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.
- **Do not substitute Parkinson’s medications or stop levodopa therapy abruptly.** Doing so may cause a life-threatening condition called neuroleptic malignant syndrome (NMS).
- **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.**
- **Resume medications immediately following procedures, unless vomiting or severely incapacitated.**
- If an antipsychotic is necessary, use pimavanserin (Nuplazid), quetiapine (Seroquel) or clozapine (Clozaril). **DO NOT use haloperidol (Haldol).**
- **Be alert for symptoms of dysphagia (trouble swallowing) and risk of pneumonia.** Consult with SLP is recommended.
- **Ambulate as soon as medically safe.** Patients may require assistance. Consult with PT is recommended.

**Medications That May Be Contraindicated in Parkinson’s Disease**

<table>
<thead>
<tr>
<th>MEDICAL PURPOSE</th>
<th>SAFE MEDICATIONS</th>
<th>MEDICATIONS TO AVOID</th>
</tr>
</thead>
<tbody>
<tr>
<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>
</tr>
<tr>
<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>
</tr>
<tr>
<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 (Rybiz, Ryzolt, Ultram) droperidol (Inapsine) methadone (Dolophine, Methadose) propoxyphene (Darvon, PP-Cap) cyclobenzaprine (Amrix, Fexmid, Flexeril) halothane (Fluothane)</td>
</tr>
<tr>
<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>
</tr>
<tr>
<td><strong>Antidepressants</strong></td>
<td>fluoxetine (Prozac) paroxetine (Paxil) escitalopram (Lexapro)</td>
<td>sertraline (Zoloft) citalopram (Celexa) venlafaxine (Effexor) amoxapine (Asendin)</td>
</tr>
</tbody>
</table>
The Parkinson’s Foundation 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).

### 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
- Stood 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

**L-DOPA**
- carbidopa/levodopa (Sinemet or Sinemet CR)
- carbidopa/levodopa oral disintegrating (Parcopa)
- carbidopa/levodopa/entacapone (Stalevo)
- carbidopa/levodopa extended-release capsules (Rytary)
- carbidopa/levodopa enteral solution (Duopa)

**MAO-B Inhibitors**
- rasagiline (Azilect)
- selegiline (l-deprenyl, Eldepryl)
- selegiline HCL oral disintegrating (Zelapar)

**Dopamine Agonists**
- ropinirole (Requip)
- pramipexole (Mirapex)
- rotigotine (Neupro)
- apomorphine (Apokyn)

**Anticholinergics**
- trihexyphenidyl (formerly Artane)
- benzotropine (Cogentin)
- ethopropazine (Parsitan)

**COMT Inhibitors**
- entacapone (Comtan)
- tolcapone (Tasmar)

- carbidopa/levodopa/entacapone (Stalevo) *has L-DOPA in formulation

- **Other**
- amantadine (Symadine, Symmetrel)
- extended-release amantadine (Gocovri, Osmolex ER)

**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.

**Consequences of Untimely Medication Administration:** As PD medications wear off motor symptoms return which can impact a patient’s ability to function. PD patients are at risk for:
- Falls — due to rigidity, postural instability, freezing and bradykinesia
- Aspiration pneumonia — due to dysphagia from impairment in the muscles needed for swallowing
- Incontinence — due to rigidity and bradykinesia which impairs the ability to get to the bathroom
- Skin breakdown — due to the inability to change position freely
- Emotional distress — due to feelings of helplessness, frustration, anxiety, fear, depression, embarrassment

**If the patient has deep brain stimulation device (DBS) or uses Duopa Therapy** consult the Deep Brain Stimulation (DBS) Precautions post card, Duopa Therapy Precautions post card, and the Special Considerations pages within the Hospital Action Plan.

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