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Syncope Trust And Reflex anoxic Seizures®

Midodrine

This information sheet is designed to provide information to patients with disorders of the autonomic system who have been prescribed midodrine.

Midodrine is a drug that can be used to treat people with disorders of the autonomic nervous system. This includes severe low blood pressure, syncope (fainting) and postural tachycardia syndrome (PoTS). It is used only after other measures have been ineffective in controlling symptoms (e.g. high fluid intake, additional salt in some patients, counter manoeuvres, small frequent meals, gentle exercise, compression tights etc as appropriate).

Midodrine hydrochloride is the generic (chemical) name but some manufacturers use their own brand names for the same drug which include Bramox, Gutron, Proamatine and Orvaten. It comes in 2.5, 5 and 10mg tablets. In 2015, Bramox became licensed for use in adults with severe orthostatic hypotension (low blood pressure on standing up) in the UK. It is not yet licensed for use in PoTS or in children. Bramox is available in 2.5 and 5 mg tablets.

How does midodrine work?

Midodrine is an α1 adrenergic agonist drug, meaning that it stimulates receptors that noradrenaline normally works on. After swallowing, it is quickly converted into another chemical that causes blood vessels to narrow, thereby increasing blood pressure. Indirectly, it can also reduce heart rate. It reaches peak concentration in the blood about an hour after swallowing a tablet, but the effect is brief, with levels falling to half about two to three hours later. The brain has a protective mechanism that stops some drugs from entering and very little midodrine crosses this blood-brain barrier. It is removed from the body by the kidneys.

How do I take midodrine?

As its effect is short lived, midodrine needs to be taken frequently throughout the day. It works best if the first dose is taken an hour or so before getting out of bed, then at three to four hourly intervals throughout the day. The last dose normally being taken at least four hours before going to bed. In some patients a specialist may recommend gradually increasing the dose to a maximum of 30mg per day.

What are the risks of taking midodrine?

The main risk of taking midodrine is 'supine hypertension'. This is excessively high blood pressure on lying down. One advantage of midodrine is that it only works for a short time. Not taking it within four hours of going to bed reduces the risk of supine hypertension. Symptoms of supine hypertension may include palpitations (awareness of the heart beat), pounding in the ears, unexpected headache or blurred vision, although it can occur with no symptoms. If you develop these symptoms, you should stop midodrine and inform the prescribing doctor. In addition, midodrine should not be continued if it causes high or unstable daytime blood pressure.

Who should not take midodrine?

Midodrine should not be prescribed in patients with the following conditions: severe heart disease, hypertension, peripheral vascular disease (narrowing of the arteries in the legs), enlarged prostate gland causing difficulty passing urine, urinary retention (when the bladder can't empty properly), phaeochromocytoma (adrenaline-producing tumour), overactive thyroid, narrow-angle glaucoma, allergy to any component of the product. It should be used with caution in kidney disease, diabetes and cor pulmonale (large right ventricle due to severe lung disease).

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What are the side effects of midodrine?

Common - Tingling and itching of skin-especially on the scalp. This may improve with time. Goose bumps and feeling cold are also common.
Less common - Supine hypertension, urinary retention (inability to pass urine), slow or fast heart rate, palpitations, irregular heart rhythm.
Rare - Nausea, indigestion, headache, agitation.

Interactions with other medicines

Midodrine should be used with caution in combination with the following drugs: digoxin, beta blockers (e.g. bisoprolol, atenolol, propranolol), steroids (prednisolone, fludrocortisone), alpha adrenergic receptors stimulators (phenylephrine, methoxamine), tricyclic antidepressants, antihistamines, thyroid hormones, MAO inhibitors, dihydroergotamine rauwolfia alkaloid medicines (reserpine), atropine, some decongestants (including over the counter preparations) and appetite suppressants. Midodrine should not be given to people taking alpha blockers (phentolamine, prazosin). Ensure the prescribing doctor is made aware of all drugs (prescribed and over-the-counter) you are taking before starting Midodrine.

Is midodrine safe to take in pregnancy?

Ideally, patients who are taking midodrine and considering having a baby should discuss this with their doctor before becoming pregnant. It is recommended that a patient taking midodrine should not become pregnant and, in the event of pregnancy occurring accidentally, then the drug should be discontinued as soon as possible. The effects of midodrine in the unborn baby are unknown because there have been no studies investigating the use of midodrine in pregnancy. It is advised that it should be used only upon the advice of a specialist during pregnancy and breastfeeding, and with extreme caution.

What does 'unlicensed' mean?

To obtain a marketing authorisation (previously called a product license) a drug has to undergo many clinical studies in the research laboratory and then in patients. There have been a few studies involving use of midodrine in patients with severe orthostatic hypotension and therefore it does have marketing authorisation in the UK, USA and some European countries for use in orthostatic hypotension only. It is not licensed for any other condition and is therefore unlicensed (or 'off license') for use in PoTS. However, it can still be prescribed by a doctor if they have considered alternatives and are satisfied that there is sufficient evidence or experience to demonstrate its safety and effectiveness.

How do I obtain midodrine?

As midodrine is unlicensed in the UK for use in PoTS, it is usually initially recommended by a hospital doctor with experience in using this drug. This is usually a hospital consultant. Increasingly, the consultant is asking the GP to continue prescribing the midodrine.

GPs are often advised by their pharmacists to decline to prescribe midodrine unless they are experienced in its use. However, if the consultant provides a 'shared care agreement' (a document which provides advice to the GP about how to prescribe, side effects, monitoring and how to contact the hospital team if there are problems), then the GP may be willing to issue your prescriptions. Occasionally NHS hospital doctors will issue a prescription for midodrine which can be dispensed by the hospital pharmacy. If it is prescribed during a private consultation with a consultant, they will issue a private prescription or write to an NHS doctor asking if they would be willing to issue an NHS prescription.

It can take one to two weeks for a pharmacy to obtain stocks of midodrine, so do not leave it to the last minute to order your repeat prescription.

How to store midodrine

Midodrine should be stored out of reach of children and used before its expiry date. It should be kept in its original packaging to protect it from light, and stored below 25˚C.

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