## Algorithm for the Treatment and Management of Hypoglycaemia in Adults with Diabetes Mellitus in Hospital

Hypoglycaemia is a serious condition and should be treated as an emergency regardless of level of consciousness. Hypoglycaemia is defined as blood glucose of less than 4.0mmol/L (if not less than 4.0mmol/L but symptomatic give a small carbohydrate snack for symptom relief).

For further information see the full guideline "The Hospital Management of Hypoglycaemia in Adults with Diabetes Mellitus" at www.diabetes.org.uk/joint-british-diabetes-society

## Mild Moderate Severe

Adults who are conscious, orientated and able to swallow

Give 15-20g of quick acting carbohydrate, such as 5-7 Dextrosol® tablets or 4-5 Glucotabs®

or

150-200ml pure fruit juice \*\*

or

60ml Glucojuice®
Test blood glucose level after 15 minutes and if still less than 4.0mmol/L repeat up to 3 times. If still hypoglycaemic, call doctor and consider IV 10% glucose at 600-800 ml/hr\*\*
or 1mg glucagon IM\*

Patient conscious and able to swallow, but confused, disorientated or aggressive

If capable and cooperative, treat as for mild hypoglycaemia
If not capable and cooperative but can swallow give 2 tubes of 40% glucose gel (squeezed into mouth between teeth and gums).
If ineffective, use 1mg glucagon IM\*
Test blood glucose level after 10-15 minutes and if still less than 4.0mmol/L repeat above up to 3 times. If still hypoglycaemic, call doctor and consider IV 10% glucose at 600-800ml/hr\*\*

Patient unconscious/fitting or very aggressive or nil by mouth (NBM)

Check ABC, stop IV insulin, contact doctor urgently

Give IV glucose over 15 minutes as

75ml 20% glucose or

150ml 10% glucose

or 1mg Glucagon IM \* (see below)

Recheck glucose after 10 minutes and if still less than 4.0mmol/L, repeat treatment

## Blood glucose level should now be 4mmol/L or above.

Give 20g of long acting carbohydrate e.g. two biscuits / slice of bread / 200-300ml milk/ next meal containing carbohydrate (give 40g if IM glucagon has been used)

For patients on enteral feeding tube Give 20g quick acting carbohydrate via enteral tube e.g. 50-70ml Ensure® Plus juce or Fortijuce® or 60ml Glucojuice®. Check glucose after 10-15 mins.

Repeat up to three times until glucose > 4.0mmol/L See full guideline for more info

If glucose now 4.0mmol/L or above, follow up treatment as described on the left. If NBM, once glucose >4.0mmol/L give 10% glucose infusion at 100ml/hr\*\* until no longer NBM or reviewed by doctor

**DO NOT** OMIT SUBSEQUENT DOSES OF INSULIN. CONTINUE REGULAR CAPILLARY BLOOD GLUCOSE MONITORING FOR 24 TO 48 HOURS. REVIEW INSULIN / ORAL HYPOGLYCAEMIC DOSES. GIVE HYPOGLYCAEMIA EDUCATION AND REFER TO DIABETES TEAM

\*GLUCAGON MAY TAKE UP TO 15 MINUTES TO WORK AND MAY BE INEFFECTIVE IN UNDERNOURISHED PATIENTS, IN SEVERE LIVER DISEASE AND IN REPEATED HYPOGLYCAEMIA CAUTION IN ORAL HYPOGLYCAEMIC AGENT- INDUCED HYPOGLYCAEMIA.

\*\*IN PATIENTS WITH RENAL/CARDIAC DISEASE, USE INTRAVENOUS FLUIDS WITH CAUTION, AVOID FRUIT JUICE IN RENAL FAILURE