**RAPID Reasoning Case Study**

**Diabetic ketoacidosis Content/Concept Map**

I. **Content**

| Anatomy/Physiology: | Diabetic ketoacidosis  
| | Chronic renal failure  
| | Pneumonia  |
| Pharmacology: | **Home Meds:**  
| | 1. Aspirin 81mg daily  
| | 2. Clonidine (Catapres) 0.3 mg bid  
| | 3. Lorazepam (Ativan) 1mg bid prn  
| | 4. Citalopram (Celexa) 40 mg daily  
| | 5. Zolpidem (Ambien) 10 mg at HS prn  
| | 6. Epoetin alfa (Epogen) 5000 units subq weekly  
| | 7. Gabapentin (Neurontin) 300 mg bid  
| | 8. Labetolol (Trandate) 200 mg bid  
| | 9. Omeprazole (Prilosec) 20 mg daily  
| | 10. Sevelamer Carbonate (Renvela) 800 mg 3 tabs ac  
| | 11. Simvastatin (Zocor) 40 mg HS  
| | 12. Lantus 50 units SQ at HS  
| | 13. Humalog insulin (Lispro) SQ sliding scale ac and HS  |
| **Medical Management:**  
| | 1. Ondansetron (Zofran) 4 mg IV push  
| | 2. Hydromorphone (Dilaudid) 0.5-1 mg prn every 4 hours for pain  
| | 3. Ciprofloxacin 400 mg/250 mL IVPB after blood/urine cultures  
| | 4. Regular insulin 10 units IV push  
| | 5. Sodium Bicarbonate (50 mL) 1 amp IV push  
| | 6. Calcium Chloride 1 gm IVPB  
| | 7. Regular insulin IV drip rate per DKA protocol  |
| Diagnostic/Labs: | 12 lead EKG  
| | *NSR w/peaked T waves  
| | *NSR w/resolution of peaked T waves  
| | Complete blood cell count (CBC)  
| | Basic metabolic panel (BMP)  
| | Urinalysis (UA) & Urine culture  |
| Priority Lab Emphasis: (Lab Planning) | Ketones in UA  |
| Dosage Calculation: | Ondansetron (Zofran) 4 mg IV push (4mg/2 mL vial)  |
| Nursing Priorities: | • Impaired gas exchange  
| | • Fluid volume deficit  
| | • Administer IV antibiotics to treat underlying UTI AFTER urine and blood cultures have been collected  
| | • Nausea  |
| | 2. 12 lead EKG  
| | 3. Place on cardiac monitor  
| | 4. Establish IV and initiate NS 0.9% bolus of 1000 mL x2  
| | 5. Ondansetron (Zofran) 4 mg IV push  |
## Concepts (in order of emphasis)

I. Fluid and Electrolyte Balance  
II. Acid-Base Balance  
III. Thermoregulation  
IV. Glucose Regulation  
V. Infection  
VI. Pain  
VII. Clinical Judgment  
VIII. Patient Education  
IX. Communication  
X. Collaboration

### NCLEX Client Need Categories

### I. Safe and Effective Care Environment

- **20%**—Management of Care
  - Providing and directing nursing care that enhances the care delivery setting to protect clients, family/significant others, and healthcare personnel
    1. Establish priorities  
    2. Collaboration w/treatment team  
    3. Advocacy

### II. Health Promotion & Maintenance:

- **9%**—The nurse provides and directs nursing care of the client and family/significant others that incorporates knowledge of expected growth and development principles, prevention and/or early detection of health problems, and strategies to achieve optimal health.
  1. Disease prevention  
  2. Physical assessment  
  3. Client education

### III. Physiologic Integrity

- **15%**—Pharmacological & Parenteral Therapies:
  1. Providing care related to the administration of medications and parenteral therapies
    1. Expected actions, adverse/side effects  
    2. Medication administration  
    3. IV therapies  
    4. Dosage calculation

- **12%**—Reduction of Risk Potential:

### Patient Education & Discharge Planning:

- Diet  
- Medications  
- Blood glucose control  
- Signs of DKA

| 6. Hydromorphone (Dilaudid) 0.5 prn every 4 hours for pain |  
|---|---|---|---|---|---|
| Patient Education & Discharge Planning: | o Diet | o Medications | o Blood glucose control | o Signs of DKA |
i. Reducing the likelihood that clients will develop complications or health problems related to existing conditions, treatments or procedures
   1. Changes in VS
   2. Diagnostic tests
   3. Lab values
   4. System specific assessments
   5. Potential for alterations in body systems

c. 13%—Physiological Adaptation:
   i. Managing and providing care for clients with acute, chronic, or life threatening health conditions.
      1. Pathophysiology
      2. F&E imbalances
      3. Medical emergencies

IV. QSEN Skills
   I. Patient-centered Care
      a. Implementation of care plan and evaluation of care
      b. Provide patient-centered care with sensitivity and respect for the diversity of human experience
      c. Assess presence and extent of pain and suffering. Assess levels of physical and emotional comfort
      d. Elicit expectations of patient & family for relief of pain, discomfort, or suffering
      e. Initiate effective treatments to relieve pain and suffering in light of patient values, preferences and expressed needs

   II. Evidence-based Practice
      a. Base individualized care plan on patient values, clinical expertise and evidence

   III. Teamwork and Collaboration
      a. Follow communication practices that minimize risks associated with handoffs among providers and across transitions in care (SBAR). Assert own position/perspective in discussions about patient care