



Anthracyclines (daunorubicin, doxorubicin, idarubicin and mitoxantrone): information for families

This information sheet from Great Ormond Street Hospital (GOSH) explains what anthracyclines are, how they are 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 anthracyclines in children and young people so may differ from the manufacturer's information.

What are anthracyclines?

These are chemotherapy medicines used to treat certain types of cancer and leukaemia.

How are they given?

Each drug is given as an infusion into a vein (intravenously or IV), through a cannula, central venous catheter or implantable port.

What are the side effects?

Nausea and vomiting

Anti-sickness drugs can be given to reduce or prevent these symptoms. Please tell your doctor or nurse if your child's sickness is very bad or continues for more than a few days.

Discoloured urine

Daunorubicin, doxorubicin and idarubicin may make your child's urine turn an orange or red colour for a day or two after the drug is given. Mitoxantrone can make the urine turn blue or

green. This is due to the colour of the medicines. It is temporary and has no lasting effects.

Bone marrow suppression

There will be a temporary reduction in how well your child's bone marrow works. This means they may become anaemic (reduced red blood cells), bruise or bleed more easily than usual, and have a higher risk of infection.

Your child's blood counts will be checked regularly to see how the bone marrow is working. Please tell your doctor if your child seems unusually tired, has bruising, bleeding or any signs of infection, especially a high temperature.

Mouth sores and ulcers

You will be given advice about appropriate mouth care including a copy of our leaflet. If your child complains of having a sore mouth, please tell your doctor or nurse.

Changes in heart function

These medicines may affect the muscle of your child's heart and how well it works. Before having any of these medicines, your child will have a test called an echocardiogram (ECHO). This will also be used to monitor the heart during the course of treatment and at long-term follow up clinics. The total amount of these drugs will be carefully calculated to minimise the risk of heart damage.

Red flush or ache along vein

If these medicines are given into a vein using a cannula, a red flush may appear along the path of the vein. This is temporary and will fade over time. This is not the same as the medicines leaking out of the vein (extravasation) – see below.

Changes in nails

Your child's nails may become darker. Your child's nail growth will return to normal in the future.

Inflammatory skin reaction

Sometimes these medicines may cause your child's skin to become red and sore in the areas that have already been treated with radiotherapy.

Interactions with other medicines

Some medicines can react with anthracyclines, altering how well they work. 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

If these medicines leak into the tissues underneath your child's skin, they can damage the tissue in this area. This is called extravasation.

- If given through a cannula and your child complains of stinging and burning around the cannula, please tell your doctor or nurse immediately.
- If given through a central venous catheter or implantable port and your child complains of pain around their chest or neck, please tell your doctor or nurse immediately.

Useful numbers

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

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.