

PARKINSONS DISEASE GUIDELINES

OVERVIEW

Parkinson's disease (PD) is a progressive neurological condition. It affects about 1:1000 people overall but about 1:100 of the elderly and up to 1:10 of nursing home residents. The disease affects around 120,000 people in the UK. PD is progressive, disabling and distressing. Huddersfield and Calderdale NHS Foundation Trust have developed these guidelines to assist you in managing patients with this complex disease and to help towards achieving the outcomes set out in "The NHS Outcomes Framework 2011/12".

DIAGNOSIS STAGE: PARKINSON'S DISEASE GUIDELINES

PD Suspected

Features of PD are:

- Slowness
- Stiffness
- Tremor (at rest, usually starts unilaterally)
- Loss of balance

Check prescription for antidopaminergics

e.g. Prochlorperazine (Stemetil), Metoclopramide, Haloperidol and other anti-psychotics

Refer untreated to specialist PD clinic (NICE Guidelines 2006)

New referrals should be seen within 6 weeks

<60 years

Neurologist

>60 years

Physician or neurologist specialising in PD

Diagnosis of PD

No

Consider referral to therapies:

Physiotherapy
Occupational therapy
Speech and language therapy
Aids and adaptations
Access to advice & education groups for newly diagnosed patients via consultant or PDNS

Yes

Consider referral to Parkinson's Disease Nurse Specialist (PDNS) for regular access to specialist support and advice
Telephone **01422 222568**

Refer on to multi-disciplinary team for intervention as required

Monitor for disease progression and consider additional pharmacological and non-pharmacological interventions

MAINTENANCE AND COMPLEX STAGE: PARKINSON'S DISEASE GUIDELINES

MOTOR COMPLICATIONS

Freezing/festination
End of dose deterioration
On/Off phenomenon
Dyskinesias
Dystonia

PSYCHOLOGICAL COMPLICATIONS

Anxiety levels
Depression
Panic attacks
Paranoia
Psychosis

NON-MOTOR COMPLICATIONS

Pain
Dysphagia
Postural instability
Sexual dysfunction
Fatigue
Bowel & bladder problems

Consider referral for:
Physiotherapy
Occupational therapy
Speech/Language therapy
Financial support

Referral to PDNS (new referrals should be seen within 2 weeks- NICE 2006)

Refer to specializing consultant

Regular review and monitoring of patients

USEFUL CONTACTS

PDNS (Parkinson's Disease Specialist Nurse): 0844 8110101

Parkinson's Disease Society Helpline: 0808 8000303

WEBSITES:

Parkinson's Disease Society

www.parkinsons.org.uk

REFERENCES:

National Institute for Health & Clinical Excellence (NICE) Guideline 35: Parkinson's Disease in Primary and Secondary Care June 2006.
Parkinson's Aware in Primary Care. A guide for Primary Care Teams developed by: The Primary Care Taskforce for the PDS (UK) 1000.
Wirral University Teaching Hospital NHS Foundation Trust, Parkinson's Disease Guidelines. RECOVER, Movement Disorders, 2010.

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Review Date:

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DRUG THERAPY – FOR SPECIALIST INITIATION ONLY

1st line Levodopa. Co-beneldopa; co-careldopa

- Relief of bradykinesia, improvement of ADLS
- Low acquisition cost
- TDS administration
- Slow titration to therapeutic dose to avoid adverse effects
- Long term: can lead to motor fluctuations and dyskinesias

1st line Dopamine agonists eg ropinirole, rotigotine, pramipexole

- Long acting, some once daily preparations available
- Lower incidence of long term motor fluctuations and dyskinesias
- Less effective for bradykinesia and improving ADLS
- Adverse effects: hallucinations, low blood pressure, sudden onset of sleep, confusion in older patients

1st line MAOBI's. Selegiline

- Once daily administration
- Possible disease modifying effect
- Adverse effects: confusion, postural hypotension (especially with selegiline)
- Mild efficacy
- Interactions with SSRIs
- Rasagiline may be used for patients intolerant of or unable to take other MAOBI's

1st line Anticholinergics. Trihexyphenidyl (benzhexol)

- Used in young patients where tremor predominates
- Benzhexol most potent
- Adverse effects: dry mouth, urinary retention, constipation, blurred vision, impaired cognitive function
- Rarely indicated in older patients due to risk of confusion, orphenadrine may occasionally be used

Inadequate symptom control/unable to tolerate dopamine agonists:
Replace with/add in levodopa

Later disease with motor fluctuations

- Increase frequency of levodopa
- Add long acting dopamine agonist eg. rotigotine to levodopa, may require dosage adjustment of levodopa
- Add entacapone (COMTI) to levodopa (can use combination product). Modest effect in most patients
- Add MAOBI. Often poorly tolerated
- Propranolol/metoprolol: reduce postural and action tremor
- Use duodopa where severely handicapped by motor fluctuations, despite above

Severe dyskinesias consider amantadine:

- Relieves dyskinesias
- Rapid response
- Effects mild and unsustained
- Confusion with higher doses

Apomorphine is used for a number of indications

1. For patients with persistent motor fluctuations who are still responsive to dopaminergics, who have failed to respond to sufficiently or are intolerant of, or cannot take because of contraindications other oral agents e.g. dopamine agonists, MAOBI and COMTI; AND who are prepared to consider an injectable preparation and have the necessary support to make that possible. This will follow an apomorphine trial to establish responsiveness and minimum effective doses (in most cases).
2. For patients who are unable to take oral medications- usually temporarily e.g. for surgery or ITU etc. but who are dopaminergic responsive.
3. For patients with neuroleptic malignant syndrome.

Prescribing Information for Non-Motor Features of Parkinson's Disease

This guidance provides information on the drug choices that will minimise interactions and adverse effects in patients already receiving treatment for Parkinson's Disease (PD) Treatment for complex PD-related problems should be initiated in secondary care.

Problem	Recommendation	Cautions
Depression. The clinical features may overlap with motor features of PD	Best choice: SSRIs, particularly sertraline (NB increased risk of serotonin syndrome with selegiline & rasagiline)	Avoid: Tricyclics – poorly tolerated as they can worsen cognitive problems, constipation and autonomic dysfunction
Psychosis and hallucinations. Do not treat mild psychotic symptoms if patient and carer can tolerate them	Best choice: Quetiapine (start at 25mg – usual dose 75mg) (NB risk of extra-pyramidal side effects and stereotypical movements)	Avoid: Haloperidol and all other antipsychotics (quetiapine & clozapine are the safest from the PD point of view). If clozapine is needed, a psychiatry referral is necessary.
Anxiety and panic attacks	Best choice: Psychological management. Short term tranquillisers (lorazepam) <u>only</u> if essential.	Avoid antipsychotics. Benzodiazepines may antagonise levodopa (BNF)
Moderate dementia and Lewy body dementia	Best choice: Rivastigmine (Specialist initiation only). May improve cognition, hallucinations & delusions but tremor may deteriorate.	Avoid in patients with heart block. Caution with asthma and COPD and in patients with gastric or duodenal ulcers
Sleep disturbance	Take a full sleep history – there are many causes of poor sleep in PD. Provide sleep hygiene and relaxation advice. Zopiclone or lorazepam can be used short-term if the problem is not due to a movement disorder.	Refer back to specialist service if PD medication may need adjusting. Long acting dopamine agonist e.g. Rotigotine may help if sleep disturbance is due to poor PD control at night.
Daytime hypersomnolence	This is common particularly with dopamine agonists. Modafinil may be considered	Avoid in moderate to severe uncontrolled hypertension and ischaemic heart disease
Nocturnal akinesia	Refer back to specialist service as medication may need adjusting or modified release preparations or dopamine agonists may be appropriate	
Nausea and vomiting. Side effect of PD medication (however tolerance can develop)	Best choice: Domperidone or Cyclizine Rarely, use of ondansetron is justified	Avoid: Metoclopramide, prochlorperazine and other phenothiazines (dopamine antagonists)
Constipation	Best choice: more fibre in diet, increase mobility and fluid intake. Then a mild laxative such as docusate.	Avoid strong laxatives that may cause faecal incontinence but can use senna, Movicol, suppositories and enemas if needed.
Gastro-oesophageal reflux	Best choice: H2 blockers and proton pump inhibitors	
Dysphagia	May require investigation: refer to Speech and Language. If severe weight loss, refer to dietetics service. Levodopa helps with dysphagia so co- beneldopa dispersible could be helpful.	Dopamine agonists do not help with dysphagia. NG or PEG feeding may be required.
Falls (Very common)	Conduct a full falls assessment (NICE CG21). Consider prescribing alendronic acid with calcium and vitamin D to reduce fracture risk	Be particularly aware of detection of postural hypotension and consider treatment for osteoporosis
Sialorrhoea	Hyoscine patches can be used but only if patient is not confused. The PD society suggests sucking clove sticks. Sucking other things can help.	Hyoscine can exacerbate urinary retention. Causes confusion, drowsiness and dizziness. Atropine 1% eye drops twice daily in the mouth can be used.
Urinary dysfunction	Refer patients with refractory or persistent bladder problems to a urologist as a comprehensive assessment is needed. Solifenacin is least likely to cause anticholinergic effects	Anticholinergics should only be used with caution as they cross the blood- brain barrier

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Problem	Recommendation	Cautions
Erectile dysfunction	Phosphodiesterase inhibitors plus lots of support and advice.	
Orthostatic hypotension. Side effect of levodopa	Increase fluids and sodium intake. Refer back to specialist service. Prescribe fludrocortisone (salt retaining steroid). Can use support tights.	Reduce or eliminate antihypertensive medication.
Sweating and flushing attacks	May respond to propranolol, starting with 10mg tds and increasing as necessary and if tolerated	Not to be given to patients with contraindications to betablockers

Drugs that interact with Parkinson's medication	Iron and pyridoxine interact with Madopar. Give at different times of day. Benzodiazepines may antagonise the effects of levodopa
When to refer back to the specialist service	Poorly controlled disease. Specific PD related problems Adverse effects such as dysphagia, weight loss, severe hallucinations NB: When initiating changes in PD medication, the specialist service will prescribe the first two months supply
Other points of contact for medication advice	PD specialist nurses Medicines Management Team