Emergency Medicine: H&P 2 **Fredrique Green**

Chief complaint: abdominal pain since this morning

History of Present Illness: 52-year-old F with PMHx DM controlled on Novolog presents to ED % abdominal pain, emesis, diarrhea, and weakness onset this morning. Patient reports that shortly after waking up this morning, she began feeling weak with chills, and in a hurry to leave for her endocrinology appointment, she did not take her insulin. She reports then experiencing LLQ abdominal pain, nausea, many episodes of NBNB emesis, diarrhea, and intolerability to oral intake. Patient states she is compliant with Novolog and took 20 units when she arrived to the ED (1 hour ago) as she felt her sugar was high. She endorses a possible viral URI last week when she experienced cough and congestion. Denies fever, headache, hematuria, dysuria, hematochezia, syncope, vision changes, chest pain, shortness of breath.

PMHx: DM
Medications: insulin aspart (dose unknown)
Allergies: none
PSHx: none
FHx: none
Social:

- **Tobacco:** never
- **Alcohol**: none
- **Substance use**: none

Review of Systems:
General: admits chills, weakness. Denies fever, headache, fatigue, lightheadedness
Head: denies dizziness, headache, trauma
Respiratory: denies cough, shortness of breath, sputum production, wheezing, hemoptysis, paroxysmal nocturnal dyspnea
Cardiovascular: denies chest pain, palpitations, irregular heartbeat, edema, syncope, known heart murmur
Gastrointestinal: admits LLQ abdominal pain, nausea, vomiting, diarrhea. Denies constipation, rectal bleeding, loss of appetite
Genitourinary: denies change in frequency, urgency, hesitancy, dysuria, nocturia, polyuria, oliguria, change in urine color, incontinence, flank pain, dyspareunia, vaginal bleeding, vaginal discharge

Physical exam:

- **Vitals**:
  - BP: 136/77
  - Pulse: 91
  - T: 98.8
  - RR: 18
  - Wt: 110 lbs
  - SpO2: 100%
- **Physical exam:**
  - **General**: ill-appearing, well-developed, NAD, AO3
  - **Cardiovascular**: normal rate, regular rhythm, no friction rubs, murmurs, or gallops
  - **HENT**:

        - **Head**: normocephalic, atraumatic
        - **Eyes**: EOM intact, PERRLA, no R or L nystagmus, conjunctiva pink, sclera white
        - **Mouth**: mucous membranes dry
    - **Pulmonary**: lungs CTA b/l, normal breath sounds, no respiratory distress, normal respiratory effort
    - **Abdomen**: soft, flat, no distention, epigastric tenderness, no rebound or guarding, negative Murphy's sign, negative McBurney's point
    - **Skin**: warm, dry, capillary refill < 2
    - **Neurological**: no focal deficit present

DDx:

- Diabetic ketoacidosis
- Hyperglycemic Hyperosmolar State
- Gastroenteritis

Labs:

- POC glucose: 518
- CBC:
    - WBC: 20.36
    - Neutrophil %: 86.3
    - Immature granulocyte %: 2.7
    - Neutrophil absolute: 17.55
    - Immature granulocyte absolute: 0.55
    - All other indices: WNL
- CMP:
    - CO2: 18
    - Glucose: 359
    - Alk phos: 127
    - AST: 52
    - Anion gap: 23
    - All other indices: WNL
- Lipase: 16
- Serum beta-hydroxybutyrate: 4.37
- Blood gas:
    - pH venous: 7.20
    - PCO2 venous: 48
    - Sodium venous: 134
    - Potassium venous: 5.5
    - Glucose venous: 358
    - Lactate venous: 3.3
    - Oxyhemoglobin venous**:** 53.3
    - O2 Sat venous: 54.2
    - HC03 venous: 19
    - All other indices: WNL
- U/A: not collected
- Urine hCG: negative

Assessment:

54-year-old F PMHx DM presents to ED % LLQ abdominal pain, nausea with many episodes of NBNB emesis, diarrhea, generalized weakness, and intolerability to oral intake onset this morning. Patient did not take insulin this morning, but took Novolog 20 units in ED as she felt her sugar was high. Patient's symptom presentation, persistent hyperglycemia, VBG indicative

of metabolic acidosis, elevated serum beta-hydroxybutyrate, and electrolyte imbalance support the most likely diagnosis of DKA precipitated by recent missed insulin dose or potential infection (given elevated WBC, neutrophil percentage, and possible recent URI). Aggressive IV fluid hydration with regular insulin administration and electrolyte correction should be initiated.

Plan:
ED workup and the need for admission discussed with patient. I explained to the patient that her symptoms may represent DKA and the patient verbalized understanding of my concerns. Patient refused medical admission for control of her DKA at this time. Throughout the discussion she repeatedly stated: "I will not stay in the hospital." "I will not be admitted." "I am not going to stay here." "I understand what you are saying about a coma but I will not stay." Patient also stated that she prefers to go to her endocrinologist. Patient has elected to leave against medical advice. In my opinion, the patient has capacity to leave AMA. The patient is clinically sober, free from distracting injury, appears to have intact insight and judgment and reason, and in my opinion has capacity to make decisions. I explained the risks of leaving without further workup or treatment for DKA. The patient is refusing any further treatment for DKA, and is leaving against medical advice. I am unable to convince the patient to stay. I advised the patient to return to the Emergency Department if their symptoms worsen or if they change their mind about further evaluation and treatment. Patient signed AMA paperwork.

- *#DKA*
    - *IV 0.9% NaCl 1 L bolus over first hour*
    - *IV regular insulin gtt 5 units/hr (based on (0.1 units/kg body weight)*
    - *IV KCl 20 mEq*
    - *Admit to medicine*