▼ Brand Names: US

- Apokyn
- Kynmobi Titration Kit [DSC]
- Kynmobi [DSC]

▼ Pharmacologic Category

· Anti-Parkinson Agent, Dopamine Agonist

▼ Dosing: Adult

Note: Beginning antiemetic therapy (eg, trimethobenzamide) is recommended 3 days prior to initiation; continue only as long as necessary, and generally no longer than 2 months, due to increased risk of adverse events. Apomorphine is intended to be used as adjunctive therapy with other anti-Parkinson agents.

Parkinson disease, "off" episode

Parkinson disease, "off" episode:

Sublingual film: Note: Determine starting dose when patient is in an "off" state and in a setting where a health care provider can monitor blood pressure and pulse. In clinical trials, to achieve an "off" state, the morning dose of carbidopa/levodopa (or any adjunctive Parkinson disease medications) was withheld and any Parkinson disease medications were avoided after midnight the night before. If response insufficient but dose tolerated, patient should resume usual Parkinson medications and return to health care provider in an "off" state to reinitiate at the next dose increment.

Initial: 10 mg as needed at intervals \geq 2 hours for "off" episodes up to a maximum of 5 doses per day; may increase dose in 5 mg increments within 3 days based on response and tolerability up to a maximum single dose of 30 mg.

SUBQ: Initial test dose 0.2 mL (2 mg), **medical supervision required; see** "**Note.**" Subsequent dosing is based on both tolerance and response to initial test dose.

If patient tolerates test dose and responds: Starting dose: 0.2 mL (2 mg) as needed; may increase dose in 0.1 mL (1 mg) increments every few days; maximum dose: 0.6 mL (6 mg)

If patient tolerates but does not respond to 0.2 mL (2 mg) test dose: Second test dose: 0.4 mL (4 mg)

If patient tolerates and responds to 0.4 mL (4 mg) test dose: Starting dose: 0.3 mL (3 mg), as needed for "off" episodes; may increase dose in 0.1 mL (1 mg) increments every few days; maximum dose: 0.6 mL (6 mg)

If patient does not tolerate 0.4 mL (4 mg) test dose: Third test dose: 0.3 mL (3 mg)

If patient tolerates 0.3 mL (3 mg) test dose: Starting dose: 0.2 mL (2 mg) as needed for "off" episodes; after a few days, may increase dose up to 0.3 mL (3 mg). Medically supervise for any subsequent dose increases > 0.3 mL (3 mg).

If therapy is interrupted for >1 week, restart at 0.2 mL (2 mg) and gradually titrate dose.

Note: Medical supervision is required for all test doses with standing and supine blood pressure monitoring predose and 20-, 40-, and 60 minutes postdose (and after 60 minutes, if there is significant hypotension at 60 minutes). If subsequent test doses are required, wait >2 hours before another test dose is given; next test dose should be timed with another "off" episode. If a single dose is ineffective for a particular "off" episode, then a second dose should not be given. The average dosing frequency was 3 times/day in the development program with limited experience in dosing >5 times/day, single doses > 0.6 mL (6 mg), and with total daily doses >2 mL (20 mg).

Dosage adjustment for concomitant therapy: Significant drug interactions exist, requiring dose/frequency adjustment or avoidance. Consult drug interactions database for more information.

▼ Dosing: Older Adult

Use with caution; adverse effects (confusion and hallucinations), some serious, are reported more frequently in patients \geq 65 years of age. Refer to adult dosing.

▼ Dosing: Altered Kidney Function: Adult

Sublingual film:

 $CrCl \ge 30 \text{ mL/minute}$: No dosage adjustment necessary.

CrCl < 30 mL/minute: Avoid use.

SUBQ:

Mild to moderate impairment: Initial test dose: 0.1 mL (1 mg); Starting dose: 0.1 mL (1 mg) as needed.

Severe impairment: There are no dosage adjustments provided in the manufacturer's labeling (has not been studied).

▼ Dosing: Hepatic Impairment: Adult

Sublingual film:

Mild to moderate impairment (Child-Pugh class A or B): No dosage adjustment necessary.

Severe impairment (Child-Pugh class C): Avoid use.

SUBQ:

Mild to moderate impairment: No dosage adjustment necessary; use caution.

Severe impairment: There are no dosage adjustments provided in the manufacturer's labeling (has not been studied).

▼ Use: Labeled Indications

Parkinson disease:

Sublingual film: Treatment of acute, intermittent "off" episodes in patients with Parkinson disease.

SUBQ: Treatment of acute, intermittent hypomobility "off" episodes in patients with advanced Parkinson disease.

▼ Clinical Practice Guidelines

Parkinson Disease:

Canadian Neurological Sciences Federation, "Canadian Guidelines on Parkinson's Disease," 2012

Contraindications

Hypersensitivity to apomorphine, any component of the formulation, or to a sulfite; concomitant use with 5-HT₃ antagonists.

Significant drug interactions exist, requiring dose/frequency adjustment or avoidance. Consult drug interactions database for more information.

Canadian labeling: Additional contraindications (not in US labeling): Concomitant use with antihypertensives or vasodilators (Movapo); severe hepatic or renal impairment.

▼ Warnings/Precautions: Comprehensive

Concerns related to adverse effects:

- GI effects: Severe nausea and vomiting may occur. Pretreatment with antiemetic (eg, trimethobenzamide) is necessary and should be started 3 days prior to initiation of therapy and continued only as long as necessary to control nausea/vomiting, and generally no longer than 2 months. Trimethobenzamide increases the risk of somnolence, dizziness, and falls. Avoid use of antidopaminergic antiemetic agents (eg, promethazine, prochlorperazine, chlorpromazine, metoclopramide, haloperidol).
- Hallucinations/psychosis: May cause hallucinations or psychotic-like behavior or thoughts (eg, paranoia, delusions, confusion, disorientation, aggression, agitation, delirium) which may be severe; avoid in patients with major psychotic disorders.
- Hemolytic anemia: Hemolytic anemia, requiring hospitalization and including severe anemia, angina, and dyspnea, has been reported and may occur at any time after treatment; most cases included a positive direct antiglobulin test (Coombs test) suggesting a potential immune-mediated hemolysis. If hemolytic anemia occurs, consider discontinuing treatment.
- Hypersensitivity: Hypersensitivity reactions (including angioedema or anaphylaxis) to apomorphine or its sulfite component may occur. If a hypersensitivity reaction to apomorphine occurs, discontinue and do not restart.
- Impulse control disorders: Has been associated with compulsive behaviors and/or loss of impulse control, which has manifested as pathological gambling, libido increases (hypersexuality), binge eating, and/or other intense urges. Dose reduction or discontinuation of therapy has been reported to reverse these behaviors in some, but not all cases.
- Orthostatic hypotension/syncope: May cause orthostatic hypotension, especially during dose escalation, and syncope. Parkinson disease patients appear to have an impaired capacity to respond to a postural challenge. The hypotensive effects of apomorphine are exacerbated by concomitant ethanol consumption and sublingual nitroglycerin use. Additional risk factors for hypotension may include concomitant use of other antihypertensive drugs or vasodilators or where transient hypotensive episodes would be poorly tolerated (cardiovascular disease or cerebrovascular disease). Carefully monitor for signs and symptoms of postural hypotension (especially during dose escalation). Avoid ethanol during therapy.
- Pleural/retroperitoneal fibrosis: Ergot-derived dopamine agonists have also been associated with fibrotic complications (eg, retroperitoneal fibrosis,
 pleural thickening, cardiac valvulopathy, and pulmonary infiltrates); monitor closely for signs and symptoms of fibrosis; effects may or may not be
 reversible.
- Priapism: Has been reported; severe priapism may require medical attention.
- Somnolence: Somnolence and falling asleep while engaging in activities of daily living, without prior warning signs, has been reported. Monitor for
 daytime somnolence or preexisting sleep disorder; caution with concomitant sedating medication; discontinue if significant daytime sleepiness or
 episodes of falling asleep occur. Patients must be cautioned about performing tasks which require mental alertness (eg, operating machinery or
 driving). Use with caution in patients receiving other CNS depressants or psychoactive agents. Effects with other sedative drugs or ethanol may be
 potentiated.

Disease-related concerns:

- Cardiovascular disease; Use with caution in patients with cardiovascular disease; hypotension may cause coronary ischemia.
- · Cerebrovascular disease: Use with caution in patients with cerebrovascular disease; hypotension may cause cerebral ischemia.
- · Dyskinesias: Use with caution in patients with preexisting dyskinesias; may be exacerbated.
- Hepatic impairment: Use with caution in patients with hepatic impairment; avoid use in severe hepatic impairment (sublingual film).
- Renal impairment: Use with caution in patients with renal impairment; avoid use in severe renal impairment (sublingual film).

Special populations:

- Older adult: Adverse effects (confusion and hallucinations), some serious, are reported more frequently in patients ≥65 years; use with caution.
- Patients at risk for torsades de pointes: Use with caution in patients with risk factors for torsades de pointes (hypokalemia, hypomagnesemia, bradycardia, concurrent use of drugs that prolong QTc, or genetic predisposition).

Dosage form specific issues:

• Benzyl alcohol: Injection may contain benzyl alcohol which has been associated with "gasping syndrome" in neonates.

- Metabisulfite: Contains metabisulfite, which may cause hypersensitivity reactions. Sensitivity to sulfites is more common in patients with asthma and
 may cause hypersensitivity reactions (including anaphylaxis and life-threatening asthma exacerbations).
- Sublingual film: Mild to moderate oral mucosal irritation (ulceration, stomatitis, pain, paresthesia) has occurred; usually resolved after discontinuation (rechallenge is not recommended).

Other warnings/precautions:

- · Abuse: Rare cases of abuse have been reported.
- · Appropriate administration: Do not give SUBQ formulation IV; thrombus formation or pulmonary embolism may occur.
- Discontinuation of therapy: Dopaminergic agents have been associated with a syndrome resembling neuroleptic malignant syndrome (eg, hyperpyrexia, confusion) on abrupt withdrawal or significant dosage reduction after long-term use.
- · Falling: Patients with Parkinson disease are at risk of falling; apomorphine may increase this risk.

▼ Prescribing and Access Restrictions

Apokyn is only available through specialty pharmacies and cannot be obtained through a retail pharmacy. For more information, contact 1-877-7APOKYN (1-877-727-6596).

▼ Administration: Oral

Do not remove from pouch until immediately before use. Drink water to moisten mouth, then place film under the tongue and allow to dissolve (\sim 3 minutes). Do not talk or swallow saliva while dissolving because this can impact absorption. Administer whole; do not cut, chew, or swallow.

▼ Administration: Subcutaneous

For SUBQ administration only; do not administer IV (thrombus formation or pulmonary embolism may occur due to IV crystallization). Administer in abdomen, upper arm, or upper leg; change site with each injection. Three mL cartridges are used with a manual, reusable, multidose injector pen. Injector pen can deliver up to 1 mL (10 mg) in 0.02 mL (0.2 mg) increments.

▼ Patient Counseling Points

What is this drug used for?

• It is used to treat "off" episodes (when a dose wears off) in people with Parkinson's disease.

All drugs may cause side effects. However, many people have no side effects or only have minor side effects. Call your doctor or get medical help if any of these side effects or any other side effects bother you or do not go away:

All products:

- · Upset stomach or throwing up
- Runny nose
- · Feeling dizzy, sleepy, tired, or weak
- · Headache

All injection products:

- Irritation where the shot is given
- Yawning
- · Joint pain

Trouble sleeping
Back pain
Diarrhea or constipation
Pain in arms or legs

Under the tongue (sublingual) film:

· Mouth irritation

WARNING/CAUTION: Even though it may be rare, some people may have very bad and sometimes deadly side effects when taking a drug. Tell your doctor or get medical help right away if you have any of the following signs or symptoms that may be related to a very bad side effect:

All products:

- Neuroleptic malignant syndrome (NMS) like fever, muscle cramps or stiffness, dizziness, severe headache, confusion, change in thinking, fast or abnormal heartbeat, or are sweating a lot
- Painful erection (hard penis) or an erection that lasts for longer than 4 hours
- Hemolytic anemia like if you feel confused, or very dizzy, tired, or weak; or if you have chest pain, fast heartbeat, shortness of breath, pale skin, dark urine, yellow skin or eyes, or fever
- Flushing
- · Weakness on 1 side of the body, trouble speaking or thinking, change in balance, drooping on one side of the face, or blurred eyesight
- · Very bad dizziness or passing out
- · Sweating a lot
- · Feeling confused
- Strong urges that are hard to control (such as eating, gambling, sex, or spending money)
- Trouble controlling body movements that is new or worse
- · Mental, mood, or behavior changes that are new or worse
- Hallucinations (seeing or hearing things that are not there)
- Shortness of breath, a big weight gain, or swelling in the arms or legs
- · Chest pain or pressure, a fast heartbeat, or an abnormal heartbeat
- · Change in eyesight
- Falling asleep during activities like driving, eating, or talking or you feel very sleepy
- Signs of an allergic reaction, like rash; hives; itching; red, swollen, blistered, or peeling skin with or without fever; wheezing; tightness in the chest or throat; trouble breathing, swallowing, or talking; unusual hoarseness; or swelling of the mouth, face, lips, tongue, or throat.

All injection products:

- Urinary tract infection (UTI) like blood in the urine, burning or pain when passing urine, feeling the need to pass urine often or right away, fever, lower stomach pain, or pelvic pain
- · Dehydration like dry skin, mouth, or eyes; thirst; fast heartbeat; dizziness; fast breathing; or confusion

· Bruising or dark areas of skin

Under the tongue (sublingual) film:

· Mouth redness, swelling, or pain; mouth sores; dry mouth, lips, or tongue; or pain with swallowing

Note: This is not a comprehensive list of all side effects. Talk to your doctor if you have questions.

Consumer Information Use and Disclaimer: This information should not be used to decide whether or not to take this medicine or any other medicine. Only the healthcare provider has the knowledge and training to decide which medicines are right for a specific patient. This information does not endorse any medicine as safe, effective, or approved for treating any patient or health condition. This is only a limited summary of general information about the medicine's uses from the patient education leaflet and is not intended to be comprehensive. This limited summary does NOT include all information available about the possible uses, directions, warnings, precautions, interactions, adverse effects, or risks that may apply to this medicine. This information is not intended to provide medical advice, diagnosis or treatment and does not replace information you receive from the healthcare provider. For a more detailed summary of information about the risks and benefits of using this medicine, please speak with your healthcare provider and review the entire patient education leaflet.

▼ Dosage Forms: US

Excipient information presented when available (limited, particularly for generics); consult specific product labeling. [DSC] = Discontinued product

Film, Sublingual, as hydrochloride:

Kynmobi: 10 mg (30 ea [DSC]); 15 mg (30 ea [DSC]); 20 mg (30 ea [DSC]); 25 mg (30 ea [DSC]); 30 mg (30 ea [DSC]) [contains edetate (edta) disodium dihydrate, fd&c blue #1 (brilliant blue), levomenthol, sodium metabisulfite]

Kit, Sublingual, as hydrochloride:

Kynmobi Titration Kit: 10 mg (2s), 15 mg (2s), 20 mg (2s), 25 mg (2s), 30 mg (2s) [DSC] [contains edetate (edta) disodium dihydrate, fd&c blue #1 (brilliant blue), levomenthol, sodium metabisulfite]

Solution Cartridge, Subcutaneous, as hydrochloride:

Apokyn: 30 mg/3 mL (3 mL) [contains benzyl alcohol, sodium metabisulfite]

Generic: 30 mg/3 mL (3 mL)

▼ Dosage Forms: Canada

Excipient information presented when available (limited, particularly for generics); consult specific product labeling. [DSC] = Discontinued product

Film, Sublingual, as hydrochloride:

Kynmobi: 10 mg ([DSC]); 15 mg ([DSC]); 20 mg ([DSC]); 25 mg ([DSC]); 30 mg ([DSC]) [contains edetate (edta) disodium dihydrate, fd&c blue #1 (brilliant blue), levomenthol, sodium metabisulfite]

Solution Pen-injector, Subcutaneous:

Movapo: 10 mg/mL (3 mL)

Monitoring Parameters

Supine and standing BP and pulse (for SUBQ, monitor predose and 20-, 40-, and 60 minutes postdose with each test dose); signs and symptoms of hemolytic anemia; orthostatic hypotension; drowsiness or sleepiness; mental status and behavioral changes.

▼ Nursing Physical Assessment/Monitoring

Monitor patients receiving the SUBQ injection closely for 90 minutes following each test dose. Administer premedications as ordered. Monitor for orthostatic hypotension, nausea, vomiting, dyskinesias, and excessive sedation or somnolence. Teach patient or caregiver proper injection technique and needle disposal.

▼ Drug Interactions: Metabolism/Transport Effects

Substrate of CYP1A2 (minor), CYP2C19 (minor), CYP3A4 (minor); Note: Assignment of Major/Minor substrate status based on clinically relevant drug interaction potential

▼ Drug Interactions: Avoid Concomitant Use

Avoid concomitant use of Apomorphine with any of the following: Alcohol (Ethyl); Alizapride; Amisulpride (Injection); Amisulpride (Oral); Antiemetics (5HT3 Antagonists); Bromperidol; Methotrimeprazine; Metoclopramide; Sulpiride

▼ Drug Interactions: Increased Effect/Toxicity

Apomorphine may increase the levels/effects of: Amifostine; Bromperidol; BuPROPion; DULoxetine; Hypotension-Associated Agents; Levodopa-Foslevodopa; Nitroprusside; Pholcodine; QT-prolonging Agents (Highest Risk)

The levels/effects of Apomorphine may be increased by: Alcohol (Ethyl); Alfuzosin; Antiemetics (5HT3 Antagonists); Arginine; Barbiturates; Blood Pressure Lowering Agents; Brimonidine (Topical); Brivudine; Diazoxide; Herbal Products with Blood Pressure Lowering Effects; Kava Kava; Lormetazepam; Molsidomine; Naftopidil; Nicergoline; Nicorandil; Nitroglycerin; Obinutuzumab; Pentoxifylline; Phosphodiesterase 5 Inhibitors; Prostacyclin Analogues; Quinagolide; Silodosin; Solriamfetol

▼ Drug Interactions: Decreased Effect

Apomorphine may decrease the levels/effects of: Amisulpride (Oral); Antipsychotic Agents (First Generation [Typical]); Methotrimeprazine

The levels/effects of Apomorphine may be decreased by: Alizapride; Amisulpride (Injection); Amisulpride (Oral); Antipsychotic Agents (First Generation [Typical]); Antipsychotic Agents (Second Generation [Atypical]); Bromopride; Bromperidol; Kava Kava; Methotrimeprazine; Metoclopramide; Sulpiride

▼ Hazardous Drugs Handling Considerations

Hazardous agent (NIOSH 2016 [group 2]).

Use appropriate precautions for receiving, handling, storage, preparation, dispensing, transporting, administration, and disposal. Follow NIOSH and USP 800 recommendations and institution-specific policies/procedures for appropriate containment strategy (NIOSH 2016; USP-NF 2020).

Note: Facilities may perform risk assessment of some hazardous drugs to determine if appropriate for alternative handling and containment strategies (USP-NF 2020). Refer to institution-specific handling policies/procedures.

▼ Storage/Stability

Store at 20°C to 25°C (68°F to 77°F); excursions are permitted between 15°C and 30°C (59°F and 86°F). Keep sublingual film in foil pouch until ready to use.

▼ Mechanism of Action

Stimulates postsynaptic D2-type receptors within the caudate putamen in the brain.

▼ Pharmacokinetics (Adult Data Unless Noted)

Onset of action: SUBQ: Rapid.

Distribution: V_d: Sublingual: 3,630 L; SUBQ: 218 L.

Metabolism: Not established; potential routes of metabolism include sulfation, N-demethylation, glucuronidation, and oxidation.

Half-life elimination: Terminal: Sublingual: \sim 1.7 hours (range: 0.8 to 3 hours); SUBQ: \sim 40 minutes.

Time to peak, plasma: Sublingual: 0.5 to 1 hour; SUBQ: 10 to 60 minutes.

▼ Pharmacokinetics: Additional Considerations (Adult Data Unless Noted)

Altered kidney function: SUBQ: C_{max} was increased by 50% in patients with moderate renal impairment.

Hepatic function impairment: SUBQ: C_{max} was increased by 25% in patients with moderate hepatic impairment.

▼ Adverse Reactions

The following adverse drug reactions and incidences are derived from product labeling unless otherwise specified. Reported percentages are for the SUBQ product unless otherwise specified.

>10%:

Cardiovascular: Angina pectoris (\leq 15%), chest pain (\leq 15%), chest pressure (\leq 15%), hypotension (SUBQ: \leq 11%; sublingual film: \leq 4%), orthostatic hypotension (SUBQ: \leq 20%; sublingual film: \leq 4%), syncope (SUBQ: \leq 11%; sublingual film: \leq 4%)

Gastrointestinal: Nausea (SUBQ: \leq 30%; sublingual film: 21% to 28%; can be severe nausea; can occur with antiemetic pretreatment), oral paresthesia (sublingual film: \leq 13%), vomiting (SUBQ: \leq 30%; sublingual film: 4% to 7%; can be severe vomiting; can occur with antiemetic pretreatment)

Local: Injection-site reaction (5% to 26%; bruising at injection site [16%], injection-site granuloma [4%], injection-site pruritus [2%])

Nervous system: Dizziness (SUBQ: ≤20%; sublingual film: 9% to 11%), drowsiness (SUBQ: 35%; sublingual film: 11% to 13%), falling (SUBQ: 30%; sublingual film: 4% to 6%), hallucination (SUBQ: ≤14%, sublingual film: ≤6%), yawning (SUBQ: 40%; sublingual film: 4% to 12% [Olanow 2020])

Neuromuscular & skeletal: Dyskinesia (SUBQ: 24% to 35%; sublingual film: 1% [Olanow 2020])

Respiratory: Oropharyngeal edema (sublingual film: 1% to 15%), oropharyngeal pain (sublingual film: ≤13%), rhinorrhea (SUBQ: 20%; sublingual film: 6% to 7%)

1% to 10%:

Cardiovascular: Acute myocardial infarction (\leq 4%), edema (\leq 10%), heart failure (\geq 5%), presyncope (sublingual film: \leq 4%), swelling of extremities (\leq 10%)

Dermatologic: Diaphoresis (≥5%), ecchymoses (≥5%), hyperhidrosis (sublingual film: 4% to 6%), urticaria (sublingual film: ≤6%)

Endocrine & metabolic: Dehydration (≥5%)

Gastrointestinal: Constipation ($\geq 5\%$), diarrhea ($\geq 5\%$), oral mucosa ulcer (sublingual film: $\leq 7\%$), oral mucosal erythema (sublingual film: 4% to 7%), stomatitis (sublingual film: $\leq 7\%$), xerostomia (sublingual film: 1% to 6%)

Genitourinary: Urinary tract infection (≥5%)

Hypersensitivity: Facial swelling (sublingual film: ≤6%), hypersensitivity reaction (sublingual film: 6%)

Nervous system: Anxiety (\geq 5%), %), asthenia (\geq 5%), confusion (SUBQ: \leq 10%; sublingual film: \leq 6%), delusion (sublingual film: \leq 6%), depression (\geq 5%), disorientation (sublingual film: \leq 6%), exacerbation of Parkinson disease (\geq 5%), fatigue (SUBQ: \geq 5%; sublingual film: 3% to 7%), headache (SUBQ: \geq 5%; sublingual film: 6% to 8%), insomnia (\geq 5%)

Neuromuscular & skeletal: Arthralgia ($\geq 5\%$), back pain ($\geq 5\%$), limb pain ($\geq 5\%$)

Respiratory: Dyspnea (\geq 5%), pneumonia (\geq 5%)

Miscellaneous: Laceration (sublingual film: 1% to 6%)

<1%: Genitourinary: Priapism

Postmarketing:

Cardiovascular: Prolonged QT interval on ECG (dose related)

Hematologic & oncologic: Hemolytic anemia (Colosimo 1994; Frankel 1990)

Nervous system: Aggressive behavior, agitation, behavioral changes, impulse control disorder (including, increased libido, pathological gambling), mental status changes, paranoid ideation, psychosis (acute), sudden onset of sleep

▼ Related Information

· Safe Handling of Hazardous Drugs

▼ Pregnancy Considerations

Adverse events have been observed in animal reproduction studies.

Breastfeeding Considerations

It is not known if apomorphine is excreted in breast milk. According to the manufacturer, the decision to continue or discontinue breastfeeding during therapy should take into account the risk of infant exposure, the benefits of breastfeeding to the infant, and benefits of treatment to the mother.

▼ Allergy and Idiosyncratic Reactions

Apomorphine Allergy

▼ Older Adult Considerations

No specific information for use in elderly.

▼ Dental: Local Anesthetic/Vasoconstrictor Precautions

Apomorphine is one of the drugs confirmed to prolong the QT interval and is accepted as having a risk of causing torsade de pointes. The risk of drug-induced torsade de pointes is extremely low when a single QT interval prolonging drug is prescribed. In terms of epinephrine, it is not known what effect vasoconstrictors in the local anesthetic regimen will have in patients with a known history of congenital prolonged QT interval or in patients taking any medication that prolongs the QT interval. Until more information is obtained, it is suggested that the clinician consult with the physician prior to the use of a vasoconstrictor in suspected patients, and that the vasoconstrictor (epinephrine, mepivacaine and levonordefrin [Carbocaine® 2% with Neo-Cobefrin®]) be used with caution.

▼ Dental Health Professional Considerations

See Local Anesthetic/Vasoconstrictor Precautions

▼ Dental: Effects on Dental Treatment

Key adverse event(s) related to dental treatment: Patients may experience orthostatic hypotension as they stand up after treatment; especially if lying in dental chair for extended periods of time. Use caution with sudden changes in position during and after dental treatment.

▼ Dental: Effects on Bleeding

No information available to require special precautions

▼ Pronunciation

(a poe MOR feen)

▼ Brand Names: Canada

- Kynmobi [DSC]
- Movapo

▼ Generic Available (US)

May be product dependent

▼ Pricing

Solution Cartridge (Apokyn Subcutaneous)

30 mg/3 mL (per mL): \$591.32

Solution Cartridge (Apomorphine HCl Subcutaneous)

30 mg/3 mL (per mL): \$469.18

Disclaimer: A representative AWP (Average Wholesale Price) price or price range is provided as reference price only. A range is provided when more than one manufacturer's AWP price is available and uses the low and high price reported by the manufacturers to determine the range. The pricing data should be used for benchmarking purposes only, and as such should not be used alone to set or adjudicate any prices for reimbursement or purchasing functions or considered to be an exact price for a single product and/or manufacturer. Medi-Span expressly disclaims all warranties of any kind or nature, whether express or implied, and assumes no liability with respect to accuracy of price or price range data published in its solutions. In no event shall Medi-Span be liable for special, indirect, incidental, or consequential damages arising from use of price or price range data. Pricing data is updated monthly.

▼ FDA Approval Date

2004-04-20

▼ Brand Names: International

- (AE) United Arab Emirates: Apo go
- (AT) Austria: Apo-go | Dacepton
- (AU) Australia: Apo-go | Apomine | Apomorphine
- (BE) Belgium: Britaject
- (CH) Switzerland: Apo go | Dacepton
- (CL) Chile: Dacepton
- (CO) Colombia: Dacepton
- (CZ) Czech Republic: Dacepton
- (DE) Germany: Apo go | Apomorphin Neuraxpharm | Dacepton
- (EE) Estonia: Apo go
- (FR) France: Apokinon | Apomorphine aguettant | Apomorphine biogaran | Apomorphine cooper | Apomorphine mylan | Apomorphine Renaudin
- (GB) United Kingdom: Apo go | Apomorphine | Britaject
- (HK) Hong Kong: Apo go
- (HU) Hungary: Apo go | Dacepton
- (IE) Ireland: Apo go | Britaject
- (IL) Israel: Apo go
- (IN) India: Aposan
- (IT) Italy: Apofin
- (KE) Kenya: Aposan
- (LT) Lithuania: Apomorphin
- (LU) Luxembourg: Dacepton
- (LV) Latvia: Apomorphin
- (MX) Mexico: Dacepton
- (NL) Netherlands: Apo-go
- (PL) Poland: Apo-go | Dacepton
- (PR) Puerto Rico: Apokyn | Kynmobi
- (PT) Portugal: Apo go
- (RO) Romania: Dacepton

- (SI) Slovenia: Apo go | Britaject
- (SK) Slovakia: Apo go | Dacepton
- (TH) Thailand: Apo-go
- (TR) Turkey: Apo-go | Epamor | Pargicyl | Parkoff

▼ References

<800 > Hazardous Drugs—Handling in Healthcare Settings. *United States Pharmacopeia and National Formulary* (USP 43-NF 38). Rockville, MD: United States Pharmacopeia Convention; 2020:74-92.

Apokyn (apomorphine) [prescribing information]. Rockville, MD: MMD US Operations LLC; June 2022.

Colosimo C, Merello M, Albanese A. Clinical usefulness of apomorphine in movement disorders. *Clin Neuropharmacol*. 1994;17(3):243-259. doi:10.1097/00002826-199406000-00004[PubMed 9316670]

Factor SA, "Current Status of Symptomatic Medical Therapy in Parkinson's Disease," Neurotherapeutics, 2008, 5(2):164-80.[PubMed 18394561]

Frankel JP, Lees AJ, Kempster PA, Stern GM. Subcutaneous apomorphine in the treatment of Parkinson's disease. *J Neurol Neurosurg Psychiatry*. 1990;53(2):96-101. doi:10.1136/jnnp.53.2.96[PubMed 2313313]

Kynmobi (apomorphine) sublingual film [prescribing information]. Marlborough, MA: Sunovion Pharmaceuticals Inc; September 2022.

Kynmobi (apomorphine) [product monograph]. Mississauga, Ontario, Canada: Sunovion Pharmaceuticals Canada Inc; December 2022.

Molina JA, Sàinz-Artiga MJ, Fraile A, et al, "Pathologic Gambling in Parkinson's Disease: A Behavioral Manifestation of Pharmacologic Treatment," *Mov Disord*, 2000, 15(5):869-72.[PubMed 11009192]

Movapo (apomorphine) [product monograph]. St. Laurent, Quebec, Canada: Paladin Labs Inc; November 2016.

Olanow CW, Factor SA, Espay AJ, et al. Apomorphine sublingual film for off episodes in Parkinson's disease: a randomised, double-blind, placebo-controlled phase 3 study. *Lancet Neurol*. 2020;19(2):135-144. doi:10.1016/S1474-4422(19)30396-5[PubMed 31818699]

US Department of Health and Human Services; Centers for Disease Control and Prevention; National Institute for Occupational Safety and Health. NIOSH list of antineoplastic and other hazardous drugs in healthcare settings 2016. https://www.cdc.gov/niosh/docs/2016-161/. Updated September 2016. Accessed June 16, 2020.

Weintraub D, Siderowf AD, Potenza MN, et al, "Association of Dopamine Agonist Use With Impulse Control Disorders in Parkinson Disease," *Arch Neurol*, 2006, 63(7):969-73.[PubMed 16831966]

▼ Index Terms

- Apomorphine Hydrochloride
- · Apomorphine Hydrochloride Hemihydrate