Epsom and St Helier University Hospitals NHS Trust

# Guideline for the Use of Glucagon

- Glucagon is a hormone produced by the pancreas which releases glucose stored in the liver and raises the blood glucose level.
- Glucagon is given by injection if a child or young person is severely hypoglycaemic and unable to eat or drink, or unconscious.
- It will quickly raise blood glucose levels and reverse a severe hypoglycaemic episode in 10 – 15 minutes.
- The effect of the injection lasts for 30-60 minutes.
- 1 mg (1 mL) to be given to children over 8
- 0.5 mg (0.5 mL) to under 8's
- The dose for an adult is 1mg (the whole vial)
- *Glucagon is not dangerous if you accidentally overdose.*
- Always keep Glucagon available for emergency use and check the expiry date regularly.
- Glucagon will last for 18 months if kept in a cupboard, or 3 years if in the fridge.
- All carers should be taught how and when to use Glucagon.

## How to Give Glucagon

1. Flip the cap off the top of the vial.
2. Remove the rubber cap from the syringe needle.
3. Insert the needle into the rubber seal on the vial and depress the plunger, pushing the water into the vial.
4. Leave the syringe in place and gently shake the vial until the powder is dissolved fully.
5. Holding the syringe upright ensure that the plunger is fully depressed then gently withdraw the plunger, thereby drawing the fluid into the syringe.
6. Ensure all the air is expelled from the syringe by holding it upright and gently pushing the plunger until a bead of fluid appears at the tip of the needle.
7. Gently pinch up the skin on the thigh and insert the needle at a 90 degree angle, and deliver the dose by pushing the plunger down.
8. Full dose (1 mL) to be given to children over 8, half the dose (0.5 mL) to under 8's.
9. If your child vomits more than twice on recovering from the hypoglycaemic episode please bring them to A&E for review.
10. Once your child has recovered please telephone your diabetes team to discuss this episode as some changes may be needed to your child's treatment.

Chris Bowyer, Paediatric Diabetes Nurse Specialist, July 2007
References:
- Glucagen HypoKit, Novo Nordisk 2006
- Hypoglycaemia in Diabetes, F. Ackland et al,
- Hanas R (2007) Type 1 Diabetes in Children, Adolescents and Young Adults. Class Publishing

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