

MAGNESIUM SULFATE

Indications:

- Cardiac Arrest (V-Fib/Pulseless V-Tach)
- Wide Complex Tachycardia with a Pulse (Torsade de Pointes)
- Respiratory Distress or Failure (asthma, COPD)
- OB seizures (eclampsia).

Contraindications:

- Hypotension
- Third degree AV block
- Routine dialysis patients
- Known hypocalcemia.

Precautions: Magnesium Sulfate should be administered slowly to minimize side effects. Use with caution in patients with known renal insufficiency. In hypermagnesemia Calcium Chloride should be available as an antidote if serious side effects occur.

Side effects:

- Hypotension
- Cardiac arrest
- Respiratory/CNS depression
- Flushing
- Sweating
- Bradycardia
- Decreased deep tendon reflexes
- Drowsiness
- Respiratory depression
- Arrhythmia
- Hypothermia
- Itching/rash.

Class: Antiarrhythmic (Class V), Electrolyte

Mechanism of Action: Magnesium Sulfate is a salt that dissociates into the Magnesium cation and the sulfate anion. Magnesium is an essential element in numerous biochemical reactions that occur within the body. Magnesium Sulfate acts as a calcium channel blocker and blocks neuromuscular transmission. Hypomagnesemia can cause refractory ventricular fibrillation. Magnesium Sulfate is also a central nervous system depressant used for seizures associated with eclampsia and it is also a bronchodilator

Concentration: 10.0 grams/20.0 ml

Dosage:

Adult:

MAGNESIUM SULFATE cont.

- **Cardiac Arrest** (Refractory V-Fib or Torsades de Pointes)
- 1.0 - 2.0 grams IV/IO

Pediatric:

- **Cardiac Arrest** (Torsades de Pointes)
- 25.0 mg/kg over 5 minutes
Repeat initial dose once.
Maximum total of 2.0 grams

Pediatric 1st & 2nd Dose

3KG	4KG	5KG	6KG	7KG	8KG	9KG	10KG	11KG	12KG	13KG
0.15ml	0.2ml	0.25ml	0.3ml	0.35ml	0.4ml	0.45ml	0.5ml	0.55ml	0.6ml	0.65ml

14KG	15KG	16KG	17KG	18KG	19KG	20KG	21KG	22KG	23KG	24KG
0.7ml	0.75ml	0.8ml	0.85ml	0.9ml	0.95ml	1.0ml	1.05ml	1.1ml	1.15ml	1.2ml

25KG	26KG	27KG	28KG	29KG	30KG	31KG	32KG	33KG	34KG	35KG
1.25ml	1.3ml	1.35ml	1.4ml	1.45ml	1.5ml	1.55ml	1.6ml	1.65ml	1.7ml	1.75ml

36KG
1.8ml