Genitourinary Imaging

This exam content assesses the candidate's knowledge and skills related to the clinical practice of genitourinary imaging. The domain encompasses fluoroscopy and radiography, CT, MRI, and ultrasound (including MRI and CT for obstetrical complications). The domain also includes testing of knowledge pertaining to percutaneous abdominal interventions and management in patients with abnormalities on genitourinary imaging studies.

Included in this document:

Domain Critical Concepts

1. Diagnose and distinguish between benign and malignant focal renal lesions
2. Identify benign and malignant urothelial pathology, understand management issues
3. Recognize and classify GU tract trauma
4. Diagnose and distinguish between benign and malignant adrenal lesions
5. Recognize US/MR appearance and staging of gynecologic malignancies:
6. Understand and identify prostate anatomy, infection, and tumor on MRI
7. Identify and distinguish benign from malignant scrotal lesions
8. Identify emergency GU imaging pathologies
9. Recognize GU congenital anomalies and genetic syndromes
10. Identify normal and abnormal (nonvascular) appearance of renal of transplants

Domain Blueprint

1. Adrenal: 5%-10%
    a. Congenital abnormalities
    b. Neoplasms
    c. Endocrine disorders
    d. Acquired diseases and conditions
2. Female infertility: up to 5%
    a. Embryology, congenital anomalies
    b. Acquired
3. Male infertility: up to 5%
    a. Congenital anomalies
    b. Acquired
4. Uterus, Cervix: 5%-10%
    a. Benign and malignant masses, neoplasms
    b. Acquired disease and conditions
    c. Normal and abnormal post-menopausal appearance
5. Ovary, Vulva, Vagina: 15%-20%

    a. Benign and malignant masses, neoplasms, cysts and cystic lesions
    b. Acquired conditions, hemorrhage, torsion, pelvic inflammatory disease
6. Penis/Scrotum: up to 5%
    a. Congenital abnormalities
    b. Benign and malignant masses, neoplasms
    c. Trauma
    d. Torsion
    e. Inflammation/infection
7. Kidney: 20%
    a. Benign and malignant masses
    b. Congenital syndromes involving the kidney
    c. Infection/inflammation
    d. Cystic disease
    e. Congenital abnormalities
    f. Trauma
    g. vascular
8. Renal transplant: up to 5%
9. Pelvcaliceal system/ureter: 5%-10%
    a. Obstruction
    b. Tumors
    c. Infection/inflammation
    d. Hereditary
    e. Congenital
    f. trauma
10. Prostate/seminal vesicles: up to 7%
    a. Neoplasms
    b. Infections
    c. Congenital anomalies
11. Urethra: Up to 5%
    a. Congenital
    b. Infection/inflammatory
    c. Tumors
    d. Trauma
12. Stone disease: up to 5%
13. Bladder: 5%-10%
    a. Urachus
    b. Tumors
    c. Infection/inflammation
    d. Obstruction
    e. Fistulae
    f. Hernias
    g. Hereditary
    h. Trauma
14. Retroperitoneum: up to 7%
    a. Tumors
    b. Infection/inflammation
15. Post-operative complications: up to 5%
16. Miscellaneous: up to 5%

a. Pessaries
b. Sphincters
c. Implants
d. Bulking agents
e. Anatomy

17. Genitourinary interventional radiology: up to 5%
    a. Percutaneous biopsy
    b. Percutaneous/endovaginal drainage
    c. Vascular intervention
    d. Thermal ablation
    e. Indications and contraindications

Domain Overview

1. Adrenal
    1. Congenital abnormalities
    2. Benign masses
    3. Malignant primary and secondary neoplasms
    4. Endocrine disorders
    5. Acquired diseases and conditions
        1. Infection
        2. Inflammatory conditions
        3. Hemorrhage
2. Female genitourinary tract
    1. Congenital abnormalities
    2. Infertility
    3. Urethra
    4. Uterus (including endometrium) and cervix
        1. Benign and malignant masses
        2. Acquired conditions (infection, hemorrhage)
    5. Ovaries and fallopian tubes
        1. Benign and malignant masses
            1. Cysts and cystic lesions
        2. Acquired conditions (infection, hemorrhage)
            1. Infections
                1. Pelvic inflammatory disease
            2. Torsion
            3. Ovarian failure
    6. Vulva and vagina
        1. Benign and malignant masses
            1. Cysts and cystic lesions
3. Obstetrical and Fetal Imaging (CT and MRI)
    1. Abnormal placentation
    2. Ectopic pregnancy
    3. Congenital fetal anomalies
    4. Maternal disorders in pregnancy
4. Male Genitourinary Tract
    1. Scrotum, testes, penis, seminal vesicles, vas deferens, ejaculatory ducts

        1. Congenital abnormalities
        2. Benign and malignant masses
        3. Trauma
        4. Torsion
    2. Infertility
5. Prostate Gland and Seminal Vesicles
    1. Malignant tumors
    2. Benign tumors and hyperplasia
    3. Infection/inflammation
    4. Trauma/iatrogenic
    5. Congenital anomalies
6. Urethra and Penis
    1. Malignant tumors
    2. Benign tumors
    3. Infection/inflammation
    4. Trauma/iatrogenic
    5. Congenital anomalies
    6. Stricture
7. Kidneys
    1. Malignant tumors
        1. Primary
        2. Secondary
    2. Benign tumors
    3. Hereditary tumor syndromes
    4. Cystic disease
    5. Complicated cysts
    6. Granulomatous diseases
    7. Infection/inflammation
    8. Hemorrhage
    9. Infarction and ischemia
    10. Trauma/iatrogenic
    11. Congenital anomalies
    12. Medical renal disease
    13. Metabolic disease
    14. Renal Transplantation
8. Ureter
    1. Malignant tumors
    2. Benign tumors
    3. Infection/inflammation
    4. Trauma/iatrogenic
    5. Congenital anomalies
    6. Stricture
    7. Filling defects
9. Bladder and Neobladder
    1. Malignant tumors
    2. Benign tumors
    3. Infection/inflammation

4. Hemorrhage
5. Trauma/iatrogenic
6. Congenital anomalies

10. Retroperitoneum, abdominal wall and perineum
    1. Primary and secondary malignant tumors
    2. Benign tumors
    3. Additional
        1. Hemorrhage
        2. Trauma/iatrogenic
        3. Congenital anomalies and venolymphatic malformations
        4. Aortic aneurysm
        5. Retroperitoneal fibrosis
        6. Pelvic lipomatosis
        7. Venous anomalies
        8. Infection, including Fournier gangrene
        9. Endometriosis
11. Vascular Diseases Affecting the Genitourinary Tract
    1. Aneurysms
    2. Stenoses
    3. Vasculitis
    4. Malformations
    5. Fistulae
    6. Occlusions
    7. Congenital anomalies
12. Intravascular Contrast Media
    1. Iodinated/gadolinium-based/ultrasound contrast agents
    2. Extravasation/intravasation
    3. Physiology
    4. Use in hysterosalpingography