

Magnesium Sulfate

- ABCs
- Detailed Assessment
- Obtain History ①
- Start IV LR at 125 ml/hour

Bolus with 4 grams magnesium sulfate (40 grams / 1 liter premix) over 20 minutes. Contact Medical Control prior to administering Magnesium Sulfate.

Administer Magnesium Sulfate Bolus:
4 grams = 300 ml/hr with 100 ml limit
6 grams = 450 ml/hr with 150 ml limit
Administer over 20 minutes

Then Magnesium Sulfate Maintenance Dose:
2 grams = 50 ml/hr
3 grams = 75 ml/hr
4 grams = 100 ml/hr

May consider giving an additional bolus of 2 grams of MgSO₄ over 15 minutes when increasing the maintenance rate.

- Transport
- Closely monitor for changes in status
- Keep patient warm

Observe for Maternal Side Effects:

- * Nausea and vomiting
- * Initial flushing
- * Transient lowering of blood pressure
- * Diuretic inactivation – may cause fluid retention.
- * Decreased fetal variability
- * CNS depression
- * Pulmonary edema (patient receiving both magnesium sulfate and betamethasone)
- * Respiratory depression
- * Chest Pain
- * Muscle weakness/ hypotonia
- * Headache
- * Depressed / Weak reflexes
- * Hypertension

Magnesium Levels effects:

- 2.5 – 5 possible EKG changes ②
- 5- 7 therapeutic
- 10 reflexes are decreased, decreased urine output
- 12- 14 respiratory depression, hypotension, unresponsiveness cardiac dysrhythmias, fetal distress.

Antagonist is Calcium Gluconate ③

1. Assess DTR's clonus, fetal heart tones, uterine activity, cervical status if appropriate, lung sounds, epigastric pain, and vital signs.
2. EKG changes : P-Q interval prolongation, wide QRS.
3. **Calcium gluconate 10% : 10 ml of 10% solution over 10 minutes.** Monitor EKG for cardiac arrhythmias.