HYPERMAGNESEMIA

(Last updated 07/24/2019; Reviewers: Alice Gallo de Moraes, MD)

IMMEDIATE CONSIDERATIONS

FINDINGS

- **Signs & Symptoms**
  - Usually asymptomatic
  - Neurological
    - Lethargy
    - Confusion
    - Muscle weakness
    - Abnormal deep tendon reflexes
      - Depressed at serum magnesium levels above 2.5 mmol/L and absent at the levels of above 5 mmol/L
  - Cardiac
    - ECG
      - Increased PR interval
      - Heart block
      - Rarely asystole

- **Predisposing Conditions**
  - Impaired GFR either from AKI or CKD with:
    - Aggressive IV Mg repletion
    - Mg-containing medications
      - Milk of Magnesia
- Mylanta
- Maalox
  - Concomitant Lithium ingestion

**DIAGNOSTIC INTERVENTIONS**

- **Labs**
  - Renal function
  - Phosphorous
  - Calcium
  - Potassium

- **Monitoring**
  - ECG
  - Serum magnesium concentrations

**THERAPEUTIC INTERVENTIONS**

- Stopping magnesium intake
- Ensure adequate hydration
- Diuretics
- Dialysis might be needed in patients with renal impairment

**MANAGEMENT AFTER STABILIZATION**

- **Follow-Up**
  - Measure renal function
  - Phosphorous
  - Calcium
- Potassium
- Magnesium
REFERENCES & ACKNOWLEDGEMENT

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