Blood Collection for Health Professionals 4th edition Di Lorenzo Test Bank

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Chapter 2. Venipuncture Equipment

Multiple Choice

1. To prevent blood from clotting, the specimen must be
A. Collected in a tube containing an anticoagulant
B. Inverted an hour after collection
C. Centrifuged right after collection
D. Refrigerated immediately

ANS: A
TOP: Clinical laboratory specimens
DIF: Level 1
OBJ: 2.3

2. The main anticoagulant for coagulation studies is
A. Ethylenediaminetetraacetic acid (EDTA)
B. Sodium citrate
C. Heparin
D. Oxalate

ANS: B
TOP: Clinical laboratory specimens
DIF: Level 2
OBJ: 2.3, 2.5

3. The difference between plasma and serum is
A. Serum contains fibrinogen.
B. Serum is obtained from a nonclotted specimen.
C. Plasma is obtained from a clotted specimen.
D. Plasma contains fibrinogen.

ANS: D
TOP: Clinical laboratory specimens
DIF: Level 1
OBJ: 2.3

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4. Specimens collected in serum separator tubes are most frequently delivered to
A. Immunohematology
B. Serology
C. Hematology
D. Chemistry

ANS: D
TOP: Clinical laboratory specimens
DIF: Level 1
OBJ: 2.5

5. The most common specimen analyzed in the hematology section is
A. Plasma
B. Whole blood
C. Urine
D. Serum

ANS: B
TOP: Clinical laboratory specimens
DIF: Level 1
OBJ: 2.2

6. Which of the following pairings is incorrect?
A. Icteric and yellow
B. Lipemic and cloudy
C. Hemolyzed and red
D. Fasting and cloudy

ANS: D
TOP: Clinical laboratory specimens
DIF: Level 2
OBJ: 2.2

7. A serum separator tube should not be collected for
A. Cholesterol
B. Cross-match
C. Bilirubin
D. Glucose

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ANS: B
TOP: Clinical laboratory specimens
DIF: Level 2
OBJ: 2.5

8. Most laboratory tests are performed using
A. Arterial blood
B. Venous blood
C. Capillary blood
D. Oxygenated blood

ANS: B
TOP: Blood
DIF: Level 2
OBJ: 2.2

9. Pathways of the coagulation cascade are
A. Platelets and thrombin
B. Intrinsic and extrinsic
C. Fibrinogen and prothrombin
D. Heparin and Coumadin

ANS: B
TOP: Coagulation
DIF: Level 1
OBJ: 2.1

10. Coagulation requires all of the following except
A. Prothrombin
B. Thrombin
C. Fibrin
D. Heparin

ANS: D
TOP: Coagulation
DIF: Level 2
OBJ: 2.1

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11. The correct order of the four stages of the coagulation or hemostasis process is
A. Retraction or tightening of the clot; platelets become sticky, clump together, and adhere to the injured vessel wall; degradation or breakdown of the clot; the extrinsic, intrinsic, and common pathway activate and proceed to complete the clot.
B. Platelets become sticky, clump together, and adhere to the injured vessel wall; retraction or tightening of the clot; degradation or breakdown of the clot; the extrinsic, intrinsic, and common pathway activate and proceed to complete the clot.
C. Platelets become sticky, clump together, and adhere to the injured vessel wall; the extrinsic, intrinsic, and common pathway activate and proceed to complete the clot; retraction or tightening of the clot; and degradation or breakdown of the clot.
D. The extrinsic, intrinsic, and common pathway activate and proceed to complete the clot; retraction or tightening of the clot; degradation or breakdown of the clot; platelets become sticky, clump together, and adhere to the injured vessel wall.

ANS: C
TOP: Coagulation
DIF: Level 2
OBJ: 2.1

12. The most economical and safest method for performing routine venipuncture is the use of
A. Winged blood collection sets
B. Plastic syringes
C. Glass syringes
D. Evacuated tube system (ETS)

ANS: D
TOP: General equipment
DIF: Level 1
OBJ: 2.4

13. The primary antiseptic for routine venipuncture is
A. Iodine
B. Chlorhexidine
C. Isopropyl alcohol
D. Betadine

ANS: C
TOP: General equipment
DIF: Level 1
OBJ: 2.4

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14. A properly tied tourniquet
A. Permits arterial flow and blocks venous flow
B. Blocks arterial and venous flow
C. Prevents backflow
D. Permits venous flow and blocks arterial flow

ANS: A
TOP: General equipment
DIF: Level 1
OBJ: 2.4

15. All of the following are reasons a 25-gauge is not recommended except
A. Tubes fill more slowly
B. Formation of microclots
C. Increased frequency of hemolysis
D. Veins collapse

ANS: D
TOP: General equipment
DIF: Level 2
OBJ: 2.4

16. The color coding of evacuated tubes provides all of the following information except
A. Presence of an anticoagulant
B. Type of specimen collected
C. Need to invert the tube
D. Size of needle to use during blood collection

ANS: D
TOP: Evacuated tubes
DIF: Level 1
OBJ: 2.5

17. Which of the following tubes must always be filled to the correct ratio?
A. Gray
B. Light blue
C. Red
D. Pink

ANS: B
TOP: Evacuated tubes
DIF: Level 1
OBJ: 2.5

18. The purpose of sodium fluoride in gray stopper tubes is to
A. Prevent hemolysis
B. Prevent clotting
C. Preserve glucose
D. Maintain cellular morphology

ANS: C
TOP: Evacuated tubes
DIF: Level 1
OBJ: 2.5

19. Which of the following tubes contain a separation gel?
A. Gold
B. Lavender
C. Yellow
D. Black

ANS: A
TOP: Evacuated tubes
DIF: Level 1
OBJ: 2.5

20. The tube of choice for trace metal analysis is
A. Light blue
B. Red
C. Gold
D. Royal blue

ANS: D
TOP: Evacuated tubes
DIF: Level 1
OBJ: 2.5

21. Tubes containing soybean trypsin inhibitor and thrombin are used to collect specimens for
A. Glucose
B. Fibrin degradation products
C. Blood alcohol levels
D. Paternity tests

ANS: B
TOP: Evacuated tubes
DIF: Level 1
OBJ: 2.5

22. Yellow stopper tubes containing SPS are used for which of the following?
A. Blood cultures
B. Lead testing
C. Human leukocyte antigen (HLA) typing
D. Paternity testing

ANS: A
TOP: Evacuated tubes
DIF: Level 1
OBJ: 2.5

23. The ratio of blood to anticoagulant in a light blue stopper tube is
A. 2:1
B. 5:1
C. 9:1
D. 10:1

ANS: C
TOP: Evacuated tubes
DIF: Level 1
OBJ: 2.5

24. The purpose of gel in an evacuated tube is to
A. Prevent clot formation
B. Prevent cellular contamination of serum or plasma
C. Increase clot formation
D. Facilitate blood bank testing procedures

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ANS: B
TOP: Evacuated tubes
DIF: Level 1
OBJ: 2.5

25. The anticoagulant present in a light blue stopper tube is
A. Ethylenediaminetetraacetic acid (EDTA)
B. Sodium citrate
C. Heparin
D. Potassium oxalate

ANS: B
TOP: Evacuated tubes
DIF: Level 1
OBJ: 2.5

26. In an evacuated tube, blood flow into the tube depends on
A. The vacuum in the tube
B. Gravity
C. Blood pressure
D. Air pressure

ANS: A
TOP: Evacuated tubes
DIF: Level 1
OBJ: 2.5

27. Most anticoagulants in blood collection tubes prevent clotting by
A. Binding calcium
B. Acting as an antithrombin agent
C. Binding fibrinogen
D. Releasing heparin

ANS: A
TOP: Evacuated tubes
DIF: Level 1
OBJ: 2.3

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28. Lavender stopper tubes are used for which of the following laboratory departments?
A. Hematology
B. Coagulation
C. Microbiology
D. Chemistry

ANS: A
TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.5

29. Which of the following tubes contains an anticoagulant that inhibits thrombin?
A. Lavender
B. Light blue
C. White
D. Green

ANS: D
TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.5

30. To obtain a serum sample for a stat test on a patient receiving anticoagulant therapy, the recommended tube is
A. Green
B. Gold
C. Orange
D. Red

ANS: C
TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.5

31. Which of the following is the most acceptable order of tube draw?
A. Light blue, green, and lavender
B. Lavender, green, and light blue
C. Green, light blue, and lavender
D. Green, lavender, and light blue

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ANS: A
TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.6

32. Drawing a lavender stopper tube before a serum separator tubeSST can cause a falsely
A. Increased calcium value
B. Decreased glucose value
C. Decreased calcium value
D. Increased glucose value

ANS: C
TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.6

33. Royal blue top tubes are used for
A. Lead determinations
B. Toxicology
C. DNA
D. Hematology

ANS: B
TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.6

34. Failing to adequately invert a lavender stopper tube after collection will
A. Cause hemolysis
B. Falsely elevate calcium results
C. Destroy coagulation factors
D. Produce a clotted specimen

ANS: D
TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.5

35. The collection tube that is used when an erythrocyte sedimentation rate (ESR) is ordered is
A. Green
B. Gold
C. Red
D. Lavender

ANS: D
TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.6

36. The recommended order of draw for a complete blood count (CBC), prothrombin time (PT), and cholesterol is
A. Lavender, light blue, and red
B. Light blue, lavender, and red
C. Red, lavender, and light blue
D. Light blue, red, and lavender

ANS: D
TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.6

37. The presence of a clot is acceptable in
A. Red stopper tubes
B. Lavender stopper tubes
C. Green stopper tubes
D. Light blue stopper tubes

ANS: A
TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.5

38. Which of the following tubes contains an anticoagulant that does not bind calcium?
A. Light blue
B. Green
C. Gray
D. Lavender

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ANS: B
TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.5

39. An example of an antiglycolytic agent is
A. Potassium oxalate
B. Ethylenediaminetetraacetic acid
C. Sodium fluoride
D. Ammonium heparin

ANS: C
TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.5

40. The advantages of an evacuated tube system (ETS) over a syringe are
A. No transfer of blood is necessary.
B. It is an open system.
C. The holder can be reused.
D. You have more control over the vacuum.

ANS: A
TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.4

41. To prevent leakage of blood when tubes are changed, multisample needles
A. Have a blunting device
B. Use a rubber sheath
C. Are only used for single tube collections
D. Are used with safety holders

ANS: B
TOP: Needles and holders
DIF: Level 1
OBJ: 2.4

42. The stopper-puncturing needle should be completely pushed into the evacuated tube
A. After the vein is entered
B. While the equipment is being assembled
C. Just before the vein is entered
D. Prior to anchoring the vein

ANS: A
TOP: Needles and holders
DIF: Level 1
OBJ: 2.4

43. Which of the following needles has the largest diameter?
A. 16 gauge
B. 18 gauge
C. 20 gauge
D. 22 gauge

ANS: A
TOP: Needles and holders
DIF: Level 2
OBJ: 2.4

44. Collecting a large evacuated tube using a 23-gauge needle
A. Is recommended for geriatric patients
B. Is required for certain automated tests
C. May cause a hemolyzed specimen
D. May cause a loss of vacuum in the tube

ANS: C
TOP: Needles and holders
DIF: Level 2
OBJ: 2.4

45. When collecting blood from a patient with small, fragile veins, the appropriate needle gauge is
A. 18
B. 20
C. 21
D. 23

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ANS: D
TOP: Needles and holders
DIF: Level 2
OBJ: 2.4

46. The part of a syringe that is withdrawn after the vein is entered is the
A. Barrel
B. Hub
C. Shield
D. Plunger

ANS: D
TOP: Syringes
DIF: Level 1
OBJ: 2.4

47. A winged blood collection set would be primarily used to collect blood from the
A. Heel
B. Antecubital vein
C. Finger
D. Hand

ANS: D
TOP: Winged blood collection sets
DIF: Level 1
OBJ: 2.4

48. Which of the following is the main reason not to place the phlebotomy tray on the patient's bed?
A. It invades patient privacy.
B. It can be knocked off.
C. It is against hospital policy.
D. The patient may be contaminated.

ANS: B
TOP: General equipment
DIF: Level 2
OBJ: 2.4

True/False

49. A blood pressure cuff can be used as a tourniquet.

ANS: True
TOP: General equipment
DIF: Level 1
OBJ: 2.7

50. Some evacuated tubes are designed not to completely fill.

ANS: True
TOP: Evacuated tubes
DIF: Level 1
OBJ: 2.5

51. A lavender stopper tube maintains cellular integrity better than other tubes.

ANS: True
TOP: Evacuated tubes
DIF: Level 1
OBJ: 2.5

52. Tubes containing powdered anticoagulant do not require mixing.

ANS: False
TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.6

53. Plasma separator tubes (PSTs) contain the anticoagulant ethylenediaminetetraacetic acid (EDTA).

ANS: False

TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.6

54. A legal blood alcohol test should not be collected in a gray stopper tube.

ANS: False
TOP: Evacuated tubes
DIF: Level 2
OBJ: 2.6

55. A 20-gauge needle is most commonly used for venipuncture.

ANS: False
TOP: Needles and holders
DIF: Level 1
OBJ: 2.5

56. The needle holder can be used as a needle safety device.

ANS: True
TOP: Needles and holders
DIF: Level 1
OBJ: 2.5

57. Needle protection devices are not necessary when using a syringe.

ANS: False
TOP: Syringes
DIF: Level 1
OBJ: 2.4

58. Blood collected in a syringe is transferred to evacuated tubes.

ANS: True
TOP: Syringes

DIF: Level 1
OBJ: 2.4

59. When using a winged blood collection set, a light blue stopper tube should be collected first.

ANS: False
TOP: Winged blood collection sets
DIF: Level 2
OBJ: 2.4

60. You should never use needles when the seal has been broken.

ANS: True
TOP: Quality control
DIF: Level 1
OBJ: 2.9

61. Use of an expired tube may cause a short draw.

ANS: True
TOP: Quality control
DIF: Level 1
OBJ: 2.9

62. The Clinical Laboratory Improvement Amendments (CLIA) mandate that you wear gloves when collecting blood and that you must change gloves after each patient.

ANS: False
TOP: Gloves
DIF: Level 1
OBJ: 2.7

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