

Ward	Consultant	Admission Date
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Intravenous Insulin Prescription and Fluid Protocol FOR SURGERY/PRE-OPERATIVE/Nil by Mouth

For use for **ALL ADULT** pre-operative/Nil by Mouth patients receiving Variable Rate Intravenous Insulin Infusion (VRIII)
NOT FOR USE IN CHILDREN
NEVER use an IV syringe to draw up insulin
ALWAYS draw up insulin using an insulin syringe
ALWAYS continue subcutaneous basal insulin

Patient Details

Please attach addressograph label

Surname	First Name
Hospital Number	NHS Number
Address	Date of Birth / Age

Dosing Algorithm

Algorithm →	1	2	3	4
CBG Levels (mmol/L) ↓	Infusion Rate (Units/hr = ml/hr)			
<4	STOP INSULIN (recheck CBG in 10 minutes)			
4.0 - 6.0	0.2	0.5	1	1.5
6.1 - 6.6	0.5	1	2	3
6.7 - 8.2	1	1.5	3	5
8.3 - 9.9	1.5	2	4	7
10 - 11.6	2	3	5	9
11.7 - 13.2		4	6	12
13.3 - 14.9	3	5	8	16
15 - 16.6		6	10	20
16.7 - 18.2	4	7	12	24
18.3 - 19.9		8	14	28
>20	6	12	16	32
Signed				
Print Name				
Date				

Algorithm Guide

For use with **ALL ADULT** patients, pre-operative/ nil by mouth, with capillary blood glucose (CBG) persistently >14 mmol/l
FOR DKA, HHS and ACS- Please refer to separate chart

Algorithm 1 Starting point for most patients

Algorithm 2 For patients: Not controlled by algorithm 1
 On glucocorticoids
 Receiving > 80 units/day as an outpatient

Algorithm 3 For patients not controlled Algorithm 2
No patient starts here without medical review

Algorithm 4 For patients not controlled on algorithm 3
No patient starts here

Patients not achieving control with these algorithms need medical review

Conquest: Bleep 2681 or 2969 **EDGH:** Bleep 0964 or 0867

Out of Hours: Contact the medical SpR on call via switchboard

Target CBG Levels 4-12 mmol/l

Check CBG every hour whilst on IV insulin

Move Up if the CBG is > 12 mmol/l and has not reduced by at least 3mmol/L in 1 hour

Move Down when CBG is < 4mmol/L

Drug (approved name)	Dose	Volume	Route	Doctor's Signature	Date	SYRINGE PREPARATION			
						Prepared & administered by	Date	Time started	Time stopped
HUMAN ACTRAPID INSULIN	50 UNITS	Made up to 50ml with SODIUM CHLORIDE 0.9% (1 UNIT per ml)	IV						

INTRAVENOUS FLUID MANAGEMENT

Prescribe Intravenous fluids on the Intravenous Fluid Prescription Chart (see over)

Fluid of choice Glucose 10% with Potassium Chloride 0.15% (10mmol) **500ml** to run at 50ml/h **unless:**

Initial CBG > 12mmol/L	Start with 1 litre Sodium chloride 0.9% with Potassium Chloride 0.15% (20mmol) to run at 50ml/hr until CBG < 12mmol/l When CBG < 12mmol/l change to Glucose 10% with Potassium Chloride 0.15% (10mmol) 500ml to run at 50ml/h Do not change back if CBG subsequently exceeds 12mmol/L
Hyperkalaemia	Glucose 10% 1 litre to run at 50ml/hr
Fluid Overload	Glucose 20% 500ml to run at 25ml/hr

When eating and drinking consider restarting original insulin regimen
Maintain IV infusion for 30 minutes after re-starting original insulin regime—IV insulin has a 5 minute half life

