Hyperkalemia

Aliases

High Potassium

Patient Care Goals

- Limit mortality and morbidity by reducing elevated potassium level minimizing adverse effect on the heart

Patient Presentation

- Severe hyperkalemia is defined as potassium over 6 mmol/dL or suspected hyperkalemia based upon ECG changes and clinical presentation.

- Patients on dialysis may have chronic elevated potassium
    - Evaluation for hyperkalemia requires review of baseline pre/post dialysis potassium levels and symptoms

- Examples of clinical conditions that may lead to hyperkalemia are as follows but are not limited to:
    - Renal disease.
    - Transcellular redistribution
        - Burns
        - Hyperglycemia
        - Crush Injury
    - Excessive potassium intake.
    - Mineralcorticoid insufficiencies (Addisons disease, Cushings syndrome, hypoaldosteronism).
    - Pharmacologic agents (potassium sparing agents such as Spirolactone).

Patient Management

Assessment

1. Monitor Blood Glucose Level
2. Obtain 12-Lead EKG to assess for peaked T waves or other findings consistent with hyperkalemia
3. Obtain history including medication list to assess for conditions/medications as noted above
4. Perform physical exam paying particular attention to injuries such as burns or crush injury

Treatment and Interventions

1. Provide volume expansion with normal saline bolus **[AEMT]**
    a. Adult: Normal saline 1 L bolus IV; reassess and re-bolus 1L if indicated
    b. Pediatric: Normal saline 10 mL/kg bolus IV, reassess, and repeat up to 20 mL/kg total
2. **Calcium Chloride or Calcium Gluconate [PARA]** for cardioprotective effects. Refer to Medication Protocol
3. **Sodium Bicarbonate [PARA]** for redistribution of Potassium into cells. Refer to Medication Protocol
4. **Furosemide [PARA/Inter-Facility]** for aiding in the excretion of potassium through the urine. Refer to Medication Protocol
5. **Albuterol [EMR]**
    a. **2.5mg Nebulizer** for redistribution of Potassium into cells
        a. May repeat if other medications are not readily available and the patient does not develop significant tachycardia
6. **Insulin Regular [PARA-Inter-Facility] 10 units IV/IO concurrently with Dextrose 25g IV/IO**

a. Insulin obtained from the sending facility