

# Canterbury

## District Health Board

Te Poari Hauora ō Waitaha

## CHRISTCHURCH WOMEN'S HOSPITAL MATERNITY SERVICES

SURNAME ..... NHI .....  
FIRST NAME ..... DOB .....  
ADDRESS ..... POSTCODE .....  
.....  
*(or affix patient label)*

## **Insulin Infusion following Betamethasone Injections for Women with Diabetes in Pregnancy**

Fill in blanks as needed. Where alternatives are offered strike out those that do not apply.

**Use one sheet per infused drug. Use a new sheet if the recipe strength is changed.**

PREPARATION	SLIDING SCALE					<i>(cross out the scales not in use)</i>
	Blood Glucose (mmol/L)	Scale A (< 40 units/day)	Scale B (41-80 units/day)	Scale C (81-120 units/day)	Scale D (> 120 units/day)	
Take 100 units (1 mL) of Actrapid® insulin and make up to 100 mL with 0.9% sodium chloride to make a 1 unit/mL solution.	< 6	0 mL/hr	0 mL/hr	0 mL/hr	0 mL/hr	
Prior to commencing the infusion flush the tubing with 10 mL of solution to ensure that plastic receptor binding occurs.	6.1 – 7.0	0.5	1	2	3	
	7.1 – 8.0	1	2	3	5	
	8.1 – 9.0	1.5	3	4	7	
	9.0 – 10.0	2	4	6	10	
	> 10.1	3	6	8	13	

## PREPARED BATCHES

<u><b>BATCH No.1</b></u>	<u><b>BATCH No.2</b></u>	<u><b>BATCH No.3</b></u>
Date: ...../...../..... Time:	Date: ...../...../..... Time:	Date: ...../...../..... Time:
Fluid batch number:	Fluid batch number:	Fluid batch number:
Midwife/Nurse 1 sign: .....	Midwife/Nurse 1 sign: .....	Midwife/Nurse 1 sign: .....
Midwife/Nurse 2 sign: .....	Midwife/Nurse 2 sign: .....	Midwife/Nurse 2 sign: .....

## **CHANGES TO INFUSION RATE**

## **Administration**

soluble insulin (Human Actrapid®) 1 unit/mL

**Between the hours of 0800-1700 Monday to Friday, contact Obstetric Physician who will advise whether an intravenous infusion can be avoided in women who already take insulin and have good blood glucose control (a trial of increasing subcutaneous insulin doses by 50% may be feasible).**

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(or affix patient label)	

## Insulin Infusion following Betamethasone Injections for Women with Diabetes in Pregnancy

### **For women treated with insulin**

Women need to be cared for in an environment where the staffing levels allow hourly observation.

Women will continue to administer their usual subcutaneous insulin regimen without any change in dosage in addition to receiving intravenous insulin according to this protocol. Metformin should be continued. These should be charted on the QMR0004.

Diabetic diet should be followed, splitting meals when possible as guided by a dietitian. Their usual pre-meal subcutaneous insulin should be administered 20-30 minutes before eating.

### **Immediately prior to the first steroid injection**

- A supplementary, variable dose intravenous insulin infusion is commenced (see chart for instructions). The hourly rate is adjusted according to hourly blood glucose measurements. The initial dosage is determined according to her current 24 hour subcutaneous insulin requirements (short + long-acting) (see Supplementary Insulin Requirement Table).
- Following administration of the first dose of steroid, the patient will continue to eat and drink as normal and will continue to administer her usual subcutaneous insulin regimen, without any change in dosage.
- Intravenous fluids are NOT co-administered if the woman is eating and drinking normally.
- The supplementary Insulin infusion is continued for at least 12 hours after the second steroid injection. Between 2200 – 0600 hours, if blood glucose levels are stable for two consecutive hours, decrease the frequency of blood glucose monitoring to 2-3 hourly overnight.
- If blood glucose levels are not responding to the initial regimen (ie. glucose > 10 mmol/L for 2 consecutive hours) the dosage regimen is moved up to the next level (eg. if commenced on regimen A, move up to regimen B, etc.)
- If the blood glucose level is < 4 mmol/L on one occasion the dosage regimen is moved down one level (eg. if on regimen C, move down to regimen B, etc.)

### **For women treated with diet +/- metformin**

Diabetic diet should be followed, splitting meals when possible as guided by a dietitian. Metformin should be continued.

Monitor capillary blood sugar levels on waking, before and after each of the three main meals, and at bedtime.

If capillary blood sugars levels rise to  $\geq 5.5$  mmol/L fasting or  $\geq 8$  mmol/L after meals commence the supplementary insulin infusion on regimen A.

- Intravenous fluids are NOT co-administered if the woman is eating and drinking normally.
- The supplementary Insulin infusion is continued for at least 12 hours after the second steroid injection. Between 2200 – 0600 hours, if blood glucose levels are stable for two consecutive hours, decrease the frequency of blood glucose monitoring to 2-3 hourly overnight.
- If blood glucose levels are not responding to the initial regimen (ie. glucose > 10 mmol/L for 2 consecutive hours) the dosage regimen is moved up to the next level (eg. if commenced on regimen A, move up to regimen B etc.)