

Initial Date: 07/19/2023

Revised Date:

Section: 9-32R

## ***Magnesium Sulfate***

**Pharmacological Category:** Antiseizure Agent, Electrolyte Supplement

### **Indications:**

1. Cardiac: Torsades de Pointes
2. VF/VT in hypomagnesemia
3. Pre-eclampsia
4. Eclamptic seizures
5. Refractory status asthmaticus

### **Precautions:**

1. Magnesium Sulfate is diluted for applications in these protocols

### **Expected effects:**

1. Seizure cessation
2. Decreased respiratory distress

### **Side effects:**

1. Respiratory depression
2. Hypotension
3. Asystole
4. Burning in IV site for conscious patients

### **Best Practice for Administering Magnesium Sulfate**

1. Magnesium Sulfate dose added to 100 to 250 mL of NS and infusing over approximately 10 minutes.

### **Notes:**

1. Magnesium Sulfate for Preeclampsia/Eclampsia can be administered prior, during, or up to 6 weeks post childbirth.
2. The dosing for preeclampsia and eclampsia are both 4 gm (see treatment protocol for pre/post radio requirements).

### **Dosing: ADULT RESPIRATORY DISTRESS**

Indication: Status asthmaticus

Adults administer:

1. Magnesium Sulfate 2 gm slow IV (preferably added to 100-200 mL NS bag over 10 minutes).

### **Dosing: ADULT SEIZURES**

Indication: Eclamptic seizure

Adults administer:

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1. Magnesium Sulfate 4 gm over 10 minutes IV/IO until seizure stops (preferably added to 100-200 mL NS bag over 10 minutes).

**Dosing: CHILDBIRTH & RELATED OBSTETRICAL EMERGENCIES**

Indication: Preeclampsia or Eclamptic Seizure

Adults administer:

1. Magnesium Sulfate 4 gm over 10 minutes IV/IO until seizure stops (preferably added to 100-200 mL NS bag over 10 minutes).

**Dosing: ADULT CARDIAC ARREST**

Indications: Suspected torsades de pointes

Adults administer:

1. Magnesium Sulfate 2 gm IV/IO

Used in the Following Protocols:

Respiratory Distress (Section 3 Adult Treatment)

Seizures (Section 3 Adult Treatment)

Childbirth and Obstetrical Emergencies (Section 4 Obstetrics and Pediatrics)

General Cardiac Arrest (Section 5 Adult Cardiac)