STANDARD OPERATING PROCEDURE

Diagnosis and Management of Parkinsonism

Special Region (1)

Union of Myanmar

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Approved by: Internal Medicine Unit

1. Purpose

To provide a standardized approach for diagnosis and management of Parkinsonism.

2. Scope

Applies to physicians managing movement disorders in SR-1.

3. Definition

Parkinsonism = Bradykinesia + ≥ 1 of the following:

- Tremor
- Rigidity
- Postural instability

4. Classification

Primary: Idiopathic Parkinson's disease (PD) - most common

Parkinson-plus syndromes:

- Multiple system atrophy (MSA)
- Progressive supranuclear palsy (PSP)
- Corticobasal degeneration (CBD)

Secondary causes:

Cause	Examples
Drug-induced	Antipsychotics, metoclopramide

Vascular	Multi-infarct state
Infectious	HIV, TB, encephalitis
Toxin	MPTP, CO
Metabolic	Wilson's disease

5. Diagnosis

- Clinical diagnosis is key
- Bradykinesia + tremor/rigidity
- Red flags: early falls, poor levodopa response

Investigations

Essential:

- Clinical diagnosis (most important)
- Medication review

Optional:

- MRI brain → exclude structural lesions
- Wilson's disease screen (young patients)
- Thyroid function
- B12 level

6. Severity Assessment

Stage	Clinical Description
Early	Unilateral symptoms
Moderate	Bilateral, no balance impairment

Advanced	Postural instability
Severe	Dependent, wheelchair-bound

7. Management

7.1 General Principles

- No cure → symptomatic management
- Individualize treatment based on age, severity, and functional impairment
- Start treatment when **symptoms affect quality of life**

7.2 Non-Pharmacological Management

- Physiotherapy (gait, balance)
- Speech therapy (dysarthria, dysphagia)
- Occupational therapy
- Fall prevention
- Nutritional support

7.3 Pharmacological Management

7.3.1 First-Line Therapy

Levodopa + Carbidopa (Most effective)

Drug	Dose
Levodopa/Carbidopa	Start 100/25 mg TDS
Titration	Increase every 3-7 days
Max	Based on response

Indications:

- Age >60
- Moderate-severe symptoms

7.3.2 Alternative Initial Therapy (Younger Patients)

Drug Class	Examples	Notes
Dopamine agonists	Pramipexole, Ropinirole	Less motor complications
MAO-B inhibitors	Selegiline, Rasagiline	Mild disease

7.3.3 Adjunct Therapy (Advanced Disease)

Drug	Role
COMT inhibitors (Entacapone)	Reduce wearing-off
Amantadine	Dyskinesia control
Anticholinergics	Tremor (young only)

7.3.4 Dosing Table

Drug	Starting Dose	Notes
Levodopa/Carbidopa	100/25 mg TDS	First-line
Pramipexole	0.125 mg TDS	Young patients
Selegiline	5 mg OD	Mild disease
Amantadine	100 mg BD	Dyskinesia

7.4 Management of Complications

7.4.1 Motor Complications

Problem	Management

Wearing-off	Increase frequency, add COMT inhibitor
Dyskinesia	Reduce levodopa, add amantadine
On-off fluctuations	Adjust dosing schedule

7.4.2 Non-Motor Symptoms

Symptom	Treatment
Depression	SSRIs
Psychosis	Quetiapine, Clozapine
Constipation	Laxatives
Orthostatic hypotension	Fluids, fludrocortisone

7.5 Drug-Induced Parkinsonism

- Stop offending drug
- Switch to: Quetiapine / Clozapine (if antipsychotic needed)
- Short-term anticholinergics may help

7.6 Surgical Options (If Available)

- Deep brain stimulation (DBS)
    - Indication: Severe motor fluctuations, drug-refractory tremor

8. Monitoring

Parameter	Frequency
Symptom control	Every 1-3 months
Drug side effects	Each visit

Functional status	Regular
Falls risk	Every visit

9. Referral

- Diagnostic uncertainty
- Poor response

10. Safety

- Avoid abrupt levodopa withdrawal

11. References

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