

**SECTION 19: TREATMENT OF HYPOGLYCAEMIA**

A close-up photograph of various pills and capsules in different colors (white, yellow, orange, red, blue, black) and shapes (round, oval, rectangular, capsule). Some pills have markings like 'CSA', 'TRN', and '1P.M.'. The background is a light blue surface with some text like 'EVN' and '4P.M.-6P.M.' visible.

Formulary and  
Prescribing Guidelines



## **SECTION 19: TREATMENT OF HYPOGLYCAEMIA**

### **19.1 Treatment of Hypoglycaemia in adults with blood glucose less than 4mmol/L<sup>1,2,3</sup>**

Hypoglycaemia is defined as blood glucose of less than 4 mmol/L (if symptomatic but blood glucose is above 4mmol/L then give a small carbohydrate snack for symptom relief). If hypoglycaemia is suspected, check glucose levels before proceeding with treatment.

**Patients with hypoglycaemia should not be left alone until blood glucose reading is above 4mmol/L**

#### **MILD**

**Patient conscious, orientated and able to swallow**

Give 15-20g of quick acting carbohydrate  
 - 4-5 GlucoTabs (4g glucose per tablet)  
 - 1 bottle of Glucojuice  
 - Glucogel (10g glucose per tube)

Test blood glucose level are 10-15 minutes. If still less than 4mmol/L, repeat up to 3 times. If still no improvement after 45 minutes or 3 cycles of treatment, call doctor and consider Glucagon IM injection 1mg

#### **MODERATE**

**Patient conscious but confused / disorientated or aggressive and able to swallow**

If capable and cooperative, treat as for mild.

If not capable and cooperative but able to swallow, give 1.5-2 tubes of Glucogel (or place inside cheeks and rub cheeks from outside mouth)

Test blood glucose after 10-15 minutes. If still less than 4mmol/L, repeat above up to 3 times or if ineffective call doctor and use 1mg IM Glucagon injection

#### **SEVERE**

**Patient unconscious, fitting, or very aggressive or nil-by-mouth (NBM)**

Check ABC

Call for emergency assistance

Give 1mg IM Glucagon

Blood glucose level should now be above 4mmol/L. Give 20g of long acting carbohydrate e.g. 2 biscuits or a slice of bread or next meal if due. If IM glucagon has been used, give 40g of long acting carbohydrate in order to replenish glycogen stores.

Recheck glucose level after 10-15 minutes, it should now be above 4mmol/L. Follow up treatment as described on the left.

**DO NOT OMIT SUBSEQUENT DOSES OF INSULIN. CONTINUE REGULAR CAPILLARY BLOOD GLUCOSE MONITORING FOR 24-48 HOURS AND GIVE HYPOGLYCAEMIA EDUCATION OR REFER TO SPECIALIST**

A prescription is not required in order to administer glucagon in an emergency (Glucagon is subject to Schedule 19 regulation 238 of the Human Medicines Regulations 2012 (amended 2016)<sup>4</sup>. However it is good practice for a prescription to be written in advance should the need arise.

When administering oral glucose, give one preparation only e.g. Glucotabs or Glucojuice, not both.

If patients choose to use Lucozade<sup>®</sup> as their quick acting carbohydrate, ensure an adequate amount is consumed. From April 2017, the glucose content reduced from 17g in 100ml to 8.9g in 100ml. Therefore 15g of carbohydrate requires 170ml of Lucozade<sup>®5</sup>.

For further guidance on the management of hypoglycaemia, please see CG27 Drug allergy and medical emergency clinical guideline.

## 19.2 Signs and symptoms of hypoglycaemia<sup>3</sup>

- Trembling
- Palpitations
- Sweating
- Anxiety
- Tingling
- Nausea
- Difficulty concentrating
- Confusion
- Weakness, tiredness
- Drowsiness, dizziness
- Vision changes
- Difficulty speaking

## References

- 1) BNF Online Accessed October 2017  
[Type 1 diabetes in adults: diagnosis and management](#) NICE NG17, July 2016.
- 2) Summary of Product Characteristics for individual drugs Accessed via [www.medicines.org.uk](http://www.medicines.org.uk) October 2017.
- 3) The Hospital Management of Hypoglycaemia in Adults with Diabetes Mellitus. Diabetes UK; September 2013 <https://diabetes-resources-production.s3-eu-west-1.amazonaws.com/diabetes-storage/migration/pdf/JBDS%2520hypoglycaemia%2520position%2520%282013%29.pdf>
- 4) Human Medicines Regulations 2012 (amended 2016)
- 5) How will decreased sugar in Lucozade affect people with diabetes? March 2017 online at <https://www.diabetes.co.uk/blog/2017/03/how-will-decreased-sugar-in-lucozade-affect-people-with-diabetes/> accessed October 2017