

BODY IMAGING: Fluoroscopy and IVU Section

Knowledge Based Objectives: The resident should be able to:

1. Discuss the proper clinical and radiologic indications for the following studies:
 - i. Barium swallow
 - ii. Upper GI series
 - iii. BE
 - iv. ACBE
 - v. SBFT
 - vi. Enteroclysis
 - vii. ERCP
 - viii. Fistulograms
 - ix. IVU
 - x. Cystogram
 - xi. Voiding cystourethrogram
 - xii. HSG.
2. State the physiologic properties, proper concentrations and proper indications for the use of the following contrast material:
 - i. Barium
 - ii. Water soluble contrast media
 - iii. Non-ionic intravenous contrast media
3. Discuss the following information about Glucagon/Hyoscyamine (Levsin)
 - i. Proper indications and dosages used in GI radiology
 - ii. Physiologic effects
 - iii. Side effects
 - iv. Contraindications
4. List the high risk factors for allergic reaction to intravenous contrast media: understand the pathophysiology of contrast reactions.
5. State the prophylaxis, assessment and treatment for allergic reactions to contrast media.
6. Recognize the normal radiographic appearance of structures of the GI/GU tract.
7. Given an appropriate radiograph, demonstrate a basic knowledge of radiographic abnormalities of the GI/GU tract.
8. Demonstrate review and/or retention of knowledge requirements set forth for the first rotation.
9. Describe and/or discuss GI/GU tract pathology in specific detail.
10. Assist with preparation and presentation of GI/GU noon resident conferences.
11. Demonstrate continued knowledge of requirements for previous rotations.
12. Discuss, with increased understanding, GI/GU tract pathology.
13. Integrate knowledge of all radiological imaging modalities for evaluation of GI/GU pathology so that the most appropriate study will be done and studies will be done in the proper sequence.
14. State the indications for a defacography study.
15. Demonstrate continued increase in knowledge in the areas listed in the previous rotations.

Technical Skills: The resident should be able to:

1. Demonstrate basic knowledge of the equipment to be used during fluoroscopy, including proper KV techniques for the various procedures, radiation safety features of the machines, and proper radiation safety techniques.
2. Demonstrate fluoroscopy techniques for performing the following procedures:
 - i. Barium swallow
 - ii. UGI
 - iii. BE
 - iv. ACBE
 - v. SBFT
 - vi. Enteroclysis
 - vii. ERCP
 - viii. Fistulogram
 - ix. IVU
 - x. Cystogram
 - xi. Voiding cystourethrogram
 - xii. HSG.
3. Demonstrate knowledge of proper KV techniques, patient positioning, and type of after-films that should be taken for the procedures listed in #2 above.
4. Demonstrate initial development of fluoroscopic skills by identifying the more common abnormalities during the performance of the studies.
5. Demonstrate further development of the technical skills of performing the GI/GU studies listed in the first rotation.
6. Demonstrate improved skill for tube placement, technical performance and interpretation of enteroclysis procedures. What other modalities are used to evaluate for small bowel pathology?
7. Given a fluoroscopic examination, demonstrate the ability to identify the abnormality at fluoroscopy and modify the technique or change the patient's position to take more diagnostic fluoroscopic spot films.
8. Demonstrate the ability to perform efficiently through decreasing fluoroscopic time needed to perform a study without compromising diagnostic acumen.
9. Demonstrate the technical skills and interpret the results of a defacography study.
10. Demonstrate ability to perform all skills listed in previous rotations at the competence level associated with a beginning practitioner in radiology.

Decision Making and Value Judgment Skills: The resident should be able to:

1. Review history of the patient for whom a procedure has been ordered and determine the appropriateness of the study requested.
2. Communicate with the referring physician about any recommendations for change in the type of procedure to be performed.
3. Communicate with the technologist about any special or additional views that should be obtained to demonstrate the pathology identified.
4. Read and dictate the studies performed, under the supervision of attending radiologist.

5. Communicate to the referring physician on the day of the exam any significant abnormalities identified on the examination and document in the report.
6. Demonstrate an enhanced ability to perform decision-making and valuing requirements listed under previous rotations.
7. Evaluate and integrate data from other studies (CT, MRI, ultrasound and nuclear medicine) of the GI/GU tract to make recommendations to the referring physician about more appropriate or additional diagnostic studies needed for evaluation of the patient's abnormality.
8. Demonstrate improvement in decision-making skills listed in the previous rotations.
9. Read and dictate studies with minimal supervision of attending radiologist.
Demonstrate ability to perform all skills listed in previous rotations at the competence level associated with a beginning practitioner in radiology.