Hypermagnesemia

UC Emergency Med Quality Comm.

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**Magnesium > 2.5 mg/dl**

1. Obtain BMP, Phos, if not already done
2. Order EKG

**Sources of magnesium**
- Exogenous
  - Epsom salts
  - Laxatives
  - Iatrogenic infusion
- Endogenous
  - Rhabdomyolysis
  - Tumor lysis
  - Crush injury
  - Burns

**EKG changes associated with hypermagnesemia**
1. Wide QRS or peaked T waves (can mimic hyperkalemia)
2. Heart block, conduction defects

**Symptoms**
- 4.6 - 7.2 mg/dl: nausea, flushing, headache, drowsiness, diminished DTRs, somnolence, absent DTRs, hypotension, bradycardia
- >7.2 mg/dl: muscle paralysis, apnea, respiratory failure, cardiac arrest

**Is patient symptomatic?**

**No symptoms, Mg <12 mg/dl**

**Mg 2.5 - 12 mg/dl AND no respiratory/cardiac/neuro symptoms**

1. Volume resuscitation
2. Consider IV furosemide

**Mg > 12 mg/dl OR respiratory/cardiac symptoms**

2g IV calcium gluconate over 5-10 min

**Does patient have renal failure?**

- Yes
  - Consider emergent dialysis

**No further workup**

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https://www.agilemd.com/flowcharts/author/modules/mn_1934eb55860903c3c6fca/10_20d2b2a030a4