Prevention and appropriate management of hypoglycaemia in hospital

Do you have a hypo box?

Approximately 20% of patients in a hospital have diabetes and have potential to experience problems with hypoglycaemia. Hypoglycaemia – blood glucose level <4mmol/L – can occur in patients treated with insulin and medications, such as gliclazide, glipizide, glimepiride, glibenclamide. We recommend that ‘hypo boxes are available in hospital wards to promote access to prompt and effective treatment for all patients in the event of hypoglycaemia.

The Tayside Pharmaceutical Diabetes – think, check, act hypo box contains the following:

- Glucoboost® Glucose Gel (2 x 25g)
- Glucotabs® Orange (2 x 10 tablets)
- Glucojuice® Berry Burst Energy Drink (3 x 60ml)
- Hypoglycaemia treatment algorithm (www.qihub.scot.nhs.uk/safe/diabetes---think-check-act/resources.aspx)

How to order a supply of hypo boxes

Tayside Pharmaceuticals can produce and deliver hypo boxes to each NHS board. For more information and costs, please contact:

Ninewells Hospital
Tayside Pharmaceuticals
Dundee
DD2 9SY
Phone 01382 632183
Fax 01382 632060

Reordering hypo box contents

Each NHS board should check and agree in advance how to re-order and replenish stock for the hypo box. Local ordering may be done via PECOS or pharmacy department.

The following are available from AAH (a pharmaceutical wholesaler) on the following codes:

- GLU419Y = Glucoboost® Glucose Gel (2 x 25g)
- GLU323V = Glucotabs® Orange (2 x 10)
- GLU410E = Glucojuice® Berry Burst Energy Drink (3 x 60ml)

Glucose Oral Gel is on National Contract and may already be available through your supplies or pharmacy department.

Glucojuice® and Glucotabs® are not licensed medicines and are classed as food substances.

Practical points

- Treatment of ‘hypo’ should be easy and accessible to reduce risk of patient harm.
- There is room in the box to store additional treatment such as IV 20% glucose 100ml vial.
- GlucaGen® Hypokit should be stored in a fridge to maximise shelf life.
- The person who uses the hypo box should assume responsibility for restocking it.
- Check the box daily to ensure contents are complete, ‘in date’ and suitable for the ward environment.
- Refer to the Diabetes Specialist Team for advice and education for healthcare professionals and patients/carers as required.
- Learn more about hypoglycaemia at https://nhs.learnprouk.com. Find the elearning module by searching Prevention and appropriate management of hypoglycaemia in hospital.
Implementing the hypo boxes

Local agreement should be reached for implementing the hypo boxes. The NHSScotland QI Hub has developed an implementation plan which can be used as a guide to implement the hypo boxes in a structured manner.


Hypo box audit: After you have implemented the hypo boxes, use the following audit

We recommend you measure the impact of the hypo boxes on your ward. Here is a suggested structure:

**Think**

What has been the effect of implementing hypo boxes?

**Check**

In the event of hypoglycaemia (BG < 4mmol/L):

- the appropriate treatment for hypoglycaemia is available in ward
- the appropriate treatment for hypoglycaemia is offered to patient
- blood glucose level is rechecked within 15 minutes of treatment, and
- the cause of the hypoglycaemic episode is investigated, been identified and medication adjusted if necessary.

**Act**

Ask the first available member of the ward staff the following questions:

1. Do you have a hypo box in this area?  
   Yes = positive response

2. Where is the hypo box kept in the ward?  
   Able to locate = positive response

3. What is in the hypo box?  
   Recommended contents include Glucotabs®, Gluojuce®, glucose gel, hypoglycaemia treatment guideline – these four elements available = positive response

**Results/Expected outcome**

1. Each ward should have a fully stocked hypo box.
2. The first person approached in each ward should have knowledge of the hypo box and where it is kept.
3. Hypo box should be fully stocked with rapid acting glucose, glucose gel and treatment guideline

Remember to share results and identify any need for improvement.