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1. Classic clinical manifestations of diabetes include:
 - o polyuria, polydipsia, and polyphagia.
2. The three main clinical features of diabetic ketoacidosis are:
 - o hyperglycemia
 - o dehydration with electrolyte loss
 - o ketones in the blood and urine causing metabolic acidosis.
3. What are the different types of insulins? Please give examples for each category.
 - Rapid acting
 - o Peak: 30-90 minutes
 - o Examples: insulin aspart (Novolog), insulin lispro (Humalog), insulin glulisine
 - Regular
 - o Peak: 2-5 hours
 - o Humulin R, Novolin R
 - Intermediate Acting
 - o Peak: 4-14 hours
 - o Humulin N, Novolin N
 - Long Acting
 - o No peak
 - o Insulin detemir (Levemir), Insulin Glargine (Lantus)
4. What type of insulin can be given via intravenously?
 - Regular insulin

5. What is the difference between DKA and HHS?

- DKA
 - o No insulin is present so fat and proteins are broken down
 - o High blood sugar with ketones in urine and acidosis
- HHS
 - o Not enough insulin present to lower glucose levels but enough to prevent fat and protein breakdown
 - o High blood sugar with hyperosmolarity with significant dehydration and no ketones

6. What are treatments utilized in hypoglycemia (for both conscious and unconscious patients)?

- Conscious
 - o 15 gram carb snack
 - 1 tbsp. of honey or syrup
 - ½ cup of fruit juice or regular (not diet) soft drink
 - 8 oz. of low fat milk
 - 6 saltine crackers
 - 3 graham crackers
- Unconscious
 - o Administer Glucagon SQ/IM or IV 50% Dextrose

7. A nurse is caring for a client who has syndrome of inappropriate antidiuretic hormone (SIADH).

Which of the following findings should the nurse expect? (Select all that apply)

- **Decreased blood sodium**
- Urine specific gravity 1.001
- **Blood osmolarity 230 mOsm/L**

- Polyuria
- Increased thirst

8. A nurse is reviewing laboratory results for a client who has Addison's disease. Which of the following laboratory results should the nurse expect for this client? (Select all that apply)

- **Sodium 130 mEq/L**
- **Potassium 6.1 mEq/L**
- **Calcium 11.6 mg/dL**
- **Blood urea nitrogen (BUN) 28 mg/dL**
- Fasting blood glucose 148 mg/dL

9. Describe in your own words what Pheochromocytoma is.

- Tumor of the adrenal medulla
- excess production of catecholamines
- S/S:
 - Hypertension
 - Headache
 - Hyperhidrosis
 - Hypermetabolism
 - Hyperglycemia

10. For the following disorders, please describe the hormone affected and indicate if it is increased or decreased. Then describe what those hormones are responsible for.

- Cushing's Disease/Syndrome
 - Too much cortisol
 - Over secretion of the hormones by adrenal cortex
 - ACTH stimulates adrenal cortex which increases the secretion of cortisol
 - S/S: Weakness, fatigue, depression, buffalo hump, weight gain, edema, thin fragile skin, bruising, Decreased libido

- Addison Disease/Addisonian Crisis
 - o Decreased aldosterone and cortisol
 - Adrenocortical insufficiency
 - o S/S: Weight loss, Craving for salt, Hyperpigmentation, Weakness and fatigue, N/V/D or constipation, Abd pain
- SIADH
 - o Excessive release of ADH by pituitary
 - Renal absorption of water & suppresses renin-angiotensin mechanism
 - o S/S: Tachycardia, Bounding pulse, Possible HTN, Crackles, Weight gain w/o edema, Hyponatremia, Oliguria- dark yellow & concentrated appearance
- Diabetes Insipidus
 - o Deficient Antidiuretic hormone production by pituitary
 - Responsible for retention of water and electrolytes
 - o S/S: excessive urination, dehydration, excessive thirst, Urine specific gravity < 1.005
- Thyroid Storm/Crisis
 - o Thyroid hormone excess
 - Produced by the pituitary gland
 - ↓ TSH
 - ↑ Free T4 and/or T3
- Myxedema Coma
 - o persistently low thyroid production by pituitary
 - o Hypotension, dysrhythmias, Bradycardia, hypothermia, hypoglycemia

