Objective Questions

Week 4

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1. Describe how to properly remove serum from a clot tube.
   Serum can be removed from the top a clotted tube by using a pipet. While using the pipet, one must be careful to only collect the serum and not to touch the buffy coat or clotted blood.

2. Why should you wipe away the first drop of blood when performing a capillary puncture?
   The first drop of blood that appears after a capillary puncture will contain tissue fluid and must be wiped away to avoid altered test results.

3. Capillary punctures are also done for point-of-care testing. Give an example of two POC tests that use capillary samples.
   A glucometer test and a cholesterol test can both be run using a capillary puncture specimen and are both POC tests.

4. Infant heel stick samples are used for newborn screening tests known as a(n).
   The Guthrie card is paper card that uses small samples of blood to test for metabolic disorders of newborns.

5. List the four most common problems that occur with a venipuncture.
   Hematoma, nerve damage, syncope, and specimen mishandling that would cause a specimen to need to be recollected are all complications that could happen with a venipuncture.

6. Why is blind probing NOT recommended as a phlebotomy technique?
   Blind probing is not only painful and potentially traumatizing to the patient but can also cause nerve damage, hematoma, and bruising.

7. Why are WBC counts performed on a patient sample?
   Leukocyte counts are performed on patients to find out whether there is an infection or to diagnose leukemia. Increased numbers of WBCs would indicate leukocytosis and decreased amounts of WBCs would indicate leukopenia.

8. Describe a differential and why it is performed on patient samples.
   A differential can be performed by using a blood smear and a microscope or an automated instrument. During a differential one hundred WBCs are counted consecutively in a zig-zag pattern to analyze and quantitate the number of WBCs in the blood.

9. What is a normal platelet count for a health person?
   The average human has 200,000 to 400,000/mm3 platelets in their blood.

10. Why is blood typing not a CLIA-waived test?
    Blood typing is a crucial test and must be performed with precision. If the test performed improperly, a patient could receive incorrect blood in a blood transfusion and could be life-threatening.

11. What is the most frequently tested chemical analyte in the blood?
    Glucose is the most regularly tested analyte in the blood.

12. What factors affect a person's cholesterol level?
    Cholesterol level are affected by diet, exercise, caloric intake, and can be inherited.

13. What two liver enzymes are indicators of liver damage?
    Alkaline phosphate (ALP) and aspartate aminotransferase (AST) are both enzymes that are indicators of liver and tissue damage.

14. What two hormones produced by the thyroid gland affect body metabolism.
    Thyroid stimulating hormone (TSH) and thyrotropin-releasing hormone (TRH) both aid in regulating the body’s metabolism.

15. Describe a chemistry panel.
    A chemistry panel is series of tests that can be run with a single specimen to detect damaged organs and tissue depending the levels of each analyte tested.