What is hydrocortisone?
Hydrocortisone is a corticosteroid (steroid) medication which is needed by children who have a cortisol deficiency. A cortisol deficiency is where the body doesn’t produce enough cortisol. Cortisol helps to control the level of sugar in our blood, helps our body to cope with stress and helps to control our blood pressure and circulation. Children with a cortisol deficiency need to take hydrocortisone medication every day to replace the cortisol their body should be making naturally.

If a child with cortisol deficiency becomes very stressed or unwell, their body isn’t able to produce more cortisol to help it cope with this and this can be life-threatening. When this happens they need to have an emergency injection of hydrocortisone (also called Efcortesol®) given into a muscle in their leg to increase the amount of hydrocortisone in their body quickly.

What are the benefits of the hydrocortisone injection?
The benefit of the hydrocortisone injection is that it increases the amount of hydrocortisone in your child’s body quickly so their body can cope.

What are the risks of the hydrocortisone injection?
The amount of hydrocortisone in the injection is unlikely to cause any side effects because it is calculated to replace the amount of cortisol your child should naturally be producing and is only given in an emergency. A list of possible side effects can be found in the manufacturer’s leaflet that comes with the medicine.

Are there any alternative treatments?
There are no other treatments in this emergency situation that will increase the level of hydrocortisone in your child’s body quickly.

What are the risks of not having the hydrocortisone injection?
If your child does not have the injection they can become seriously ill and their condition can be life-threatening.

When to give the injection
You will need to give the injection when your child has symptoms of moderate to severe low blood sugar. These symptoms are:

- Looking pale
- Being confused
- Not being able to concentrate
- Being unusually sleepy
Paediatrics

- Being aggressive
- Becoming unconscious
- Fitting

If you are not sure whether to give the injection or not it is better to give it as it will not be harmful to your child.

Your child’s blood sugar can become low if:

- They have been injured
- They are vomiting or have an infection
- They have missed meals
- They have been doing energetic activity for a long time
- They are severely upset or stressed

What you will need for the injection

You will need:

- A 2ml syringe
- 1 purple needle
- 1 green needle
- 1 bottle of Hydrocortisone (100mg in 1ml)

How to give the injection

1. Open the purple needle and the syringe.
2. Attach the purple part of the needle to the syringe.
3. Hold the bottle of hydrocortisone and tap the top of it.
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4. Open the bottle by breaking the top off.

5. Remove the shield from the purple needle.

6. Draw up the hydrocortisone into the syringe. If your child is:
   - **0 - 1 year old** draw up 0.25ml (25mg)
   - **1 - 5 years old** draw up 0.5ml (50mg)
   - **5 years +** draw up 1ml (100mg)

7. Remove any air from the syringe. To do this turn it so the needle is pointing upwards up, gently tap or flick the side of the syringe and pushing the air bubbles at the top of the syringe out with the plunger.

8. Make sure you have the right amount of hydrocortisone in the syringe for your child’s age.

9. Carefully put the shield back onto the needle and remove the needle from the syringe.
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10. Open the green needle and attach it to the syringe.

11. Find the site on your child’s leg to give the injection. This will be on the middle of the outer part of their thigh.

12. Push the needle into their skin and push the plunger all the way down.

13. Dispose of the used needles into a sharps box.

When you have given the injection
After you have given the injection your child needs to be taken to hospital quickly so that their condition can be monitored.

See your child’s GP as soon as you can afterwards to get a replacement injection.

Storing hydrocortisone for injection
Store the hydrocortisone at room temperature in a dry place, out of the sight and reach of children.

It may be a very long time before you have to use the injection in an emergency so please check the expiry date of your hydrocortisone and order replacements from your child’s GP before it has passed this date.

Further information
For more information about our hospitals and services please see our websites www.swbh.nhs.uk and www.swbhengage.com, follow us on Twitter @SWBHnhs and like us on Facebook www.facebook.com/SWBHnhs.
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Sources used for the information in this leaflet

• British National Formulary for Children, Section 6.3: Corticosteroids, accessed online July 2013

• Electronic Medicines Compendium, ‘Efcrtesol 100mg/1ml injection’, accessed online at www.medicines.org.uk/emc/medicine/10815, June 2013

• Speiser et al, ‘Pediatric Adrenal Insufficiency (Addison Disease) Treatment and Management’, February 2013


• Patient UK Professional Reference, Adrenal Crisis, April 2012