

**Intravenous Insulin and Fluid Prescription  
PREGNANCY AND LABOUR ONLY**

For use during pregnancy and labour for ALL patients receiving Variable Rate Intravenous Insulin Infusion (VRIII)  
 NEVER use an IV syringe to draw up insulin  
 ALWAYS draw up insulin using an insulin syringe  
 ALWAYS continue subcutaneous intermediate\* or basal insulin\*\*  
 \*Intermediate: Insulatard, Humulin I, Insuman basal  
 \*\*Basal: Lantus (Glargine), Levemir (Detemir), Tresiba (Degludec), Toujeo  
**Doctor:** All prescriptions for insulin and fluids must be signed  
**Nurse:** All entries must be signed

<b>Ward</b>	<b>Consultant</b>	Admission Date:
		Discharge Date:
Surname	First Name	
Hospital Number	Date of Birth / Age	
NHS Number		
Address		

DOSING ALGORITHM (Please see the guide below)			
Algorithm	1	2	3
	For most women	For women not controlled on algorithm 1 or needing >80 units/day of insulin	For women not controlled on algorithm 2 (after specialist advice)
<b>CBG Levels (mmol/L)</b>	Infusion Rate (units/hr = ml/hr)		
<4	STOP INSULIN FOR 20 MINUTES Treat hypo as per guideline (re-check CBG in 10 minutes)		
4.0 – 5.5	0.2	0.5	1.0
5.6 – 7.0	0.5	1.0	2.0
7.1 – 8.5	1.0	1.5	3.0
8.6 – 11.0	1.5	2.0	4.0
11.1 – 14.0	2.0	2.5	5.0
14.1 – 17.0	2.5	3.0	6.0
17.1 – 20.0	3.0	4.0	7.0
>20.1	4.0	6.0	8.0
<b>Signed</b>			
<b>Print Name</b>			
<b>Date</b>			

**ALGORITHM GUIDE**

- ALL women with diabetes should have Capillary Blood Glucose (CBG) testing hourly in established labour or at least once on admission for induction of labour or elective C-Section
- Start VRIII and Fluids if two consecutive CBGs > target (see below) or at the start of established labour if the woman has type 1 diabetes

**Algorithm 1** Most women will start here  
**Algorithm 2** Use this algorithm for women who are likely to require more insulin (on steroids; on >80 units of insulin during pregnancy; or those not achieving target on algorithm 1)  
**Algorithm 3** Use this for women who are not achieving target on algorithm 2 (No patient starts here without diabetes or medical review)

If the woman is not achieving targets with these algorithms, contact the diabetes team (out of hours: Medical SpR on call)

**Target CBG level = 4 – 7 mmol/L**

**Check CBG every hour whilst on VRIII and every half an hour if under anaesthesia**

**Move to the higher algorithm** if the CBG is > target and is not dropping  
**Move to the lower algorithm** if CBG falls below 4 mmol/L or is dropping too fast

Drug (approved name) Please tick	Dose	Volume	Route	Prescriber's Signature	Prescriber Print name	Date	SYRINGE PREPARATION			
Human Actrapid <input type="checkbox"/>	50 UNITS	Made up to 50ml with NaCl 0.9% (1 UNIT per ml)	IV				Prepared and administered by	Date	Time started	Time stopped
Humulin S <input type="checkbox"/>										

INTRAVENOUS SUBSTRATE FLUID PRESCRIPTION										
Date	Intravenous Fluid and Rate			Alternative Rate	Prescriber's Signature	Nurse's Signature				
	500 ml 0.9% NaCl + 5% glucose with 20 mmol/L KCl (0.15%) to run at 50 ml/hr									
	500 ml 0.9% NaCl + 5% Dextrose with 20 mmol KCl/L (0.15%) to run at 50 ml/hr									

PRESCRIPTION OF INTRAVENOUS MANAGEMENT OF HYPOGLYCAEMIA									
Date	Time	Preparation	Volume	Route	Duration	Prescriber's Signature	Print Name	Given by:	Time given
		20% Dextrose	100 mls	IV	15 mins				

CAPILLARY BLOOD GLUCOSE MONITORING												
Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00
CBG												
Insulin rate												
Blood ketones												
Initials												
Date	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
CBG												
Insulin rate												
Blood ketones												
Initials												

**GESTATIONAL DIABETES:**  
 STOP VRIII and IV Substrate Fluid regime once placenta is delivered

**TYPE 1 DM and INSULIN TREATED TYPE 2 DM**  
 Reduce the rate of VRIII by HALF once placenta is delivered.  
 Contact diabetes team to review on-going insulin requirements

Patients with type 1 DM on insulin pumps should be referred to the Diabetes Specialist Team  
 Maintain IV insulin infusion for 30 minutes after re-starting original insulin regime – IV insulin has a 5 minute half-life

**Ward**

**Consultant**

Admission Date:

Discharge Date:

Surname

First Name

**DIABETES CARE PLANNING DOCUMENT**

Hospital Number

Date of Birth / Age

For use to communicate care plans for **ALL** patients with diabetes during and after pregnancy  
Please complete **ALL** required information  
To be completed by the Diabetes Team

NHS Number

Address

**ANTENATAL INFORMATION**

**TYPE OF DIABETES**

<input type="checkbox"/> Type 1 DM	<input type="checkbox"/> Type 2 DM	<input type="checkbox"/> Gestational DM		
Age at diagnosis	Age at diagnosis	Diagnosed:	<input type="checkbox"/> OGTT: Date:	<input type="checkbox"/> OGTT: Date:
		_____ weeks	Fasting: mmol/L	Fasting: mmol/L
			2 hours: mmol/L	2 hours: mmol/L

PRE-PREGNANCY DIABETES MEDICATIONS			HbA1c Record		
Medication	Dose	Time	Baseline	Date:	Value: mmol/mol
			Additional HbA1c:	Date:	Value: mmol/mol
			Notes:	Date:	Value: mmol/mol
				Date:	Value: mmol/mol
				Date:	Value: mmol/mol
				Date:	Value: mmol/mol

COMPLICATIONS DEVELOPED OR EXACERBATED BY PREGNANCY	DELIVERY DATES		
	Expected date of delivery	Date for IOL	Date for C-section

**POST NATAL PLAN**

PROPOSED POST-PREGNANCY DIABETES MEDICATIONS (FOR TYPE 1 OR TYPE 2 DM)			DISCUSSED WITH PATIENT:			
Medications	Dose	Time	Issues:	Yes	No	Date discussed:
			Contraception/plan for further pregnancy			
			Arrangement for on-going diabetes care			
			OGTT arrangement			
			Lifestyle modifications			
			Completed by:			
			Name:	Designation:		Sign:

**POST NATAL CBG MONITORING**

Pre-existing diabetes: as per usual practice

GDM: pre-meal and 1 hour post-meal for up to 24 hours

High levels (>7 mmol/L pre-meal and <11.1 mmol/L post-meal) may need a diagnostic test for diabetes

Date:	Pre-breakfast	1 hr after breakfast	Pre-lunch	1 hr after lunch	Pre-evening meal	1 hr after evening meal	Pre-bed

MATERNAL OUTCOMES				POST NATAL OUTCOMES (tick ALL that applies)			
Delivery	Tick that applies	Complications	Tick ALL that applies	Stillbirth		Neonatal jaundice	
Normal		Pre-eclampsia		Baby weight >4 kg		Hypocalcaemia	
Assisted/forceps		Inadequately controlled glycaemia		Neonatal hypoglycaemia		Hypomagnesaemia	
C-section		Post-delivery hypoglycaemia		Admission to NICU		RDS	
Other:		Other:		Shoulder dystocia		Birth defects	
				Other:		Other:	