

**MA119 Lab 2
Critical Thinking
Week 3**

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All Answers Must be in Complete Sentences as well as well rounded and thought out, giving specifics/details and examples as necessary.

1. Why do females have lower hemoglobin after puberty than males?

Females have a lower hemoglobin after they go through puberty than a male does because females go through a menstruation cycle with periodic blood loss.

2. What role does thrombin play in clot formation in a patient with a small cut?

Thrombin's role in blood clot formation of a small cut is to release a substance that imitates clotting, this will then result in a network of small threads that will trap or capture blood cells, and plasma.

3. Why does the physician usually order both an hemoglobin and a hematocrit as a means of evaluating anemia?

A provider/ physician will order a hemoglobin and a hematocrit for an evaluation of anemia because anemia is when you have a deficiency of hemoglobin in your blood and has a reduced number of red blood cells. With anemia you may also have pale skin, feel weak, or even have shortness of breath. Hematocrit is to look at the number of packed red blood cells (RBC) in your blood. If you have a low hematocrit this could indicate, you have anemia. Hemoglobin testing is to indicate if you have enough oxygen in your blood. These are tested together so the provider can make a strong diagnosis. This testing may also be referred to as an H and H.

4. Why is it important for patient comfort for the capillary puncture to be performed on the side of the finger rather than on the tip?

Capillary punctures should be performed on the patient's side of their finger because the fingers have nerve endings in them, and this could cause the patient a lot of pain. When performing a capillary puncture always remember to use either the side of the ring finger or the middle finger. An example of a capillary puncture performed in the medical field and at home is a blood sugar test.

5. Is a PT/INR of 1.7 high or low when ensuring a therapeutic level for someone on Coumadin therapy to prevent clot formation?

A therapeutic level for a PT/INR would be 1- 1.4. A normal range for a patient having coumadin therapy would expect their INR to be around 2 to 3 because of the blood thinner.

6. What tests are part of a chemistry panel and what reasons for performing them?

The tests that are part of the chemistry panel are liver, thyroid, cardiac, anemia and electrolytes. The reasons that these might be performed are to see the levels of related analysis.

7. Why do we need to understand Red Blood Cell Indices?

We need to understand red blood cells indication because this provides the health care team of red blood cell disorders. This also can help determine the reasons for anemia. The tests help monitor the treatments for red blood cell diseases and tells the provider how the treatment is working for the patient.