

## APPENDIX 2: TYPE II DIABETES – INSULIN REGIME PERI-DELIVERY

**Where insulin was required prior to pregnancy (or previously on sulphonylurea and intending breastfeeding) basal insulin (eg lantus) to continue.**

Any doses due during established labour or evening prior to morning elective caesarean section delivery to be at pre-pregnancy level (written agreed plan to be established pre- anticipated delivery or by 36 weeks gestation)

Once labour established or prior to elective caesarean section delivery IV sliding scale insulin and IV infusion one litre 5% Dextrose (+20mmol KCL per litre) per 8 hrs to be commenced

Any mealtime prandial insulin (eg novorapid) dosing to be suspended whilst on sliding scale insulin

Monitor BM's hourly

Pre-agreed personalised plan should state personalised sliding scale rates or will indicate use of standard sliding scales (1), (2) or (3) as defined later

Where no pre-specified plan start with sliding scale (2)

Personalised sliding scale rates calculated according to pre-delivery total novorapid dosing requirements. Total prandial insulin (eg novorapid) requirement in any 24hr period is divided by 24 and **rounded down** to next whole number to give insulin requirement where bm 4.1 – 7.0 mmol/L.

Other points on the sliding scale then extrapolated – **see table for guidance**

On delivery of placenta any sliding scale rates are halved (includes standard sliding scales), **but see table for minimum infusion rates**. Where prior to pregnancy diabetes managed by diet and exercise alone sliding scale can be stopped on delivery of placenta

Where appropriate, pre-meal subcutaneous prandial insulin (eg novorapid) doses are thereafter re-established according to pre – pregnancy requirements

These same sliding scales can be applied for glycaemic control after **Betamethasone** injections. If managed with insulin, basal insulin (eg Lantus) is continued whilst on sliding scale, but any prandial insulin (eg novorapid) suspended.

**Table: Modified / Personalised IV insulin sliding scales:**

Bm reading (mmol/L)	Initial Insulin infusion rates (units/hr)	Insulin infusion rates post delivery placenta (units/hr)
0 – 4.0	0	0
4.1 – 7.0	b (min 1)	0.5b (min 0.5)
7.1 – 11.0	1.5b (min 2)	0.75b (min 1)
11.1 – 14.0	2b (min 3)	b (min 2)
14.1 – 17.0	3b (min 4) (call Diabetes team)	1.5b (min 3) (call Diabetes team)
>17.0	4b (min 6) (call Diabetes team)	2b (min 6) (call Diabetes team)

**Where b = total daily prandial insulin (eg novorapid) dose divided by 24 and rounded down to next whole number**

**Worked example:**

Type II Diabetic previously on Gliclazide 160 mg bd and metformin 1g bd. Converted to lantus and novorapid as soon as aware of pregnancy – metformin was continued, Gliclazide stopped. At 36 weeks requiring 28 units Lantus at bedtime and 10 units novorapid with each meal (ie 30 units per 24 hrs). Planning to breastfeed. Advised to reduce Lantus to 8 units as soon as established labour. Admitted at 39 weeks, established labour confirmed at 8 pm. Sliding scale insulin according to standard scale(2) and IV dextrose commenced. 10pm Lantus dose of 8 units given. On delivery of placenta insulin infusion rates halved according to standard scale(2) regime. On resuming eating novorapid restarted at 4 units with each meal. Sliding scale stopped as soon as novorapid administered. Lantus continued at 8 units. Diabetes Specialist Nurse review on daily basis to ensure no problems with transition.

**IF DIABETIC CONTROL NOT MAINTAINED (bm's > 14) THE DIABETIC TEAM SHOULD BE CONTACTED FOR ADVICE** (on-call medicine middle grade if out of hours)