BROWN EMERGENCY MEDICINE CDU
DEHYDRATION/ELECTROLYTE REPLETION PATHWAY

Purpose: To safely manage and disposition patients diagnosed with dehydration and possible acute kidney injury.

Admission Eligibility Criteria:

- Clinical and/or laboratory diagnosis of dehydration
- Attending physician must document reason for CDU admission and outline treatment and disposition plans before patient can be moved to CDU

Exclusion Criteria:

- **Vital Signs**:
  - Heart Rate >110 (persistent)
  - Systolic Blood Pressure <90 mmHg
  - Pulse Oximetry < 95%
  - Respiratory Failure (pH<7.3, BIPAP in the ED, RR>35)
- Altered mental status
- Sepsis or Septic Shock
- **High risk comorbidities**:
  - Immunocompromised status – active chemotherapy plan, HIV, sickle cell disease, cirrhosis, asplenia, autoimmune disease or chronic illness requiring immunosuppressive medications
  - Presence of a known drug resistant organism (actively)
- **Known Functional Renal abnormalities (imaging not required prior to Observation, unless clinically indicated):**
  - Renal or perinephric abscess
  - Suspected/confirmed comorbid ureterolithiasis
  - Mechanical obstruction
  - Single kidney, Polycystic kidney disease, renal transplant
  - Renal failure or acute renal insufficiency
  - Indwelling catheter, stent, nephrostomy tube, or recent GU procedure/manipulation.
- **Labs**
  - Potassium: Hyperkalemia (>5.5 or EKG changes) or Hypokalemia (<2.9 or EKG changes)
  - Sodium: Hypernatremia (>150) or Hyponatremia (<125)
  - Lactate (if clinically indicated) >2 mmol/L, unless corrected to <2
- Patient with continued abdominal pain, nausea, vomiting, diarrhea after treatment or unable to take any PO.
- Dehydration due to psychiatric condition (ie. Failure to thrive)
- Concurrent medical problem requiring admission
- Any condition found on the “CDU Universal Exclusion Criteria” list
- Requiring more assistance for ADLs than the CDU is capable of safely providing (one assist/patient for units with 5:1 maximum staff:patient ratio and no assists for units with >5:1 maximum staff:patient ratio)
- Unlikely discharge within 48 hrs. (ED attending discretion)

Last Update: 12/18/22, EEG

DEHYDRATION MANAGEMENT PATHWAY:

Pre-observation unit evaluation should include:

1. CBC
2. Chem 7
3. Urinalysis (if indicated)
4. HCG (if indicated)
5. UHCG (if indicated)
6. Lactate (if indicated)

Observation Unit interventions may include:

1. Serial vital signs
2. IV hydration
3. Antiemetics
4. Repeat labs

Indications for hospital admission while under ED observation:

1. Newly and persistently abnormal vital signs
2. Clinical deterioration
3. Inability to be discharged within 24 hours

Discharge Planning:

1. Resolution or improvement of systemic symptoms
2. Tolerate PO
3. Primary Care follow-up appointment within 14 days
4. Labs (ie. Creatinine) returned to baseline
5. Prescription of antiemetics

Example of possible patient for dehydration pathway:

- 35 year old patient with acute nausea, vomiting, and diarrhea. Family members with the same. Patient diagnosed with gastroenteritis and has no evidence of surgical abdominal pathology. However, their creatinine is elevated above their baseline. Patient may be admitted to the CDU dehydration pathway, receive continued anti emetics, IV fluids and have labs rechecked in the morning. Their creatinine returns to baseline, they take POs, and continue to feel improvement. Vital signs are normal. They are then discharged with outpatient follow up.