SUMAtriptan (soo-ma-trip-tan)

Alsuma, Imitrex, Imitrex STATdose, Sumavel DosePro, Zecuity

Classification
Therapeutic: vascular headache suppressants
Pharmacologic: 5-HT1, agonists

Pregnancy Category C

Indications

Action
Acts as a selective agonist of 5-HT1 at specific vascular serotonin receptor sites, causing vasoconstriction in large intracranial arteries. Therapeutic Effects: Relief of acute attacks of migraine.

Pharmacokinetics
Absorption:
- Well absorbed (97%) after subcut administration. Absorption after oral administration is incomplete and significant amounts undergo substantial hepatic metabolism, resulting in poor bioavailability (14%).
- Well absorbed after intranasal and transdermal administration.

Distribution:
- Does not cross the blood-brain barrier.
- Remainder of distribution not known.

Metabolism and Excretion:
- Mostly metabolized (80%) by the liver.
- Half-life: 2 hr.

TIME/ACTION PROFILE (relief of migraine)
ROUTE ONSET PEAK DURATION
PO within 30 min 2–4 hr up to 24 hr
Subcut 30 min up to 2 hr up to 24 hr
Nasal within 60 min 2 hr unknown
TD unknown 2 hr unknown

Contraindications/Precautions
Contraindicated in: Hypersensitivity; Ischemic heart disease or signs and symptoms of ischemic heart disease, Prinzmetal's angina, or uncontrolled hypertension; Stroke or transient ischemic attack; Peripheral vascular disease; Concurrent MAO inhibitor therapy; Concurrent use of (within 24 hr) reuptake-inhibiting or other 5-HT1 agonists; Severe hepatic impairment; Geri: Excessive risk of cardiovascular complications.

Use Cautiously in: Patients with childbearing potential; OB, Lactation, Pedi: Safety not established; excreted in breast milk (avoid breast feeding for 12 hr after treatment).

Adverse Reactions/Side Effects
All adverse reactions are less common after oral administration
CNS:
dizziness, vertigo, anxiety, drowsiness, fatigue, feeling of heaviness, feeling of tightness, strange feeling, feeling of weakness, nausea, abdominal discomfort, chest discomfort, chest tightness, diaphoresis.
EENT:
alterations in vision, nasal sinus discomfort, throat discomfort.
CV:
MI, angina, chest pain, chest tightness, ECG changes, transient hypertension.
GI:
abdominal discomfort, dysphagia.
Derm:
flushing, migraine.
MS:
jaw discomfort, muscle cramps, myalgia, neck pain.
Neuro:
numbness.

Interactions
Drug-Drug:
The risk of vasospastic reactions may be increased by concurrent use of ergotamine or dihydroergotamine (avoid within 24 hr of each other). Avoid concurrent use with other 5HT1 agonists.
- MAO inhibitors may raise levels (do not use within 2 wk of discontinuing MAO inhibitor).
- Risk of serotonin syndrome when used with SSRIs or SNRIs antidepressants.

Drug-Natural Products:
- Risk of serotonergic side effects including serotonin syndrome with St John's wort and SAMe.

Route/Dosage
PO (Adults): 25 mg initially; if response is inadequate at 2 hr, up to 100 mg may be given (initial dose of 25–50 mg may be more effective than 25 mg). If headache recurs, doses may be repeated q2h r (not to exceed 200 mg/day).

Strokes or transient ischemic attack. Peripheral vascular disease (including, but not limited to, ischemic bowel disease). Concurrent MAO inhibitor therapy. Hemiplegic or basilar migraine. Concurrent use of (within 24 hr) reuptake-inhibiting or other 5-HT1 agonists. Severe hepatic impairment. Exercise Extreme Caution in: Cardiovascular risk factors (hypertension, hypercholesterolemia, smoking, obesity, diabetes, family history, non-European women or men >40 yr); use only if cardiovascular status has been evaluated and determined to be safe and 1st dose is administered under supervision.

Drug Class/Therapeutic:
- Vasodilator: Reduces cerebral blood flow.
- 5-HT1 Agonist: Increases cerebral blood flow.

Pharmacotherapeutics:
- Most effective at the initial stage of migraine.
- Should be taken at the beginning of an attack.

Drug Mechanism of Action:
- Acts as a selective agonist of 5-HT1 at specific vascular serotonin receptor sites, causing vasoconstriction in large intracranial arteries.
- Therapeutic Effects: Relief of acute attacks of migraine.

Clinical Indications:
- Used for acute treatment of migraine.
- Used for acute treatment of cluster headache episodes.

Dosage:
- PO: Initial dose of 25 mg; if response is inadequate, may be increased up to 100 mg (not to exceed 200 mg/day).
- Subcut: Initial dose of 6 mg; if response is inadequate, may be increased up to 12 mg (not to exceed 24 mg/day).
- Intranasal: Initial dose of 8 mg; if response is inadequate, may be increased up to 16 mg (not to exceed 32 mg/day).
- Transdermal: Initial dose of 6 mg; if response is inadequate, may be increased up to 12 mg (not to exceed 24 mg/day).

Adverse Reactions:
- CNS: Dizziness, vertigo, anxiety, drowsiness, fatigue, feeling of heaviness, feeling of tightness, strange feeling, feeling of weakness, nausea, abdominal discomfort, chest discomfort, chest tightness, diaphoresis.
- EENT: Alterations in vision, nasal sinus discomfort, throat discomfort.
- CV: MI, angina, chest pain, chest tightness, ECG changes, transient hypertension.
- GI: Abdominal discomfort, dysphagia.
- Derm: Flushing, migraine.
- MS: Jaw discomfort, muscle cramps, myalgia, neck pain.
- Neuro: Numbness.

Interactions:
- Drug-Drug: Risk of vasospastic reactions may be increased by concurrent use of ergotamine or dihydroergotamine (avoid within 24 hr of each other). Avoid concurrent use with other 5-HT1 agonists.
- MAO inhibitors may raise levels (do not use within 2 wk of discontinuing MAO inhibitor).
- Risk of serotonin syndrome when used with SSRIs or SNRIs antidepressants.

Drug-Natural Products: Risk of serotonergic side effects including serotonin syndrome with St John's wort and SAMe.

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- Subcut: Initial dose of 6 mg; if response is inadequate, may be increased up to 12 mg (not to exceed 24 mg/day).
- Intranasal: Initial dose of 8 mg; if response is inadequate, may be increased up to 16 mg (not to exceed 32 mg/day).
- Transdermal: Initial dose of 6 mg; if response is inadequate, may be increased up to 12 mg (not to exceed 24 mg/day).
**Subcut (Adults):** 6 mg may be repeated after 1 hr (not to exceed 12 mg in 24 hr).

**Intranasal (Adults):** Single dose of 5, 10, or 20 mg; may be repeated in 2 hr, not to exceed 40 mg/24 hr.

**Transdermal (Adults):** Apply one patch; may be repeated in 2 hr, not to exceed 2 patches/24 hr.

**Hepatic Impairment**

**PO (Adults):** 25 mg initially; if response is inadequate at 2 hr, up to 50 mg may be given (initial doses of 25–50 mg may be more effective than 25 mg). If headache recurs, doses may be repeated q2h (not to exceed 100 mg/24 hr). If PO dosage is to follow subcut injection, additional PO sumatriptan may be taken q2h (not to exceed 200 mg/24 hr); no single oral dose should exceed 50 mg.

**NURSING IMPLICATIONS**

**Assessment**

- Assess pain location, intensity, duration, and associated symptoms (photophobia, phonophobia, nausea, vomiting) during migraine attack.
- Give initial subcut dose under observation to patients with potential for coronary artery disease including postmenopausal women, men >40 yr, patients with risk factors for coronary artery disease such as hypertension, hypercholesterolemia, obesity, diabetes, smoking, or family history. Monitor BP before and for 1 hr after initial injection. If angina occurs, monitor ECG for ischemic changes.
- Monitor for serotonin syndrome in patients taking SSRIs or SNRIs concurrently with sumatriptan.

**Potential Nursing Diagnoses**

- Acute pain (Indications)

**Implementation**

- Do not confuse sumatriptan with sitagliptin or zolmitriptan.
- PO: Tablets should be swallowed whole; do not crush, break, or chew. Tablets are film-coated to prevent contact with tablet contents, which have an unpleasant taste and may cause nausea and vomiting.
- Subcut: Administer as a single injection just below the skin. Solution is clear and colorless or pale yellow; do not use dark-colored or cloudy or if beyond expiration date.

**Patient/Family Teaching**

- Inform patient that sumatriptan should be used only during migraine attacks. It is meant to be used for relief of migraine attacks but not to prevent or reduce the number of attacks.
- Instruct patient to administer sumatriptan as soon as symptoms of a migraine attack appear, but it may be administered at any time during an attack. If migraine symptoms recur, a second injection may be used. Allow at least 1 hr between doses, and do not use more than two injections in any 24-hr period. Additional subcutaneous doses are not likely to be effective, and alternative medications may be used. If no relief from 1st dose, unlikely 2nd dose will provide relief. Address patient to read Patient Information prior to using and with each Rx refill; new information may be available.
- Advise patient that lying down in a darkened room after sumatriptan administration further helps relieve headache.
- Advise patient that overuse (use more than 10 days/month) may lead to exacerbation of headache (migraine-like daily headaches, or a marked increase in frequency of migraine attacks). May require gradual withdrawal of sumatriptan and treatment of symptoms (transient worsening of headache).
Continue

SUMaTriptan

- Advise patient to notify health care professional before use if dose of sumatriptan has been changed, if pain or tightness in chest occurs during use, or if headache worsens. Notify health care professional if chest pain occurs. Headache may be preceded by chest pain or nausea.
- Advise patient to notify health care professional before next dose of sumatriptan if pain, tightness in chest, or chest pain occurs during use. If pain is severe or does not subside, notify health care professional immediately. If wheezing; heart palpitations; swelling of eyelids, face, or lips; skin rash, skin bumps, or hives occur, notify health care professional immediately. If rash, hives, or swelling develop, discuss with health care professional at next visit.
- Sumatriptan may cause chest or abdominal pain. Cautions patient to avoid driving or other activities requiring alertness until response to medication is known.

- Advise patient to avoid alcohol, which aggravates headaches, during sumatriptan use.

- Advise patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and consult health care professional before taking any new medications.

- Caution patient not to use sumatriptan if pregnant, suspects pregnancy, or plans to become pregnant. Adequate contraception should be used during therapy.

Subcut:
- Instruct patient on the proper technique for loading, administering, and discarding the autoinjector or for using Sumavel DosePro. Patient information pamphlet is provided. Instructional video is available from the manufacturer.

- Inform patient that pain or redness at the injection site usually lasts less than 1 hr.

Intranasal:
- Instruct patient in proper technique for intranasal administration. Usual dose is a single spray in one nostril. If headache returns, a 2nd dose may be administered in 2 hr. Do not administer 2nd dose if relief was provided by 1st dose without consulting health care professional.

Transdermal:
- Instruct patient to read Patient Information and Instructions for Use before starting and with each Rx refill, in case of changes.

- Advise patient to refer MRI test with referring health care professional to determine if removal of patch is necessary prior to test and for directions for replacing patch.

- Advise patient not to use more than 4 times/month without consulting health care professional.

Evaluation/Desired Outcomes
- Relief of migraine attack.