

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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