

NUCLEAR RADIOLOGY

1. Breast (5-10%)
 - a. Benign neoplasm
 - b. Malignant neoplasm, primary
 - c. Malignant neoplasm, metastatic
 - d. Lymphatic mapping/sentinel lymph node (SLN)
 - e. Infection and Inflammation
 - f. Normal and other
 - g. Artifacts and quality control

2. Cardiac (5-10%)
 - a. Perfusion – coronary artery disease (CAD)
 - b. Perfusion – Non-coronary artery disease (CAD)
 - c. Metabolism and viability
 - d. Function (multigated acquisition (MUGA) and first pass)
 - e. Shunts
 - f. Infection and inflammation
 - g. Normal and other
 - h. Artifacts and quality control

3. Gastrointestinal (5-10%)
 - a. Liver and spleen
 - b. Biliary
 - c. Bowel – GI bleed
 - d. Bowel – GI motility
 - e. Benign neoplasm
 - f. Malignant neoplasm, primary
 - g. Malignant neoplasm, metastatic
 - h. Infection and inflammation
 - i. Normal and other
 - j. Artifacts and quality control

4. Musculoskeletal (15-20%)
 - a. Benign neoplasm
 - b. Malignant neoplasm, primary
 - c. Malignant neoplasm, metastatic
 - d. Therapy
 - e. Tumor-like conditions
 - f. Metabolic/vascular abnormalities
 - g. Trauma
 - h. Infection and Inflammation
 - i. Extra-skeletal processes

- j. Bone mineral density (dual-energy X-ray absorptiometry (DEXA))
 - k. Normal and other
 - l. Artifacts and quality control
5. Neuro (5-10%)
- a. Brain death
 - b. Dementia and behavioral disorders
 - c. Seizure
 - d. Stroke/cerebrovascular disease/vascular reserve
 - e. Benign neoplasm
 - f. Malignant neoplasm, primary
 - g. Malignant neoplasm, metastatic
 - h. Infection and Inflammation
 - i. Cerebrospinal fluid (CSF)
 - j. Normal and other
 - k. Artifacts and quality control
6. Pediatrics (5-10%)
- a. Brain and cerebrospinal fluid (CSF)
 - b. Cardiac
 - c. Thoracic
 - d. Endocrine
 - e. GI tract and hepatobiliary system
 - f. Musculoskeletal
 - g. Infection and inflammation
 - h. Neoplasm
 - i. Urinary tract
 - j. Normal and other
 - k. Artifacts and quality control
7. Reproductive/Endocrine (15-20%)
- a. Thyroid gland
 - b. Thyroid cancer
 - c. Therapy
 - d. Adrenal
 - e. Neuroendocrine
 - f. Parathyroid gland
 - g. Female reproductive system neoplasms
 - h. Pregnancy
 - i. Male reproductive system neoplasms
 - j. Normal and other
 - k. Artifacts and quality control
8. Thoracic (5-10%)
- a. Thrombo-embolic disease
 - b. Non-thrombotic embolic disease
 - c. Chronic obstructive pulmonary disease (COPD) and airways disease
 - d. Benign neoplasm/mass
 - e. Malignant neoplasm, primary
 - f. Malignant neoplasm, metastatic
 - g. Trauma
 - h. Infection and inflammation
 - i. Normal and other

- j. Artifacts and quality control
9. Urinary (5-10%)
- a. Perfusion and function
 - b. Diuretic studies
 - c. Angiotensin converting enzyme inhibitor (ACE-I) studies
 - d. Cortical
 - e. Transplant
 - f. Leak
 - g. Benign neoplasm
 - h. Malignant neoplasm, primary
 - i. Malignant neoplasm, metastatic
 - j. Infection and inflammation
 - k. Normal and other
 - l. Artifacts and quality control
10. Vascular (1-5%)
- a. Patency
 - b. Malignant neoplasm, primary
 - c. Malignant neoplasm, metastatic; sentinel lymph node (SLN)
 - d. Infection and inflammation
 - e. Normal and other
 - f. Artifacts and quality control
11. Physics (15-20%)
12. Quality and Safety (5-10%)