

# Intrapartum/Postpartum Management with Insulin Pump Therapy

## PATIENT INSTRUCTIONS

|                  |            |
|------------------|------------|
| NHI .....        | WARD ..... |
| SURNAME .....    |            |
| FIRST NAME ..... |            |
| GENDER .....     | DOB .....  |
|                  | AGE .....  |

(or affix patient label)

If diabetes is stable (blood glucose 4-7 mmol/L) and you can manage the insulin pump you may continue with insulin pump therapy during labour and delivery.

- Ensure the insulin pump infusion set is situated away from the abdominal area, towards the back, to avoid potential LSCS site and the area to be cleansed.
- Ensure the insulin pump has new batteries/fully charged, a full reservoir/cartridge, and that a new cannula and infusion set has been sited. It is advisable to have adequate insulin pump supplies.

### Plan during labour, morning of planned caesarean section or when nil by mouth for emergency caesarean section

- Check glucose hourly (sensor glucose can be used, if outside target check finger prick blood glucose (BGL) before action. Also check BGL 4-hourly even if sensor glucose remains in target.
- Aim blood glucose between 4-7 mmol/L.
- **If glucose level above 7 mmol/L** – give a bolus correction dose via the insulin pump.  
(Set target glucose 5mmol/L)

Recheck glucose after 1 hour:

- If glucose 7.1-10.0 mmol/L – give a second correction bolus and repeat test in one hour.
  - If glucose > 10 mmol/L – give second correction dose and recheck in 30 minutes.
- If glucose 7.1-10 mmol/L prior to the second dose, and still in the same range after 1 hour – give a third correction dose.

Recheck in 30 minutes:

- If not improved to 4-7mmol/L you will need IV insulin infusion as per maternity guidelines.
- If BGL remains >10 mmol/L after second correction dose an IV insulin infusion will be required.
- If BGL >10 mmol/L prior to the second dose recheck after 30 minutes. If BGL still not below 7.0 mmol/L then you will need to switch to IV insulin infusion and stop the insulin pump.

### Management of hypoglycaemia

- Blood glucose less than 4.0 mmol/L – treat as per your usual hypoglycaemia treatment, eg. 10-15g carbohydrate.
- If you have more than one hypoglycaemic event, reduce the basal rate by 50% using a Temporary Basal Rate (TBR) setting. Continue the reduced basal rate till delivery.

### After delivery basal rate

- Save a profile for use after delivery. This is either 80% of pre-pregnancy rate or 50% reduction of final basal rate prior to delivery.
- If profile is not set, you or your partner should reduce the basal rate by 50% immediately after delivery.
- Aim for target glucose of 6-10 mmol/L (6-15 mmol/L acceptable).
- If breastfeeding, this rate may need reducing by a further 20%.

| <b>Time (hours)</b> | <b>Pre-pregnancy basal rate</b> | <b>Suggested post-pregnancy rate<br/>(80% pre-pregnancy rate)</b> |
|---------------------|---------------------------------|---|
| 0000                |                                 |   |
| 0600                |                                 |   |
| 1200                |                                 |   |
| 1800                |                                 |   |
| 2200                |                                 |   |

OR

| <b>Time (hours)</b> | <b>Current pregnancy basal rate</b> | <b>Suggested post-pregnancy rate<br/>(50% current rate)</b> |
|---------------------|-------------------------------------|---|
| 0000                |                                     |   |
| 0600                |                                     |   |
| 1200                |                                     |   |
| 1800                |                                     |   |
| 2200                |                                     |   |

### After delivery Bolus and Insulin Sensitivity Factor (ISF)

(Default: bolus 1:10-1:15 g; ISF 1: 3 or 4 mmol/L)

|       | <b>Pre-pregnancy</b> | <b>Suggested</b> |
|-------|----------------------|------------------|
| Bolus |                      |                  |
| ISF   |                      |                  |

### Checklist for labour ward bag for women using diabetes technology

1. Hypoglycaemia treatment of your choice
2. Carbohydrate and non-carbohydrate snacks
3. Glucose meter and strips
4. Spare sets of batteries x2 or charger
5. Reservoirs/cartridges x2
6. Infusion sets (including lines) x5 and inserter device (if applicable)
7. Insulin syringes x10
8. Vial of long-acting insulin or pen

#### For sensor users

9. Spare sensor and inserter device
10. Transmitter charger (if applicable)
11. Reader/receiver/phone charger

For more information about:

hospital and specialist services, go to [www.cdhb.health.nz](http://www.cdhb.health.nz) | your health and medication, go to [www.healthinfo.org.nz](http://www.healthinfo.org.nz)