

MAGNESIUM SULFATE – PUBLIC COMMENT APRIL 2024

ACTION: Electrolyte/Antiarrhythmic

- Magnesium provides electrical stability in the myocardium.
- Affects impulse formation and conduction time in myocardium reducing incidence of dysrhythmias associated with hypomagnesemia or prolonged QT interval.
- Magnesium is effective in the prevention and management of seizures associated with eclampsia in pregnant women

INDICATIONS:

- **Treatment** of Torsades de Pointes (polymorphic V-Tach).
- V-Fib/V-Tach cardiac arrest patients with poor dietary intake or **at risk for hypomagnesemia chronic diseases** (i.e. alcohol **useism**, renal failure **and/or** use of diuretics).
- Refractory V-Fib/V-Tach after use of cardioversion and **Amiodarone amiodarone**.
- **I** ischemic chest pain **patients** presenting with significant ventricular ectopy AND who have poor dietary intake or **at risk for hypomagnesemia (i.e. alcohol use, renal failure or use of diuretics)**.
- Seizures secondary to eclampsia in **third trimester** pregnant **or postpartum** women.

CONTRAINDICATIONS:

- In renal patients, use caution if giving additional doses of Magnesium sulfate.

POTENTIAL SIDE EFFECTS:

- Flushing and sweating
- **B** radycardia
- **H**ypotension
- Respiratory and CNS depression

ADULT DOSE/ROUTE:

- ⇒ **Arrest due to Torsades de Pointes:** 2 grams **IV/IO push**
- ⇒ **Polymorphic ventricular tachycardia WITH a pulse:** 2 grams in 100 ml D5W slowly IV/IO with target goal of infusing 100 ml over 10 minutes.
- ⇒ **Eclampsia/preeclampsia with severe features:** 6 grams in 100 ml in 100 ml D5W slowly IV/IO with target goal of infusing 100 ml over 15 minutes or 10 grams IM administered as 5 grams in each buttock if no IV access.

PEDIATRIC DOSE/ROUTE:

- ⇒ Not indicated

NOTES:

- In Torsades de Pointes (polymorphic V-Tach), give **magnesium sulfate** as the first-line antiarrhythmic and doses higher than 2 grams may be required
- Contact Base Hospital Physician for additional orders.
- **Eclampsia/preeclampsia with severe features should be considered in third trimester pregnancy and up to 6 weeks postpartum if seizures occur or a SBP greater than 160mmHg or a diastolic blood pressure greater than 110mmHg with visual disturbances or altered mental status. Hx of**

preeclampsia is not required for development of eclampsia.

DRAFT