PROPRANOLOL FOR HAEMANGIOMAS OF INFANCY

What are the aims of this leaflet?

To explain how propranolol is used to treat haemangiomas (commonly known as strawberry birth marks) in infants.

What is propranolol and how does it work?

Propranolol belongs to a group of drugs known as beta-blockers, which are used to treat high blood pressure and fast heart rate. They work by slowing the heart and narrowing blood vessels. This is helpful in haemangiomas, as it reduces the blood flow through them, fading the colour and making them softer. Also, the cells that cause the growth of the haemangioma are affected by propranolol so that the haemangioma starts to reduce in size. Research is under way to find out exactly how propranolol works to reduce the growth and size of haemangiomas.

What skin conditions are treated with Propranolol?

Infantile haemangioma can be treated with propranolol. Infantile haemangiomas consist of small, immature blood vessels, and usually appear in the first few days or weeks of life as one or several raised red areas on the surface of the skin, or as bluish swellings arising deeper in the skin.

Haemangiomas grow rapidly in the first 3 months of life and usually stop growing between 6 and 12 months of age. They shrink slowly over several years.

Most haemangiomas cause no problems and do not require treatment; however they need to be treated if they develop in a site that interferes with a vital function such as breathing, feeding or vision. Occasionally haemangiomas, especially those in the nappy area, can ulcerate, which may be very painful and will require treatment.
Steroid treatment by mouth was used as a first line treatment in the past, however since 2008 propranolol has been found to be a safer and more effective treatment for haemangiomas, and now steroids are only occasionally required.

Will Propranolol cure my child's skin condition?

Propranolol helps to reduce the growth, size and redness of haemangiomas faster than would occur without treatment. Untreated haemangiomas also shrink and fade on their own over several years. Propranolol does not always alter the final outcome as its main role is to limit growth and encourage shrinkage in the early stages.

How often and when should my child take propranolol?

Propranolol is usually started as soon as a haemangioma causes, or is thought likely to cause, a problem. It is given 2 or 3 times a day by mouth until the haemangioma is thought no longer likely to interfere with a vital function and will not show further growth when treatment is stopped. This is usually around one year of age.

What dose should my child take?

Your child’s dose is worked out depending on their weight, and may be increased depending on the response to treatment. This means that the dose will change over time as your child grows. Propranolol for babies is normally supplied as a 1mg/ml liquid (that is 1ml of liquid contains 1mg of propranolol).

Propranolol is also available in other strengths, so you should always check the strength with your pharmacist before using the medication. Ideally any other strength should be avoided to minimise any risk of the wrong dose being given to your child.

If you have any queries about your child’s propranolol dose, please talk to your nurse, doctor or pharmacist.

How long will my child need to take propranolol before I see an effect?

Early effects on haemangiomas can often be seen in a matter of a few days, but treatment usually needs to continue until at least 12 months of age to ensure that the haemangioma will not re-grow. Propranolol should not be stopped suddenly, so you will be advised to give your child medicine on a gradually reducing dose schedule, usually over a period of 2 weeks.
What are the side effects of propranolol?

Most infants do not appear to have any side effects from propranolol in the doses used for treating haemangiomas. However propranolol may rarely be associated with the following side effects:

- slow heart rate (bradycardia).
- low blood pressure (hypotension).
- narrowing of the airways, leading to wheezing and coughing (bronchospasm).
- reduced blood flow to the hands and feet, making them feel cold and turn a blue colour (peripheral vasoconstriction).
- weakness and fatigue, showing as floppiness and lack of interest in surroundings.
- sleep disturbance.
- low blood sugar (hypoglycaemia).

If you have any concerns about these side effects, please discuss them with your doctor, nurse or pharmacist.

How will my child be monitored for the side effects of propranolol treatment?

At present it is usual for infants to have measurement of heart rate and blood pressure for 2 hours in hospital after the first dose, and if the dose is doubled or trebled. It is likely that assessment and monitoring requirements will change with increasing experience with the use of propranolol for haemangiomas.

Can my child have immunisations (vaccinations) whilst on propranolol?

Yes, all immunisations may proceed as normal.

Does propranolol affect future fertility, or future pregnancy in female infants?

No.

Can my child take other medicines at the same time as propranolol?

Some medicines, particularly those for asthma, may interact with propranolol so it is important to check with your doctor before giving other medicines.
Where can I get more information about propranolol?

http://www.dermnetnz.org/vascular/haemangioma.html
http://www.gosh.nhs.uk/gosh_families/information_sheets/haemangioma_propanolol/haemangioma_propanolol_families.html

For details of source materials used please contact the Clinical Standards Unit (clinicalstandards@bad.org.uk).

This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists: individual patient circumstances may differ, which might alter both the advice and course of therapy given to you by your doctor.

This leaflet has been assessed for readability by the British Association of Dermatologists’ Patient Information Lay Review Panel

BRITISH ASSOCIATION OF DERMATOLOGISTS
PATIENT INFORMATION LEAFLET
PRODUCED DECEMBER 2011
UPDATED DECEMBER 2014
REVIEW DATE DECEMBER 2017