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Children's Wisconsin Clinical Nutrition Department

Module # ***: Parenteral Nutrition #2 Pre-Test

1. What is the sodium concentration (per liter) of normal saline? Half normal saline?

   154mEq/L, 77mEq/L

2. What component of parenteral nutrition is noted as acid?

   Chloride

3. What component of parenteral nutrition is noted as base?

   Acetate

4. When a patient has excessive stool output-which is lost, acid or base? How do you rectify this?

   Lost as base, therefore addition of acetate

5. The medical team asks for your help in ordering "stool replacements" what type of IV fluids would you have them order?

   Sodium acetate

6. In a patient in the ICU, what lab value can be used to help determine a patient's acid/base balance?

   Base Excess, as collected as part of aterial blood gas

7. In a patient on the acute care floor or at home, what lab value(s) can be used to help determine a patient's acid/base balance?

   Chloride, CO_2

8. True/False At Children's Wisconsin, we monitor fat soluble vitamin and trace element levels every 6 months in patients who receive parenteral nutrition.

9. True/False Osteopenia is a risk factor of being on parenteral nutrition. Therefore, we check a DEXA scan every 12 months in patients who receive parenteral nutrition.

10. True/False Ionized calcium should be used as the primary marker of a patient's calcium while on parenteral nutrition.

11. True/False CW uses a commercial trace element preparation, MTE-4 Pediatric.

12. True/False What important micronutrients are included in the CW trace element preparation? Are any missing and why?

    - Selenium, Chromium, Copper
    - Zinc to be ordered separately
    - Manganese not added as its considered an contaminant

13. Patient Scenario: You have a term infant with biliary atresia who is listed for a liver transplant. Should any trace elements be taken out of their parenteral nutrition?
    Consider decrease in copper, but likely not remove as patients even with ESLD can become copper deficient

14. Patient Scenario: You have a school aged child in the ICU who is in acute renal failure and is on CVVH. Should any changes be made to their parenteral nutrition?

    Monitor protein intake, decrease chromium and selenium