SCOPE OF PRACTICE FOR RADIOLOGIC TECHNOLOGIST

Patient Care

1. Confirm patient’s identity.
2. Evaluate patient’s ability to understand and comply with requirements for the requested examination.
3. Explain and confirm patient’s preparation (e.g., diet restrictions, preparatory medications) prior to radiographic/fluoroscopic examinations.
4. Examine radiographic requisition to verify accuracy and completeness of information (e.g., patient history, clinical diagnosis).
5. Sequence imaging procedures to avoid residual contrast material affecting future exams.
6. Responsible for medical equipment attached to patients (e.g., IVs, oxygen) during the radiographic procedures.
7. Provide for patient safety, comfort, and modesty.
8. Communicate scheduling delays to waiting patients.
9. Verify or obtain patient consent as necessary (e.g., contrast studies).
10. Explain procedure instructions to patient or patient’s family.
11. Practice standard precautions.
12. Follow appropriate procedures when in contact with patient in isolation.
13. Select immobilization devices, when indicated, to prevent patient’s movement and/or ensure patients safety.
14. Use proper body mechanics and/or mechanical transfer devices when assisting patient.
15. Prior to administration of contrast agent, gather information to determine appropriate dosage, and to determine if patient is at increased risk of adverse reaction.
16. Confirm type of contrast media and prepare for administration.
17. Use sterile or aseptic technique when indicated.
18. Perform venipuncture.
19. Administer IV contrast media.
20. Observe patient after administration of contrast media to detect adverse reactions.
21. Obtain vital signs.
22. Recognize need for prompt medical attention and administer emergency care.
23. Explain post-procedural instructions to patient or patient’s family.
25. Document required information on patient's medical record (e.g., radiographic requisitions, radiographs).

Radiation Protection

26. Clean, disinfect or sterilize facilities and equipment, and dispose of contaminated items in preparation for next examination.
27. Evaluate the need for and use of protective shielding.
28. Take appropriate precautions to minimize radiation exposure to patient.
29. Question female patient of child-bearing age about possible pregnancy and take appropriate action (i.e., document response, contact physician).
30. Restrict beam to limit exposure area, improve image quality, and reduce radiation dose.
31. Set kVp, mA and time or automatic exposure system to achieve optimum image quality, safe operating conditions, and minimum radiation dose.
32. Prevent all unnecessary persons from remaining in area during x-ray exposure.
33. Take appropriate precautions to minimize occupational radiation exposure.
34. Wear a personnel monitoring device while on duty.
35. Evaluate individual occupational exposure reports to determine if values for the reporting period are within established limits.
Equipment Operation

36. Prepare and operate radiographic unit and accessories.
   a. Three-phase generator
   b. High frequency generator
37. Prepare and operate fluoroscopy unit and accessories.
   a. Fixed fluoroscopic unit and accessories
   b. Pulse fluoroscopy
   c. Digital fluoroscopy
   d. Mobile fluoroscopic unit
38. Prepare and operate specialized units.
   a. Chest unit
   b. Tomography unit
   c. Mammography unit
   d. Bone densitometry unit
   e. Panorex unit
   a. Computerized radiography
   b. Direct digital radiography
   c. Picture archival and communication system (PACS)

Image Production

40. Remove all radiopaque materials from patient or table that could interfere with the radiographic image.
41. Select appropriate film-screen combination.
42. Select equipment and accessories (e.g., grid, compensating filters, shielding) for the examination requested.
43. Use radiopaque markers to indicate anatomical side, position or other relevant information (e.g., time, upright, decubitus, post-void).
44. Explain breathing instructions prior to making the exposure.
45. Position patient to demonstrate the desired anatomy using body landmarks.
46. Determine appropriate exposure factors using calipers and technique charts.
   a. Fixed kVp technique chart
   b. Variable kVp technique chart
   c. Calipers (to determine patient thickness for exposure)
   d. Automatic exposure control (AEC)
47. Modify exposure factors for circumstances such as involuntary motion, casts and splints, pathological conditions, or patient’s inability to cooperate.
48. Process exposed image.
49. Reload cassettes and magazines by selecting film of proper size and type.
50. Prepare digital/computed image receptor for exposure.
51. Verify accuracy of patient identification on radiograph.
52. Evaluate radiographs for diagnostic quality.
53. Determine corrective measures if radiograph is not of diagnostic quality and take appropriate action.
54. Store and handle film/cassette in a manner which will reduce the possibility of artifact production.

Equipment Maintenance

55. Recognize and report malfunctions in the radiographic or fluoroscopic unit and accessories.
   a. Visual inspection of equipment
56. Perform basic evaluations of radiographic equipment and accessories.
   a. Beam restriction system
   b. Beam alignment
c. Source-to-image receptor distance indicator
d. Radiation protection devices (lead aprons and gloves)

57. Recognize and report malfunctions in processing equipment.
   a. Perform start-up or shutdown procedures on automatic processor
   b. Darkroom cleanliness
   c. Daily processor cleaning (e.g. clean rollers, check transport system, solutions)
   d. Daily sensitometry

58. Perform basic evaluations of processing equipment and accessories.
   a. Darkroom fog (e.g. safelight, light leak)
   b. Screen cleanliness
   c. Screen-film contact

**Radiographic Procedures**

*Position patient, x-ray tube, and image receptor to produce the following diagnostic images:*

**Thorax**

59. Chest
60. Ribs
61. Sternum
62. Soft tissue neck

**Abdomen and GI Studies**

63. Abdomen
64. Esophagus
65. Swallowing dysfunction study
66. Upper GI series, single or double contrast
67. Small bowel series
68. Barium enema, single or double contrast
69. Surgical cholangiography
70. ERCP

**Urological Studies**

71. Cystography
72. Cystourethrography
73. Intravenous urography
74. Retrograde pyelography

**Spine and Pelvis**

75. Cervical spine
76. Thoracic spine
77. Scoliosis series
78. Lumbar spine
79. Sacrum and coccyx
80. Sacroiliac joints
81. Pelvis and hip

**Cranium**

82. Skull
83. Facial bones
84. Mandible
85. Zygomatic arch
86. Temporomandibular joints
87. Nasal bones
88. Orbits
89. Paranasal sinuses (upright)

**Extremities**

90. Toes
91. Foot
92. Calcaneus (os calcis)
93. Ankle
94. Tibia, fibula
95. Knee
96. Patella.
97. Femur
98. Fingers
99. Hand
100. Wrist
101. Forearm
102. Elbow
103. Humerus
104. Shoulder
105. Scapula
106. Clavicle
107. Acromioclavicular joints
108. Bone survey
109. Long bone measurement
110. Bone age
111. Soft tissue/foreign body

**Other**

112. Arthrography
113. Myelography
114. Venography