

SYMPTOMS

- Polyuria (98%)
- Polydipsia (98%)
- Nausea/Vomit (>50%)
- Weight Loss (81%)
- Fatigue (62%)
- Dyspnea (57%)

SIGNS

- Tachycardia
- Tachypnea
- Hypotension
- Lethargy
- Kussmaul Breathing
- Decreased skin turgor

LABS

- Glucose >250 mg/dL
- Ketonuria (100%)
- Ketonemia (b-HB)
- Metabolic Acidosis
- Anion Gap
- Bicarbonate <18 meq/L

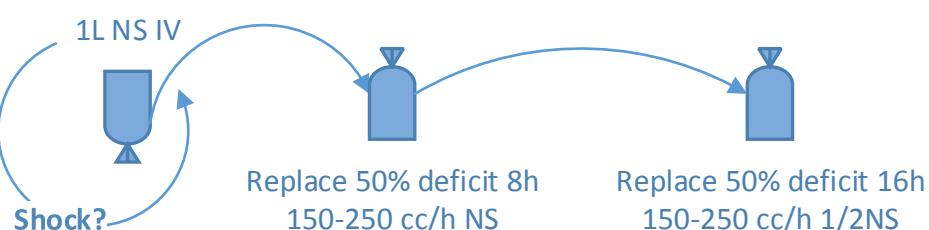
DIFFERENTIAL DIAGNOSIS

- Hyperosmolar Hyperglycemia
- AG-Metabolic Acidosis (MUD-PILES)
- Alcoholic or Starvation ketoacidosis
- Myocardial Infarction
- Pancreatitis
- Gastroenteritis

Emergent Fluid Replacement

Phase 1

Rehydrate



PRECAUTIONS

- Add D5 when glucose <200-250 mg/dL
- Adjust fluids based on sodium
- Avoid serum osm drop >3 osm/h

Emergent Potassium Management

Phase 2

K+ Replacement

POTASSIUM <3.3 MEQ/L

- KCL 20-30 meq/h until K+ >3.3
- Hold Insulin until corrected**
- Check potassium hourly
- Cardiac Monitoring

POTASSIUM 3.3 TO 5.2 MEQ/L

- KCL 20-30 meq/L in IV Fluids
- Maintain Potassium 4-5 meq/L
- Check Potassium every 2 hours

POTASSIUM >5.2 MEQ/L

- Hold potassium replacement
- Check Potassium every 2 hours
- Add KCL to fluids when <5.0 meq/L

Phase 2

Shock state corrected with hydration and Potassium >3.3 meq/L

Return to phases 1 and 2 Until fluid resuscitated and potassium replaced

Yes

Blood Glucose Control – Insulin Drip

Phase 3

Insulin Drip

- Start IV Insulin**
- Bolus: 0.1 units/kg then Drip: 0.1 units/kg/h
 - Bolus: None Drip: 0.14 units/kg/h

INSULIN DRIP TITRATION

- Glucose drops 10% first hour
- Glucose drops 50-70 mg/dL/hour
- Adjust per q30-60 min Glucose

INSULIN DRIP TAPER

- Glucose <200 mg/dL
- Bicarbonate >18 meq/L

Blood Glucose Control – Insulin SQ

Phase 4

Insulin SQ

- Start SQ Insulin**
- INSULIN DRIP TAPER
- Decrease Insulin drip by 50%
 - Add Dextrose to IV fluids

1-2 hours of overlap Simultaneous Insulin IV and SQ

- INSULIN DRIP OFF**
- Stop Insulin Drip
 - Continue SQ Insulin

Electrolyte Replacement and Monitoring

Phase 5

Electrolytes

- ELECTROLYTES**
- Replace Phosphorus if <0.5-1.0
 - Replace Magnesium if <1.2

- SEVERE ACIDOSIS (PH<6.9)**
- Replace Bicarbonate and Potassium
 - Rehydration

- MONITOR LABS EVERY 2-4 HOURS**
- Serum electrolytes
 - Serum Creatinine and BUN