**apomorphine** (a-po-mor-feen)

**Classification**
Therapeutic: antiparkinson agents
Pharmacologic: dopamine agonists

**Pregnancy Category C**

**Indications**
Acute, intermittent treatment of hypomotility, "off" episodes due to advanced Parkinson’s disease.

**Action**
Stimulation of specific dopamine receptors improves motor function.

**Therapeutic Effects:**
Improved motor function.

**Pharmacokinetics**

**Absorption:** Well absorbed (100%) following subcut administration.

**Distribution:** Enters CSF.

**Metabolism and Excretion:** Unknown.

**Half-life:** 40 min.

**TIME/ACTION PROFILE (blood levels)**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
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</thead>
<tbody>
<tr>
<td>subcut</td>
<td>rapid</td>
<td>10–60 min</td>
<td>2 hr</td>
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</tbody>
</table>

**Contraindications/Precautions**

**Contraindicated in:** Hypersensitivity to apomorphine or bisulfites; Concurrent use of 5HT3 antagonists (granisetron, ondansetron, palonosetron, alosetron, dolasetron); Major psychotic disorder (may exacerbate condition); Lactation: May appear in human milk; discontinue medication or discontinue breast feeding.

**Use Cautiously in:** Hypokalemia, hypomagnesemia, bradycardia, congenital QTc prolongation or concurrent use of drugs causing QTc prolongation (increased risk of serious arrhythmias); Mild to moderate renal impairment (consider starting dose); Mild to moderate hepatic impairment; OB: Use only if clearly needed; Pedi: Safety not established; Geri: Risk of confusion/hallucinations, falls, and cardiac, respiratory, and gastrointestinal events.

**Exercise Extreme Caution in:** Cardiovascular or cerebrovascular disease (may exacerbate condition).

**Adverse Reactions/Side Effects**

**CNS:** dizziness, hallucinations, somnolence, aggressive behavior, agitation, confusion, delirium, delusions, disorientation, agitation, delirium, hallucinations, delusions, disorientation, drowsiness, headache, paranoid ideation, aggressive behavior, agitation, confusion, delirium, delusions, disorientation.

**EENT:** rhinorrhea.

**CV:** Cardiac arrest, chest pain, hypotension, angina, HF, QTc prolongation.

**GI:** Nausea, vomiting.

**GU:** Priapism.

**Derm:** flushing, pallor, sweating, melanoma.

**Local:** Injection site pain.

**MS:** Arthralgia, back pain, limb pain.

**Neuro:** Aggravation of Parkinson’s disease, dyskinesia.

**Misc:** Yawning.

**Interactions**

**Drug-Drug:** Profound hypotension, loss of consciousness occurs with 5-HT3 antagonists. Risk of hypotension with alcohol, antihypertensives, vasodilators, especially nitrates. Dopamine antagonists, including neuroleptics and metoclopramide may decrease efficacy. Drugs that prolong the QT interval may increase risk of QT interval prolongation.

**Route/Dosage**

**Subcut (Adults):** Test dose—0.2 mL (2 mg); with further assessment and monitoring, doses should be titrated at 0.1 mL (1 mg) less than highest tolerated dose. Doses may be increased, no more frequently than every 2 hours during an off period. Only single doses should be used during a particular off period. If more than one week passes between doses, titration should be restarted at the 0.2 mL (2 mg) level. Doses should not exceed 0.6 mL (6 mg).

**NURSING IMPLICATIONS**

**Assessment**

- Monitor for nausea and vomiting, severe with recommended doses. Premedicate with an antiemetic prior to and for at least the first 2 days of therapy. Do not administer 5-HT3 antagonists concurrent with apomorphine because of the risk of severe hypotension and loss of consciousness.

- Monitor BP, standing, and lying during dose titration. Orthostatic hypotension may occur once therapy is initiated but occurs more frequently during initial therapy or with a dose increase.

**Nursing Considerations**

Potential Nursing Diagnoses
Risk for injury (Adverse Reactions)

Implementation
- Always prime the APOKYN pen before every injection and after loading a new cartridge.
- Never dial the dose or attempt to correct a dialing error with the BD pen needle in the skin, as this may result in an incorrect dose.
- Do not store or carry APOKYN pen with a pen needle attached. Use a new sterile BD pen needle with each injection.

Subcut: Administer subcutaneously into stomach, upper arm, or upper leg. Pinch skin with finger and thumb and insert needle all the way into pinched skin. Push the injection button until a clicking sound is heard, and hold button for 5 sec and gently roll injection site. Rotate site with each injection. Do not inject into skin that is red, sore, injected, or damaged. Solution should be clear and colorless; do not administer solution that is cloudy, green, or contains particles. Do not administer IV.

- Store apomorphine at room temperature. Syringes can be filled from ampules the night before and stored in the refrigerator until next day.

Patient/Family Teaching
- Provide patient and caregiver with detailed instructions on preparation and injection of dose, use of dosing pen, storage, and disposal of equipment. Advise patient to read the Patient Package Insert and Directions for Use. Medication is dosed in mL, not mg. A dose of 1 mg is represented on dosing pen as 0.1 mL (1.0 mL equals 10 mg). Caution patient that apomorphine is not used to prevent “off” episodes and does not take the place of other medications for Parkinson’s disease.
- Advise patient to change positions slowly to prevent orthostatic hypotension. Caution patient to avoid drinking alcohol; will increase hypotensive effects of apomorphine.
- May cause sudden bouts of falling asleep during activities of daily living. Advise patient to notify health care professional if daytime sleepiness occurs and to avoid other medications that cause drowsiness. May require discontinuation of apomorphine. Caution patient to avoid alcohol and other medications that cause sedation and to avoid driving and other activities requiring alertness until response to medication is known.
- Caution patients that psychosis-like behavior including hallucinations (seeing or hearing things that are not real), confusion, excessive suspicion, aggressive behavior, agitation, delusional beliefs (believing things that are not real), and disorganized thinking may occur or worsen. Notify health care professional if this occurs.
- Advise patient to notify health care professional if new or increased gambling, sexual, or other intense urges occur.
- Advise patient to have periodic skin exams to check for lesions that may be melanoma.
- Inform patient to notify health care professional of all Rx and OTC medications, vitamins, or herbal products being taken and consult health care professional before taking any new medications.
- Advise patients to notify health care professional if pregnancy is planned or suspected or if breast feeding.

Evaluation/Desired Outcomes
- Improvement in ability to control movements when used during an “off” episode of Parkinson’s disease. May improve ability to walk, talk, or move around.
- Why was this drug prescribed for your patient?