

The management of Parkinson's disease: Which treatments to start and when?

Most patients with Parkinson's disease are diagnosed by a Neurologist or Geriatrician and their treatment is directed by their specialist clinician. However, General Practitioners and the wider primary care team play an important role in helping to manage all aspects of care for the patient.

Motor symptoms

e.g. Tremor, bradykinesia, gait abnormalities

Pharmacological treatments, along with physiotherapy, occupational and speech therapy and exercise rehabilitation, can be reasonably expected to allow patients to achieve good symptom control for at least ten years after diagnosis.

The first-line initial pharmacological treatment for motor symptoms is:

- For patients aged > 40 years – levodopa + carbidopa or levodopa + benserazide (dopamine precursor + decarboxylase inhibitor)
- For patients aged < 40 years – ropinirole or pramipexole (dopamine agonists)

As symptoms progress for all patients, combination treatment with levodopa, a decarboxylase inhibitor and a dopamine agonist is often needed.

Other medicines used in the management of motor symptoms include:

- Selegiline – for patients with mild motor symptoms, to delay the need for initiating levodopa
- Amantadine – usually used in conjunction with levodopa to control dyskinesias
- Entacapone and tolcapone – usually used in patients with advanced Parkinson's disease in conjunction with levodopa to prevent "end of dose" deterioration
- Benzotropine – for treatment of levodopa-resistant tremor in younger patients

Non-motor symptoms

e.g. Autonomic dysfunction, psychiatric symptoms and cognitive impairment

Non-motor symptoms are responsible for a substantial component of the morbidity in patients with Parkinson's disease. The first consideration should be to optimise the patient's dopaminergic treatment, and therefore increase "on" time, as some of the symptoms are associated with the

"off" state. However, many of the non-motor symptoms of Parkinson's disease do not respond to dopaminergic medicines and additional treatment options may be required, including the "off-label" use of some medicines.

Non-pharmacological treatments such as dietary adjustments (e.g. thickened fluids, increasing fluid intake, small frequent meals), physiotherapy and counselling are likely to provide benefit for patients and should be initiated in the first instance.

Additional pharmacological treatments for non-motor symptoms include:

- Fludrocortisone acetate for postural hypotension
- Atropine eye drops (1%) given sublingually to reduce drooling
- Domperidone to alleviate symptoms due to gastroparesis, such as nausea, bloating and gastrointestinal pain
- Tricyclic antidepressants, carbamazepine or gabapentin for chronic neuropathic pain
- Tricyclic antidepressants or selective serotonin inhibitors for depression
- Oxybutynin to reduce urinary urgency, frequency and incontinence
- Methylphenidate can be useful to reduce daytime fatigue

If a patient experiences a sudden deterioration in their condition, rather than a gradual worsening of both motor and non-motor symptoms, consider adherence to treatment and other potential causes such as urinary tract infection.

Peer group discussion points

- What role do you currently take in managing patients with Parkinson's disease in your practice?
- Has reading this article given you more confidence in managing the care of a patient with Parkinson's disease?
- Do you have a clear understanding of the medicines and non-pharmacological methods used to manage the motor symptoms of patients with Parkinson's disease? What about the non-motor symptoms?
- Would you feel comfortable adjusting doses of dopaminergic medicines if required in a patient with Parkinson's disease?
- Were you familiar with the "off-label" use of some medicines for the non-motor symptoms of Parkinson's disease? If not, will reading the article change your approach to managing these symptoms?

