# NURSING MANAGEMENT OF ENDOCRINE EMERGENCIES

By OSIRE JOHN ANDREW
CRITICAL CARE NURSE(MNS)

# Questions

- 1. Describe the nature of breathing in a person with DKA.
- What route is insulin given in DKA?
- What's the name and nature of the smell from a DKA patient?
- In nursing care of DKA a patient, what electrolyte is your most priority as your monitor the patient?
- List at least two H's in the assessment of adrenal crisis.
- In nursing care of thyroid storm, name the beta blockers administered in the management.

# DIABETIC KETOACIDOSIS(DKA) NURSING MANAGEMENT USING THE NURSING PROCESS

- A- Assessment
- D- Diagnosis
- P-Planning
- I - Implementation
- E -Evaluate

# DKA NURSING PROCESS

- **ASSESSMENT** – Fast , deep respirations (kussmaul)
- Increased thirst (polydipsia)
- Polyphagia (extreme hunger)
- “Fruity” breath
- Frequent urination
- Nausea and vomiting
- Abdominal pain
- Coma etc….

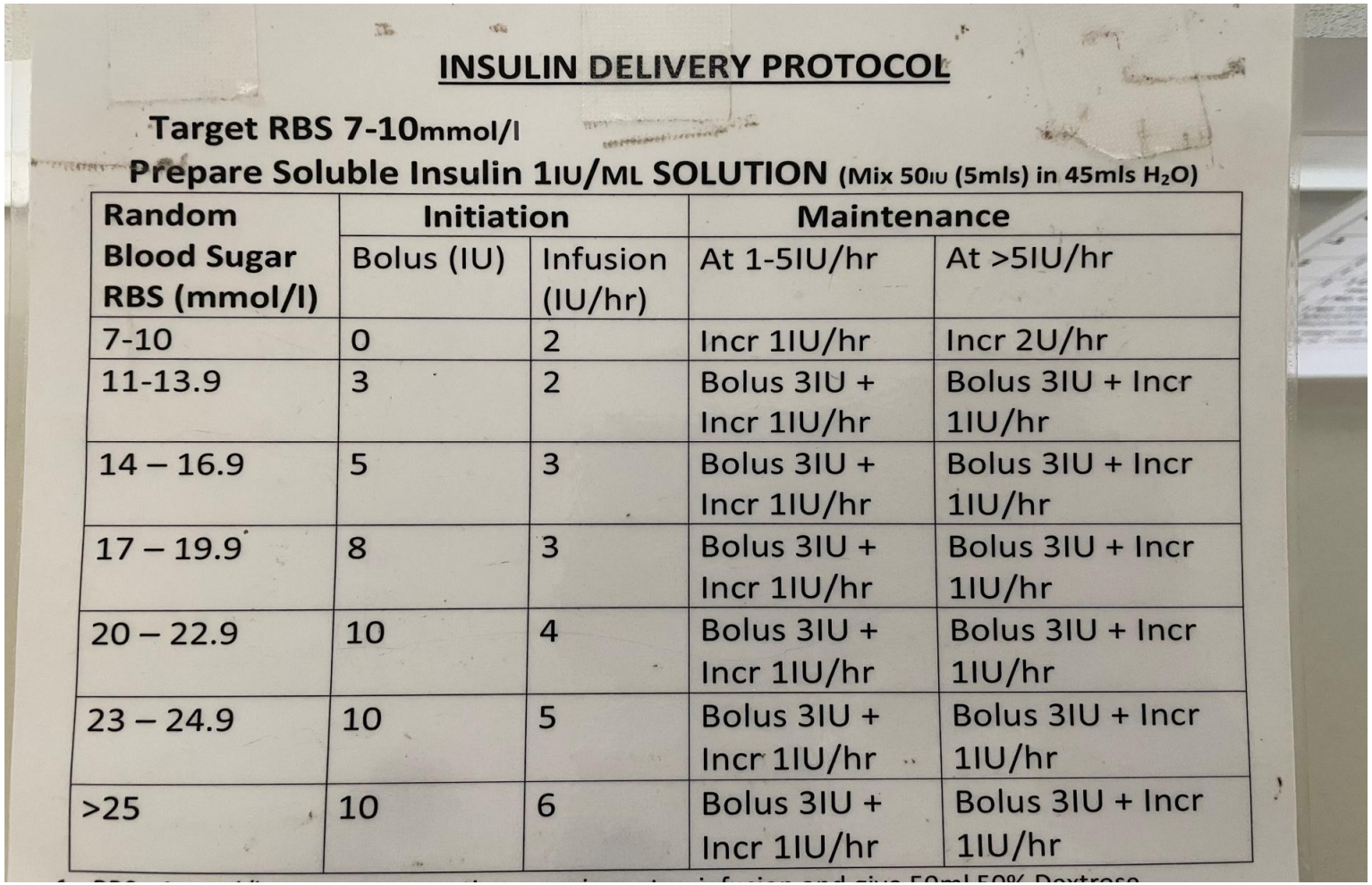
# Diagnosis(nursing)

- Ineffective breathing pattern related to deep, fast respirations secondary to compensation of metabolic acidosis
- Deficient fluid volume related to increased urination and vomiting
- Imbalanced nutrition: less than body requirements related to the inability of tissue cells to use glucose; nausea, and vomiting
- Deficient knowledge related to new onset of DM

# Planning & Implementation

- To have normal respirations and  within the normal ranges by correcting the metabolic profile (acidosis, insulin(IV),K.)
- To replace the normal fluid volume and not experience and nausea and vomiting
- To ensure a balanced nutrition that meets the cell energy requirements with appropriate insulin dosages given
- To teach the patient about their condition and make them able identify their needs.

# INSULIN DELIVERY PROTOCOL



**INSULIN DELIVERY PROTOCOL**

**Target RBS 7-10mmol/l**

**Prepare Soluble Insulin 1IU/ML SOLUTION** (Mix 50IU (5mls) in 45mls $H_2O$)

| Random Blood Sugar RBS (mmol/l) | Initiation | | Maintenance | |
|---|---|---|---|---|
| | Bolus (IU) | Infusion (IU/hr) | At 1-5IU/hr | At >5IU/hr |
| 7-10 | 0 | 2 | Incr 1IU/hr | Incr 2U/hr |
| 11-13.9 | 3 | 2 | Bolus 3IU + Incr 1IU/hr | Bolus 3IU + Incr 1IU/hr |
| 14 – 16.9 | 5 | 3 | Bolus 3IU + Incr 1IU/hr | Bolus 3IU + Incr 1IU/hr |
| 17 – 19.9 | 8 | 3 | Bolus 3IU + Incr 1IU/hr | Bolus 3IU + Incr 1IU/hr |
| 20 – 22.9 | 10 | 4 | Bolus 3IU + Incr 1IU/hr | Bolus 3IU + Incr 1IU/hr |
| 23 – 24.9 | 10 | 5 | Bolus 3IU + Incr 1IU/hr | Bolus 3IU + Incr 1IU/hr |
| >25 | 10 | 6 | Bolus 3IU + Incr 1IU/hr | Bolus 3IU + Incr 1IU/hr |

# Evaluate

- The patient will have achieved  respirations within normal ranges and corrected metabolic profile
- The patient will have attained normal fluid volume levels without nausea and vomiting
- The patient will be able to exhibit a balanced nutrition meeting all cell energy requirements as insulin stabilized
- The patient is able to identify needs about their condition and more knowledgeable with motivation

# Adrenal crisis

- **ASSESSMENT - ABC**s
- Assess for the h's
- 1. Hypotension
- 2. Hyponatremia
- 3. Hyperkalemia and
- 4. Hypogylycemia

# Diagnosis (nursing process)

- Risk for imbalanced  fluid volume related to inadequate aldosterone production .
- Imbalanced nutrition less than body requirements related to decreased cortisol levels.
- Risk for infection related to immune system compromise.

# Planning and Implementation

- 1.To monitor vital signs  i.e BP,HR, & fluid balance and assess for signs of volume imbalance
- Encourage increased amount of dietary sodium under supervision to compensate the aldosterone deficiency
- 2.Imbalanced nutrition; monitor weight, nutrition intake regularly assess for malnutrition – encourage balanced diet

# Planning and Implementation cont.

- 3. Risk for infection; monitor for S&S of infection fever, increased fatigue, localized inflammation
- Good hand hygiene and follow IPC measeures

# Evaluation

- Maintained fluid volume balance with stable blood pressures and appropriate hydration
- Improved nutrition status with weight maintenance and adequate intake of essential nutrients
- Reduced risk of infections through proper hygiene practices , immunizations and prompt treatment of infections

# Thyroid storm

**ASSESSMENT**

- Assess for cardiovascular status; extra heart sounds, complaints of orthopnea or dyspnea on exertion.
- Assess hydration status because dehydration can further decrease circulating volume and comprise CO
- Assess for pressure ulcer development secondary to hypoperfusion

# Diagnosis (nursing)

- Risk for decreased Cardiac Output
- Fatigue related to hypermetabolic state with increased energy requirements evidenced by impaired ability to concentrate, says I lack energy, nervous etc..
- Risk for disturbed thought processes (due to altered sleep)

# Planning and implementation

- To monitor BP when lying, sitting & standing if able.
- Monitor CVP if possible (more direct measure of circulating volume and cardiac function. Auscultate s1 2 then murmurs  s3 warn, meds,labs
- Fatigue; To monitor vital signs at rest and active, quiet environment, bed rest ,meds sedate

# Planning and implementation cont.

**Disturbed thought;**

- To assess their thinking process.
- To assess their environment
- To reorient person to place and time as indicated
- To Provide clock, calendar, room with outside window ; alter level of light to simulate day or night. Family visits etc…

# Evaluation

- **Decreased CO-** Achieved adequate cardiac output for tissue needs, evidenced by stable vitals , palpable peripheral pulses, good capillary refill, no dysrhythmias
- **Fatigue**- ability to verbalize increased energy levels – display by participating in activities
- **Disturbed thought**- maintain usual reality orientation, recognize changes in thinking, behaviors etc…