SUMATRIPTAN INJECTION
(Imitrex / Alsuma / Sumavel / Zembrace SymTouch)

RATIONALE FOR INCLUSION IN PA PROGRAM

Background
The selective serotonin receptor agonists, or “triptans”, are a class of medications that have the ability to stop a migraine. Triptans work by binding to serotonin receptors in the brain. Specifically, per Drug Facts and Comparisons pharmacology of the Serotonin 5-HT1 Receptor Agonists (Triptans): The vascular 5-HT1 receptor subtype is present on the human basilar artery and in the vasculature of isolated human dura mater. Current theories on the etiology of migraine headaches suggest that symptoms are caused by local cranial vasodilation or the release of vasoactive and proinflammatory peptides from sensory nerve endings in an activated trigeminal system. The therapeutic activity of the serotonin 5-HT1 receptor agonists in migraine most likely can be attributed to agonist effects at 5-HT1B/1D receptors on the extracerebral, intracranial blood vessels that become dilated during a migraine attack and on nerve terminals in the trigeminal system. Activation of these receptors results in cranial vessel constriction, inhibition of neuropeptide release, and reduced transmission in trigeminal pain pathways (1).

This class of medications has potentially serious side effects, especially when taken in high doses. Life-threatening disturbances of cardiac rhythm and myocardial infarction have been reported, as well as stroke. Excessive use of triptans can lead to medication overuse headache (MOH). MOH was previously called rebound headache, drug-induced headache and medication-misuse headache (2-5).

Regulatory Status
The FDA-approved indications for Imitrex injectable, Alsuma, and Sumavel are: (2-4)
- Acute treatment of migraine attacks, with or without aura
- Acute treatment of cluster headache episodes

The only FDA-approved indication for Zembrace is: (5)
1. Acute treatment of migraine with or without aura in adults

Limitations of Use: (2-5)
1. Use only after a clear diagnosis of migraine or cluster headache has been established.
2. Not intended for the prophylactic therapy of migraine.
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Off Label Use: (6)
Triptans have been found to be safe and effective in the pediatric and adolescent population.

Imitrex is available in a solution for injection. An autoinjection device is available for use with 4- and 6-mg prefilled syringe cartridges to facilitate self-administration in patients using the 4- or 6-mg dose (2).

Alsuma is sumatriptan solution supplied in a single dose auto-injector for subcutaneous use (3).

Sumavel DosePro is a sumatriptan solution supplied in a prefilled single-dose needle free subcutaneous delivery system (4).

Zembrace SymTouch is available as a prefilled, single dose, auto injector containing 3 mg sumatriptan. With Zembrace SymTouch, the needle penetrates approximately ¼ inch (6 mm). The injection is intended to be given subcutaneously (5).

Sumatriptan injection is contraindicated in patients with (2-5):
- History of coronary artery disease or coronary artery vasospams
- Wolff-Parkinson-White syndrome or other cardiac accessory conduction pathway disorders
- History of stroke, transient ischemic attack, or hemiplegic or basilar migraine
- Peripheral vascular disease
- Ischemic bowel disease
- Uncontrolled hypertension
- Recent (within 24 hours) use of another 5-HT1 agonist (e.g., another triptan) or of an ergotamine-containing medication
- Concurrent or recent (past 2 weeks) use of monoamine oxidase-A inhibitor
- Hypersensitivity to sumatriptan injection (angioedema and anaphylaxis seen)
- Severe hepatic impairment

Summary
Migraine is a chronic, recurrent condition that affects millions of people worldwide. Triptans are serotonin (5-HT) receptor agonists that interrupt attacks or episodes of migraine, but do not prevent migraines from happening. This class of medications has potentially serious side effects,
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especially when taken in high doses. Life-threatening disturbances of cardiac rhythm and
myocardial infarction have been reported, as well as stroke. Triptans have been found to be safe
and effective in the pediatric and adolescent population (1-6).

Prior authorization is required to ensure the safe, clinically appropriate and cost effective use of
Imitrex, Alsuma, Sumavel DosePro and Zembrace SymTouch while maintaining optimal
therapeutic outcomes.

References
   Comparisons [database online]. St. Louis, MO: Wolters Kluwer Health, Inc; December
   2017.
   2015.
   March 2017.