

Infantile haemangiomas and propranolol

What is an infantile haemangioma?

Infantile haemangiomas (*he-man-gee-omas*) are common type of birth marks usually known by their bright red strawberry-like appearance in early infancy. They appear in the first few weeks of life and grow for up to 6 to 9 months. Haemangiomas can be superficial (bright red and on the skin surface), deep (a bluish swelling) or mixed.

They grow rapidly in the first 3 months of age, increasing in size and sometimes in redness. It is unusual for haemangiomas to grow after 6 to 10 months of age, when most haemangiomas tend to have a 'rest period' and then begin to shrink.

Most haemangiomas do not cause any problems and do not require treatment; however, a small percentage, have the potential to cause harm.

Occasionally the skin surface can ulcerate (develop a sore). When this happens they can become painful and can bleed, particularly if knocked or if it becomes infected. This is most common with haemangiomas in the nappy area and on the lip but can happen with any haemangiomas.

Are there any serious complications?

Sometimes haemangiomas can threaten to block vital structures such as:

- **Eyes**

Haemangiomas closing the eye or even pressing on the eye in the early weeks of life can produce a permanent visual impairment.

- **Mouth / lips / nose**

Large haemangiomas around the mouth or lips or nose can lead to breathing difficulties or affect feeding.

- **Airway**

Haemangiomas over the lower cheek and chin (often called the beard distribution) can block the airway.

What is the cause of the haemangioma?

The cause of haemangiomas is unknown but there is thought to be a relationship with the placenta.

What is propranolol?

Propranolol is a beta-blocker medication which has been available for many years, mostly used in children with heart problems and adults with high blood pressure.

It has 3 methods of action; it constricts the blood vessels, reduces growth factors which are making the blood vessels divide and it accelerates the "going away" process in older children.



Are there any serious complications?

Propranolol is mostly tolerated very well but side effects can occur. You should report any of the following to your doctor as the dose of propranolol may need to be altered or, on very rare occasions, stopped.

- Bradycardia (slow heart rate) hypotension (low blood pressure). This may make your child dizzy or faint.
- Bronchospasm (temporary narrowing of the airway, leading to difficulty breathing, wheezing and coughing).
- Peripheral vasoconstriction (reduced blood flow to the extremities, such as fingers and toes, making them feel cold and turn a blue colour).
- Weakness and fatigue, showing as floppiness and disinterest in surroundings.
- Sleep disturbance.
- Hypoglycaemia (low blood sugar).

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

What is the dosage?

Baby will start on 1.5mg/kg/day which is divided into 3 doses.

After 48 hours of commencing propranolol the dose will increase to 2mg/kg/day.

When baby is older than 4 months (and is gaining weight normally) your doctor may consider changing the dosing to twice per day.

How do I give the medication?

- The medication is given 3 times per day. It should ideally be spaced out with 6-8 hours between doses (but baby does not need to be woken to give).
- It is best to give it at the same time as a feed (to lower the risk of low blood sugar).
- If baby vomits following the medication do not give until it is next due (do not repeat).
- If a dose is accidentally omitted (forgotten) do not try to catch up the dose but give the next dose as usual when due.
- If baby is unwell and has vomiting, diarrhoea or is not taking feeds the propranolol may need to be stopped until the baby is well. Discuss with your GP or contact the Dermatology clinical nurse specialist if concerned.
- If baby has a respiratory illness with a wheeze (noisy breathing), the propranolol may need to be stopped until the child recovers. Discuss with your GP or contact the Dermatology clinical nurse specialist if concerned.

How many hospital appointments will there be?

Once started on treatment, your baby will return for an appointment after 1 week to be reviewed. If progressing well, your baby will then be reviewed after 4 weeks and then approximately every 3 months until treatment is stopped.

Your GP can help monitor the baby, especially if you come from regional or country areas and distance is an issue.

