

HYPOGLYCAEMIA

Hypoglycaemia

In a person with diabetes all documented blood glucose values below 4.0 mmol/L can be considered to represent hypoglycaemia and should not be tolerated if they occur often.

REMEMBER: 'FOUR IS THE FLOOR'

- Hypoglycaemia is a serious side effect of therapy which can (rarely) be fatal.
- Hypoglycaemia is less common in people treated with sulphonylureas than in those taking insulin, but may be more prolonged and more severe, particularly when associated with substantial alcohol consumption.
- Glibenclamide is particularly prone to causing hypoglycaemia and should not be used in elderly people.
- All patients started on sulphonylurea drugs should be warned about the possibility of hypoglycaemia and told to discontinue the tablets and seek medical advice should it occur.
- **The symptoms and signs of hypoglycaemia can be variable. A high index of suspicion is often required.**

Confirmation by blood glucose measurement is desirable, but glucose strips may be inaccurate at low blood glucose concentrations.

Treatment of Mild Hypoglycaemia

- Rapid acting carbohydrate i.e. glucose drink (fresh orange juice, ordinary Coke or lemonade, milk with 2 teaspoons sugar) 3 glucose tablets, 'fun-size' chocolate bar,
- Follow with slower acting carbohydrate i.e. sandwich, roll, toast, banana, apple, 2-3 biscuits or next meal if due.

Treatment of Moderate to Severe Hypoglycaemia

- HYPOSTOP is a thick glucose gel, which is easily absorbed through the buccal mucosa. It is indicated in confused or drowsy patients; **to avoid risk of choking this should not be used when consciousness is impaired.**
- Intravenous dextrose is the emergency treatment of choice in the unconscious patient (Min-I-Jet is a convenient formulation containing 50 mL of 50% dextrose in a preloaded disposable syringe).
- GLUCAGON (iv, im or sc) is also useful, in people taking insulin. It may take 10-15 minutes to act as it relies on breaking down hepatic stores of glycogen to glucose. Glucagon may be less effective in some people with depleted glycogen stores (e.g. in prolonged starvation or in alcoholics).
- Patients may experience abdominal pain/discomfort, nausea or vomiting following Glucagon administration.
- Once the person is able to swallow, additional carbohydrate should be given by mouth (see above).

If consciousness is not restored despite correction of hypoglycaemia, urgent referral to Accident and Emergency is indicated.

- Patients may occasionally have a high glucose for several hours after a "hypo" if it is treated overenthusiastically.
- Insomnia, vivid dreams, night sweats and/or morning headache may be symptoms of nocturnal hypoglycaemia.
- Hypoglycaemia may present as confusion in the elderly, or be misdiagnosed as cerebrovascular disease e.g. TIAs
- Insulin-induced hypoglycaemia has been implicated in causing convulsions in the young and in some unexplained deaths.