

MAGNESIUM SULFATE

Class: Electrolyte

Therapeutic Actions/Pharmacodynamics: As a bronchial smooth muscle relaxant, contributes to reduction of bronchospasm in asthma. As an antidysrhythmic, reverses low circulating magnesium levels associated with ventricular arrhythmias, particularly polymorphic ventricular tachycardia, commonly called torsades des pointes. It is the anticonvulsant of greatest benefit for eclampsia.

Indications: Dyspnea - Asthma

Ventricular Fibrillation/Pulseless Ventricular Tachycardia (Torsades)

Tachycardia - Stable (Torsades)

Childbirth - Complicated (Eclampsia)

Complications of Pregnancy (Eclampsia)

Contraindications: None in indicated situations.

Pharmacokinetics: Onset of action typically within 1-2 minutes after IVP/IOP. Effects persist for up to 30 minutes.

Side Effects: None expected in indicated dosing. High doses (exceeding 4-6 grams) may cause sedation, muscle weakness, depressed reflexes, hypotension, bradycardia, and respiratory depression.

Dosage: Dyspnea - Asthma - (Severe & Refractory to Nebulization) - Adult

1 gram very slow IVP over 10 minutes

Ventricular Fibrillation/Pulseless Ventricular Tachycardia (Torsades) - Adult

1 gram IVP/IOP

Tachycardia - Stable (Torsades) - Adult

1 gram slow IVP/IOP over 1 minute. May repeat once.

Tachycardia - Stable (Torsades) Pediatric (Consult with OLMCP for use and dosing).

Childbirth - Complicated (Eclampsia)

Complications of Pregnancy (Eclampsia)

1 gram IVP/IOP. May repeat every 2-3 mins until seizure abates. Maximum cumulative dose is 4 grams.

How Supplied: 1 gram/2 mL (500 mg/mL in 50% solution) vials

5 grams/10 mL (500 mg/mL in a 50% solution) vials

5 grams/10 mL (50% mg/mL in a 50% solution) pre-filled syringes

(Always check concentration and dose per container at time of patient medication administration)