

**Intravenous Insulin Prescription and Fluid Protocol  
FOR MANAGEMENT OF STEROID HYPERGLYCAEMIA DURING PREGNANCY**

For use for ALL patients receiving Variable Rate Intravenous Insulin Infusion (VRIII) for the management of steroid hyperglycaemia during pregnancy  
 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		

<b>DOSING ALGORITHM</b> (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>			

<b>ALGORITHM GUIDE</b>	
<ul style="list-style-type: none"> <li><b>ALL</b> women with diabetes should have Capillary Blood Glucose (CBG) testing hourly whilst on VRIII for the management of steroid hyperglycaemia during pregnancy</li> <li>Start VRIII and Fluids with the first dose of steroids and continue for up to 24 hours after the last dose</li> </ul>	
<b>Algorithm 1</b>	Most women will start here
<b>Algorithm 2</b>	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)
<b>Algorithm 3</b>	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)	
<b>Target CBG level = 4 – 7.8 mmol/L</b>	
<b>Check CBG every hour whilst on VRIII</b>	
<b>Move to the higher algorithm</b> if the CBG is > target and is not dropping	
<b>Move to the lower algorithm</b> 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	<b>SYRINGE PREPARATION</b>			
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"/>										
<b>INTRAVENOUS SUBSTRATE FLUID PRESCRIPTION</b>										
Date	Intravenous Fluid and Rate		Alternative Rate	Prescriber's Signature	Nurse's Signature					
	500 ml 0.9% NaCl + 5% Dextrose with 20 mmol KCl/L (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									

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

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



