



# Asparaginase: information for families

This information sheet explains what asparaginase is, how it is given and some of the possible side effects. Each person reacts differently to medicines, so your child will not necessarily suffer from every side effect mentioned. If you have any questions or concerns, please speak to your doctor, nurse or pharmacist.

Please read this in conjunction with any patient information leaflet provided by the manufacturer. However, please note that this information sheet explains about the use of asparaginase in children and young people so may differ from the manufacturer's information.

## What is asparaginase?

Asparaginase is a medicine which is given at the same time as chemotherapy drugs. It is an enzyme which deprives leukaemia cells of essential nutrients so that they die.

## How is it given?

It is usually given in one of two ways which will be specified in your child's treatment protocol:

- By injection into a muscle (intramuscularly or IM).
- By injection into a vein (intravenously or IV) through a cannula, central venous catheter or implantable port.

## What are the side effects?

### Rash

Asparaginase may cause an itchy rash. Please tell your doctor or nurse if your child develops a rash. They will advise you on the appropriate treatment to use.

### Fever or raised temperature

This may occur after asparaginase is given but it does not usually last for long.

### Temporary effect on liver function

Asparaginase can cause some mild changes to how well your child's liver works. This will return to normal when the treatment is finished. Blood tests (LFTs) may be taken to monitor your child's liver function.

### Allergic reaction

Some people receiving asparaginase have an allergic reaction to the medicine. This reaction may be mild to severe.

Signs of a **mild** allergic reaction include skin rashes and itching, high temperature, shivering, redness of the face, a feeling of dizziness or headache. If you see any of these signs, please report them to a doctor or nurse.

Signs of a **severe** allergic reaction include any of the above, as well as shortness of breath. If you are in hospital and your child shows signs of a severe allergic reaction, call a doctor or nurse immediately. If you are at home and your child

shows signs of a severe allergic reaction, call an ambulance immediately.

### **Increased tendency for blood clotting within blood vessels**

For two to three weeks after receiving asparaginase, there may be a slight increased risk of blood clot formation within blood vessels.

This risk may be further increased if your child and/or close family members have had a previous history of blood clots, for instance, deep venous thrombosis (DVT) or pulmonary embolism (PE). It is important to let the doctors know of such past history before receiving asparaginase.

The risk may also be increased if the child has a central venous catheter. Therefore, in some children we delay the insertion of central venous catheter until a few weeks after starting treatment.

If blood clots occur, your child will be given medicines to thin the blood and dissolve the clot.

### **Bleeding and bruising**

With asparaginase your child's blood may take more or less time to clot than normal. Therefore, there may be a slight chance of your child bruising or bleeding more easily than normal. This is less common than blood clot formation. Please report any bruising or bleeding to your child's doctor.

## **Useful numbers**

- GOSH switchboard 020 7405 9200
- Pharmacy medicines information 020 7829 8608 (Monday to Friday from 9am to 5pm)

## **Pancreatitis**

For two to three weeks after receiving asparaginase, there may be a small chance of pancreatitis (inflammation of pancreas). This side effect is uncommon. The pancreas is a gland behind the stomach which helps to digest food and regulate the body's blood sugars. Inflammation of this gland can result in severe abdominal pain and nausea and vomiting.

If this occurs, your child needs to be admitted to hospital for treatment. The majority of children with pancreatitis recover without long term problems.

## **Interactions with other medicines**

Some medicines can interact with asparaginase, altering how well it works. Always check with your doctor or pharmacist before giving your child any other medicine, including medicines on prescription from your family doctor (GP), medicines bought from a pharmacy (chemist) or any herbal or complementary medicines.

## **Important**

Your child must remain in the hospital or outpatient department for at least one hour after an injection of asparaginase to check for any allergic reaction.

## **How to store asparaginase**

If your community team are giving your child asparaginase at home, keep it in a refrigerator (2°C to 8°C). Ensure the medicine is brought to room temperature before giving it to your child.

## 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.