MSA Trust

Factsheet

An Overview of Parkinson's Medication used in Multiple System Atrophy

Introduction

This factsheet is for people with Multiple System Atrophy (MSA), their carers and family members. It provides information about the drugs most commonly used to help manage some movement symptoms of MSA. Whilst there is no specific treatment for MSA some of the symptoms of MSA may be managed by medications used for Parkinson's Disease. They are not effective for everyone with MSA but they may be beneficial for some, particularly those who have Parkinson's-type symptoms (sometimes called Parkinsonism).

The cause of Parkinson's symptoms

The cause of Parkinson's is still unknown but it occurs due to a loss of nerve cells in the brain. The lost nerve cells are responsible for producing a chemical in the body called dopamine. Dopamine is a movement chemical, specifically for the initiation of movement and smooth movement. A common treatment of the symptoms of Parkinson's is to give medication to replace or try to increase dopamine levels. The increased levels of dopamine allow greater control over bodily movement. These drugs work well in Parkinson's and can have some benefit in MSA.

Types of Parkinson's drugs used in MSA

Levodopa

Levodopa aims to reduce the symptoms of Parkinson's by increasing the levels of dopamine in the brain. Levodopa is a chemical building-block that your body converts into dopamine.

Levodopa can come in unbranded forms called co-benelodopa, co-careldopa or co-careldopa plus entacapone. There are also branded forms which include the names Madopar, Caramet, Sinemet, Stalevo, among others.

Levodopa is available in tablet (standard and prolonged release), dispersible tablet and liquid form. Often this is started in low doses and built up gradually. The aim of this is to get to a level where a person is experiencing maximum benefit and minimal side-effects from their medication.

Timings of levodopa should be spread evenly throughout the waking day, so that the benefit is felt during the waking hours. You may be advised to take levodopa at least 30 minutes either side of eating to maximise its absorption through the bowel.

The aim of levodopa is to improve your movement and reduce stiffness and slowness. Side effects of levodopa include dizziness or lightheadedness as it can lower blood pressure and headaches, which usually improve over time. It can also cause nausea, which usually passes as you get used to levodopa. It may also turn your urine, sweat or saliva a dark colour (dark brown or red). Your doctor may give a short course of anti-sickness medication (called domperidone or ondansetron) if needed. An ECG should be performed prior to starting domperidone to rule out any potential (rare) heart rhythm issues. Anyone with a cardiac history may not be prescribed domperidone. If you are prescribed any other anti sickness medications please discuss with your pharmacist, as they can make your MSA symptoms worse

Dopamine Agonists

Dopamine agonists are a medication that act like dopamine to stimulate your nerve cells.

Unbranded and branded names include Pramipexole, Mirapexin, Ropinerole, Requip, Rotigotine, Neupro.

They can come in tablet and capsule form (both standard and prolonged release), skin patches and injection or infusion. The injection and infusion options are not usually used for people with MSA as they can dramatically lower blood pressure.

Some people with MSA may be offered dopamine agonists by their Specialist if their Specialist feels that the individual may benefit from the medication. Doses are started low and increased if needed. The benefit and side effects will be assessed by the Specialist.

Advantages of dopamine agonists include improving movement symptoms and increasing the benefits of levodopa if used together. In addition they can give potential benefits for non-movement symptoms such as pain and mood. Disadvantages may include increase in sleepiness and fainting and an increase in impulsive and compulsive behaviour (ICD), which is discussed further below.

MAO-B Inhibitors

MAO-B inhibitors improve the symptoms of Parkinsonism by blocking an enzyme called monoamine oxidase type B (MAO-B), which breaks down dopamine in the brain. By blocking the breakdown of dopamine, your brain can make best use of the dopamine available and this can reduce movement symptoms.

Generic and unbranded names include Rasagiline, Azilect, Selegiline, Eldepryl and Zelapar.

They are available in tablet form and can be taken alone or in combination with other Parkinson's medications. Advantages include improvement in Parkinson's symptoms and improving the effect of other Parkinson's medications.

Disadvantages include that they cannot be used in combination with some antidepressants, they cannot be used with some decongestant or cold remedies and they can increase the side effects of levodopa, such as dyskinesia (uncontrolled, involuntary movements - seen rarely in MSA) and nausea. Side effects should be discussed with your Specialist, who can advise on changes to medications as necessary.

COMT Inhibitors

COMT inhibitors work by blocking an enzyme that breaks down levodopa. This increases the amount of dopamine available in the brain to improve movement symptoms caused by Parkinsonism.

COMT inhibitors are given in a combination tablet that includes levodopa and a COMT inhibitor. Generic and brand names include Entacapone, Comtess, Co-careldopa plus entacapone, Stalevo, Sastravi, Stanek, Tolcapone and Tasmar. These medications are used less commonly in MSA.

Advantages include the fact that COMT inhibitors increase the effectiveness of levodopa, giving longer relief from symptoms and reducing 'wearing on' and 'wearing off' effects of levodopa. These drugs may reduce the dose of levodopa needed. Side effects can include liver damage (rarely), dyskinesia, nausea, diarrhea, confusion, sleepiness and they can discolour your urine.

Glutamate Antagonist - Amantadine

There is only one Glutamate antagonist available; it is called Amantadine (or Symmeterel) and is used as an anti-viral and anti-Parkinson's medication. It is not known exactly how the drug works for Parkinsonism. It is thought it may affect how the brain reacts to certain chemicals. It is available in tablet, capsule and syrup form.

In MSA, it is often used to treat tiredness and fatigue and can also help with tremor and stiff muscles and can be given alongside other Parkinson's medications. Advantages include an improvement in movement. Disadvantages can include blurred vision, fainting, dizziness and confusion, swollen hands and ankles and skin reactions.

Finding the best medication

MSA affects everyone differently. Because of this there is no "correct" dose or medication. Finding the best medication, dose and timing may take some time and will need some changes along the way. Because the symptoms of MSA can change over time, your medication will sometimes have to change too. Medication will be prescribed on an individual basis. You can discuss Parkinson's medication with your Neurologist, Specialist, Parkinson's Nurse Specialist (PNS) or Pharmacist - it is important not to make any changes to your own medication without talking to your Specialist or PNS first.

Side-effects of Parkinson's Medications

It is not possible to list all potential side-effects of Parkinson's medications here. Your Specialist will be able to offer individual advice.

Common side effects that can happen with Parkinson's medications include involuntary movements called dyskinesia, an increase in daytime sleepiness or falling asleep suddenly and an increase in symptoms of postural hypotension and lowering of blood pressure.

ICD (impulsive or compulsive behaviour) can sometimes be a side effect of Levodopa medication- however, it is less common in MSA than in Parkinson's.This is where a person is unable to resist the temptation to perform an act that may be harmful to themselves or others.

ICD can manifest as a compulsive urge to gamble, shop, binge eat, an increase in sexual thoughts and behaviour, excessive time spent on hobbies, increased internet or smartphone use or taking too much medication. This is more common in those that have had a prior tendency towards addictive behaviour.

It is important that family members are aware of the potential for ICD to occur as the person experiencing it may not realise there is a problem. Speak to a member of your Specialist team (this could be your Neurologist, Parkinson's Nurse Specialist and MSA Health Care Specialist) who can advise on medication changes to reduce side-effects.

If you should develop any side effects from medication do discuss this with your Specialist or PNS before stopping the medication. **It can be dangerous to stop taking Parkinson's medication suddenly. Generally, these medications should be reduced gradually with the advice and guidance of your specialist team.**

Additional medication

Other medical conditions may affect your Parkinson's symptoms and also how effective the Parkinson's drugs can be. Some medications for other conditions can make Parkinson's symptoms worse:

- Digestive system problems, such as constipation (which is a common symptom in MSA) may affect how well your drugs enter your bloodstream and may reduce the effectiveness of the medication
- Parkinson's drugs can interact with drugs used for other conditions. Herbal or complementary treatments or over-the-counter medications may also impact on Parkinson's drugs
- If you want to take a non-prescription medicine, check with your pharmacist first that it is safe
- Anti-sickness, travel remedies, decongestants or cold remedies can affect some Parkinson's medications. If you need to use these, check with your pharmacist which one is safest to use.
- Be aware that infections (such as urinary and chest infections) can make Parkinson's drugs not work as well as they should. You need to contact a Doctor as soon as an infection is suspected so that antibiotics can be obtained quickly.

Your Specialist, Parkinson's Nurse Specialist or pharmacist can give you advice on specific interactions with different medications.

Drugs to avoid

Some drugs can bring on Parkinson's-like symptoms or react badly with Parkinson's drugs and should be avoided unless they are recommended by a specialist.

These are some (but not all) of the drugs to avoid in MSA:

- Metoclopramide (Maxalon)
- Prochlorperazine (Stemetil)
- Chlorpromazine (Largactil)
- Fluphenazine (Modecate)
- Fluphenazine with nortriptyline (Motival)
- Perphenazine (Fentazin/Triptafen)
- Trifluoperazine (Stelazine)
- Flupenthixol (Fluanxol/Depixol)
- Haloperidol (Serenace/Haldol)

If you have any queries about medication, contact your Specialist, Parkinson's Nurse Specialist or pharmacist. Your GP can also seek advice from your Specialist team if they have any questions or concerns about your Parkinsons medications.

Medications top tips

- Keep a record of all the medications you are taking, including dose and timings and take this to any healthcare appointments you have.
- Make a note of any effects or side-effects you experience, especially if there is a change to your medication regime. This will help your Specialist team understand how the medications are working for you.
- Ask your Specialist team any questions you may have and ask for written information if it helps.

Further information

Parkinson's UK

Website contains detailed information about Parkinson's drugs.

www.parkinsons.org.uk/about-parkinsons/treating-parkinsons.aspx and https://www.parkinsons.org.uk/sites/default/files/2018-09/Drug%20treatments%20for%20Parkinsons%20WEB.pdf

The electronic Medicines Compendium (eMC)

Contains accessible information about medicines licensed in the UK and patient medicines guides.

W: www.medicines.org.uk

NHS Choices – Medicines

Information about medications and side effects and contains an online search facility for finding your local pharmacist.

W: https://www.nhs.uk/medicines/

The Trust's contact details

We have MSA Health Care Specialists that support people affected by MSA in the UK and Ireland. If you would like to find the MSA Health Care Specialist for your area, contact us on the details below or use the interactive map here – https://www.msatrust.org.uk/support-for-you/hcps/.

MSA Trust, 51 St Olav's Court, Lower Road, London SE16 2XB

T: 0333 323 4591 | **E**: support@msatrust.org.uk | **W**: www.msatrust.org.uk

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References for this information sheet are available by contacting support@msatrust.org.uk

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