قائمة الاسئلة

امتحان نهاية الفصل الدراسي الأول - للعام الجامعي 1446 هـ - الموافق -2025/2024مـكلية الطب والعلوم الصحية :: مادة ضبط الجودة - ش

أ.د. لطفي المقطري

1) Which of the following is not a part of monitoring equipment and materials in the analytical phase?
   1) - System check
   2) - Water quality
   3) - Refrigerators & centrifuges
   4) + Patient identification
2) What are the advantages of commercial control materials?
   1) + Stable & reliable
   2) - Expensive
   3) - Differ from fresh whole blood
   4) - The control bloods have been developed
3) What are the effects of smoking on blood tests?
   1) - Increase in free fatty acids.
   2) + Increase Hb concentration, increase MCV and increase RBCs
   3) - k, T.G, hyperchylomicronemia
   4) - Marked increase in amino acid alanine.
   5) - All the choices are correct
4) What are the different types of control materials for CBC?
   1) - Whole blood controls
   2) - Artificial: latex spheres particles
   3) + Whole blood controls & Artificial: latex spheres particles
   4) - Controls should be patients' samples
5) The difference between quality control and quality assurance is:
   1) - QC is not the heart of QA program
   2) - QC materials are usually made up of drugs similar to the patient sample
   3) + QC material are used to check for the errors in the analysis.
   4) - All the choices
6) What are the effects of prolonged tourniquet application on blood tests?
   1) - Increase hematocrit, hemoglobin and cellular blood elements.
   2) - Increase plasma catecholamines and cortisol.
   3) + Aspartate aminotransferase, bilirubin, cholesterol, total proteins and calcium.
   4) - Decreased in plasma glucose.
7) Heparin is not suitable for blood film counts because it:
   1) - often induces platelet and leucocyte clumping
   2) + it gives a faint blue colouration to the background when the films
   3) - decrease PCO2 up to 15%
   4) - Doing the right things right
8) Who must validate all result reports?
   1) - The end of the working day
   2) + The qualified laboratory person
   3) - Standard operating procedures
   4) - The doctors in charge
9) Whole blood used for detection of :
   1) + CBC, ESR and osmotic fragility
   2) - PT and other coagulation factors.
   3) - Most chemical analyses.
   4) - Blood gases & pH of the blood

10) What are the components of quality control in the medical laboratory?
   1) - Regular testing of quality control products
   2) - Performing every test in duplicate
   3) - Comparison of quality control results to specified statistical limits or ranges
   4) + Regular testing of quality control products & Comparison of quality control results to specified statistical limits or ranges
11) What should be used to clean the venipuncture site?
   1) - Sterile syringe
   2) - Distilled water
   3) + Antiseptic solution
   4) - K2EDTA
12) What is the purpose of adequately mixing blood with the anticoagulant?
   1) - Provide clotted sample
   2) + Prevent coagulation
   3) - Provide the formation of serum
   4) - Prevent the formation of plasma
13) Which one of the following is not a preanalytical factor?
   1) + Calling results when a critical value is noticed.
   2) - Tube checked for clots
   3) - Patient identification
   4) - Sample collection
14) What are the effects of excess EDTA on blood tests?
   1) - Decrease in PCV by centrifugation
   2) - False increase WBCs Count
   3) + Decrease in PCV by centrifugation & False increase WBCs Count
   4) - Decrease MCHC
15) What does accuracy refer to?
   1) + the closeness of the estimated value to that considered to be true value
   2) - reproducibility of a result, but a test can be precise without being accurate
   3) - It is the fraction of patients with a specific disease that the assay correctly predicts.
   4) - It is the fraction of those subjects without the disease that the assay correctly predicts
16) What does precision refer to?
   1) - It is the fraction of patients with a specific disease that the assay correctly predicts
   2) - the closeness of the estimated value to that considered to be true value
   3) + reproducibility of a result, but a test can be precise without being accurate
   4) - It is the fraction of those subjects without the disease that the assay correctly predicts.
17) Why do we need external quality assessment?
   1) - To detect hidden problems.
   2) - To compare our performance with others.
   3) + To detect hidden problems. & To compare our performance with others.
   4) - Disprove quality.
18) What is the proper definition of a standard?
   1) - Materials used to monitor a method.
   2) - Normal distribution curve.
   3) - A target ranges.
   4) + solutions with a known amount of the analyte.
19) Why do we need Internal Quality Control?
   1) - Ensure that test results are reliable
   2) - Ensure that test results are reproducible

3) - Control quality of daily routine work
4) + All the choices are correct

20) What are the characteristics of a reliable laboratory result?
1) - Is a real evaluation of the actual value of the examined parameters in biological fluids and tissues and it presents useful information
2) - Depend on the proper and timely collection
3) - Is a function of a variety of factors
4) + Is helpful for correct interpretation of laboratory parameters

21) What are the tests use a plain tube?
1) + clinical-chemistry parameters
2) - coagulation parameters
3) - hematological parameters
4) - heavy metals.

22) What are the parameters included in the Complete blood count (CBC) test?
1) - RBC, WBC, PLT, Hb, Ht, MCV, MCH, MCHC and ESR
2) + RBC, WBC, PLT, Hb, Ht, MCV, MCH, MCHC and Differential Count
3) - ESR and Differential Count RBC, WBC, PLT, Hb, Ht, MCV, MCH,

23) Main areas of Good Laboratory Practice (GLP):
1) - Organization and personnel
2) - Facilities ,- Equipment , Reagent / test kits and Documentation
3) - Inter-laboratory comparison
4) + All the choices are correct

24) What are the three levels of clinical laboratory services in under-resourced countries, according to the World Health Organization (WHO)?
1) - Primary -A-level
2) - Secondary-B -level
3) - Tertiary- C-levelrvqeg4sz
4) + All the choices are correct

25) What are the variables that can affect the quality of laboratory results?
1) - The condition of the specimens
2) - The controls used in the test runs
3) - Reagents , Equipment and Instruments
4) + All the choices are correct

26) Select one example of the postanalytical phase:
1) - Specimen preparation
2) - Specimen analysis
3) + Clinician receives the test result
4) - Specimen collection

27) The systematic error cause:
1) - Shifts and trends on control (Levey Jennings) charts.
2) - Outliers on control charts.
3) - Random error.
4) + Imprecision.

28) The three basic elements of a quality system are:
1) - Quality Management, Purchasing and Document Control
2) + Quality Management, Quality Control and Quality Assurance
3) - SPC, Inspection and Quality Assurance
4) - Quality Control, Quality Costs and Control Charts

29) What is defined as a high serum triglyceride level will be increase in hematological tests significantly ?

1) - 300 mg/dL.
2) + 1000 mg/dL.
3) - 3000 mg/dL.
4) - None of them

30) What is a "critical value"?
1) + Is a test result that conveys life or death information and is defined for "out of range" test results that must be acted upon as soon as possible
2) - Test turnaround applies to specimens for patients without immediate need for results.
3) - Indicates that the analysis of patient samples is unreliable.
4) - All the choices are correct

31) Which of the following skin puncture areas is (are) acceptable for the collection of capillary blood from an infant?
1) - Previous puncture site
2) - Posterior curve of the heel
3) - The arch
4) + Lateral plantar surface of the heel

32) Which of the following veins are the appropriate veins for performing a routine venipuncture?
1) + Cephalic, basilic, and median cubital veins
2) - Subclavian, iliac, and femoral
3) - Brachiocephalic, jugular, and popliteal
4) - Saphenous, suprarenal, and tibial

33) Point of Care Testing (POCT) is
1) - a test result that conveys life or death information and is defined for "out of range"
2) - a quick turnaround time, generally an hour or less from specimen receipt until test result reporting.
3) + is laboratory testing performed on simpler devices at the point of care (e.g., the bedside) and often by non-laboratory personnel.
4) - All the choices are correct

34) The Causes of rejection IRON are Except one:
1) + Plasma containing Na heparin
2) - Hemolysis Serum in contact with cells longer than 2 hours
3) - Specimen contamination by anticoagulant
4) - All the choices are correct

35) What are the causes of rejection of bilirubin samples?
1) - Extended Contact of Serum and Cells Greater than 2 hours
2) - Exposure to Light Greater than 2 hours
3) + Extended Contact of Serum and Cells Greater than 24 hours & Exposure to Light Greater than 2 hours
4) - Specimens that require collection on ice

36) What is the purpose of using sodium citrate as an anticoagulant?
1) - Chelating effect on the calcium molecules in blood
2) - Preventing blood from clotting.
3) + Chelating effect on the calcium molecules in blood & Preventing blood from clotting.
4) - Change ionized Ca into non-ionized form

37) Turnaround time (TAT) is defined as
1) - a test result that conveys life or death information and is defined for "out of range"
2) - a quick turnaround time, generally an hour or less from specimen receipt until test result reporting.
3) - is laboratory testing performed on simpler devices at the point of care (e.g., the bedside) and

often by non-laboratory personnel.

4) + the time from receipt of the specimen in the laboratory to the time the result is reported.

38) What is the recommended needle size for blood bank bage with normal veins?

1) - use gauge 19
2) - use gauge 21 to 23
3) + use gauge 18
4) - use gauge 20

39) What is the definition of a "stat" test?

1) - a test result that conveys life or death information and is defined for "out of range"
2) + a quick turnaround time, generally an hour or less from specimen receipt until test result reporting.
3) - is laboratory testing performed on simpler devices at the point of care (e.g., the bedside) and often by non-laboratory personnel.
4) - the time from receipt of the specimen in the laboratory to the time the result is reported.
5) - All the choices are correct

40) Why the negative consequences of laboratory test errors can be very significant?

1) - Unnecessary treatment
2) - Delay in correct diagnosis
3) - Additional and unnecessary diagnostic testing
4) + All the choices are correct