Parkinson's Disease

Fact Sheet

About Parkinson's Disease
Parkinson's disease is a progressive, incurable neurological disorder associated with a loss of dopamine-generating cells in the brain that results in a complex array of symptoms. It is primarily associated with progressive loss of motor control, but there are many more non-motor symptoms. Parkinson's impacts an estimated one million people in the United States.

Critical Clinical Care Considerations
• To avoid serious side effects, Parkinson's patients need their medications on time, every time — do not skip or postpone doses.
• Write down the exact times of day medications are to be administered so that doses are given on the same schedule the patient follows at home.
• Do not substitute Parkinson's medications or stop levodopa therapy abruptly.
• Resume medications immediately following procedures, unless vomiting or severely incapacitated.
• If an antipsychotic is necessary, use pimavanserin (Nuplazid), quetiapine (Seroquel) or clozapine (Clozaril).
• Be alert for symptoms of dysphagia (trouble swallowing) and risk of pneumonia.
• Ambulate as soon as medically safe. Patients may require assistance.

Common Symptoms of Parkinson's Disease
Motor
• Bradykinesia (slowness of movement)
• Decreased ability to swallow (dysphagia) and drooling
• Freezing—being stuck in place when attempting to walk
• Lack of facial expression
• Low voice volume or muffled speech
• Stiffness/rigidity of the arms, legs or trunk
• Stooped posture
• Tremor or shaking at rest
• Trouble with balance and falls

Non-Motor
• Anxiety
• Cognitive decline and dementia
• Constipation
• Depression
• Hallucinations and psychosis
• Impulse control disorders
• Orthostatic hypotension
• Pain
• Sexual dysfunction
• Sleep disturbances
• Urinary dysfunction

Typical Parkinson's Medications

<table>
<thead>
<tr>
<th>L-DOPA</th>
<th>Dopamine Agonists</th>
<th>MAO-B Inhibitors</th>
<th>Anti-Cholinergics</th>
<th>COMT Inhibitors</th>
<th>Other</th>
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</thead>
<tbody>
<tr>
<td>carbidopa/levodopa (Sinemet or Sinemet CR)</td>
<td>ropinirole (Requip)</td>
<td>rasagiline (Azilect)</td>
<td>trihexyphenidyl (formerly Artane)</td>
<td>entacapone (Comtan)</td>
<td>amantadine (Symadine, Symmetrel)</td>
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<tr>
<td>carbidopa/levodopa oral disintegrating (Parcopa)</td>
<td>pramipexole (Mirapex)</td>
<td>selegiline (1-deprenyl, Eldepryl)</td>
<td>benzotropine (Cogentin)</td>
<td>tolcapone (Tasmar)</td>
<td>extended-release amantadine (Gocovri, Osmoalex ER)</td>
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<td>carbidopa/levodopa/entacapone (Stalevo)</td>
<td>rotigotine (Neupro)</td>
<td>selegiline HCL oral disintegrating (Zelapar)</td>
<td>ethopropazine (Parsiprazine)</td>
<td>carbidopa/levodopa/entacapone (Stalevo)</td>
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<tr>
<td>carbidopa/levodopa extended-release capsules (Rytary)</td>
<td>apomorphine (Apokyn)</td>
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<td>*has L-DOPA in formulation</td>
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<tr>
<td>carbidopa/levodopa enteral solution (Duopa)</td>
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<tr>
<td>Medical Purpose:</td>
<td>Safe Medications:</td>
<td>Medications to Avoid:</td>
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<td><strong>Antipsychotics</strong></td>
<td>pimavanserin (Nuplazid, FDA approved to treat Parkinson’s disease psychosis), quetiapine (Seroquel), clozapine (Clozaril)</td>
<td>avoid all other typical and atypical antipsychotics</td>
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<td><strong>Pain Medication</strong></td>
<td>most are safe to use, but narcotic medications may cause confusion/psychosis and constipation</td>
<td>if patient is taking MAO-B inhibitor such as selegiline or rasagiline (Azilect), avoid meperidine (Demerol)</td>
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<td><strong>Anesthesia</strong></td>
<td>request a consult with the anesthesiologist, surgeon and Parkinson’s doctor to determine best anesthesia given your Parkinson’s symptoms and medications</td>
<td>if patient is taking MAO-B inhibitor such as selegiline or rasagiline (Azilect), avoid: meperidine (Demerol), tramadol (Rybix, Ryzolt, Ultram), droperidol (Inapsine), methadone (Dolophine, Methadose), propoxyphene (Darvon, PP-Cap), cyclobenzaprine (Amrix, Fexmid, Flexeril), halothane (Fluothane)</td>
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<td><strong>Nausea/ GI Drugs</strong></td>
<td>domperidone (Motilium), trimethobenzamide (Tigan), ondansetron (Zofran), dolasetron (Anzemet), granisetron (Kytril)</td>
<td>prochlorperazine (Compazine), metoclopramide (Reglan), promethazine (Phenergan), droperidol (Inapsine)</td>
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<td><strong>Antidepressants</strong></td>
<td>fluoxetine (Prozac), sertraline (Zoloft), paroxetine (Paxil), citalopram (Celexa), escitalopram (Lexapro), venlafaxine (Effexor)</td>
<td>amoxapine (Asendin)</td>
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**Special Alert:** Drugs such as benzodiazepines, muscle relaxants, bladder control medications and other medications used for sleep and pain may lead to confusion, hallucinations and other symptoms.

**Share This With Your Doctor**

If you have a deep brain stimulation device (DBS):

**MRI Warning**
- MRI should not be performed unless the hospital has MRI experience imaging a DBS device safely.
- MRI should never be performed if the pacemaker is placed anywhere other than the chest or abdomen.
- Under certain conditions, some DBS devices are safe for full-body MRI and do not need to be turned off. In other cases, devices should be turned to 0.0 volts and MRI should not be used to image structures of the body lower than the head, as dangerous heating of the lead could occur.
- Always check with your DBS team before having an MRI to make sure the procedure will be safe for you.

**EKG and EEG Warning**
- Turn off the DBS device before conducting EKG or EEG.
- Diathermy should be avoided.

The Parkinson’s Foundation's **Aware In Care** campaign aims to help people with Parkinson’s get the best care possible during a hospital stay.

For more information please visit Parkinson.org/awareincare or call 1-800-4PD-INFO (473-4636).