DKA - Defining Characteristics
- Uncontrolled hyperglycemia
- Profound dehydration
- Electrolyte disturbances
- Acid - base abnormalities

Signs & Symptoms:
- Coma
- Abdominal pain
- Polydipsia, polyuria
- Kussmaul respirations
- Fruity breath
Signs & Symptoms:
- N/V, weakness
- weight loss
- hypotension
- ketonuria
- tachycardia

Treatment:
- ABCs
- restore fluid balance
  - NS
  - D5½NS
- restore metabolism
  - regular insulin
- correct acidosis
  - NaHCO3?
- restore electrolyte balance
**Treatment**

- Electrolyte Management
  - potassium
  - phosphate
  - sodium

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**Defining Characteristics**

- Type II diabetes
- Mortality 40 - 60%
- Severe dehydration
- Profound hyperglycemia
- Sodium abnormality

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**Signs & Symptoms**

- N/V, weight loss
- Hypotension, tachycardia
- Coma
- Poor skin turgor
- Seizures, hyperreflexia, disorientation

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**Treatment**
- ABCs
- restore fluid balance
  - NS
- restore metabolism
  - insulin
  - treat cause

**Defining Characteristics**
- blood glucose < 50 mg/dL
- most often seen in persons with insulin dependent diabetes
- coma → brain damage → death
Signs & Symptoms
- altered LOC
- mimic alcohol-induced
- other
  - dilated pupils
  - HR, systolic BP
  - diaphoresis, pallor
  - seizures

Treatment
- restore normal metabolism
  - rapidly absorbable CHO
  - slowly metabolized CHO
- prevent complications
  - monitor S/S
  - monitor patients on TPN
  - monitor patients on pentamidine
  - identify peak insulin levels

Diabetes Insipidus
Defining Characteristics
- defect in release or synthesis of ADH (neurogenic)
- defect in response to ADH at the distal tubule (nephrogenic)
Diabetes Insipidus

Etiology
- Traumatic
- Inflammatory
- Pharmacologic agents
  - Alcohol
  - Dilantin
  - Lithium carbonate

Signs & Symptoms
- Polyuria
- Polydipsia
- Dehydration
  - Dry skin
  - Confusion
  - Poor skin turgor

Lab Tests
- Serum osmolality
  - Normal: 285 – 295 mOsm/kg
  - Critical values
    - <265 mOsm/kg
    - >320 mOsm/kg
    - (increased in DI)
    - > 295 mOsm/kg
Lab Tests

- Urine osmolality
  - 12 – 14 hour fluid restriction (> 850 mOsm/kg)
  - Random sample 50 – 1200 mOsm/kg
  - Decreased in DI
  - < 500 mOsm/kg

**Diabetes Insipidus**

Treatment

- Correct water & electrolyte imbalance
- Administer vasopressin
- Watch for water intoxication

**SIADH**

Defining Characteristics

- Increased secretion of ADH
- Results in water intoxication
SIADH
Etiology
- tumors (extracranial & cranial)
- traumatic
- infections
- pharmacologic agents
  - chlorpropamide
  - thiazides
  - acetaminophen

SIADH
Signs & Symptoms
- water intoxication
  - altered LOC
  - diminished DTR
  - Seizures

SIADH
Lab Values
- Serum osmolality: low
  - <285
- Urine osmolality: high
  - >800
SIADH Treatment

- fluid restriction
- hypertonic saline
- diuretics
- democlocycline