugars need to be treated as seriously and as quickly as low blood sugars.

If the ketones are positive, immediate action is needed to prevent DKA from occurring. This is because there is no long acting insulin in your system. Diabetic ketoacidosis is life threatening.

If your glucose level is unexpectedly above 15 mmol/l or if you have nausea and/or vomiting, follow the guidelines below



Check blood glucose and ketones after 1 and 2 hours to make sure the blood sugar is coming down and the ketones have gone.

**Please note:** Injections by pen will not be recorded by the pump and Insulin On Board will have to be manually calculated for any further correction boluses given within next 3-4 hours

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