

CHAPTER ONE: VITAL SIGNS AND PATIENT ASSESSMENT

1. _____ are guidelines designed to protect health workers from bloodborne pathogens.
 A Safety Codes B Universal Precautions C Common Safeguards D Foresight Regulations
2. The typical pulse rate for women is _____ beats per minute.
 A 70 to 72 B 72 to 76 C 78 to 82 D 84 to 88
3. Tachypnea refers to a slow heart rate.
 A True B False
4. Oral temperatures should not be taken if the patient has had a hot or cold drink within the last _____ minutes.
 A 5 B 10 C 17 D 25
5. Areas of higher local temperature often indicate infection and may be evidenced by _____ (reddening of the skin).
 A bradycardia B erythritol C erythrasma D erythema
6. _____ refers to the blood pressure cuff.
 A sphygmomanometer B stethoscope C forceps D otoscope
7. If the patient reports that there are no symptoms, the radiographer should write _____ for their history.
 A nothing B the letter X C N/A D asymptomatic
8. The most common reason for an incorrect examination is:
 A clerical error B radiographer error C assuming what is ordered D patient miscommunication
9. Regarding checking for visible symptoms in the face, pallor refers to:
 A redness B brown spots C striations D lack of color or whiteness
10. When is it permissible to force a joint into position for an optimal radiograph?
 A if no fracture is suspected B with permission from lead tech C never D with patient permission

CHAPTER TWO: AID FOR MEDICAL EMERGENCIES

11. Warning signs of dyspnea include all the following except:
 A gasping B perspiration C labored breathing D dilated nostrils
12. The brain can survive for _____ minutes without its blood supply.
 A 1 B 2 C 5 D 12
13. Hypovolemic shock is caused by a decrease in the quantity of circulating blood.
 A True B False
14. _____ shock may include mental and physiologic shock caused by overwhelming the nervous system.
 A Neurogenic B Traumatic C Hypovolemic D Anaphylactic
15. Crushing injuries and compound fractures are more likely to induce shock versus other types of injuries.
 A True B False
16. _____ is another word for fainting.
 A Dyspnea B Erythrasma C Stroke D Syncope
17. Dizziness and vertigo are exactly the same problem.
 A True B False
18. If a patient presents with labored breathing, wheezing, and throat tightness, he is exhibiting signs of:
 A vertigo B an asthma attack C internal bleeding D cardiac arrest
19. While in the Trendelenburg position, the patient lies with the feet _____ the head.
 A at the same level as B much lower than C higher than D slightly lower than
20. Hemorrhage is another word for:
 A bleeding B vasoconstriction C vasodilatation D stroke

CHAPTER THREE: DRUGS THAT MAY EFFECT PATIENT COOPERATION

21. **Alfenta (alfentanil) is an oral medication that carries a warning for hypotension.**
A True B False
22. **Taking Ativan (lorazepam) by injection warns to avoid ambulation for 8 hours, but it may impair for up to:**
A 15 hours B 20 hours C 24 hours D 24-48 hours
23. **Bancap (hydrocodone) maintains a warning of drowsiness, mood changes, and:**
A SOB B impairment C reddening of the skin D severe stomach cramping
24. **Inapsine (droperidol) is a drug that warns of:**
A hypertension B decreased mental alertness C orthostatic hypotension D drowsiness
25. **Marinol (drobinol (THC)) may impair and cause:**
A mood changes B brown spots on the abdomen C itchiness D elevation in blood pressure
26. **Roxanol SR (morphine) is known to cause sedation.**
A True B False
27. **Talwin (pentazocine) may casue sedation, dizziness, euphoria, hallucinations, and:**
A hypertension B insomnia C disorientation D vomiting
28. **Clonidine is known to cause severe:**
A hypertension B hypotension C mood changes D swelling in the legs

29. **Naproxen has been shown to cause vertigo.**
A True B False

CHAPTER FOUR: TRAUMA TERMINOLOGY AND FRACTURES

30. **A _____ refers to an injury from a blow (usually to the head) or from striking an object.**
A dislocation B concussion C hematoma D stroke
31. **A subluxation is a stretching or tearing of a ligament.**
A True B False
32. **A compound fracture occurs when a fracture fragment:**
A breaks in several pieces B breaks the bone shaft C does not break skin D breaks through the skin
33. **A(n) _____ fracture is one that occurs away from the impact point.**
A direct B indirect C comminuted D transverse
34. **A bayonet fracture is also known as a _____ fracture.**
A intra-articular B closed C overlapping D direct
35. **_____ is another name for the distal fragment being angled toward the midline of the patient.**
A Varus B Valgus C Anglus D Axial
36. **The _____ fracture is similar to the transverse in that both are straight lines.**
A linear B spiral C comminuted D butterfly
37. **A _____ fracture is defined as any fracture with two or more fracture lines.**
A spiral B transverse C linear D comminuted
38. **If two fracture lines form a 'V', resulting in a triangular fragment, it may be referred to as a _____ fracture.**
A impacted B butterfly C cleft D oblique
39. **A _____ fracture is rare, usually caused by gunshot wounds. It results in thin shards of bone fragments.**
A stellate B impacted C splinter D linear
40. **When a vertebral body collapses, it is called a _____ fracture.**
A burst B depressed C compression D splinter
41. **A _____ fracture is one in which a section of bone is pushed in toward the center of an area.**
A stellate B burst C depressed D compound

42. A _____ fracture is one that involves not only a bone or bones but also damage to an internal organ.
A stress B stellate C depressed D complicated

43. _____ fractures are caused by abnormal stress applied to a normal bone.
A Stress B Burst C Oblique D Cleft

44. Another name for the greenstick fracture is the _____ fracture.
A epiphyseal B torus C pathologic D blowout

CHAPTER FIVE: INJURIES FROM TYPES OF TRAUMA

45. Regarding brain injury, damage occurring on the side opposite to an impact point is sometimes called a(n) _____ injury.
A inverted B contrecoup C oppo- D reverse

46. In general, venous bleeds in the brain occur more quickly versus arterial bleeds.
A True B False

47. About _____ of all spinal column injuries are caused by traffic accidents.
A 1/8 B 1/3 C 1/2 D 3/4

48. Pneumothorax is caused by a puncture to the:
A heart B diaphragm C spleen D lung

49. In a car accident, impact injury force can travel up the femur causing a posterior hip dislocation and acetabulum rim break. This is called :
A a dashboard fracture B an aviator's fracture C a racecar displacement D a rodeo-type injury

50. The kidneys lie in the _____ of the abdomen and do not bear trauma well.
A posterior 1/3 B anterior 1/8 C posterior 1/8 D anterior 1/3

51. When a vehicle is hit from the side, it is sometimes called a _____ accident.
A Y-bone B X-factor C T-bone D Y-factor

52. Regarding a _____, a section of the thorax has broken free.
A flail chest B single fractured rib C paralyzed diaphragm D dyspnea episode

53. Rollover accidents can involve injuries caused by a downward force applied along the axis of the body, also called:
A collision trauma B axial loading C T-bone injury D whiplash

54. The _____ fracture involves a bursting of the atlas (C1) with lateral displacement of the fragments.
A shoveler's B Washington C Colles' D Jefferson

55. A common fracture of the distal radius with posterior displacement is called a _____ fracture.
A Colles' B Smith's C Jefferson D dashboard

56. A _____ fracture can be found in the fourth and fifth metacarpels.
A mallet B bumper C dome D Boxer's

57. A midnight fracture commonly refers to the:
A 5th finger B radial aspect of the wrist C 5th toe D patella

58. A dome fracture refers to a fracture of the acetabulum or the:
A tibia B talus C temporal bone D cuboid

CHAPTER SIX: RADIOGRAPHING TRAUMA

59. The first basic principle states that, when possible, obtain two projections that are _____ degrees apart.
A 45 B 90 C 60 D 120

60. When angulation is necessary for an optimal view, it is usually better to angle the body part, rather than the CR.
A True B False

61. For initial radiographs of the patient on a wood backboard, it takes an increase of about _____ KV for adequate penetration.
A 2 B 10 C 15 D 5

62. To assist in placing a cassette low enough for HBPs (horizontal beam projections) on the table top, troughs (also called _____) are used.
 A valleys B dips C gutters D sinkers
63. When using grids for HBPs, the xray beam can be angled along _____ axis of the grid.
 A the long B the short C any D the diagonal
64. Taking into account the anode heel effect, the cathode end of the tube should be placed near the _____ for an AP femur.
 A knee B medial aspect C hip D lateral aspect
65. It is recommended that the reproductive organs be shielded when the primary beam is within _____ inches of the reproductive organs.
 A 1 B 2 C 5 D 7
66. Doubling the distance between the primary beam and a person holding the patient can decrease the dose that person receives by:
 A 2 times B 3 times C 4 times D 7 times
67. Regarding topographical point of the skull, the *inner canthus* refers to:
 A the inner corner of the eye B top of the head C chin D external auditory meatus
68. Regarding topographical point of the skull, the *mental point* refers to:
 A base of the nose B chin C between the eyes D middle of the forehead
69. For an AP projection of the skull, the CR is perpendicular to the film, entering the:
 A mental point B vertex C glabella D nasion
70. For a semiaxial AP skull, the CR should be angled _____ degrees caudal if the film is perpendicular to the OML.
 A 25 B 30 C 40 D 45
71. A parietoacanthial projection for facial bones is also known as the _____ method.
 A open-mouth B Grashey C Chamberlain D Waters
72. A grid should always be utilized for the modified SMV projection for zygomatic arches.
 A True B False
73. For the axiolateral projection of the mandible, the CR should have a cephalic angle of _____ degrees from perpendicular to the film.
 A 10 B 25 C 40 D 60
74. For the AP cervical spine, the CR should be angled 15 to 20 degrees:
 A cephalic B caudal C laterally D medially
75. If the film is in front of the patient, the CR should be angled 15 to 20 degrees:
 A cephalic B caudal C laterally D medially
76. When utilizing the Swimmer's method to view the lateral cervical spine, the CR should be angled _____ degrees caudally.
 A 24 to 24 B 18 to 20 C 10 to 12 D 3 to 5
77. When obtaining a PA chest, a grid is recommended when the KV exceeds:
 A 80 B 90 C 110 D 120
78. When positioning the film behind a patient for an AP chest, the top of the film should be _____ inches above the shoulders.
 A .5 B 1.5 to 2 C 3 D 5
79. In general, chest xrays are taken when respirations are suspended after the _____ full inspiration.
 A 1st B 2nd C 3rd D 4th
80. When performing an xray on the upper ribs, it's important to use a _____ contrast technique.
 A low B long-scale C short-scale D near zero
81. In obtaining a lateral thoracic spine utilizing the breathing technique, the patient must be breathing _____ during a long exposure time.
 A normally B quickly C slowly D deeply
82. In the _____ sternum view, the heart is projected on the sternum.
 A LPO B LAO C RPO D RAO

83. The left lateral decubitus position for the abdomen is used to avoid confusing free-air in the abdomen with air in the:
 A rectum B small intestines C stomach D colon
84. Ideally, the film is centered at _____ when obtaining an AP lumbar spine.
 A L2 B L3 C L3 D L4
85. Regarding grid use for a cross-table lateral L5-S1 view, the technologist should:
 A use no grid B utilize a low ratio grid C utilize a high ratio grid D use only 14 by 17 grid/film
86. The AP coccyx view requires a _____ degree caudal angulation of the CR.
 A 10 B 15 C 20 D 30
87. For an oblique view of the SI joints, the CR should enter the patient _____ inches medial to the ASIS of the side farther from the film.
 A 1 B 2 C 3 D 4
88. Regarding the view of an oblique hand, the film is centered to the third _____ joint.
 A MCP B PIP C DIP D CMC
89. In obtaining an AP of the hand of a trauma patient, only a slight flexion of less than _____ degrees is advised for single projections.
 A 15 B 10 C 8 D 5
90. When obtaining a PA wrist, the fingers may be _____ to reduce the OID (object-to-image-receptor distance).
 A extended B spread apart C flexed D lifted off the cassette
91. When obtaining an AP of the forearm while the trauma patient is supine on the table, the forearm's _____ aspect should touch the film.
 A anterior B posterior C medial D lateral
92. For an external (lateral) oblique view of the elbow, the _____ sides of the elbow should be against the film.
 A anterior and medial B posterior and medial C anterior and lateral D posterior and lateral
93. For a standard lateral elbow projection, the elbow is flexed at 90 degrees with the _____ aspect of the elbow in contact with the film.
 A anterior B posterior C lateral D medial
94. When obtaining a substitute AP elbow for the proximal forearm, the hand should be:
 A pronated B lateral aspect against film C medial aspect against film D supinated
95. When obtaining AP or lateral views of the humerus, a grid is:
 A not usually needed B always needed C usually needed D needed 50% of the time
96. For a transthoracic view of the proximal humerus, the non-affected arm is:
 A adducted to the body B raised above head C abducted 90 degrees D abducted 45 degrees
97. When obtaining an AP shoulder with internal rotation, the CR should enter at the:
 A head of the humerus B coracoid process C surgical neck of the humerus D acromium process
98. When obtaining an AP scapula, the arm of the side being examined should be abducted until it is _____ degrees from the body.
 A 25 B 50 C 70 D 90
99. In an AP xray of the toes for interphalangeal joint spaces, the CR should be angled only _____ degrees toward the heel.
 A 5 B 15 C 20 D 25
100. When performing an oblique xray of the foot on a trauma patient, the film is placed at _____ degrees to the foot's plantar surface.
 A 10 B 20 C 30 D 45
101. When positioning the patient for a lateral calcaneus xray, the CR should enter at a point _____ inches inferior to the malleoli.
 A .75 B 1.5 C 2.5 D 3
102. An CR for an axial calcaneus xray at a level of the base of the:
 A 3rd metatarsal B 1st metatarsal C 5th metatarsal D cuboid
103. The foot is inverted on an AP mortise ankle to demonstrate the _____ articulation unobstructed.
 A tibial-talar B fibula-talar C calcaneus-talar D talus-navicular

104. Regarding obtaining an xray of the AP knee, the CR should enter the patient at a point $\frac{1}{2}$ inch inferior to the _____ of the patella.
 A apex B articular surface C base D lateral aspect
105. For the inferosuperior projection of the femoral neck, support should be placed below the pelvis to raise it _____ above the table top.
 A 1 inches B 2 inches C 3 inches D 4 inches
106. When obtaining an xray of the AP view of the pelvis, the patient's feet should be inverted _____ degrees.
 A 3 B 7 C 10 D 15
107. Xray image magnification is:
 A SOD divided by SID B OID divided by SID C SID divided by OID D SID divided by SOD
108. If there is a large difference between thicknesses in a body part, the thick end of a compensating filter should be situated over the:
 A thicker end of the part B average thickness of the part C thinner end of the part D middle of the part
- CHAPTER SEVEN: PORTABLE RADIOGRAPHY**
109. A minimum of _____ equal measurements from the corresponding *collimator-to-cassette* corners should make the two parallel.
 A 1 B 2 C 3 D 4
110. When it is not permitted to raise a patient more than 45 degrees for a portable CXR, the air-fluid levels demonstrated:
 A may not be accurate B will be accurate C will not be seen at all D are 'false-positive'
111. Reduction in repeat portable exposures may be achieved with a relatively high KV setting, which has _____ exposure latitude.
 A a more narrow B a wider C a more unforgiving D no bearing on
112. When adjusting technical factors, it is important to remember that increasing the KV by 15% will allow the MAS to be decreased by:
 A $\frac{1}{2}$ B $\frac{1}{3}$ C $\frac{1}{4}$ D $\frac{1}{8}$
113. Referring to image characteristics, a lower contrast refers to a(n) _____ scale of contrast.
 A shorter B longer C equal D a much smaller
114. In giving the radiologist sufficient xray information, portable xrays should be labeled with the KV, MAS, and:
 A OID B SOD C SID D part thickness
115. In general, grids should be used when the KV exceeds:
 A 70 B 100 C 90 D 80
116. To counteract problems in getting xrays on severely obese patients, higher speed screens with _____ grid ratios should be employed.
 A lower B higher C average D 12:1
117. The air-gap method places the film about 10 inches from the body part, which causes some of the scatter radiation to:
 A increase B miss the film C reverse its direction D disappear
118. In attempting to move the scapulae out of the lung fields for a portable CXR, the shoulders should be _____ and rolled forward.
 A high B stiff C uneven D depressed
119. The greatest cause for the unintentional lordotic AP portable CXR is that the CR is more _____ than it should be.
 A vertical B horizontal C lateral D angled caudally
120. The radiographer should remember that when standard views are unattainable, two projections 90 degrees apart are best.
 A True B False

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