

# Algorithm for the Management of Hypoglycaemia in Adults with Diabetes 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  $<4.0\text{mmol/L}$  (if not  $<4.0\text{mmol/L}$  but symptomatic give a small carbohydrate snack for symptom relief)

See full guideline "The Hospital Management of Hypoglycaemia in Adults with Diabetes Mellitus" at [www.diabetes.org.uk/joint-british-diabetes-society](http://www.diabetes.org.uk/joint-british-diabetes-society)

## Mild

Adults who are conscious, orientated and able to swallow

Check ABCDE, **stop** IV insulin (if running)  
Give 15-20g of quick acting carbohydrate, such as 5-7 Dextrosol<sup>®</sup> tablets or 4-5 Lift GlucoTabs<sup>®</sup> or 150-200ml pure fruit juice\*\*  
Test blood glucose level after 10-15 minutes and if still less than  $4.0\text{mmol/L}$  repeat treatment as above up to 3 times. If still hypoglycaemic, call doctor and consider IV dextrose or IM glucagon as per "severe" pathway

Check glucose after 10-15 minutes. Once blood glucose level are now  $>4.0\text{mmol/L}$  or above: Give 20g of long acting carbohydrate e.g. two biscuits, slice of bread, 200-300ml milk or next carbohydrate containing meal. Give 40g if IM glucagon has been used. For patients with enteral feeding tube give 20g quick acting carbohydrate via enteral tube e.g. 50-70ml Ensure<sup>®</sup> Plus juice or Fortijuce<sup>®</sup>.

## Moderate

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

Check ABCDE, **stop** IV insulin (if running)  
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). Test blood glucose level after 10-15 minutes and if still less than  $4.0\text{mmol/L}$  repeat as above up to 3 times. If still hypoglycaemic, call doctor and consider IV dextrose or IM glucagon as per "severe" pathway

## Severe

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

Check ABCDE, **stop** IV insulin, request medical support urgently.  
Give 100ml 20% dextrose or 200ml 10% dextrose over 15 minutes  
If IV access not possible use 1mg Glucagon IM\*  
Recheck glucose after 10 minutes and if still less than  $4.0\text{mmol/L}$ , repeat treatment as above

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

DO NOT omit subsequent insulin doses. Continue regular capillary blood glucose monitoring for 24-48 hours. Review insulin and/or oral hypoglycaemic doses. If previously on IV insulin, would generally consider restarting insulin once blood glucose  $>4.0$  but may require review of regimen. Give hypoglycaemia education and refer to inpatient diabetes team if required.

\*Glucagon may take up to 15 minutes to work and may be ineffective in treating hypoglycaemia in undernourished patients, in severe liver disease, sulfonylurea induced hypoglycaemia and in repeated hypoglycaemia.