

Medications for Chronic Neurologic Disorders

Selegiline

Indications:

- Parkinson's disease (used as a first-line medication).
- Slows progression by preserving dopamine.

Adverse Effects:

- Nausea, dizziness, orthostatic hypotension.
- Hypertensive crisis when taken with tyramine-rich foods.

Contraindications:

- Avoid with meperidine, other MAO inhibitors, or tyramine-rich foods.
- Caution in clients with severe cardiovascular or renal disease.

Client Education:

- Eliminate aged cheeses, smoked meats, and red wine from the diet to prevent hypertensive crisis.
- Monitor for signs of improved motor function (reduced tremors and rigidity).
- Does not improve speech, drooling, or bladder function.

Administration:

- Administer in the morning to prevent insomnia.
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Pyridostigmine

Indications:

- Myasthenia gravis (improves muscle strength).

Adverse Effects:

- Diarrhea, nausea, bradycardia, abdominal cramping.
- Overdose risk: cholinergic crisis (excess salivation, muscle twitching, respiratory distress).

Contraindications:

- Avoid in clients with mechanical intestinal or urinary obstruction.

Client Education:

- Take 45 minutes before meals to maximize swallowing ability.
- Maintain a strict schedule to prevent myasthenic or cholinergic crisis.
- Report severe diarrhea or bradycardia.

Administration:

- Oral form preferred; adjust timing carefully around meals.
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Phenytoin

Indications:

- Seizure disorders (tonic-clonic and focal).

Adverse Effects:

- Gingival hyperplasia, constipation, sedation, ataxia, diplopia.
- Severe: Stevens-Johnson syndrome, toxic epidermal necrolysis (TEN).

Contraindications:

- Avoid with alcohol or certain medications (antacids within 2-3 hours).
- Monitor closely with hepatic impairment.

Client Education:

- Maintain good oral hygiene and regular dental visits.
- Shake suspension before use; take with meals.
- Do not discontinue abruptly to avoid seizures.
- Notify the provider if a rash develops.
- Avoid switching brands without consulting the provider.
- Urine discoloration (pink/red-brown) is harmless but expected.

Administration:

- Take at the same time daily for consistent levels.
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Neostigmine

Indications:

- Myasthenia gravis (improves muscle strength).

Adverse Effects:

- Diaphoresis, bradycardia, excessive salivation.
- Risk of cholinergic crisis with overdose.

Contraindications:

- Avoid in clients with bowel or bladder obstruction.

Client Education:

- Take before meals to reduce chewing/swallowing difficulties.
- Adhere to a strict schedule to avoid myasthenic crisis.
- Avoid antihistamines; they worsen symptoms.

Administration:

- Administer as prescribed and monitor for adverse effects.
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Lamotrigine**Indications:**

- Seizure disorders, bipolar disorder.

Adverse Effects:

- Skin rashes, including life-threatening Stevens-Johnson syndrome.

Contraindications:

- Hypersensitivity to lamotrigine.
- Caution in clients with hepatic/renal impairment.

Client Education:

- Report any rash immediately to the provider.
- Take exactly as prescribed; avoid abrupt discontinuation.

Administration:

- Start with low doses and increase gradually to reduce the risk of rashes.
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Levodopa/Carbidopa**Indications:**

- Parkinson's disease (reduces tremors, rigidity, and bradykinesia).

Adverse Effects:

- Nausea, vomiting, dyskinesia, orthostatic hypotension.

Contraindications:

- Caution in narrow-angle glaucoma or history of melanoma.

Client Education:

- Take with food to reduce nausea but avoid high-protein meals (interferes with absorption).
- Monitor for dyskinesia and report worsening symptoms.

Administration:

- Administer at consistent times; effects may take weeks to fully manifest.
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Donepezil**Indications:**

- Alzheimer's disease (improves cognition).

Adverse Effects:

- Bradycardia, diarrhea, nausea, syncope (risk for falls).

Contraindications:

- Avoid in clients with severe hepatic/renal impairment.

Client Education:

- Administer at bedtime to improve cognition and reduce daytime sedation.
- Monitor for syncope and diarrhea.
- Report any falls or worsening symptoms to the provider.

Administration:

- Once daily, preferably at night.
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This study guide highlights key information for each medication to help you confidently prepare for the NCLEX exam. Always ensure a thorough understanding of these details when administering medications in practice.