

1. Classic clinical manifestations of diabetes include polyuria, polydipsia, and **polyphasia**.

2. The three main clinical features of diabetic ketoacidosis are hyperglycemia, dehydration with electrolyte loss, and **acidosis**.

3. What are the different types of insulins? There are five types of insulin and include rapid-acting, short-acting, intermediate-acting, mixed insulin, and long-acting insulin. Examples include:

Rapid-acting insulin = Aspart (Novolog), Lispro (Humalog), and Glulisine (Apidra)

Short-acting insulin = Regular insulin

Intermediate-acting insulin = NPH (Humulin N)

Mixed insulin = Regular/NPH combination. Always draw the regular insulin into the syringe first

Long-acting insulin = Glargine (Lantus)

4. What type of insulin can be given via intravenously? **Regular insulin**

5. A nurse is caring for a client who has syndrome of inappropriate antidiuretic hormone (SIADH). Which of the following findings should the nurse expect? (SATA)
 - a. **Decreased blood sodium**
 - b. Urine specific gravity 1.001
 - c. **Blood osmolarity 230 mOsm/L**
 - d. Polyuria
 - e. Increased thirst

6. What is the difference between DKA and HHS? DKA is set apart by hyperglycemia leading to ketoacidosis; whereas, **HHS** is indicated by severe hyperglycemia **without ketoacidosis**.

7. 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? (SATA)
 - a. Sodium 130 mEq/L
 - b. **Potassium 6.1 mEq/L**
 - c. **Calcium 11.6 mg/dL**

- d. Blood urea nitrogen (BUN) 28 mg/dL
- e. Fasting blood glucose 148 mg/dL

8. What are treatments utilized in hypoglycemia (for both conscious and unconscious patients)? For a conscious patient, treatment will be for the patient to eat or drink 15 grams of carbohydrates to easily convert sugar in the body. For an unconscious patient, an emergency syringe kit of glucagon should be administered to raise blood sugar quickly; however, the unconscious patient should be turned on his/her side first to prevent choking. Once the patient is alert and oriented, he/she should contact their doctor.

9. Describe in your own words the definition of Pheochromocytoma? Pheochromocytoma is a tumor within the kidneys that causes the kidneys to overproduce hormones that can lead to hypertension, diaphoresis, tachycardia, and headaches.

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.

a. Cushing's Disease: Hormone affected = Excess of the hormone adrenocorticotropic hormone (ACTH)

Cushing's Syndrome = Excess of the hormone cortisol

b. Addison Disease = Insufficient amount of the hormone cortisol

Addisonian Crisis = Insufficient amount of the hormone cortisol plus stress can lead to addisonian crisis

c. SIADH = Excessive amount of antidiuretic hormone (ADH)

d. Diabetes Insipidus = Insufficient amount of the antidiuretic hormone (ADH), also known as vasopressin

e. Thyroid Storm/Crisis = Insufficient or suppressed thyroid-stimulating hormone (TSH) caused by excessive amounts of triiodothyronine (T3) and thyroxine (T4), which is a life-threatening condition

f. Myxedema Coma = Excessive amount of TSH caused by a decreased amounts of T3 and T4 levels, a life-threatening condition