

**https://www.eflm.eu/site/page/a/1194**

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**Knowledge test**

**for**

**“Joint EFLM-COLABIOCLI Recommendation for venous blood sampling”**

Correct answers are marked in red (Please choose only one answer option per question)

**To what degree are preanalytical variables responsible for errors within the total testing process?**

1. ~20%
2. ~40%
3. ~60%
4. ~90%

**Most preanalytical steps occur:**

1. In the laboratory reception process
2. During sample processing in the laboratory
3. Outside of the laboratory
4. During the reporting process

**Do preanalytical errors have an impact on patient outcome and safety?**

1. Yes
2. No

**Preanalytical errors affect patient outcome and safety by:**

1. Causing delays in reporting results
2. Affecting lab test results
3. Causing incorrect diagnosis
4. All of the above

**Are preanalytical errors currently identified by the laboratory and unsuitable samples excluded from analyses?**

1. Yes, all of them
2. No, never
3. Yes, but only a minor proportion of them
4. No, but doctors can easily detect preanalytical errors

**Which information cannot be used for patient identification?**

1. Patient full name (for- and surname)
2. Date of birth
3. Telephone number
4. Health insurance number or equivalent

**How many identifiers are needed for a correct identification of the patient and his/her sample?**

1. at least one
2. at least two
3. at least three
4. at least four

**How do you confirm the patient’s name?**

1. “What is your name?”
2. “Are you Mr. Smith?”
3. “Who is Mr. Smith?” *(when entering a room with more than one patient)*
4. “Is your name Walter Smith?”

**When should blood sampling preferably be performed?**

1. 7 - 9 a.m.
2. Before 12 a.m.
3. If patient is fasting, even the afternoon is acceptable.
4. Any time during the day.

**How many hours before blood sampling should the patient refrain from food and liquid intake (except water)?**

1. No fasting required
2. Refrain on the day of blood sampling
3. 12 hours
4. 24 hours

**How many hours before blood sampling should the patient refrain from smoking or drinking caffeine containing drinks (coffee, tea, etc)?**

1. No smoking/caffeine free interval required
2. Refrain on the day of blood sampling
3. 12 hours
4. 24 hours

**How many hours before blood sampling should the patient refrain from drinking alcohol?**

1. No alcohol free interval required
2. Refrain on the day of blood sampling
3. 12 hours
4. 24 hours

**For how long should you wait before venous blood specimen collection after the patient has received an intravenous lipid infusion?**

1. At least 8 hours
2. At least 1 hour
3. At least 30 minutes
4. There is no need to wait

**When should intravenous glucose infusion have been terminated prior to venous blood specimen collection for glucose determination?**

1. 30 minutes
2. 60 minutes
3. 5 minutes
4. There is no need to wait

**Concentration of iron:**

1. Is constant during the day
2. Is higher in the morning and lower in the afternoon
3. Is lower in the morning and higher in the afternoon
4. Fluctuates randomly during the day

**When should you release the tourniquet?**

1. As soon as possible after the blood begins to flow into the tube
2. After the last tube is drawn
3. After removing the needle from the vein
4. Before you puncture the vein

**Why should patients not clench their fist during blood collection?**

1. Swelling/reddening of the skin
2. Increased risk of bruising
3. Test results may be affected
4. Increased risk of infection

**When should collection tubes be labeled?**

1. Always before phlebotomy.
2. Consistently either immediately before or after phlebotomy but always in the presence of the patient.
3. Always after phlebotomy
4. At any time, as long as you are sure that the correct labels are used.

**When should samples be mixed?**

1. Mixing of samples is done by the laboratory
2. After collection of all tubes
3. Directly after collection *and* after collection of all tubes
4. Only coagulation tubes need mixing directly after collection

**How should samples be mixed?**

1. Mixing of samples is done by the laboratory
2. By inverting at least 5 times in total
3. By shaking the sample
4. By inverting the sample once

**Which statements regarding the order of draw are correct?**

1. Blood culture tubes should always be collected first
2. EDTA tubes should be collected after heparin or serum tubes
3. Coagulation tubes should be collected after blood culture tubes
4. All of the above

**Why is it important to follow the recommended order of draw?**

1. The most important tests are conducted on the first tube, so it is important to ensure complete filling
2. To avoid any risk of additive contamination
3. The first tube taken requires longer for the additives to work
4. To standardize processes, so that no tube is missed during phlebotomy

**When is it allowed to recap a used needle?**

1. When no safe sharp container is in your vicinity.
2. Always
3. Never
4. When the safety-feature which should cover the needle is broken

**A transmission of which viruses is possible after a needle stick injury with a used needle?**

1. HIV
2. Hepatitis C
3. Hepatitis B
4. All of the above

**Which recommendations should you follow during phlebotomy to avoid the risk of sharps injuries?**

1. Use medical devices incorporating a safety-engineered protection mechanism
2. Display effective disposal procedures and clearly marked and technically safe sharps containers
3. Use Personal Protective Equipment
4. All of the above

**Which factors can potentially lead to hemolytic blood samples?**

1. Blood collection through an IV-Catheter collection with high vacuum collection systems
2. Small needle gauges
3. Vigorous mixing of the tube
4. All of the above

**Which laboratory parameters are potentially affected by hemolysis?**

1. Potassium
2. Asparate aminotransferase (AST / GOT)
3. Lactate dehydrogenase (LDH)
4. All of the above

**Which factors can potentially lead to clotted blood samples?**

1. No mixing of tubes after collection
2. Very slow blood flow into the tube
3. Prolonged sample transportation time before centrifugation
4. All of the above

**Does exercise prior to blood collection affect laboratory parameters?**

1. No
2. Yes, but only heavy exercise (e.g. marathon or excessive training)
3. Yes, even moderate exercise (e.g. running to the doctor’s office)
4. Yes, but only some rare laboratory parameters are affected

**Is the body posture of the patient affecting laboratory parameters?**

1. No
2. Yes, but only if the posture changed within 15 minutes before blood collection (e.g. from the supine to the upright position)
3. Yes, the patient always has to lie down during phlebotomy
4. Yes, but only some rare laboratory parameters are affected

**Does underfilling of a coagulation tube affect coagulation parameters?**

1. No
2. Yes, but only if it is severely underfilled
3. Yes, even slight underfilling (i.e., less than 90% the nominal filling volume)
4. Yes, but only some rare coagulation parameters are affected