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

Dosing Algorithm

<table>
<thead>
<tr>
<th>Algorithm</th>
<th>CBG Levels (mmol/L)</th>
<th>Infusion Rate (Units/hr = ml/hr)</th>
<th>STOP INSULIN (recheck CBG in 10 minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&lt;4</td>
<td></td>
<td>STOP INSULIN (recheck CBG in 10 minutes)</td>
</tr>
<tr>
<td>2</td>
<td>4.0 - 6.0</td>
<td>0.2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>6.1 - 6.6</td>
<td>0.5</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>6.7 - 8.2</td>
<td>1.5</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>8.3 - 9.9</td>
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<td>3</td>
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<tr>
<td></td>
<td>10 - 11.6</td>
<td>2</td>
<td>3</td>
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<tr>
<td></td>
<td>11.7 - 13.2</td>
<td>4</td>
<td>4</td>
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<td>13.3 - 14.9</td>
<td>5</td>
<td>5</td>
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<tr>
<td></td>
<td>15 - 16.6</td>
<td>6</td>
<td>6</td>
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<tr>
<td></td>
<td>16.7 - 18.2</td>
<td>7</td>
<td>7</td>
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<tr>
<td></td>
<td>18.3 - 19.9</td>
<td>8</td>
<td>8</td>
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<tr>
<td></td>
<td>&gt;20</td>
<td>6</td>
<td>12</td>
</tr>
</tbody>
</table>

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
---------------------|------|--------|-------|-------------------|------|-------------------
HUMAN ACTRAPID INSULIN | 50 UNITS | Made up to 50ml with SODIUM CHLORIDE 0.9% (1 UNIT per ml) | IV | Prepared & administered by | Date | Time start-ed | Time stopped

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
<table>
<thead>
<tr>
<th>Date</th>
<th>Solution</th>
<th>Volume</th>
<th>Additives and dose</th>
<th>Rate</th>
<th>Duration</th>
<th>Route and line</th>
<th>Prescriber signature</th>
<th>Batch no.</th>
</tr>
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For information on dilutions, infusion rates, compatibilities and monitoring

Contact Medicines Information (13) 3785 / (14) 7067

Or consult the Injectable Medicines Guide