

Ward	Consultant	Admission Date
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Intravenous Insulin Prescription and Fluid Protocol FOR ACUTE CORONARY SYNDROME (ACS)

For use for **ALL ADULT** patients admitted with Acute Coronary Syndrome 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 with hyperglycaemia (defined as plasma blood glucose >11 mmol/l) and diagnosed with acute myocardial infarction (STEMI and NSTEMI) regardless of previous diabetic status
FOR DKA, HHS and Surgery/NBM – Please refer to separate chart

Algorithm 2 Starting point for Acute Coronary Syndrome (ACS)

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 team responsible for the patient

Target CBG Levels 4-11 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 30ml/h **unless:**

ACS with Initial CBG > 12mmol/L Start with **1 litre** Sodium chloride 0.9% with Potassium Chloride 0.15% (20mmol) to run at 30ml/hr until CBG < 12mmol/l
 When CBG < 12mmol/l change to Glucose 10% with Potassium Chloride 0.15% (10mmol) **500ml** to run at 30ml/hr
Do not change back if CBG subsequently exceeds 12mmol/L .

ACS with Hyperkalaemia Glucose 10% **1 litre** to run at 30ml/hr

ACS with Fluid Overload Glucose 10% with Potassium Chloride 0.30% (40 mmol) **1 litre** to run at 15ml/hr
(Add Potassium Chloride to the bag—see procedures for the prescribing, ordering, storage, supply and administration of strong potassium solutions)

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

