Diazoxide and chlorothiazide: information for families

Diazoxide is used to treat persistently low blood sugar levels (hypoglycaemia) caused by the body producing too much insulin (hyperinsulinism). Chlorothiazide is a diuretic, that is, a medicine that increases the amount of urine produced by the kidneys. This information sheet from Great Ormond Street Hospital (GOSH) describes diazoxide and chlorothiazide, which are usually prescribed together. It explains how they are given and some of their side effects. Each person reacts differently to medicines so your child will not necessarily suffer every side effect mentioned.

If you have any questions or concerns, please ask your doctor, nurse or pharmacist or telephone one of the contact numbers on the information sheet.

Diazoxide works by blocking the release of insulin by the body. Chlorothiazide is used in conditions where the body retains too much fluid, causing puffiness (oedema) especially around the eyes or affecting the hands or feet. Chlorothiazide is commonly prescribed alongside diazoxide, as a side effect of this medicine is fluid retention.

How are they given?

Diazoxide is given by mouth two or three times a day. Chlorothiazide is usually given twice a day.

Both are available as a suspension (liquid medicine). For guidance on how to give your child liquid medicines, please read our information sheet or watch our video podcast available on our website at www.gosh.nhs.uk/conditions-and-treatments/medicines-information or the GOSH YouTube™ channel.

Diazoxide and chlorothiazide suspensions are not readily available from your community pharmacy.

Neither medicine is available in the UK and so has to be imported from abroad by a licensed pharmaceutical import company. Supplies of these medicines may take longer than usual to obtain, usually several days.

- Currently, the Pharmacy department at GOSH obtains diazoxide suspension under the brand name of Proglycem®. The packaging gives the strength of the medicine as 50mg of active ingredient in 1ml of suspension, which is equivalent to 250mg in 5ml. It also contains preservatives, colouring, flavourings and sweetener.

There have been incidents when the wrong strength of other types of medicine have been prescribed so please check the label before giving it your child. If you are given the wrong strength of diazoxide, please inform the team immediately and do not give to your child.
Chlorothiazide suspension is supplied at GOSH in the strength of 250mg of active ingredient in 5ml of suspension. It also contains preservatives, colouring, flavourings and sweetener.

Older children may prefer to take diazoxide and chlorothiazide in tablet or capsule form. Talk to your doctor about this.

Who should not take these medicines?

People with the following conditions should discuss taking these medicines with their doctor.

- Hypersensitivy to diazoxide, chlorothiazide or any of their ingredients
- Pregnant, could be pregnant, trying to become pregnant or breastfeeding
- Existing heart or lung problems, such as pulmonary hypertension, meconium aspiration, respiratory distress, transient tachypnoea, pneumonia, sepsis, congenital diaphragmatic hernia or congenital heart disease.

What are the side effects?

Note: If your child shows any signs of breathing difficulties, such as flaring nostrils, unusual chest movements, rapid breathing, feeding difficulties or a blue tinge to their lips or skin, please see your doctor or take your child to your nearest Accident and Emergency (A&E) department.

If any of the side effects described below are severe or carry on for a long time, please tell your doctor.

**Diazoxide**
- Loss of appetite, nausea and vomiting
- Raised levels of uric acid in the blood, retention of salts and fluid, puffiness (oedema)
- High blood sugar levels
- Low blood pressure
- Irregular or fast heart rate
- Increased hair growth

**Chlorothiazide**
- Weakness and low blood pressure
- Mild upset stomach
- Changes in blood count

**Interactions with other medicines**

Some medicines can react with diazoxide and/or chlorothiazide, altering how well they work. Always check with your doctor or pharmacist before giving your child any other medicines, including herbal or complementary medicines. The following are known to react with diazoxide and/or chlorothiazide so your child will require regular careful monitoring.

**Diazoxide**
- Anti-hypertension medicines, including ACE inhibitors, angiotensin II receptor agonists, beta blockers, calcium channel blockers and some diuretics
- Alcohol
- Anti-depressants
- Anti-epileptics including phenytoin
- Anti-psychotics

**Chlorothiazide**
- Anti-diabetic medicines
- Anti-hypertension medicines as above
- Cholestyramine and colestipol resins
- Corticosteroids
- Lithium
- Non-steroidal anti-inflammatory drugs (NSAIDs)

**Important**

- Keep medicines in a safe place where children cannot reach them
- Keep the suspension, tablets or capsules at room temperature, away from bright light or direct sunlight and away from heat. Do not store in a fridge.
• If you forget to give your child a dose and it is within a few hours of when the dose was due, give it as soon as you remember. Otherwise, do not give this dose but take the next dose when it is due. Do not give a double dose.
• If your child vomits straight after taking the dose, inform your local doctor or nurse, as your child may need to take another one
• If your doctor decides that your child should stop taking these medicines or they pass the expiry date, return any remaining suspension to your pharmacist. Do not flush it down the toilet or throw it away.

Useful numbers
• GOSH switchboard: 020 7405 9200
• Pharmacy Medicines Information: 020 7829 8608 (Monday to Friday from 9am to 5pm)
• Endocrinology Clinical Nurse Specialist: ext 0360 or bleep 1016

Disclaimer
Please read this information sheet from GOSH alongside the patient information leaflet (PIL) provided by the manufacturer. If you do not have a copy of the manufacturer’s patient information leaflet please talk to your pharmacist. A few products do not have a marketing authorisation (licence) as a medicine and therefore there is no PIL.

For children in particular, there may be conflicts of information between the manufacturer’s patient information leaflet (PIL) and guidance provided by GOSH and other healthcare providers. For example, some manufacturers may recommend, in the patient information leaflet, that a medicine is not given to children aged under 12 years. In most cases, this is because the manufacturer will recruit adults to clinical trials in the first instance and therefore the initial marketing authorisation (licence) only covers adults and older children.

For new medicines, the manufacturer then has to recruit children and newborns into trials (unless the medicine is not going to be used in children and newborns) and subsequently amend the PIL with the approved information. Older medicines may have been used effectively for many years in children without problems but the manufacturer has not been required to collect data and amend the licence. This does not mean that it is unsafe for children and young people to be prescribed such a medicine ‘off-licence/off-label’. However, if you are concerned about any conflicts of information, please discuss with your doctor, nurse or pharmacist.