

PRACTICE EXAM 21: VA-BC SIMULATION (100 QUESTIONS)

This independent practice exam contains 100 four-option questions proportionally aligned to the VACC 2025 content outline. Choose the single best answer. For pacing practice, allow approximately 100 minutes. The official VA-BC examination contains 150 questions, 125 scored, with 2.5 hours of testing time. This publication is not affiliated with or endorsed by VACC or AVA.

1. During a same-day vascular access consultation, the clinician considers the following issue: a patient needs six weeks of nonvesicant IV antibiotics and has poor peripheral veins. Which device best supports the anticipated therapy?

- A. A short peripheral catheter
- B. A steel-winged infusion set
- C. A peripherally inserted central catheter
- D. An arterial monitoring catheter

2. While verifying the device plan against the prescription, the clinician considers the following issue: which factor should carry the greatest weight when selecting a vascular access device?

- A. The inserter's favorite brand
- B. The prescribed therapy and anticipated duration
- C. The room in which care occurs
- D. The color of the catheter hub

3. After reassessing the patient at shift change, the clinician considers the following issue: a patient requires rapid, high-volume resuscitation. Which initial device is generally most appropriate?

- A. A small-gauge midline catheter
- B. A tunneled central catheter

- C. An implanted infusion port
- D. A large-bore short peripheral catheter

4. During a supervised insertion laboratory, the clinician considers the following issue: which device is intended for repeated long-term intermittent access while remaining completely beneath the skin when not accessed?

- A. An implanted vascular access port
- B. A nontunneled central catheter
- C. A standard midline catheter
- D. A short peripheral catheter

5. Before releasing a newly placed line for therapy, the clinician considers the following issue: a medication is known to injure tissue if extravasated. What is the safest selection principle?

- A. Use the smallest visible hand vein
- B. Select any device with blood return
- C. Choose the device requiring least documentation
- D. Choose access appropriate for vesicant administration

6. When a home-care patient calls with a concern, the clinician considers the following issue: which patient is the strongest candidate for an intraosseous device?

- A. A stable patient needing monthly laboratory tests
- B. A critically ill patient needing immediate access after peripheral attempts fail
- C. A home patient receiving long-term nutrition
- D. A patient requesting a needle-free blood draw

7. During a multidisciplinary device review, the clinician considers the following issue: what is a major advantage of a midline catheter compared with repeated short peripheral catheters?

- A. Longer peripheral dwell without a central tip
- B. Guaranteed suitability for every vesicant
- C. Placement of the tip in the right atrium
- D. Elimination of all infection risk

8. At an infusion clinic safety pause, the clinician considers the following issue: before choosing an upper-extremity device for a patient with advanced kidney disease, what should the clinician prioritize?

- A. Use of the dominant arm for convenience
- B. Placement in the smallest distal vein
- C. Preservation of vessels that may be needed for dialysis
- D. Routine selection of a subclavian site

9. While investigating a change in line performance, the clinician considers the following issue: which catheter feature most directly affects resistance to fluid flow?

- A. External hub color
- B. Dressing transparency
- C. Internal radius and catheter length
- D. Manufacturer logo size

10. During preparation for a complex bedside procedure, the clinician considers the following issue: a child needs brief isotonic hydration with healthy forearm veins. Which choice follows the least-invasive principle?

- A. A tunneled central venous catheter
- B. An implanted chest port
- C. A hemodialysis catheter
- D. A short peripheral IV catheter

11. When preserving veins for possible future treatment, the clinician considers the following issue: which device is designed specifically to support extracorporeal hemodialysis blood flow?

- A. A single-lumen midline catheter
- B. A large-bore dual-lumen dialysis catheter
- C. A small short peripheral catheter
- D. A standard implanted medication port

12. At a staff competency evaluation, the clinician considers the following issue: a patient will receive continuous parenteral nutrition with high osmolarity. Which access is most appropriate?

- A. Central venous access with an appropriate tip location
- B. A small vein on the back of the hand
- C. A routine subcutaneous infusion set
- D. An arterial catheter in the wrist

13. During review of an access-related incident, the clinician considers the following issue: why should the minimum necessary number of catheter lumens be selected?

- A. Extra lumens always increase infusion speed
- B. Multiple lumens prevent all incompatibilities
- C. Each additional lumen can add manipulation and infection risk
- D. Unused lumens require no maintenance

14. While counseling the patient about risks and alternatives, the clinician considers the following issue: which assessment best distinguishes a midline from a PICC?

- A. The color of the extension tubing
- B. Whether ultrasound was used
- C. The presence of a stabilization device
- D. The terminal tip location

15. After the clinician identifies an abnormal finding, the clinician considers the following issue: before insertion, which history finding most directly changes site selection?

- A. Prior lymph-node surgery on the proposed side
- B. The patient's preferred television channel
- C. A remote ankle sprain
- D. The time of the last meal

16. During development of an individualized care plan, the clinician considers the following issue: which finding suggests that a visible vein may still be unsuitable for cannulation?

- A. It refills after gentle release
- B. It is hard, cordlike, and tender
- C. It follows a straight course
- D. It is compressible on ultrasound

17. When a nurse requests an urgent vascular access recommendation, the clinician considers the following issue: what should be assessed before using a limb with an arteriovenous fistula for routine venipuncture?

- A. Whether the patient is right-handed
- B. Whether the limb must be preserved from puncture and compression
- C. Whether the room has a recliner
- D. Whether the catheter package is blue

18. While checking compliance with aseptic practice, the clinician considers the following issue: a patient reports adhesive allergy. What is the best preinsertion response?

- A. Plan compatible skin-preparation and securement products
- B. Proceed with standard products and reassess later
- C. Avoid documenting the allergy
- D. Select a larger catheter to compensate

19. At a follow-up visit after device placement, the clinician considers the following issue: which bedside observation is most concerning before placing a peripheral catheter in an arm?

- A. Warm hands with equal pulses
- B. Symmetric skin color
- C. Full painless range of motion
- D. Unilateral swelling with collateral veins

20. During final review before continuing the infusion, the clinician considers the following issue: why is a medication list relevant to vascular access assessment?

- A. Only oral drugs affect vein visibility
- B. Medication history replaces physical assessment
- C. Anticoagulants and infusate properties alter bleeding and device risks
- D. Medication names determine catheter color

21. During a same-day vascular access consultation, the clinician considers the following issue: which ultrasound characteristic identifies a vein rather than an artery?

- A. The vessel has a thick pulsating wall
- B. The vessel remains round under pressure
- C. The vessel compresses with gentle probe pressure
- D. The vessel lies beside a nerve bundle

22. While verifying the device plan against the prescription, the clinician considers the following issue: what is the best response when a patient cannot explain the planned procedure in their own words?

- A. Obtain equipment and begin quickly
- B. Pause and provide understandable education before proceeding
- C. Ask a family member to consent automatically
- D. Document refusal without further discussion

23. After reassessing the patient at shift change, the clinician considers the following issue: which assessment is most important when choosing a peripheral insertion site near a joint?

- A. How movement may affect stability and complications
- B. Whether the patient likes the site
- C. Whether the vein is closest to the bed
- D. How easily the site can be hidden

24. During a supervised insertion laboratory, the clinician considers the following issue: a patient has extensive burns on both arms. What is the safest next step?

- A. Insert through burned tissue immediately
- B. Use any blistered site with a transparent dressing
- C. Delay all necessary therapy indefinitely
- D. Escalate for an individualized access plan using unaffected options

25. Before releasing a newly placed line for therapy, the clinician considers the following issue: which patient statement requires follow-up before a contrast injection through an existing device?

- A. This catheter has been difficult to flush since yesterday
- B. The dressing was changed two days ago
- C. The extension set is labeled
- D. The device was placed with ultrasound

26. When a home-care patient calls with a concern, the clinician considers the following issue: what does a focused neurovascular assessment distal to a proposed arm site include?

- A. Only the patient's pain score
- B. Only the vein's visible diameter
- C. Room temperature and humidity
- D. Color, temperature, sensation, movement, and perfusion

27. During a multidisciplinary device review, the clinician considers the following issue: a patient has a history of difficult access. Which approach best supports assessment?

- A. Repeat blind attempts in the same area
- B. Choose the first palpable structure
- C. Review prior successful sites and use visualization technology when indicated
- D. Avoid asking about previous experiences

28. At an infusion clinic safety pause, the clinician considers the following issue: which finding is most consistent with dehydration affecting peripheral access?

- A. Bounding symmetric peripheral veins
- B. Poorly filled veins and reduced skin turgor
- C. Generalized bruising without volume loss
- D. Warmth limited to one insertion site

29. While investigating a change in line performance, the clinician considers the following issue: why should the clinician ask about previous central venous thrombosis?

- A. It may alter vessel patency and future access planning
- B. It determines the patient's pain tolerance
- C. It identifies the preferred dressing brand
- D. It guarantees contralateral patency

30. During preparation for a complex bedside procedure, the clinician considers the following issue: which laboratory issue deserves attention before a nonemergent invasive line procedure?

- A. A normal sodium concentration
- B. A stable hemoglobin result
- C. A negative pregnancy test alone
- D. A clinically significant coagulation abnormality

31. When preserving veins for possible future treatment, the clinician considers the following issue: what is the best way to include a patient with limited English proficiency in planning?

- A. Rely on an untrained child to interpret
- B. Use a qualified medical interpreter and speak directly to the patient
- C. Use gestures as the only explanation
- D. Ask staff to decide without the patient

32. At a staff competency evaluation, the clinician considers the following issue: a patient becomes pale and diaphoretic while discussing needle insertion. which action should the clinician anticipate?

- A. Definite bloodstream infection
- B. Immediate catheter embolization
- C. A possible vasovagal response requiring safety measures
- D. A delayed adhesive allergy

33. During review of an access-related incident, the clinician considers the following issue: what is the most important action immediately before handling sterile insertion supplies?

- A. Apply clean gloves over unwashed hands
- B. Open every package in the room
- C. Perform hand hygiene using the indicated method
- D. Palpate the site after antisepsis

34. While counseling the patient about risks and alternatives, the clinician considers the following issue: how should a clinician respond to visible soil at the intended insertion site?

- A. Apply extra dressing over the soil
- B. Clean the area before applying the skin antiseptic
- C. Insert through the soiled area quickly
- D. Skip antisepsis to avoid irritation

35. After the clinician identifies an abnormal finding, the clinician considers the following issue: which action best protects a sterile field?

- A. Keep sterile items within view and above waist level
- B. Turn away while others approach the field
- C. Reach across the field with bare sleeves
- D. Place the field below bed height

36. During development of an individualized care plan, the clinician considers the following issue: what should happen if the antiseptic has not dried before puncture?

- A. Blot it with nonsterile gauze
- B. Fan it with a gloved hand
- C. Insert while it remains wet
- D. Wait until it dries completely

37. When a nurse requests an urgent vascular access recommendation, the clinician considers the following issue: which preparation reduces wrong-device errors?

- A. Match the selected device and supplies to the verified order and plan
- B. Open several catheter packages before checking the verified plan
- C. Rely on memory rather than labels and the verified order
- D. Ask the patient to choose the catheter and supplies alone

38. While checking compliance with aseptic practice, the clinician considers the following issue: why should emergency equipment be available for selected line procedures?

- A. It replaces preprocedure assessment
- B. It eliminates the need for monitoring
- C. Some patients may develop acute reactions or instability
- D. It permits untrained insertion

39. At a follow-up visit after device placement, the clinician considers the following issue: what is the safest way to prepare a needleless connector for access?

- A. Touch the surface to confirm dryness
- B. Disinfect the connection surface with friction and allow it to dry
- C. Rinse it with tap water
- D. Cover it with a used alcohol pad

40. During final review before continuing the infusion, the clinician considers the following issue: before placing a central device, how should the procedure team address roles?

- A. Wait for complications to assign tasks
- B. Allow each person to assume the plan
- C. Limit communication to the inserter
- D. Conduct a briefing that confirms roles, site, device, and contingencies

41. During a same-day vascular access consultation, the clinician considers the following issue: which action maintains patient identification during preparation?

- A. Use the room number as the sole identifier
- B. Ask another patient to confirm the name
- C. Rely only on facial recognition
- D. Use two approved identifiers matched to the order

42. While verifying the device plan against the prescription, the clinician considers the following issue: what should the clinician do with a package that is wet, torn, or expired?

- A. Remove it from use and obtain an intact in-date item
- B. Dry it and use it if contents look clean
- C. Tape the tear before opening
- D. Use it only for central access

43. After reassessing the patient at shift change, the clinician considers the following issue: why is patient positioning planned before sterile barriers are applied?

- A. Position has no effect after site selection
- B. Correct positioning improves access and avoids later field disruption
- C. Movement makes ultrasound more accurate
- D. Repositioning always preserves sterility

44. During a supervised insertion laboratory, the clinician considers the following issue: during ultrasound-guided insertion, what confirms the needle tip rather than only the shaft?

- A. A bright line anywhere on the screen
- B. Movement of tissue near the vessel
- C. Continuous visualization of the advancing tip entering the target
- D. Seeing the catheter package beside the probe

45. Before releasing a newly placed line for therapy, the clinician considers the following issue: what is the safest response after an unsuccessful peripheral attempt?

- A. Recap the needle for another attempt
- B. Leave the needle on the bed
- C. Reuse it at a nearby site
- D. Activate the safety device and discard the needle immediately

46. When a home-care patient calls with a concern, the clinician considers the following issue: why should excessive force never be used when advancing a catheter?

- A. Force guarantees central tip placement
- B. Force prevents vessel spasm
- C. Resistance may indicate malposition or contact with tissue
- D. Resistance proves the vein is large

47. During a multidisciplinary device review, the clinician considers the following issue: what is the purpose of maximal sterile barriers during central venous catheter insertion?

- A. Reduce microbial contamination of the insertion field and device
- B. Improve ultrasound image brightness
- C. Increase catheter flow rate
- D. Prevent every mechanical complication

48. At an infusion clinic safety pause, the clinician considers the following issue: a guidewire cannot be withdrawn easily. which action should the inserter do?

- A. Cut the wire at skin level
- B. Stop and evaluate rather than pulling forcefully
- C. Advance the catheter with greater force
- D. Ask the patient to cough while pulling hard

49. While investigating a change in line performance, the clinician considers the following issue: which action helps prevent air entry during central line insertion or exchange?

- A. Use appropriate positioning and promptly occlude open hubs
- B. Leave lumens open to equalize pressure
- C. Ask the patient to sit upright abruptly
- D. Disconnect tubing during inspiration

50. During preparation for a complex bedside procedure, the clinician considers the following issue: what finding confirms successful peripheral venous entry before catheter advancement?

- A. A pulse beneath the catheter
- B. Severe radiating pain
- C. Resistance during flushing
- D. Appropriate blood return with anatomic and tactile confirmation

51. When preserving veins for possible future treatment, the clinician considers the following issue: why is a catheter-over-needle device advanced after lowering the insertion angle?

- A. To enter the artery intentionally
- B. To increase skin traction
- C. To follow the vessel lumen and reduce posterior-wall injury
- D. To make the catheter stiffer

52. At a staff competency evaluation, the clinician considers the following issue: what should occur if sterile technique is broken during insertion?

- A. Continue if the patient did not notice
- B. Stop and replace contaminated items before continuing
- C. Cover the contaminated area with gauze
- D. Document it only after completion

53. During review of an access-related incident, the clinician considers the following issue: which symptom during advancement requires immediate cessation and assessment?

- A. Sharp radiating pain or new paresthesia
- B. Mild awareness of skin cleansing
- C. Temporary coolness from antiseptic
- D. Concern about the procedure duration

54. While counseling the patient about risks and alternatives, the clinician considers the following issue: after insertion, what is the priority before using a newly placed central catheter?

- A. Use every lumen immediately to confirm flow before assessment
- B. Verify tip location and rule out relevant complications by an approved method
- C. Assume blood return alone proves a safe central tip position
- D. Wait until the next scheduled dressing change before any use

55. After the clinician identifies an abnormal finding, the clinician considers the following issue: what is the best reason to assess the insertion site at regular intervals?

- A. To loosen the dressing routinely
- B. To eliminate documentation
- C. Early recognition of infection, infiltration, and device dysfunction
- D. To increase the number of line entries

56. During development of an individualized care plan, the clinician considers the following issue: a transparent dressing is damp and lifting at the edge. which action should the clinician do?

- A. Reinforce every edge indefinitely
- B. Leave it until the scheduled date
- C. Remove it and leave the site uncovered
- D. Replace it using aseptic technique

57. When a nurse requests an urgent vascular access recommendation, the clinician considers the following issue: why should an unused catheter lumen remain clamped or use the designed valve system?

- A. To increase bacterial growth
- B. To make the catheter longer
- C. To prevent unintended blood reflux and air entry
- D. To replace flushing

58. While checking compliance with aseptic practice, the clinician considers the following issue: what is the safest response to resistance while flushing a catheter?

- A. Apply greater syringe pressure
- B. Stop and assess the system and patient
- C. Use a smaller syringe to increase force
- D. Continue until the occlusion clears

59. At a follow-up visit after device placement, the clinician considers the following issue: which practice best reduces contamination when changing an administration set?

- A. Place open ends on the bed
- B. Reuse protective caps
- C. Touch connection tips with sterile gloves repeatedly
- D. Maintain aseptic non-touch technique at critical connections

60. During final review before continuing the infusion, the clinician considers the following issue: why is daily review of central-line necessity important?

- A. Prompt removal reduces exposure to device-related harm
- B. It guarantees a line will never occlude
- C. It replaces site assessment
- D. It determines the brand of dressing

61. During a same-day vascular access consultation, the clinician considers the following issue: what is the preferred action when dried blood obscures an insertion site?

- A. Change the dressing and clean the site using aseptic technique
- B. Scrape beneath the intact dressing
- C. Ignore it if the line flushes
- D. Add opaque tape over the area

62. While verifying the device plan against the prescription, the clinician considers the following issue: how should a needleless connector be accessed for medication administration?

- A. Wipe it after connecting the syringe
- B. Touch it to check for residue
- C. Skip disinfection if a cap was present

D. Disinfect it, allow drying, and use a sterile connection

63. After reassessing the patient at shift change, the clinician considers the following issue: what is the main purpose of catheter stabilization?

- A. Compress the vein until flow stops
- B. Hide the site from view
- C. Limit movement that contributes to dislodgment and vessel trauma
- D. Replace the primary dressing

64. During a supervised insertion laboratory, the clinician considers the following issue: a patient showers with a central line. What principle guides protection?

- A. Submerge the dressing to clean it
- B. Keep the catheter and connections from direct water exposure
- C. Disconnect the tubing before showering
- D. Remove the dressing temporarily

65. Before releasing a newly placed line for therapy, the clinician considers the following issue: why should blood sampling from a vascular access device follow an established sequence?

- A. To make every laboratory test require a routine discard volume
- B. To eliminate patient identification during collection from the device
- C. To reduce contamination and preserve sample accuracy and device function
- D. To avoid flushing the device after the specimen is collected

66. When a home-care patient calls with a concern, the clinician considers the following issue: what indicates that home-care teaching was effective?

- A. The patient signs the form without questions
- B. The patient correctly demonstrates care and states warning signs

- C. The clinician reads the instructions aloud
- D. A family member stores supplies

67. During a multidisciplinary device review, the clinician considers the following issue: what is the safest practice for accessing an implanted port?

- A. Use a standard hypodermic needle
- B. Insert beside the septum
- C. Leave the port accessed without securement
- D. Use a noncoring needle of appropriate length

68. At an infusion clinic safety pause, the clinician considers the following issue: when should a short peripheral catheter be removed?

- A. When no longer needed or when complications occur
- B. Only after a fixed universal dwell time
- C. Whenever blood return is absent despite easy infusion
- D. Only when the patient requests discharge

69. While investigating a change in line performance, the clinician considers the following issue: a peripheral site is cool, swollen, and painful during infusion. What is the priority action?

- A. Increase the infusion rate
- B. Apply a new dressing over swelling
- C. Flush forcefully to restore flow
- D. Stop the infusion and assess for infiltration

70. During preparation for a complex bedside procedure, the clinician considers the following issue: a vesicant infusion causes burning and swelling. which action should the clinician do first?

- A. Stop the infusion while leaving the device available for aspiration

- B. Flush the medication into the vein
- C. Remove the catheter before any assessment
- D. Massage the affected tissue vigorously

71. When preserving veins for possible future treatment, the clinician considers the following issue: which finding most strongly suggests phlebitis?

- A. Cool painless edema around the site
- B. A silent infusion pump
- C. Erythema, warmth, tenderness, and a palpable venous cord
- D. Clear fluid under an intact dressing

72. At a staff competency evaluation, the clinician considers the following issue: a central catheter suddenly lacks blood return but flushes without resistance. which action should be assessed first?

- A. Immediate catheter removal without evaluation
- B. Mechanical causes such as position, clamps, or kinking
- C. Forceful irrigation with a small syringe
- D. Routine use for every vesicant

73. During review of an access-related incident, the clinician considers the following issue: what symptom pattern raises concern for an air embolism?

- A. Gradual itching beneath an old dressing
- B. Localized bruising after venipuncture
- C. Sudden dyspnea, chest discomfort, and hemodynamic change
- D. Mild hunger before lunch

74. While counseling the patient about risks and alternatives, the clinician considers the following issue: a patient with a central line has fever and chills during infusion. which response is most appropriate?

- A. Increase the rate to finish quickly
- B. Change only the tubing label
- C. Assume the symptoms are unrelated
- D. Stop and assess promptly for infection or infusion reaction

75. After the clinician identifies an abnormal finding, the clinician considers the following issue: which finding suggests catheter migration?

- A. A changed external catheter length with new infusion dysfunction
- B. An unchanged securement device
- C. A clean and dry dressing
- D. A stable heart rate

76. During development of an individualized care plan, the clinician considers the following issue: what should be done when catheter fracture is suspected?

- A. Flush to locate the break
- B. Stop use, secure the device, and obtain urgent evaluation
- C. Pull forcefully on the exposed segment
- D. Cover it and continue infusion

77. When a nurse requests an urgent vascular access recommendation, the clinician considers the following issue: a patient develops arm swelling and discomfort on the side of a PICC. What complication should be considered?

- A. Simple dehydration
- B. Arterial hypertension alone
- C. Catheter-associated venous thrombosis
- D. Adhesive dryness

78. While checking compliance with aseptic practice, the clinician considers the following issue: a pump repeatedly alarms for occlusion. What is the safest first check?

- A. Raise the pressure limit repeatedly
- B. Flush against resistance
- C. Replace the pump without assessing the patient
- D. Inspect clamps, tubing, connections, and limb position

79. At a follow-up visit after device placement, the clinician considers the following issue: which sign after subclavian central insertion may indicate pneumothorax?

- A. A small spot of blood on gauze
- B. New dyspnea with unequal breath sounds
- C. Mild adhesive discomfort
- D. Transient anxiety before insertion

80. During final review before continuing the infusion, the clinician considers the following issue: what is the best response to persistent bleeding at a newly inserted site?

- A. Apply appropriate pressure and assess bleeding risk while escalating care
- B. Remove all dressings and simply observe the site without pressure
- C. Ignore the bleeding if the catheter continues to flush normally
- D. Advance the catheter farther into the vessel to control bleeding

81. During a same-day vascular access consultation, the clinician considers the following issue: a patient reports electric-shock pain during flushing. which action should the clinician do?

- A. Flush faster to overcome spasm
- B. Reassure the patient that it is normal
- C. Apply heat and continue therapy
- D. Stop use and evaluate for malposition or nerve involvement

82. While verifying the device plan against the prescription, the clinician considers the following issue: what distinguishes infiltration from extravasation?

- A. Infiltration always causes systemic sepsis
- B. Extravasation involves a vesicant or irritant capable of tissue injury
- C. Extravasation occurs only in arteries
- D. Infiltration always produces a blister

83. After reassessing the patient at shift change, the clinician considers the following issue: a connector repeatedly loosens from extension tubing. What is the safest solution?

- A. Tighten it with an unapproved adhesive
- B. Wrap the junction permanently with cloth tape
- C. Stop use and replace the faulty components using aseptic technique
- D. Ignore it if no leak is visible

84. During a supervised insertion laboratory, the clinician considers the following issue: which action is appropriate for suspected catheter-related bloodstream infection?

- A. Follow the ordered diagnostic and treatment pathway without routinely removing every line
- B. Culture only the catheter dressing and delay assessment of the patient
- C. Begin an infusion through every lumen before obtaining ordered cultures
- D. Delay assessment and diagnostic action until the next scheduled shift

85. Before releasing a newly placed line for therapy, the clinician considers the following issue: what is the strongest basis for revising a vascular access policy?

- A. A single vendor's marketing claim
- B. Current evidence, standards, outcomes, and stakeholder review
- C. One clinician's habit
- D. The age of the existing font

86. When a home-care patient calls with a concern, the clinician considers the following issue: a unit's infiltration rate rises. What is the best first quality-improvement step?

- A. Define the measure and examine reliable baseline data
- B. Purchase a new device immediately
- C. Discipline the last inserter
- D. Stop reporting infiltrations

87. During a multidisciplinary device review, the clinician considers the following issue: why is competency validation more useful than attendance alone?

- A. It guarantees lifelong expertise after one successful classroom session
- B. It eliminates the need for supervision during every future procedure
- C. It demonstrates the learner can perform required knowledge and skills
- D. It proves that every later patient outcome will be completely perfect

88. At an infusion clinic safety pause, the clinician considers the following issue: which action best reflects evidence-based practice?

- A. Follow tradition despite contrary evidence
- B. Use the newest product automatically
- C. Apply research without considering the patient
- D. Combine best evidence with expertise and patient values

89. While investigating a change in line performance, the clinician considers the following issue: what is the purpose of reporting a near miss?

- A. Assign blame without investigation
- B. Identify system vulnerabilities before patient harm occurs
- C. Increase documentation burden only
- D. Remove the event from quality data

90. During preparation for a complex bedside procedure, the clinician considers the following issue: which study feature generally strengthens confidence that an intervention caused an outcome?

- A. A testimonial from one user
- B. An advertisement without methods
- C. A well-designed comparison with control of bias and confounding
- D. An opinion lacking data

91. When preserving veins for possible future treatment, the clinician considers the following issue: how should a vascular access specialist respond to a practice outside personal competence?

- A. Perform it once without support
- B. Delegate it to an untrained person
- C. Hide the knowledge gap
- D. Seek qualified assistance and remain within authorized scope

92. At a staff competency evaluation, the clinician considers the following issue: what makes an audit-and-feedback program useful?

- A. Timely credible data linked to specific improvement actions
- B. Collecting data without sharing results
- C. Comparing units with different definitions
- D. Reporting only favorable outcomes

93. During review of an access-related incident, the clinician considers the following issue: a competent patient refuses a recommended central line after education. which action should the clinician do?

- A. Proceed because the clinician believes it is best
- B. Respect the refusal, document the discussion, and notify the care team
- C. Ask security to hold the patient
- D. Obtain consent from any visitor

94. While counseling the patient about risks and alternatives, the clinician considers the following issue: which action best protects patient confidentiality during bedside teaching?

- A. Discuss only necessary information where unintended listeners are minimized
- B. Post the plan in a public hallway
- C. Share details with curious visitors
- D. Use identifiable cases on social media

95. After the clinician identifies an abnormal finding, the clinician considers the following issue: a patient asks whether the inserter has performed the procedure before. What is the most ethical response?

- A. Provide a misleading assurance
- B. Refuse to discuss clinician competence
- C. Answer honestly and explain available supervision or support
- D. Change the subject and begin

96. During development of an individualized care plan, the clinician considers the following issue: what ethical principle is most directly served by preventing avoidable catheter harm?

- A. Fidelity to a vendor
- B. Personal convenience
- C. Institutional secrecy
- D. Nonmaleficence

97. When a nurse requests an urgent vascular access recommendation, the clinician considers the following issue: when may a surrogate participate in vascular access decisions?

- A. Whenever the surrogate disagrees with a capable patient
- B. Whenever staff prefer faster consent
- C. When authorized and the patient lacks decision-making capacity for the choice
- D. Only after the procedure is completed

98. While checking compliance with aseptic practice, the clinician considers the following issue: what is the best response after discovering a vascular access error?

- A. Alter the record to reduce concern
- B. Wait to see whether harm appears
- C. Discuss it publicly with unrelated staff
- D. Address immediate safety, disclose through proper channels, and report accurately

99. At a follow-up visit after device placement, the clinician considers the following issue: a clinician is asked to insert a device without required competency validation. which action should the clinician do?

- A. Proceed because staffing is short
- B. Decline unsupervised performance and seek an authorized qualified pathway
- C. Ask the patient to accept the risk
- D. Document competency after the procedure

100. During final review before continuing the infusion, the clinician considers the following issue: what is required for informed consent to be meaningful?

- A. Relevant information, capacity, understanding, and voluntary choice
- B. A signature obtained after sedation
- C. Agreement caused by coercion
- D. Technical language without questions

Practice Exam 21: Answer Key and Explanations

1. C — A PICC provides durable central access for prolonged therapy while avoiding repeated short peripheral insertions. Selection should be driven by the therapy, expected duration, required flow, patient anatomy, complication risk, and preservation of future access rather than habit. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

2. B — Device choice begins with clinical need, infusate characteristics, duration, vascular health, and the least invasive suitable option. Selection should be driven by the therapy, expected duration, required flow, patient anatomy, complication risk, and preservation of future access rather than habit. The

rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

3. D — A short, large-bore peripheral catheter offers low resistance and rapid access for urgent volume replacement. Selection should be driven by the therapy, expected duration, required flow, patient anatomy, complication risk, and preservation of future access rather than habit. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

4. A — An implanted port is fully subcutaneous and suits long-term intermittent therapy when access frequency justifies needle entry. Selection should be driven by the therapy, expected duration, required flow, patient anatomy, complication risk, and preservation of future access rather than habit. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

5. D — Vesicant risk must influence device and tip-location selection because blood return alone does not establish safe administration conditions. Selection should be driven by the therapy, expected duration, required flow, patient anatomy, complication risk, and preservation of future access rather than habit. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

6. B — Intraosseous access is an emergency bridge when rapid vascular access is essential and conventional peripheral access cannot be obtained promptly. Selection should be driven by the therapy, expected duration, required flow, patient anatomy, complication risk, and preservation of future access rather than habit. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience.

7. A — A midline can reduce repeated venipunctures during suitable peripheral therapy, but its tip remains peripheral and limitations still apply. Selection should be driven by the therapy, expected duration, required flow, patient anatomy, complication risk, and preservation of future access rather than habit. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over.

8. C — Vessel preservation planning is essential because future hemodialysis access may depend on intact upper-extremity veins. Selection should be driven by the therapy, expected duration, required flow, patient anatomy, complication risk, and preservation of future access rather than habit. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

9. C — Flow resistance falls with a larger internal radius and shorter length, so catheter dimensions matter more than cosmetic features. Selection should be driven by the therapy, expected duration, required flow, patient anatomy, complication risk, and preservation of future access rather than habit. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over.

10. D — Short, nonirritating therapy with adequate peripheral veins usually calls for a short peripheral catheter rather than central access. Selection should be driven by the therapy, expected duration, required flow, patient anatomy, complication risk, and preservation of future access rather than habit. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

11. B — Dialysis catheters have large lumens and configurations intended for high extracorporeal blood-flow requirements. Selection should be driven by the therapy, expected duration, required flow, patient anatomy, complication risk, and preservation of future access rather than habit. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

12. A — Central circulation provides rapid hemodilution for hyperosmolar parenteral nutrition and reduces local peripheral endothelial injury. Selection should be driven by the therapy, expected duration, required flow, patient anatomy, complication risk, and preservation of future access rather than habit. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

13. C — Selecting only needed lumens reduces access points, manipulation, maintenance burden, and opportunities for contamination. Selection should be driven by the therapy, expected duration, required flow, patient anatomy, complication risk, and preservation of future access rather than habit. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

14. D — Device category is defined largely by where the catheter terminates; a midline remains peripheral, whereas a PICC terminates centrally. Selection should be driven by the therapy, expected duration, required flow, patient anatomy, complication risk, and preservation of future access rather than habit. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over.

15. A — Prior lymphatic surgery can affect drainage and risk, so it must be considered with current policy and the patient's overall condition. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience.

16. B — A firm, tender, cordlike vein suggests inflammation or thrombosis and should not be selected merely because it is visible. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

17. B — A fistula limb is generally protected because puncture, compression, and trauma can threaten essential dialysis access. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected

options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

18. A — Allergy assessment should change the product plan before exposure and should be documented for the whole care team. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

19. D — Unilateral edema and collateral veins may indicate impaired venous return and warrant further assessment rather than routine cannulation. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

20. C — Medications can influence bleeding, compatibility, vessel irritation, therapy duration, and monitoring needs, making the list central to planning. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

21. C — Veins typically compress with gentle pressure, while arteries remain patent and pulsatile; Doppler can further clarify uncertain anatomy. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

22. B — Inability to teach back key information signals incomplete understanding and requires clarification before valid participation or consent. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

23. A — Joint movement can cause catheter pistoning, dislodgment, occlusion, and dressing disruption, so stability and function matter. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

24. D — Burned or infected skin is a poor insertion field; the clinician should evaluate alternative sites and devices based on urgency and expertise. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize.

25. A — Resistance or dysfunction requires assessment before power injection because catheter integrity, patency, and device rating must be established. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

26. D — A distal neurovascular baseline supports site selection and later recognition of impaired circulation or nerve symptoms. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

27. C — Prior access history and appropriate technology can reduce attempts, preserve vessels, and improve the patient experience. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

28. B — Volume depletion can reduce peripheral venous filling, which may affect device and technique choices. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

29. A — Previous thrombosis can leave stenosis or occlusion, so access planning may require imaging, alternatives, or specialty consultation. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

30. D — Bleeding risk should be assessed in clinical context, including coagulation status, medications, urgency, and compressibility of the proposed site. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

31. B — Qualified interpretation supports accurate history, informed participation, privacy, and safer education while preserving direct communication with the patient. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

32. C — Pallor, sweating, nausea, and lightheadedness around needles may precede syncope, so positioning and injury prevention are priorities. This finding materially affects safety or feasibility, whereas the distractors do not replace a focused history, examination, device review, and patient-

centered discussion. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

33. C — Hand hygiene reduces transient organisms and precedes preparation and glove use; gloves do not replace it. The correct step protects identification, asepsis, product integrity, positioning, role clarity, or readiness before sterile activity makes later correction more difficult. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

34. B — Visible contamination must be removed so the antiseptic can contact skin effectively and the procedure begins with a clean field. The correct step protects identification, asepsis, product integrity, positioning, role clarity, or readiness before sterile activity makes later correction more difficult. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

35. A — A sterile field must remain visible and controlled; out-of-view or low surfaces are considered vulnerable to contamination. The correct step protects identification, asepsis, product integrity, positioning, role clarity, or readiness before sterile activity makes later correction more difficult. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

36. D — Drying allows the antiseptic its intended contact action and reduces chemical irritation and fire risk where applicable. The correct step protects identification, asepsis, product integrity, positioning, role clarity, or readiness before sterile activity makes later correction more difficult. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

37. A — A deliberate preprocedure check aligns the prescription, assessment, device, accessories, and planned technique before sterility limits correction. The correct step protects identification, asepsis, product integrity, positioning, role clarity, or readiness before sterile activity makes later correction more difficult. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

38. C — Readiness for predictable complications supports timely response but does not replace assessment, competence, or monitoring. The correct step protects identification, asepsis, product integrity, positioning, role clarity, or readiness before sterile activity makes later correction more difficult. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

39. B — Mechanical friction, appropriate antiseptic, and drying reduce organisms at the access surface before connection. The correct step protects identification, asepsis, product integrity, positioning, role clarity, or readiness before sterile activity makes later correction more difficult. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

40. D — A brief team pause creates shared understanding, catches discrepancies, and prepares responses before sterile work begins. The correct step protects identification, asepsis, product integrity, positioning, role clarity, or readiness before sterile activity makes later correction more difficult. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

41. D — Two approved identifiers reduce wrong-patient procedures; room location is not a reliable identifier. The correct step protects identification, asepsis, product integrity, positioning, role clarity, or readiness before sterile activity makes later correction more difficult. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

42. A — Package integrity and expiration are prerequisites for relying on sterility; appearance alone cannot prove safety. The correct step protects identification, asepsis, product integrity, positioning, role clarity, or readiness before sterile activity makes later correction more difficult. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

43. B — Planning position supports anatomy, comfort, respiratory tolerance, and stable sterile technique without unnecessary movement after preparation. The correct step protects identification, asepsis, product integrity, positioning, role clarity, or readiness before sterile activity makes later correction more difficult. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

44. C — Tip tracking is essential because the shaft may appear aligned while the unseen tip enters another structure. This choice maintains controlled technique and responds appropriately to resistance, pain, contamination, or uncertainty instead of advancing through a potentially unsafe condition. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

45. D — Immediate activation and disposal prevent needlestick injury and reuse; a new sterile device is required for another attempt. This choice maintains controlled technique and responds appropriately to resistance, pain, contamination, or uncertainty instead of advancing through a potentially unsafe condition. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

46. C — Unexpected resistance requires reassessment because force can damage the vessel, catheter, guidewire, or surrounding structures. This choice maintains controlled technique and responds appropriately to resistance, pain, contamination, or uncertainty instead of advancing through a potentially unsafe condition. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

47. A — Comprehensive barriers reduce contamination during a high-risk procedure, but they do not replace hand hygiene, antisepsis, or competent technique. This choice maintains controlled technique and responds appropriately to resistance, pain, contamination, or uncertainty instead of advancing

through a potentially unsafe condition. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

48. B — Wire resistance may signal entrapment, kinking, or device interaction; force can fracture or embolize the wire. This choice maintains controlled technique and responds appropriately to resistance, pain, contamination, or uncertainty instead of advancing through a potentially unsafe condition. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

49. A — Controlling open connections and using procedure-specific positioning reduce the pressure gradient that can draw air into the venous system. This choice maintains controlled technique and responds appropriately to resistance, pain, contamination, or uncertainty instead of advancing through a potentially unsafe condition. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

50. D — Blood return plus proper needle visualization or feel supports venous entry; pain, pulsation, or resistance requires reassessment. This choice maintains controlled technique and responds appropriately to resistance, pain, contamination, or uncertainty instead of advancing through a potentially unsafe condition. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

51. C — Lowering the angle after venous entry aligns advancement with the vessel rather than driving the needle through the back wall. This choice maintains controlled technique and responds appropriately to resistance, pain, contamination, or uncertainty instead of advancing through a potentially unsafe condition. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over.

52. B — A recognized break requires immediate correction because later documentation cannot undo contamination introduced during insertion. This choice maintains controlled technique and responds appropriately to resistance, pain, contamination, or uncertainty instead of advancing through a potentially unsafe condition. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

53. A — Radiating pain or paresthesia may indicate nerve contact or injury; continuing advancement could worsen harm. This choice maintains controlled technique and responds appropriately to resistance, pain, contamination, or uncertainty instead of advancing through a potentially unsafe condition. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

54. B — Central device use depends on validated tip position and procedure-specific complication assessment, not blood return alone. This choice maintains controlled technique and responds appropriately to resistance, pain, contamination, or uncertainty instead of advancing through a potentially unsafe condition. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

55. C — Regular assessment detects evolving complications before they become severe and guides continued need and device management. Effective maintenance minimizes manipulation and contamination, preserves device function and visibility, and supports prompt removal when the access is unnecessary or compromised. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

56. D — A compromised dressing no longer provides reliable protection and should be replaced with appropriate skin antisepsis and securement. Effective maintenance minimizes manipulation and contamination, preserves device function and visibility, and supports prompt removal when the access is unnecessary or compromised. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

57. C — Proper closure helps maintain a closed system and device function; it does not eliminate required assessment and flushing. Effective maintenance minimizes manipulation and contamination, preserves device function and visibility, and supports prompt removal when the access is unnecessary or compromised. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

58. B — Forceful flushing can rupture the catheter or dislodge material; resistance requires evaluation of clamps, tubing, position, and complications. Effective maintenance minimizes manipulation and contamination, preserves device function and visibility, and supports prompt removal when the access is unnecessary or compromised. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

59. D — Aseptic non-touch technique keeps critical parts from contact and limits microorganisms introduced during system changes. Effective maintenance minimizes manipulation and contamination, preserves device function and visibility, and supports prompt removal when the access is unnecessary or compromised. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

60. A — Every unnecessary catheter day prolongs risk; review links ongoing need to timely removal and alternative access planning. Effective maintenance minimizes manipulation and contamination, preserves device function and visibility, and supports prompt removal when the access is unnecessary or compromised. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

61. A — Obscured visualization and accumulated blood warrant dressing care so the site can be assessed and protected. Effective maintenance minimizes manipulation and contamination, preserves device function and visibility, and supports prompt removal when the access is unnecessary or compromised. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

62. D — The connection surface must be disinfected before access because protective caps and appearance do not guarantee an aseptic surface. Effective maintenance minimizes manipulation and contamination, preserves device function and visibility, and supports prompt removal when the access is

unnecessary or compromised. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

63. C — Effective stabilization reduces pistoning, migration, phlebitis, and accidental removal while preserving site assessment. Effective maintenance minimizes manipulation and contamination, preserves device function and visibility, and supports prompt removal when the access is unnecessary or compromised. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

64. B — Water can contaminate dressings and connections, so a secure water-resistant barrier and policy-based instructions are required. Effective maintenance minimizes manipulation and contamination, preserves device function and visibility, and supports prompt removal when the access is unnecessary or compromised. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

65. C — A defined process addresses identification, infusions, waste or discard when indicated, order of draw, flushing, and reconnection. Effective maintenance minimizes manipulation and contamination, preserves device function and visibility, and supports prompt removal when the access is unnecessary or compromised. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

66. B — Teach-back and return demonstration reveal actual understanding better than signatures or passive exposure. Effective maintenance minimizes manipulation and contamination, preserves device function and visibility, and supports prompt removal when the access is unnecessary or compromised. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

67. D — A noncoring needle preserves septum integrity; correct length and securement support reliable chamber access. Effective maintenance minimizes manipulation and contamination, preserves device function and visibility, and supports prompt removal when the access is unnecessary or compromised. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

68. A — Clinical indication and complication assessment guide removal; unnecessary devices should not remain solely to meet a routine schedule. Effective maintenance minimizes manipulation and contamination, preserves device function and visibility, and supports prompt removal when the access is unnecessary or compromised. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

69. D — Cool swelling and pain suggest infiltration; stopping infusion limits further tissue exposure while the clinician evaluates and treats appropriately. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over.

70. A — Suspected extravasation requires stopping administration and preserving access initially for aspiration or antidote steps under the agent-specific protocol. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

71. C — Inflammation along the vein produces pain, erythema, warmth, swelling, and sometimes a cordlike vessel. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

72. B — Position-dependent or external mechanical causes should be excluded before assuming intraluminal occlusion or using the line for high-risk therapy. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over.

73. C — Abrupt cardiopulmonary or neurologic symptoms during an open-line event require immediate emergency response for possible air embolism. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

74. D — Systemic symptoms associated with infusion require prompt assessment, cultures or other actions as ordered, and patient stabilization. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

75. A — A change in external length may reflect inward or outward migration and requires cessation of inappropriate use and tip evaluation. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience.

76. B — Suspected damage risks leakage, embolization, or contamination; device use stops while the segment is secured and expert help obtained. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over.

77. C — Unilateral swelling, pain, and venous congestion with a PICC warrant evaluation for thrombosis and other flow obstruction. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The

rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

78. D — External and positional causes are checked first, followed by patient and device assessment; pressure should not override unexplained resistance. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over.

79. B — Respiratory distress and asymmetric breath sounds after chest-region access require immediate evaluation for pleural injury. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

80. A — Hemostasis, patient assessment, medication and coagulation review, and escalation address both local bleeding and underlying risk. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

81. D — Sharp radiating symptoms are not expected and may signal migration, mechanical injury, or nerve irritation requiring immediate assessment. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

82. B — Both involve unintended tissue leakage, but extravasation specifically raises the risk of significant injury from the infusate. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

83. C — An unreliable connection threatens sterility, air control, and dose delivery; compromised components should be replaced rather than improvised. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

84. A — Management depends on clinical stability, cultures, organism, device type, and complications; reflex actions without assessment may harm care. The immediate goal is to halt further exposure, assess the patient and device, preserve relevant evidence or access, and initiate the complication-specific response. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

85. B — Policy revision should integrate appraised evidence, applicable standards, local data, resources, and interdisciplinary expertise. Sound professional practice uses appraised evidence, reliable measurement, demonstrated competence, feedback, and system learning instead of anecdote, assumption, marketing, or punishment. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

86. A — Improvement begins with an operational definition and trustworthy data so patterns, processes, and potential causes can be identified. Sound professional practice uses appraised evidence, reliable measurement, demonstrated competence, feedback, and system learning instead of anecdote, assumption, marketing, or punishment. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

87. C — Attendance documents exposure, while competency assessment evaluates performance against defined criteria and identifies remediation needs. Sound professional practice uses appraised evidence, reliable measurement, demonstrated competence, feedback, and system learning instead of anecdote, assumption, marketing, or punishment. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

88. D — Evidence-based practice integrates research, clinical judgment, feasibility, and informed patient preferences rather than relying on one input. Sound professional practice uses appraised evidence, reliable measurement, demonstrated competence, feedback, and system learning instead of anecdote, assumption, marketing, or punishment. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

89. B — Near misses reveal weak defenses and support learning, process redesign, and prevention even when no injury reaches the patient. Sound professional practice uses appraised evidence, reliable measurement, demonstrated competence, feedback, and system learning instead of anecdote, assumption, marketing, or punishment. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

90. C — Methodologic rigor, appropriate comparison, and bias control improve causal inference more than anecdote or promotional claims. Sound professional practice uses appraised evidence, reliable measurement, demonstrated competence, feedback, and system learning instead of anecdote, assumption, marketing, or punishment. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

91. D — Professional accountability includes recognizing limits, obtaining education or assistance, and practicing within law, policy, and demonstrated competence. Sound professional practice uses appraised evidence, reliable measurement, demonstrated competence, feedback, and system learning instead of anecdote, assumption, marketing, or punishment. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

92. A — Feedback supports change when measures are valid, understandable, timely, and paired with achievable actions and follow-up. Sound professional practice uses appraised evidence, reliable measurement, demonstrated competence, feedback, and system learning instead of anecdote,

assumption, marketing, or punishment. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

93. B — Autonomy permits an informed capable patient to refuse; the team should address alternatives, consequences, documentation, and ongoing care. The ethically sound response protects autonomy, privacy, truthfulness, authorized decision-making, professional competence, and accurate documentation while addressing immediate patient safety. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

94. A — Privacy requires limiting disclosure to legitimate purposes, appropriate recipients, and environments that reduce unnecessary exposure. The ethically sound response protects autonomy, privacy, truthfulness, authorized decision-making, professional competence, and accurate documentation while addressing immediate patient safety. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

95. C — Truthful communication supports informed choice and trust; the clinician should accurately describe preparation and supervision without exaggeration. The ethically sound response protects autonomy, privacy, truthfulness, authorized decision-making, professional competence, and accurate documentation while addressing immediate patient safety. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

96. D — Nonmaleficence is the obligation to avoid causing harm and underlies risk reduction, competent practice, and timely complication management. The ethically sound response protects autonomy, privacy, truthfulness, authorized decision-making, professional competence, and accurate documentation while addressing immediate patient safety. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

97. C — Surrogate authority applies according to law and policy when the patient cannot decide; a capable patient's choices remain primary. The ethically sound response protects autonomy, privacy, truthfulness, authorized decision-making, professional competence, and accurate documentation while addressing immediate patient safety. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

98. D — Ethical error response prioritizes the patient, truthful communication, accurate documentation, required reporting, and system learning. The ethically sound response protects autonomy, privacy, truthfulness, authorized decision-making, professional competence, and accurate documentation while addressing immediate patient safety. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

99. B — Scope and competence obligations are not suspended by staffing pressure; safe escalation protects the patient and clinician. The ethically sound response protects autonomy, privacy, truthfulness, authorized decision-making, professional competence, and accurate documentation while addressing immediate patient safety. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.

100. A — Consent is a communication process, not merely a signature; the patient needs understandable information, decisional ability, and freedom from coercion. The ethically sound response protects autonomy, privacy, truthfulness, authorized decision-making, professional competence, and accurate documentation while addressing immediate patient safety. The rejected options either increase avoidable risk, ignore the central assessment finding, or prioritize convenience over an individualized plan.