

ULTRASOUND

1. Breast (10-15%)

Relevant and appropriate Diagnostic Ultrasonographic applications and findings in the entities listed in the Breast section of this blueprint

- a. Normal sonomammographic anatomy
- b. Cystic versus solid mass
- c. Mastitis/abscess
- d. Characterization of cysts
- e. Lymph node characterization: axillary, supraclavicular, intramammary
- f. Characterization of solid masses: benign vs. malignant
- g. Architectural distortion
- h. Intraductal masses/abnormalities
- i. Galactocele
- j. Ultrasound Screening
- k. Multifocal malignancy

2. Cardiac (0%)

- a. Does **NOT** include cardiac echo or transesophageal echo
- b. Does include findings reflecting cardiac disease that might be observed on a diagnostic radiology US examination
 - i. Pericardial effusion
 - ii. Spectral Doppler waveform changes reflecting cardiac disease (such as tricuspid regurgitation, pulmonary hypertension, pericardial effusion, pulmonary embolus, aortic stenosis, aortic coarctation, aortic regurgitation, low cardiac output)
 - iii. Cardiac masses
- a. Other

3. GI (5-10%)

- a. Liver
- b. Biliary tree
- c. Pancreas
- d. Bowel
- e. Spleen
- f. Peritoneal cavity
- g. Abdominal wall

- h. Lymph nodes
- i. Other

4. MSK – (1-5%)

Appropriate applications of Diagnostic Ultrasound in the evaluation and diagnosis of common congenital, inflammatory, neoplastic, and post-traumatic abnormalities

- a. Shoulder (biceps tendon, subscapularis, supraspinatus, infraspinatus, labrum)
- b. Elbow (radial head, biceps and brachialis, medial compartment, posterior compartment, ulnar nerve)
- c. Hand and Wrist (carpal tunnel, extensor tendons, flexor tendons)
- d. Hip (common congenital finding)
- e. Knee (patellar ligament, quadriceps ligament, medial and lateral collateral ligaments)
- f. Foot and Ankle (Achilles tendon, plantar fascia and neuromas, medial and lateral ligaments, medial flexor tendons, dorsal tendons, peroneal tendons)
- g. Lumps, bumps, and nerves
- h. Other

5. Neuro

This area includes material from Peds and OB and Vascular content relevant to the CNS.

Material relevant to peripheral Neurological structures is included under MSK

6. Pediatrics - (5-15%)

- a. Normal anatomy: Brain, Neck, Abdominal, Urinary, MSK (hip)
- b. Brain (intracranial hemorrhage and complications, including periventricular leukomalacia and hydrocephalus, shunt evaluation, calcifications, TORCH)
- c. Kidneys (hydronephrosis, stones, hydro ureters, anomalies of position and fusion, renal scarring, masses, cystic disease, ureterocele)
- d. Adrenal (hemorrhage, masses, neuroblastoma)
- e. Liver/spleen (choledochal cysts, liver masses, hepatitis, biliary atresia, hepatic Doppler, transplant evaluation, splenomegaly)
- f. Gallbladder (gallstones, biliary stones, hydrops)
- g. Pancreas (acute pancreatitis, pseudocysts)
- h. Bowel: (intussusception, acute appendicitis hypertrophic pyloric stenosis, abscess, ascites)
- i. Scrotal: (torsion, epididymitis, orchitis, masses, undescended testis)
- j. GYN: (Ovarian torsion and masses, imperforate hymen, uterine anomalies)
- k. Neck: (mass, thyroid)
Deep vein thrombosis of upper and lower extremities
- l. Neonatal spine: (tethered cord, intraspinal mass)
- m. Organ transplants
- n. MSK (congenital hip dislocation, hip effusion, soft tissue abnormalities including cysts, masses, malformations, abscess)
- o. Congenital brain malformations: (agenesis of corpus callosum, vein of Galen aneurysm, Dandy Walker Malformation, aqueductal stenosis)
- p. Chest (pleural effusion)

7. Thoracic (1-5%)

- a. Lung
- b. Pleural space
- c. Mediastinum
- d. Thoracic inlet (including neck)

- e. Chest wall
- f. Axilla
- g. Other

8. Repro-Endo (10-15%)

- a. OB - 1st trimester
- b. OB - 2nd and 3rd trimester
- c. Uterus (includes saline hysterosonography)
- d. Cervix
- e. Ovary
- f. Fallopian tube
- g. Para-ovarian structure
- h. Cul de sac
- i. Scrotum
- j. Thyroid (including cervical lymph nodes)
- k. Parathyroid glands
- l. Other

9. Urinary (5-10%)

- a. Kidney
- b. Ureters
- c. Bladder
- d. Urethra
- e. Prostate
- f. Seminal vesicles
- g. Retroperitoneum
- h. Adrenal gland
- i. Penile
- j. Other

10. Vascular (5-10%)

- a. Peripheral venous (upper and lower)
- b. Peripheral arterial (upper and lower)
- c. Arterial bypass grafts
- d. Hemodialysis fistulae/grafts
- e. Carotid and vertebral
- f. Transplants (hepatic, renal, pancreas)
- g. Hepatic Doppler
- h. Renal Doppler
- i. Aorta
- j. Inferior vena cava
- k. Mesenteric
- l. Pelvis
- m. Other

11. Physics (15-20%)

12. Quality and Safety (5-10%)