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Specialized Topics in Areas of Radiologic Sciences
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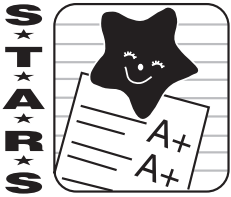
Unit 33:

Trauma and Mobile Radiography

by

Michael W. Drafke and Harry Nakayama

Prepared by: Carolyn J. Frigmanski, M.A., B.S.R.T. ®
Founder, S.T.A.R.S.



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Sincerely,

Carolyn J. Frigmanski, M.A.,B.S.R.T. ®, Founder

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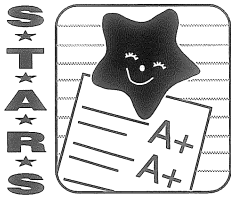
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Thank you very much.



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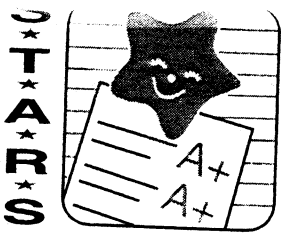
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Unit 33

Title: **Trauma and Mobile Radiography** by Michael W. Drafke and Harry Nakayama

Please *complete the answer sheet at the conclusion of this post test* and *return* to S.T.A.R.S.

Introduction

1. One of the basic technical skills radiographers need to become trauma radiographers is
 - a. writing
 - b. routine positioning
 - c. psychology
 - d. social science
2. One of the basic non-technical skills radiographers need to become trauma radiographers is
 - a. anatomy
 - b. pharmacology
 - c. planning
 - d. patient assessment
3. One of the organizational skills needed for trauma radiographers on an ongoing basis is
 - a. anatomy review
 - b. pharmacology review
 - c. monitoring patients in their care
 - d. technical writing
4. Non-verbal communication by trauma radiographers should *not* include
 - a. shock
 - b. concern
 - c. compassion
 - d. empathy

Chapter 1

5. The guidelines developed by the Centers of Disease Control and Prevention in 1985 to protect health care workers from bloodborne pathogens is called
 - a. Body Substance Isolation
 - b. Standard Precautions
 - c. Transmission based
 - d. Universal Precautions
6. The guidelines to protect health care workers from the transmission of disease through feces, saliva and other bodily secretions is
 - a. Body Substance Isolation
 - b. Standard Precautions
 - c. Transmission based
 - d. Universal Precautions
7. The system that protects health care workers from the transmission of disease from bodily fluids, excretions, secretions, mucus membranes, broken skin areas and contaminated items is
 - a. Body Substance Isolation
 - b. Standard Precautions
 - c. Transmission based
 - d. Universal Precautions

8. The system that protects health care workers from the transmission of disease caused by airborne, droplet or contact routes is called
- a. Body Substance Isolation
 - b. Standard Precautions
 - c. Transmission based
 - d. Universal Precautions
9. Radiographers should always wear gloves whenever
- a. they feel like it
 - b. gloves are available
 - c. contact with bodily fluids is likely
 - d. the doctor tells them to put them on
10. The physical principle used in handwashing to make it effective in removing germs is
- a. isolation technique
 - b. friction
 - c. infection control
 - d. gravity
11. The minimum number of radiographers recommended when performing mobile radiography is
- a. 3
 - b. 4
 - c. 1
 - d. 2
12. When initially encountering a patient, the trauma radiographer should document the
- a. pulse
 - b. pupil size
 - c. color of skin
 - d. respiration
13. The most common anatomic location for taking a patient's pulse is
- a. carotid artery
 - b. femoral artery
 - c. popliteal artery
 - d. radial artery
14. In patients with suspected long bone fractures, the pulse should be taken
- a. proximal to the fracture site
 - b. distal to the fracture site
 - c. lateral to the fracture site
 - d. medial to the fracture site
15. The normal pulse rate for men is _____ and _____ beats per minute for women is
- a. 70/72 & 78/82
 - b. 80/90 & 70/80
 - c. 80/90 & 70/80
 - d. 80/86 & 78/84
16. The term used to describe pulse rates greater than 100 beats per minute is
- a. bradycardia
 - b. cardiac shock
 - c. tachycardia
 - d. hypercardia
17. One respiration is counted as
- a. 2 inspirations
 - b. 2 expirations
 - c. 2 inspirations & 1 expiration
 - d. 1 inspiration & 1 expiration
18. To measure respiration rates, the radiographer must count respiration for
- a. 60 seconds
 - b. 30 seconds
 - c. 10 seconds
 - d. 45 seconds

19. One of the clinical signs of cardiac arrest is
- a. apnea
 - b. tachypnea
 - c. bradypnea
 - d. dyspnea
20. The form of temperature reading acquired from the rectum is called
- a. body
 - b. specific
 - c. local
 - d. general
21. When using an oral thermometer, the patient must leave the thermometer under the tongue for
- a. 1-2 minutes
 - b. 3-5 minutes
 - c. 2-3 minutes
 - d. 4-6 minutes
22. When taking a rectal temperature, patients must be instructed to assume the
- a. decubitus position
 - b. lateral decubitus position
 - c. prone position
 - d. Sims' position
23. When taking a rectal temperature on infants, the thermometer should be inserted
- a. 1"
 - b. 2"
 - c. 3"
 - d. ½-¾"
24. Adult patients at rest should have a typical blood pressure of
- a. 80-90/100-150
 - b. 80-90/110-150
 - c. 100-140/60-90
 - d. 60-80/90-120
25. Pulse pressure is obtained by
- a. adding systolic & diastolic pressures
 - b. subtracting diastolic from systolic pressure
 - c. dividing systolic by diastolic pressure
 - d. multiplying diastolic & systolic pressure
26. When the valve on the BP cuff is opened, the first distinctly audible pulse sound is
- a. diastolic
 - b. pulse pressure
 - c. mean pressure
 - d. systolic pressure
27. If a patient reports no history of symptoms, the radiographer should document it by writing
- a. "asymptomatic"
 - b. normal
 - c. lack of symptoms
 - d. within normal limits
28. While taking the patient's history, radiographers are best able to assess the patient's level of
- a. physical status
 - b. real injuries
 - c. mental status
 - d. fatigue
29. Radiographers should *never* leave patients alone who are
- a. coherent
 - b. unresponsive
 - c. conscious
 - d. abusive
30. The term pallor is used to describe skin that is
- a. bluish in color
 - b. yellowish in color
 - c. extremely warm to the touch
 - d. lacking in color

31. Blood originating from the patient's ear should be evaluated in the lab for the presence/absence of
- a. cerebral spinal fluid b. viruses c. bacteria d. drugs
32. When assessing musculoskeletal integrity of injured joints, it is important for the radiographer to
- a. ask the nurse to manipulate the joint c. ask the patient to flex and/or extend I
 - b. leave it as it lies d. use enough force to get the views
33. In an effort to prevent further injury to severely traumatized patients, the recommended number of individuals needed to move a patient is
- a. 3-4 b. 6-8 c. 1-3 d. 4-5
34. When patients leave the radiology department, it is important for trauma radiographers to perform
- a. a history & physical c. vital sign checks
 - b. an exit evaluation d. temperature checks
35. To reduce medicolegal implications, patient observation and evaluation should be documented
- a. before & after the x ray procedures c. during the x ray examination
 - b. before the x ray procedure begins d. before, during & after the x ray procedure

Chapter 2

36. A warning sign of patients undergoing an episode of dyspnea is
- a. gasping b. slow breathing c. cyanosis d. no breathing
37. Abdominal-thrust (Heimlich) maneuvers should be an immediate action on patients who are
- a. having an asthma attack b. choking c. apnic d. dyspnic
38. After calling for assistance in a respiratory arrest, radiographers should proceed to
- a. administer oxygen c. begin cardiac compressions
 - b. begin rescue breathing d. open the airway
39. The ratio of breathing to cardiac compressions on a cardiac arrest victim for 1 rescuer is
- a. 2:30 b. 1:4 c. 1:5 d. 5:1
40. Shock that may result from a decrease in the quantity of circulating blood is termed
- a. hypovolemic b. neurogenic c. traumatic d. hypervolemic
41. At the sight of injuries, family members and visitors may experience a form of shock called
- a. hypovolemic b. neurogenic c. traumatic d. hypervolemic

42. The immediate action radiographers should take for patients experiencing shock is to
- a. place the patient in the prone position
 - b. elevate the patient's head
 - c. lie them in their existing position
 - d. place the patient in the supine position
43. Hemorrhaging that is dark red and has a constant flow is characteristic of an injury to a(an)
- a. artery
 - b. capillary
 - c. vein
 - d. lymph vessel
44. One of the warning signs/indications of internal bleeding is
- a. no pulse
 - b. tachycardia
 - c. hypertension
 - d. rigidity in the abdomen
45. The medical term for fainting is
- a. syncope
 - b. systole
 - c. neurogenic shock
 - d. shock
46. If a patient faints, the trauma radiographer should administer
- a. benadryl
 - b. ammonia
 - c. adrenalin
 - d. insulin
47. Patients who describe symptoms such as "the room is spinning around them" or "they are losing balance" may be experiencing
- a. syncope
 - b. dizziness
 - c. vertigo
 - d. alcoholic stupor
48. When patients experience emesis, the trauma radiographer needs to
- a. position patient to prevent aspiration
 - b. put gloves on immediately
 - c. call for a nurse
 - d. call for the doctor in charge
49. When patients are cyanotic and have dilated pupils, they may be undergoing
- a. an asthma attack
 - b. respiratory arrest
 - c. syncope
 - d. shock
50. When patients are unconscious with evidence of head trauma, they may be undergoing
- a. vertigo
 - b. internal bleeding
 - c. cardiac arrest
 - d. shock
51. When patients are alert with pallor and weak pulse, they may be undergoing
- a. syncope
 - b. traumatic shock
 - c. shock
 - d. vertigo
52. When patients experience labored breathing and tightness in their throats, they may be undergoing
- a. an asthma attack
 - b. hayfever
 - c. a respiratory arrest
 - d. a cardiac arrest
53. When patients express anxiety and develop hemoptysis, they may be experiencing
- a. dyspnea
 - b. an asthma attack
 - c. a respiratory attack
 - d. shock

Chapter 3

54. Radiographers should check drugs administered to a patient because the drugs may
- a. affect their mental status only
 - b. affect their physical status only
 - c. affect all contrast media interactions
 - d. affect both physical and mental status
55. Drugs that may legally interfere with the validity of informed consent are
- a. administered by i.v. only
 - b. over the counter prescriptions
 - c. barbiturates
 - d. administered by doctors only
56. The type of drug administration that has the quickest effect in patients is
- a. oral
 - b. i.v. injection
 - c. i.m. injection
 - d. rectal
57. When Benadryl is administered, the patient may experience
- a. impaired mental and/or physical status
 - b. vomiting and/or diarrhea
 - c. orthostatic hypertension
 - d. no change
58. When Darvon is administered, the patient may experience
- a. impaired mental and/or physical status
 - b. vomiting and/or diarrhea
 - c. orthostatic hypertension
 - d. no change
59. MSIR (morphine-immediate release) is administered
- a. intravenously
 - b. rectally
 - c. orally
 - d. intramuscularly
60. When Versed is administered, the patient may experience
- a. impaired mental and/or physical status
 - b. vomiting and/or diarrhea
 - c. orthostatic hypertension
 - d. no change

Chapter 4

61. Trauma injuries are defined as those caused by
- a. an internal force or violence
 - b. an external force or violence
 - c. accidents
 - d. repeated blows
62. A type of dislocation in which 1 bone moves inferiorly from its normal position is called
- a. luxation
 - b. caudal luxation
 - c. sprain
 - d. subluxation
63. An obvious indication of fracture is
- a. abrasion
 - b. laceration
 - c. crepitus
 - d. hematoma

64. The first sign of fracture healing evidenced on a radiograph is
- a. callus formation
 - b. hematoma
 - c. crepitation
 - d. callous deposit
65. A fracture that disrupts the continuity of the skin is called
- a. complete
 - b. compound
 - c. incomplete
 - d. simple
66. Fractures that extend into a joint cavity are described as
- a. epiphyseal
 - b. diaphyseal
 - c. direct
 - d. intra-articular
67. The term of angulation used when the distal fragment aligns toward the midline of the patient is
- a. valgus
 - b. varus
 - c. bayonet
 - d. apposition
68. Special care should be given when positioning patients with closed oblique fractures because of
- a. the risk of becoming intra-articular
 - b. the risk of hematoma formation
 - c. the risk of becoming compound
 - d. the risk of possible paralysis
69. The star like fracture that most commonly occurs at the patella is termed
- a. stellate
 - b. spiral
 - c. butterfly
 - d. splintered
70. A common fracture that occurs on the first vertebra, particularly in diving accidents is called
- a. butterfly
 - b. spiral
 - c. splintered
 - d. burst
71. The term used to describe a fracture that results from an underlying disease process is
- a. complicated
 - b. pathologic
 - c. depressed
 - d. compound
72. A common fracture occurring in children which is commonly called a greenstick is
- a. epiphyseal
 - b. linear
 - c. torus
 - d. stress
73. A small fracture that results from stress to a joint or tendon is referred to as
- a. avulsion
 - b. greenstick
 - c. pathologic
 - d. depressed

Chapter 5

74. Passengers who are involved in front end collisions may sustain injuries to the
- a. chest, pelvis & upper extremities
 - b. abdomen, head & knees
 - c. head, thorax & abdomen
 - d. head, neck & femurs

75. Damage that occurs on the side opposite to an impact point is called a(an)
- a. blunt injury
 - b. contrecoup injury
 - c. apposition
 - d. whiplash
76. Cerebral bleeding that is arterial in origin is described as
- a. subdural
 - b. hematoma
 - c. pia dural
 - d. epidural
77. Whenever patients sustain serious facial injuries, radiographers should carefully monitor
- a. temperature
 - b. blood pressure
 - c. breathing
 - d. pulse
78. According to this textbook, the percentage of spinal injuries caused by traffic accidents is estimated to be
- a. 50
 - b. 25
 - c. 75
 - d. 10
79. Severe injuries to C-1 or C-2 typically result in
- a. paralysis
 - b. loss of speech
 - c. stroke
 - d. death
80. Sudden deceleration death occurs when the
- a. brain becomes bruised
 - b. ribs are fractured on both sides
 - c. aorta is ruptured
 - d. heart shuts off the great vessels
81. Radiographers must be extremely careful in moving patients with pelvic fractures to prevent
- a. possible rupture to the urinary bladder
 - b. possible damage to the intestine
 - c. severing the spinal nerves
 - d. severing the popliteal arteries
82. The foot fracture that was historically common in World War II pilot crash landing injury was
- a. compression
 - b. aviator
 - c. splintered
 - d. bayonet
83. A posterior hip dislocation is sometimes called an injury resulting from
- a. the lap seatbelt
 - b. the bucket seat
 - c. the steering wheel
 - d. the dashboard
84. Patients with serious femoral fractures should be monitored for the possibility of
- a. cardiac arrest
 - b. pulmonary embolism
 - c. coma
 - d. hypovolemic shock
85. Forced extension of the cervical spine associated with rear- end collisions is commonly called
- a. whiplash
 - b. compression
 - c. subluxation
 - d. burst fracture
86. Rear-end collisions occurring in cars with engines in the back may produce
- a. kidney injuries in passengers
 - b. thoracic injuries in passengers
 - c. neck injuries in all passengers
 - d. extremity injuries to passengers

87. A T-bone accident occurs during a collision with the

- a. front-end b. side-impact c. rear-end d. chain

88. Paradoxical breathing may result when patients have sustained

- a. a single rib fracture c. dorsal spine fractures
- b. multiple rib fractures d. a sternal fracture

89. In side-impact collisions, patients may often rupture their

- a. spleen b. aorta c. stomach d. vena cava

90. Patients involved in rollover accidents most commonly sustain injuries to the

- a. skull, thorax & abdomen c. skull, spine & shoulder
- b. skull, thorax & extremities d. abdomen, spine & facial bones

91. Vulnerability to critical physical injury is greatest for

- a. car drivers b. automobile passengers c. truck drivers d. motorcyclists

92. The fracture that results when employees receive force to the top of the skull and burst C-1 is

- a. a Jefferson fracture c. a compression fracture
- b. a comminuted fracture d. a compound fracture

93. Direct trauma to the sternum may demonstrate widening of the mediastinum on the film due to

- a. hematoma b. cardiac tamponade c. pneumothorax d. effusion

94. When patients fall and land in a seated position, they may sustain fractures of the

- a. coccyx b. lumbar spine c. pelvis d. femur

95. The anatomical section of the extremities that sustain the most injury and damage is the

- a. foot b. wrist c. hand d. ankle

96. A fracture of the ulna with an associated radial head dislocation is called

- a. Monteggia's fracture b. Smith's fracture c. Colles' fracture d. Pott's fracture

97. Medical record documentation on employee injuries is particularly important due to

- a. insurance reimbursement c. employer's records for quality assurance
- b. government requirements d. Worker's Compensation proceedings

98. Facial fractures most often occur in people who participate in

- a. gymnastics b. contact sports c. diving d. track

99. Carrying heavy backpacks for prolonged periods of time can induce

- a. shoulder dislocations
- b. spinal fractures
- c. stress fractures of the first rib
- d. clavicle fractures

100. The anatomic area most frequently injured from snow skiing is the

- a. ankle
- b. thumb
- c. knee
- d. elbow

101. Skydivers and parachutists can damage their feet by sustaining

- a. Pott's fractures
- b. Malgaigne fractures
- c. trimalleolar fractures
- d. traumatic flat feet

102. Stress fractures at midshaft or at the distal 1/3 of the tibia are commonly referred to as

- a. "shin splints"
- b. Malgaigne fractures
- c. Pott's fractures
- d. simple fractures

103. Regardless of the source of cervical injury, radiographers should always

- a. take 3 or more views
- b. remove obstacles obscuring the neck
- c. assume fracture & monitor consciousness
- d. take the AP projection first

104. Children with a jerked elbow can often be "cured" while radiographers are positioning for the

- a. lateral forearm
- b. AP forearm
- c. oblique elbow
- d. lateral elbow

105. A spiral fracture of the tibia that commonly occurs in children 2-3 years old is called a

- a. Colles' fracture
- b. epiphyseal fracture
- c. snow-boot fracture
- d. toddler fracture

Chapter 6

106. For cervical spine injury, the first recommended view to be taken by the radiographer is(are) the

- a. horizontal beam lateral
- b. AP projection
- c. bilateral obliques
- d. open mouth odontoid

107. When initially positioning the cervical injured patient, it is of paramount importance *not* to

- a. take too few films
- b. move the head and neck
- c. forget to put on a cervical collar
- d. work too quickly without assistance

108. Trauma radiographers must always remember to prepare for a trauma case by

- a. alerting others
- b. assisting the nurses
- c. not panicking
- d. reviewing safety policies

109. The minimum views to create a three dimensional concept/object is

- a. AP/PA
- b. lateral & obliques
- c. AP, obliques & lateral
- d. AP/PA & lateral

110. The central ray should be angled when the primary objective is to

- a. eliminate superimposition
- b. minimize distortion
- c. create magnification
- d. make it easier for radiographers to get the view

111. When radiographing extremities, it is of paramount importance for the radiographer to

- a. include the joint proximal to the injury
- b. include the joint distal to the injury
- c. include oblique projections
- d. include both joints

112. When radiographing the thorax and abdomen, the radiographer must always

- a. take AP & laterals
- b. include the "entire area"
- c. include the superior & lateral aspects
- d. take upright & decubitus views

113. To show an appreciable change in exposure technique, the radiographer must adjust the kVp by

- a. 2-3
- b. 10-12
- c. 5+
- d. 20

114. When using a grid, the radiographer must remember to angle the x ray beam

- a. along the long axis of the grid
- b. in a cephalic direction
- c. along the short axis of the grid
- d. in a caudal direction

115. To produce a homogenous density on a radiograph, the anode heel effect should be used with

- a. short S.I.D. & large film sizes
- b. short S.I.D. & small film sizes
- c. long S.I.D. & small film sizes
- d. long S.I.D. & large film sizes

116. Gonadal shielding should be used whenever the reproductive organs lie

- a. in the primary beam
- b. in or within 5 cm. of the primary beam
- c. within 5 inches of the primary beam
- d. within the area of scatter radiation

117. The 3 cardinal principles of radiation protection for radiographers are

- a. lead aprons, gloves & minimal views
- b. time, quality control & distance
- c. distance & assorted protective lead apparel
- d. time, distance & shielding

118. In trauma radiography, the type of isolation considered to be the safest is

- a. Total Body Fluid
- b. Respiratory
- c. Universal Precautions
- d. Protective

119. The topographic point in the middle of the forehead is called the

- a. inion
- b. acanthion
- c. glabella
- d. gonion

120. The imaginary plane that divides the body into anterior and posterior halves is identified as the

- a. MSP
- b. MAL
- c. horizontal
- d. MCP

121. The imaginary plane that connects the outer canthus of the eye to the EAM is the
- GML
 - OML
 - AML
 - IOML
122. If only one side of the skull can be filmed, the radiographer needs to remember to select the side
- suffering the impact or the most damage
 - opposite the side of paralysis
 - closest to the x ray tube
 - suffering the least damage
123. Evaluation of the occiput, bilateral mandibular condyles and zygomatic arches can be achieved by
- taking lateral projections
 - taking a parietoacanthial projection
 - taking a semiaxial AP skull
 - taking a submentovertical projection
124. The recommended S.I.D. to use to reduce magnification distortion is
- 40"
 - 72"
 - 60"
 - 36"
125. For patients who cannot open their mouth, C-1 and C-2 can be evaluated by tilting the tube
- 35-40 degrees caudal
 - 20-25 degrees cephalic
 - 15-20 degrees cephalic
 - 35-40 degrees cephalic
126. A reverse Swimmer's method should be performed on patients who are
- supine & immobile
 - supine & mobile
 - prone & immobile
 - prone & immobile
127. When evaluating air-fluid levels in the chest on semi-erect patients, the central ray is directed
- 45 degrees cephalic
 - 30-45 degrees cephalic
 - horizontally
 - parallel to the semi-erect patient
128. The scale of contrast needed to evaluate stress fractures of the ribs is
- short
 - long
 - low
 - not that important
129. A breathing technique is commonly used when performing views such as the
- AP lumbar & lateral sternum
 - lateral dorsal & oblique sternum
 - AP dorsal & oblique sternum
 - AP pelvis & lateral lumbar
130. Markers on the edge of the film can be used with gunshots to the abdomen to identify the
- point of entrance
 - point of exit
 - the ASIS
 - point of entrance & exit if it exists
131. The primary purpose in producing a left lateral decubitus abdomen is to evaluate
- bowel content
 - the spleen for rupture
 - the existence of possible free air
 - the diaphragm for rupture

132. Image quality can be improved when performing a lateral lumbar spine view if radiographers

- a. use a piece of lead behind the patient
- b. use a breathing technique
- c. use a piece of lead in front of the patient
- d. use non-grid technique

133. To open up the L-5 S-1 articulation in women, radiographers should tilt the tube caudal

- a. 18 degrees
- b. 5 degrees
- c. 8 degrees
- d. 15 degrees

134. Lumbar spine obliques may not be advisable on patients with upper abdomen trauma because

- a. it is too painful for the patient
- b. respiration may be difficult
- c. a dorsal spine fracture may exist
- d. fractured ribs may lacerate abdominal organs

135. For the lateral sacrum and coccyx position, the central ray should be centered

- a. at the ASIS
- b. 3-4" posterior to the MAL
- c. at the crest of the ilium
- d. 1-2" posterior to the MAL

136. AP projections of the hand with the central ray at the area of injury may be utilized as a

- a. survey for crushing injuries
- b. special view for children
- c. routine view for every hand injury
- d. routine view for foreign bodies

137. A method or projection used to demonstrate the carpal navicular is

- a. lateromedial projection
- b. an oblique projection
- c. Stecher method
- d. Stenver's method

138. When producing forearm radiographs, radiographers can improve image quality by utilizing

- a. a grid
- b. the anode heel effect
- c. shorter than 40" S.I.D.
- d. a PA position

139. When a fracture is suspected in the distal 1/3 of the humerus, rotation should be performed by the

- a. radiographer
- b. family member
- c. nurse
- d. doctor

140. A position that can be used to effectively demonstrate dislocations of the humerus is the

- a. Y view of the shoulder
- b. AP humerus with external rotation
- c. AP humerus
- d. AP humerus with internal rotation

141. The required tube tilt for performing an AP semiaxial clavicle projection is

- a. 15-25 degrees cephalic
- b. 25-30 degrees cephalic
- c. 10-20 degrees caudal
- d. 25-30 degrees caudal

142. The required cephalic tube tilt for performing an axial calcaneal projection is

- a. 30 degrees
- b. 50 degrees
- c. 40 degrees
- d. 60 degrees

143. To open the joint space, the required cephalic tube tilt for performing an AP knee projection is
- a. 5 degrees
 - b. 10 degrees
 - c. 15 degrees
 - d. 8 degrees
144. The center of the knee joint is located
- a. 1" superior to the apex of the patella
 - b. at the base of the patella
 - c. midway between the femoral condyles
 - d. ½" inferior to the apex of the patella
145. To improve the quality of an AP femur projection, the patient should rotate their foot with
- a. 5 degrees of inversion
 - b. 15 degrees of eversion
 - c. 15 degrees of inversion
 - d. 25 degrees of eversion
146. A secondary injury for patients with pelvic fractures may involve
- a. paralysis
 - b. incontinence
 - c. dislocation of hip(s)
 - d. damage to organs
147. The recommended method to utilize to demonstrate the ischial and pubic rami is known as
- a. Clements-Nakayama
 - b. Taylor
 - c. Settegast
 - d. Danielius-Miller Modification of Lorenz
148. To minimize difficulties in customizing views, the trauma radiographer needs to develop
- a. a method of standardization
 - b. a good rapport with the doctor
 - c. their own views for every situation
 - d. specialized, expensive equipment
149. To minimize distortion, the optimal projection is obtained when the central ray is angled
- a. cephalic to the part and film
 - b. perpendicular to the part and film
 - c. caudal to the anatomic part
 - d. parallel to the table
150. When a 40" S.I.D. and a 30" S.O.D. is used, the magnification factor will be
- a. 2
 - b. 2.5
 - c. 1.3
 - d. 1.5
151. Collimating the x ray beam to the desired anatomic part under examination will
- a. increase patient dose
 - b. increase density
 - c. provide long scale contrast
 - d. reduce scatter
152. To calculate an unusual exposure technique, the radiographer may need to consider
- a. a comparable body part size
 - b. using a 5-10 kVp change
 - c. using 30% more mAs
 - d. using grids
153. To eliminate superimposition of body structures, radiographers may need to
- a. use the anode heel effect
 - b. angle the film
 - c. use the grid
 - d. use a cone

154. To increase density on a radiograph, the radiographer needs to

- a. decrease grid frequency
- b. decrease x ray beam size
- c. increase mAs
- d. decrease kVp

155. To produce images possessing short scale contrast, the radiographer needs to

- a. increase kVp
- b. use a grid
- c. increase scatter
- d. increase x ray beam size

156. To minimize the risk of patient motion, radiographers need to

- a. always use inspiration
- b. use long S.I.D.
- c. eliminate grids
- d. use immobilization devices

Chapter 7

157. In mobile radiography, radiographers can check the central ray position by measuring the distance

- a. of 3 corners of the film
- b. of 2 opposite corners of the film
- c. of 2 adjacent corners of the film
- d. of 1 corner of the film

158. In mobile radiography, radiographers must always assess the position of interventional devices on/in patients

- a. before beginning to film
- b. after filming is completed
- c. before and after filming is completed
- d. during the filming process

159. In mobile radiography, radiographers will always need to

- a. ask any nurse on the unit before starting
- b. assess the physical room size
- c. consult with the ordering physician
- d. check the patient's medical chart

160. When 1 patient is having an x ray in a multiple patient room, the radiographer should

- a. explain what is going on to everyone
- b. wait until the room is vacated
- c. ask the nurse to move others out of the room
- d. shield the other patients

161. To adjust the density on a radiograph, the radiographer can compensate with kVp by using

- a. 15%
- b. 25%
- c. 50%
- d. 10%

162. Other health care personnel can be protected when x rays are being taken in the area by using

- a. time, grids & short S.I.D. concepts
- b. collimation, grids & shielding concepts
- c. time, distance & shielding concepts
- d. cassettes, slow film & grid concepts

163. When leaving the mobile unit, radiographers should place it

- a. in the corner of the patient's room
- b. in the hall, outside the patient's room
- c. near the doorway to the patient's room
- d. in the room of the next patient

164. Radiographers may choose to use higher kVp techniques in an effort to
- a. produce short scale contrast
 - b. adjust for various film speeds
 - c. improve detail
 - d. reduce patient motion with shorter times
165. A patient-specific method of recording techniques relies on radiographers
- a. recording specific information for each patient
 - b. consistently performing the same exams
 - c. realizing many patients are the same
 - d. capable of "making up" new techniques
166. Radiographers will need to adjust their non-grid technique to a 10:1 grid ratio by
- a. decreasing kVp
 - b. decreasing mAs
 - c. increasing mAs
 - d. increasing S.I.D.
167. Improper utilization of grids may result in images with
- a. reduced patient dose
 - b. grid cutoff
 - c. good contrast
 - d. good detail
168. When filming obese patients, the radiographer must consider
- a. using higher grid ratios
 - b. using slower film speeds
 - c. using longer S.I.D.
 - d. using higher kVp
169. When performing mobile AP chest radiographs, patients need to be instructed to
- a. roll shoulders backwards
 - b. depress and roll shoulders forward
 - c. place arms above their head
 - d. place their arms at the side of their body
170. Careful manipulation of the mobile unit is extremely important for patients in
- a. traction
 - b. the emergency room
 - c. recovery
 - d. oxygen
171. The type of isolation that requires mobile units to be cleaned before entering the patient's room is
- a. respiratory
 - b. enteric
 - c. protective
 - d. AFB
172. For patients in TBF isolation, radiographers must always wear
- a. gown & gloves
 - b. mask & gown
 - c. mask only
 - d. gown, mask & gloves
173. Patients who need to be radiographed first are those in
- a. strict isolation
 - b. AFB isolation
 - c. geriatric patients
 - d. neonatal ICU
174. Patient bites to radiographers may lead to
- a. no scarring
 - b. an infection
 - c. vaccination
 - d. isolation
175. All radiographers must always remember to
- a. adapt to patients
 - b. use routine procedures
 - c. comply with nurses
 - d. check charts

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 by Michael W. Drafke and Harry Nakayama

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1.	11.	21.	31.	41.	51.	61.
2.	12.	22.	32.	42.	52.	62.
3.	13.	23.	33.	43.	53.	63.
4.	14.	24.	34.	44.	54.	64.
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6.	16.	26.	36.	46.	56.	66.
7.	17.	27.	37.	47.	57.	67.
8.	18.	28.	38.	48.	58.	68.
9.	19.	29.	39.	49.	59.	69.
10.	20.	30.	40.	50.	60.	70.

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73.	83.	93.	103.	113.	123.	133.	143.
74.	84.	94.	104.	114.	124.	134.	144.
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76.	86.	96.	106.	116.	126.	136.	146.
77.	87.	97.	107.	117.	127.	137.	147.
78.	88.	98.	108.	118.	128.	138.	148.
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