Propranolol for the prevention of migraine

General principles – when to use preventative treatments in migraine

Preventative treatment should be offered to patients with 4 or more migraine days a month as this frequency is associated with significant disability.

Acute treatment on more than 2 days per week is associated with medication overuse, which renders preventative treatment less effective. It is therefore important to address this issue when considering preventative treatments.

Preventative medications must be titrated slowly to an effective or maximum tolerable dose and continued for at least 6-8 weeks to adequately assess effect.

Consider gradual withdrawal after 6-12 months of effective prophylaxis.

Introduction to the use of propranolol as a migraine preventative

The aim of this leaflet is to provide brief overview on the use of propranolol for the prevention of migraine. It is not intended as a substitute for the ‘patient information’ leaflet supplied with the tablets, which provides more a comprehensive overview and should always be read before taking medication. While this treatment option has placebo control data and has been recommended in international guidelines for headache it does not have a specific licence for a headache condition.

Other useful sources of information include:
- [https://www.medicines.org.uk/emc/](https://www.medicines.org.uk/emc/)
- [https://www.nhs.uk/medicines/](https://www.nhs.uk/medicines/)
It is important to ensure that any new medication does not cause a significant interaction with any others that may be taken.

What is propranolol?

Propranolol is a member of a group of medicines known as Betablockers. These are widely used for heart problems e.g. high blood pressure. Propranolol is licensed for the preventive treatment of migraine.

What is the dose of propranolol?

Propranolol should be started at 10 mg twice a day and gradually increased in 10-20mg twice a day increments every week as per the treating doctor / nurse advice. The maximum dose used in trials has been between 120-240 mg total daily dose.

In practice an adequate response is usually seen between 80mg – 160mg total daily dose, and doses higher than this are often poorly tolerated.

How long should I take Propranolol for?

Preventative medications must be titrated slowly to an effective or maximum tolerable dose and continued for at least 6-8 weeks to adequately assess effect.

Consider gradual withdrawal after 6-12 months of effective prophylaxis (we advise discussion with a medical/nursing/pharmacist advisor)
Does propranolol have any side effects?

The main side effects of propranolol are fatigue (tiredness) and coldness of the hands and feet. It may also cause impotence, sleep disturbances, depression, changes in heart rhythm (including slow heart rate or heart block), low blood pressure on standing, fainting, difficulty breathing, dry mouth, rash which can be itchy, worsening of psoriasis, muscle fatigue.

Who cannot take propranolol?

You should not take propranolol if you:

- Have heart failure
- Have chest pain
- Have breathing difficulties, asthma or chronic bronchitis or a history of wheezing or asthma
- Have Raynaud’s disease (poor circulation causing cold hands)
- Have liver or kidney problems
- Have thyrotoxicosis (a condition caused by an overactive thyroid gland).
- Have diabetes
- Suffer from allergies
- Have psoriasis

Pregnancy and breastfeeding:

Propranolol is not recommended during pregnancy or whilst breastfeeding. You should not take propranolol if you are pregnant, planning a pregnancy or breastfeeding. The best use of medicines in pregnancy (BUMPS) website may also be a useful reference [http://www.medicinesinpregnancy.org/Medicine--pregnancy/](http://www.medicinesinpregnancy.org/Medicine--pregnancy/)