**Guidelines for the use of 780g Hybrid Closed Loop during Labour**

**If diabetes is stable, below 8 mmol/l and patient or partner able to manage pump, continue with therapy**

**Before delivery**

* Ensure midwifery staff knows that a pump & sensor are being worn.
* If for C-Section, inform surgeon, anaesthetist and theatre staff that a pump & sensor is being worn
* Ensure the pump is situated the lower end rib level near the back
* Avoid potential C-Section site and the area to be cleansed when positioning infusion set.
* Ensure the pump has charged batteries, full reservoir/cartridge and new infusion set plus a spare set of each.

**During delivery**

* Target is 4 – 7 mmol/l during delivery
* CGM (G4 Sensor) glucose levels must be viewed and documented hourly by you
* Check capillary blood glucose (fingerstick) at least 4 hourly
* Continue in smartguard.
	+ If glucose is above 7 mmol/l, give a manual bolus\*
	+ If glucose is less than 5.0 mmol/l, use ‘temp target’
* **If two consecutive readings are above 8 mmol/l, the midwives will insert venflon and use Variable Rate Intravenous Insulin Infusion (VRII). If this happens, disconnect the pump and suspend it.**
* **Once using intravenous insulin, you will require hourly finger stick measurements**

**Management of Hypoglycaemia**

If blood glucose < 3.5 mmol/l treat hypoglycaemia as you would usually.

**After delivery**

* Stay in Smartguard
* The aim is glucose 6 – 10 mmol/l & expect that glucose may go up to 15 mmol/l after meals
* Use ‘Temp Targets’ if glucose below 6 mmol/l for 24 hours
* Monitor 2 hourly until stable, then revert to checking pre meals and bed.

**As soon as possible after delivery, and certainly before the first meal, make the following changes:**

* Increase the target to 6.7 mmol/l, if not already done
* Change the carbohydrate ratio and ISF (Insulin Sensitivity factor) to your planned post-birth settings
* Change the alert settings: low threshold 4 mmol/l, high threshold 12-15 mmol/l (these can be individualised)

**On the pump:**

* Change the basal to the pre-programmed post-birth basal programme

Before you are discharged the diabetes team will review your diabetes.

**\*How to give a manual bolus**

1. Press Select, select Options, select SmartGuard, and select ‘Smartguard on/off’
2. Select Smartguard to turn the feature off.
3. Select Save

Exit and go to Insulin delivery

1. Select Bolus
2. Select Manual bolus

And give manual bolus

Use this equation:

Glucose level (any glucose above 7.0) minus target (5) divided by insulin sensitivity (3) = manual bolus

Eg, If the glucose level is 8

8 – 5 = 3

3 / 3 = Manual bolus of 1

**Go back into Smart Guard**

This will involve a finger stick check

