RADIOLOGY

The University Hospitals and Clinics
The University of Mississippi Medical Center
Jackson, MS

PROCEDURE
PATIENT PREPARATION

I. **PURPOSE:**

Certain Radiology procedures require a specific sequence and patient preparation to produce quality images.

II. **POLICY:**

Procedures performed in Radiology will follow the guidelines for scheduling, sequence and patient preparation outlined below. Patient condition and medical history may require modification to these guidelines. A Radiologist is on duty 24 hours each day for consultation as to the proper sequence and patient preparation.

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NOTE: If there is any possibility of pregnancy, a pregnancy test should be obtained. Pregnant patients cannot have routine x-ray exams unless approved by consult with a Radiologist

A. ADULT RADIOLOGY

1. **SCHEDULE SEQUENCE**

a. Schedule X-Ray Examination in this sequence:

1. IV Pyelogram, Oral Cholecystogram (GB), Upper GI, Esophagram, Barium Enema. (GB/Upper GI or IVP/BE can be scheduled on the same day).

b. Examinations scheduled under fluoroscopic:

1. Chest fluoroscopy, Esophagram, UGI, Small Bowel Barium Enema, Air Contrast Barium Enema, Bronchogram, T-Tube Cholangiogram, Hystosalpingogram, Fistulogram, Sinogram, Colonoscopy, Cystograms, Cystourethrogram, Urethrograms, ERCP, Nephrostograms, Loop-o-grams.

c. Examinations scheduled under IV Pyelogram (IVP):

1. Routine, rapid sequence.

d. Examinations scheduled under GB:

1. Oral cholecystogram

e. Examinations scheduled under other:

1. Mammogram, Arthrogram (by consult with Special Procedure Radiologist), Tomograms.

2. **BARIUM ENEMA PREPARATION**

a. **INPATIENTS INSTRUCTIONS**

Follow instructions carefully. Failure to do so will result in poor preparation and the study will be canceled. The Colon must be clean.

1. Starting the day **before** the study, the patient is to be placed on a clear liquid diet for breakfast, lunch and dinner. **Absolutely no other foods are to be given.** Explain this to the patient.
2. Beginning at 1:00 pm give the patient one large glass of water every hour on the hour until 7:00 p.m., or give **CLEAR INSTRUCTIONS** to the patient for himself.
3. At 1:00 p.m. give one bottle (10 oz) Magnesium Citrate. Follow with the designated large glass of water.
4. At 5:00 p.m. give 4 Bisacodyl tablets with the large glass of water.
5. NPO after midnight on the day of the study. Medication may be taken with a few sips of water.

NOTE: If there are clinical reasons why the above procedure cannot be followed, the attending/ordering physician should discuss the situation with the Radiologist. A Radiologist or Resident Radiologist must approve any deviation from the standard preparation. (For example: A patient does not need to have colon preparation to rule out mechanical obstruction, colitis or fistula tract formation.)

3. **BARIUM ENEMA FOLLOWING ENDOSCOPY**

a. **Barium Enema should be delayed at six (6) days following polyp removal by any method.**

b. **Barium Enema may be performed the following A.M. after flexible endoscopy with or without biopsy.**

c. **Barium Enema should be delayed at least six (6) days following biopsy with a rigid scope or until there is pathologic indication that there is no muscle in the biopsy.**

4. **OUTPATIENT INSTRUCTIONS**

Follow these directions carefully and completely. **IF YOU DO NOT, YOU WILL NOT BE READY FOR YOUR X-RAY**. Read these instructions and the instructions on the package completely before you begin.

a. Start the **day before your exam**. For breakfast, lunch and dinner you may have **only clear liquids**. Clear soup, juice, soft drink, plain gelatin, black coffee or plain tea, **no milk or cream.** **NO** solid food should be taken the entire day before your study. Diabetics or persons on special diets should consult their physicians.

b. Do not eat or drink anything after midnight prior to your study and until after your x-ray is completed. Medications may be taken with sips of water.

c. At the following times, drink one large glass of water. Check each time **after** you drink the water.

_____ 1:00 PM	_____ 4:00 PM	_____ 7:00 PM
_____ 2:00 PM	_____ 5:00 PM	_____ 8:00 PM
_____ 3:00 PM	_____ 6:00 PM	_____ 9:00 PM

d. At 1:00 PM take magnesium citrate. Follow with a glass of water.

e. Mark checklist when this is complete.

f. At 5:00 pm, take the 4 Bisacodyl tablets with your large glass of water.

g. Mark checklist when this is complete.

h. At 6:00 AM, the morning of your study put one Bisacody suppository in your rectum. **Do not have anything to eat or drink except for necessary medications with a sip of water.**

i. Mark check list when this is complete

j. Bring the checklist with you to Radiology (main X-Ray Department, basement of South Wing) when you come for your x-ray examination.

5. **Outpatient Barium Enema Form:**

SEE FOLLOWING PAGE

BARIUM ENEMA INSTRUCTIONS FOR OUTPATIENTS

(To accompany prep kit)

Follow these directions carefully and completely. **IF YOU DO NOT, YOU WILL NOT BE READY FOR YOUR X-RAY**. Read these instructions and the instructions on the package completely before you begin.

Start the **day before your exam**. For breakfast, lunch and dinner you may have **only clear liquids**. Clear soup, juice, soft drink, plain gelatin, black coffee or plain tea, **no milk or cream.** **NO** solid food should be taken the

entire day before your study. Diabetics or persons on special diets should consult their physicians.

Do not eat or drink **anything** after midnight prior to your x-ray and until after your x-ray is completed. Medicines may be taken with a small amount of water.

At the following times, drink one (1) large glass of water. Check each time **after** you drink the water.

_____1:00 PM	_____4:00 PM
_____7:00 PM	
_____2:00 PM	_____5:00 PM
_____8:00 PM	
_____3:00 PM	_____6:00 PM
_____9:00 PM	

At 1:00 PM take magnesium citrate. Follow with a glass of water.
_____Check here after taking magnesium citrate.

At 5:00 PM, take the 4 Bisacodyl tablets with large glass of water.
_____Check here after taking 4 Bisacodyl tablets.

At 6:00 AM, the morning of study put one (1) Bisacody suppository in rectum.
_____ Check here after putting suppository in rectum.

DO NOT HAVE ANYTHING TO EAT OR DRINK. Medicines may be taken with a small amount of water.

Bring this checklist with you to Radiology when you come for your x-ray examination at _____ AM on DATE:_____.

6.

PROCEDURES REQUIRING CONTRAST

ALERT: Many contrast agents contain iodine and should not be given to persons with an allergy to iodine or IVP dye. Consult with a Radiologist for specific instructions before administering any contrast agents.

a. **ESOPHOGRAMS, GI SERIES AND/OR SMALL BOWEL SERIES (upper gastrointestinal series)**

1. Send request to Radiology and schedule date and time.
2. A regular evening meal but NPO after midnight.
3. If a patient has had a barium study in the last 48 hours, a laxative may be given the day before the examination is scheduled.
4. A laxative may be given after the examination is completed to help evacuate the barium. (1 oz of Milk of Magnesia or other laxative as ordered.)
5. If patient is scheduled for a modified barium swallow the patient does not have to be NPO.
6. If patient has a Passy Muir speaking valve, send it with the patient.

b. **CHOLANGIOGRAM, T-TUBE**

1. Send request to Radiology and schedule date and time.
2. NPO past midnight.
3. Antibiotics per primary physician orders.

c. **CYSTOGRAM**

1. Send request to Radiology and schedule date and time.

d. **DEFECOGRAPHY**

1. Send request to Radiology and schedule date and time.

e. **VOIDING CYSTOURETHROGRAM (VCUG)**

1. Send request to Radiology and schedule date and time.

f. **HYSTEROSALPINGOGRAM**

1. Send request to Radiology and schedule date and time.

g. **IV PYELOGRAM**

1. Send request to Radiology and schedule date and time. (May be done with Barium enema)
2. NPO after midnight. No other prep is necessary. (If IVP is to be performed with barium enema, the diet restrictions and colon preparation for barium enema must be followed)
3. Serum Bun and Creatinine tests should be performed on patient before day of appointment as appropriate.(Patients older than 40 or patients with possible renal insufficiency, previous obstruction, hypertension, diabetes, etc)

i. **LOOPOGRAM**

1. Send request to Radiology and schedule date and time.

j. **RETROGRADE URETHROGRAM**

1. Send request to Radiology and schedule date and time.

k. **VOIDING CYSTOURETHROGRAM (VCUG)**

l. Send request to Radiology and schedule date and time.

NOTE: If patient is diabetic and on metformin then metformin will be discontinued for 48 hours after IVP until BUN and Creatinine have been completed to document normal renal function at 48 hours

Approved: _____

Philip E. Cranston, M.D.

B.

COMPUTERIZED TOMOGRAPHY

Patient medical history and request form must be completed and sent to the CT department before the CT scan is performed. If there are clinical reasons why the below procedures cannot be followed the attending/ordering physician should discuss the situation with the Radiologist. A Radiologist or Resident Radiologist must approve any deviation from the standard preparation.

1. **PRECAUTIONS FOR CT PROCEDURES**

a. Gastroview and similar agents contain iodine and should not be given to persons with an allergy to iodine or IVP dye. Consult with a Radiologist for specific instructions.

b. Patients with a history of Iodine allergy will be given Ready-CAT, a barium oral contrast mixture. Consult with a Radiologist for instructions.

1. Ready –CAT is pre-mixed (no dilution is required).
2. Patients will receive the same volume as prescribed for diluted gastroview (detailed below).

c. Barium studies conflict with CT studies and produce undesirable images. It is advisable to do CT abdominal scans before any barium is given. Consult with the Radiologist for specific instructions.

d. Weight limit is approximately 400 lbs.

e. Patients must be able to suspend respiration and motion for at least 5 seconds

2. **ADULT ABDOMEN/PELVIS: IN-PATIENTS**

a. Send request to CT and schedule date and time.
b. No bowel preparation is necessary unless the patient has received barium recently.
c. If barium was administered a KUB is obtained and a bowel preparation will be used.
d. Keep patient NPO after midnight (except contrast and medications) if the exam is to be done in the a.m.
e. Patients scheduled for afternoon may have a light breakfast and remain NPO until after the procedure
f. Two (2) doses (30cc each) of gastrograffin will be ordered to the floor for the patient.
g. **The night before (8:00 PM or after) imaging:** Mix 1/2 of a bottle (15cc) of gastroview in 285 cc (12oz) of water/juice and have patient drink. Repeat in 30 minutes.
h. **Morning of imaging:** Patient will receive 3 doses of diluted contrast in the following order.
1. CT will call the floor approximately one (1) hour before the imaging.
2. Give patient one (1) dose (approximately 12 ounces) of diluted contrast (dilution factor below).
3. Follow with a second (2) dose in 30 minutes.
4. Follow with a third (3) dose on call to CT
i. **DILUTION FACTOR FOR GASTROVIEW:** One (1) bottle (15cc) of gastroview in 285cc (12 ounces) water/juice will make the 2 doses needed for morning of imaging dose).
j. Unit will send patient record and Radiology nurse will monitor patient in the department and return with patient to unit.

3. **ADULT ABDOMEN/PELVIS: OUT PATIENTS**

a. Send request to CT and schedule date and time.
b. The night before the procedure outpatients will take the dose prescribed above.
c. Before leaving home the following morning they will take at one dose as prescribed under **Morning of Imaging**.
d. The Radiology nurse will sedate Out-Patients needing sedation in the CT department.
e. Outpatients will follow the same procedure as Inpatients on arrival in the department (30 minutes after arrival, and a final dose 1-hour after arrival).

4. **PATIENT INSTRUCTIONS FOR CT ABDOMEN/ PELVIS FORM**

SEE FOLLOWING PAGE

PATIENT INSTRUCTIONS FOR CT ABDOMEN/ PELVIS

1. You will need a prescription to purchase 2 bottles (30cc's each) of gastroview.

2. If the test is scheduled to be done in the morning, **DO NOT** eat or drink anything after midnight (except contrast and medications).

3. If the test is scheduled for the afternoon, you may have a light breakfast and then nothing until after the CT procedure is complete.

NIGHT BEFORE THE CT SCAN – AFTER 8: PM

4. **1st BOTTLE OF GASTROVIEW**

Mix one half (1/2) of one bottle (15cc's or 3 tsp.) of gastroview in twelve (12) ounces

of water or juice and stir well and then drink. Repeat the whole procedure again in thirty (30) minutes with the last ½ bottle of gastrograffin.

MORNING OF THE SCAN – AT 7:00AM

5. **2nd BOTTLE OF GASTROVIEW**
   Mix one half (1/2) of one bottle (15cc's or 3 tsp.) of gastroview in twelve (12) ounces of water or juice and stir well and drink at 7:00am. Repeat the whole procedure again in thirty (30) minutes with the last half (1/2) of bottle of gastroview.

6. You will be given additional gastrograffin in the CT department at the time of the scan.

NOTE: IF YOU ARE ALLERGIC TO IODINE, DO NOT USE GASTROVIEW.
ANOTHER CONTRAST WILL BE USED.

5.

PEDIATRIC ABDOMEN/PELVIS

a. Send request to CT and schedule date and time.
b. No bowel preparation is needed unless the patient has received barium recently.
c. If barium was received a KUB is obtained and a bowel preparation given routinely for a barium enema will be used.
d. Patients are to be kept NPO for a minimum of 4 hours before the CT imaging.
1. Depending on age, you may want to keep them NPO (except for medication) after midnight if procedure is scheduled for the a.m.
e. Patients scheduled for afternoon may have a light breakfast and remain NPO until after the procedure
f. Patient will receive one dose of contrast (as prescribed below) the night (8:00 pm or after) before imaging procedure.
g. CT will call the floor approximately 1 hour before procedure time. When the CT department calls give one dose (as prescribed below) of contrast mixture, and then another in 30 minutes. When the patient leaves for the CT department give the final dose.
1. **CONTRAST MIXTURE --** Mix 15cc of Gastroview in 285cc of water or juice **TOTAL 300cc**

Single Dosage of Diluted Mixture	**Total Dose on Floor for day of imaging**
If patient weighs more than 100 lbs.	Then give 300cc (x 3 - 900cc)
If patient weighs 100 lbs.	Then give 200cc (x 3 - 600cc)
If patient weighs 75 lbs.	Then give 150cc (x 3 - 450cc)
If patient weighs 50 lbs.	Then give 100cc (x 3 - 300cc)
If patient weighs 25 lbs	Then give 50cc (x 3 - 150cc)
If patient weighs 12 lbs.	Then give 25cc

(x 3 - 75cc)

If patient weighs 6 lbs. Then give 10cc
(x 3 - 30cc)

h. The Radiology nurse will sedate Out-Patients needing sedation in the CT department.
i. Pediatric Outpatients will follow the same procedure as Adult Outpatients. Follow procedure for Inpatients upon their arrival in the department. (Dose 30 minutes after arrival and a final dose 1 hour after arrival).

6. **ADULT CHEST**
a. Send request to CT and schedule date and time.
b. Patients scheduled for CT chest require no bowel prep or oral contrast.
c. NPO after midnight (except medications) if procedure is scheduled in the a.m.

7. **CHEST AND MEDIASTINUM IMAGING**
a. Send request to CT and schedule date and time.
b. No bowel preparation is needed.
c. NPO after midnight (except for medications) for patients scheduled in the a.m.
d. Patients scheduled in the p.m. may have a light breakfast and remain NPO until after the procedure.

8. **EXTREMITIES IMAGING**
a. Send request to CT and schedule date and time.
b. No bowel preparation is needed.
c. If patient is to receive IV contrast medium, hold patient NPO after midnight (except for medications) for patients scheduled in a.m.
d. Patients scheduled in the p.m. may have a light breakfast and remain NPO until after the procedure.

9. **FACE AND NECK IMAGING**
a. Send request to CT and schedule date and time.
b. No bowel preparation is needed.
c. If patient is to receive IV contrast medium, hold patient NPO after midnight (except for medications) for patients scheduled in a.m.

10. **SPINE IMAGING**
a. Send request to CT and schedule date and time.
b. No bowel preparation is needed.

11. **POST MYELOGRAPHY SPINE IMAGING**
a. Send request to CT and schedule date and time.
b. Physician's orders on outside of charts are to be followed after myelography.
c. Scans are done 3 to 4 hours post-myelogram.
d. Patient may eat.

Approved: _____

Ramesh B. Patel, M. D.

C. NUCLEAR MEDICINE

1. **ALERT – PRECAUTIONS – SPECIAL NOTICE**

a. All patients for Nuclear Medicine procedures receive P O or IV radionuclide materials. These materials are radioactive therefore; **precautions with urine, feces, vomit should be taken for 24 hours post time of injection or oral administration of radionuclide materials**.
b. **Post radioactive precaution label** must appear on the front of the patient's chart with date and time of dosage. This may be removed by nursing staff after 24 hours.
c. Physician's orders are required before scheduling Nuclear Medicine Procedures.
d. **CALL NUCLEAR MEDICINE FOR SCHEDULING BEFORE PLACING AN ORDER IN THE COMPUTER.**

e. **BED PATIENTS** are not accepted.

f. No Barium Radiology Procedures should be performed the day of the following Nuclear Medicine procedures:

Thyroid Imaging	Renal Imaging
Bone Imaging	Renogram Imaging
Liver-Spleen Imaging	Gallium Imaging
Biliary Imaging	Meckel's Imaging
Gastric Emptying Imaging	Indium 111 WBC Imaging
Gastric Reflux Imaging	Para-Thyroid Imaging
GI Bleed Imaging	

g. Most Procedures Require a Day in Between Studies

2. **SCHEDULE SEQUENCE**

a. Procedures should be scheduled in the following sequence. A Radiologist or Resident Radiologist must approve any changes.

1. Thyroid Studies
2. Lung Imaging
3. Liver Spleen Imaging
4. Brain Imaging
5. Biliary Imaging
6. Gastric Emptying Imaging
7. Gastric Reflux Imaging
8. GI Bleed Imaging
9. Meckel's Imaging
10. Gated Heart Imaging
11. Renal Imaging
12. Renogram Imaging
13. Bone Imaging
14. Thallium Cardiac Imaging
15. Pharmacologic Cardiac Imaging
16. Gallium Imaging
17. Other Imaging

Most Procedures Require a Day in Between Studies

3. **BILIARY IMAGING**

a. Send request and physician orders to Nuclear Medicine and schedule date and time
b. NPO after midnight prior to study.
c. Emergency study ---no prep.
d. Patient may be required to return for follow up imaging.

4. **BONE IMAGING**

a. Send request and physician orders to Nuclear Medicine and schedule date and time
b. After injection, patient should drink increased amount of liquids and void as much as possible.
c. Patient will return 3 hours after injection for actual imaging.

5. **GALLIUM IMAGING**

a. Send request and physician orders to Nuclear Medicine and schedule date and time
b. **In-Patient** -- After injection a prep sheet will be placed on outside of the patient's chart. Physician in charge of patient should order medications needed in writing in -patient's chart.
c. **Outpatient** -- Patient will be given a prep sheet. A prescription for a barium enema prep kit may be given.
d. Patient may return 6 hours, 24 hours, 48 hours and 72 hours after injections for images.

6. **GASTRIC EMPTYING**

a. Send request and physician orders to Nuclear Medicine and schedule date and time
b. NPO after midnight prior to study.
c. Usually scheduled for 7:45 a.m. Scanning time is 4 hours.
d. Patient may be required to return for follow up imaging.

7. **GASTRIC REFLUX IMAGING**

a. Send request and physician orders to Nuclear Medicine and schedule date and time

b. NPO after 5:00 a.m. morning study.
c. Empty bottle and 2 bottles of formula sent with child.
d. Usually scheduled for 7:30 a.m. Scanning time is 1 hour.
e. Patient will return 4 hours and 24 hours after initial imaging for follow up images.

8. **GATED CARDIAC IMAGING**

a. If EKG tracing indicates an irregular heart rate, have Physician determine if study should be done.

9. **GI BLEED IMAGING**

a. Procedure should be performed while patient is actively bleeding.
b. Nuclear Medicine Physician should be contacted.
c. KUB film required prior to scan.

10. **INDIUM 111 WHITE BLOOD CELL IMAGING**

a. No immediate prep for patient. 40cc of blood will be drawn at the start of study. This sample is taken and white cells are tagged with radiotracer Indium 111, then re-injected into patient.
b. Images are acquired at 4 hours and maybe at 24 hours post injection.

11. **LUNG IMAGING (VENTILATION-PERFUSION OR QUANITATIVE LUNG IMAGING**

a. Patient must be alert and able to cooperate.
b. Chest X-Ray film required prior to study.

12. **NUCLIDE LYMPHANIOGRAM IMAGING**

a. No special group prep is needed.
b. Patient injected intradermally in area of lesion for sentinel nodes. SC in both feet for evaluation of lymph edema.

13. **MECKEL'S IMAGING**

a. Send request and physician orders to Nuclear Medicine and schedule date and time
b. NPO after midnight or a minimum of 2 hours of fasting. Infants six months or younger may have formula or clear liquids.
c. Supine and erect plain films and of abdomen required prior to study

14. **PARA-THYROID IMAGING**

a. Follow the same procedure as Thyroid Studies. Except chest included and usually Spect for viability.

15. **THALLIUM CARDIAC IMAGING**

a. Send request and physician orders to Nuclear Medicine and schedule date and time
b. NPO after midnight prior to study. Have IV with non-glucose containing fluid (e.g. NS) in place.(In Patient)
c. Patient will return 4 hours after initial imaging for follow-up images.

16. **THERAPEUTIC STUDIES**

a. Nuclear Medicine Physician should be contacted concerning patient prep.

17. **THYROID STUDIES**

a. Send request and physician orders to Nuclear Medicine and schedule date and time
b. Clear liquids for breakfast the day of study. After 1 hour test patient can resume diet.
c. Certain medications interfere. Nuclear Medicine Physician should be notified.
d. Certain Radiology procedures interfere. Nuclear Medicine Physician should be notified. Specifically the studies involving iodinated contrast media.
e. Patient required to return at 1 hour, 6 hours, and possibly 24 hours after capsules are given or as requested by the endocrinologist

18. **NUCLIDE VENOGRAM**

a. Procedure is scheduled by Special Procedures Radiologist. Prep is same as Descending Venogram.
b. Patient is received from Special Procedures after the descending venogram has been completed, catheter in place. Injected radiotracer in catheter for venous reflux.

19. **TREADMILL STRESS OR IV PHARMACOLOGIC STRESS CARDIAC IMAGING** (Cardiolite, Myoview, etc)

a. Send request and physician orders to Nuclear Medicine and schedule date and time
b. NPO after midnight. (No Beta Blockers)(No caffeine or sugar the day before study.
c. Have IV with non-glucose containing fluid (e.g. NS) in place.(In Patient)
d. Pharmacologic Agent ordered according to patient's weight.
e. Patient to travel to Nuclear Medicine at 7:30am. (study requires approximately 3 hrs)

20.

PHARMACOLOGIC THALLIUM CARDIAC IMAGING

a. Send request and physician orders to Nuclear Medicine and schedule date and time
b. Cardiology consult required on patient before scheduling.
c. Schedule study 24 hours prior to imaging time. Radionuclide must be ordered before 1:00pm on day prior to study.
d. NPO after midnight of day before study. No beta-blockers.
e. Have IV with non-glucose containing fluid (e.g. Normal saline) in place. (In Patient)
f. Pharmacologic Agent ordered according to patient's weight.
g. Patient to travel to Nuclear Medicine at **7:30 AM.** Be sure all prep is complete before this time.
h. Initial study takes about 1 hour follow up (4 hours post injection takes about 1 hour.
i. Patient to remain NPO until after the 4 hour study is complete.

When in doubt about the exact wording of request or prep of patient call ext: 42575 for information prior to entering request in computer.

D. POSITRON EMISSION TOMOGRAPHY (PET)

1. **ALERT – PRECAUTIONS – SPECIAL NOTICE**

a. All patients for Nuclear Medicine procedures receive P O or IV radionuclide materials. These materials are radioactive therefore; **precautions with urine, feces, vomit should be taken for 24 hours post time of injection or oral administration of radionuclide materials**.
b. **Post radioactive precaution label** must appear on the front of the patient's chart with date and time of dosage. This may be removed by nursing staff after 24 hours.
c. Physician's orders are required before scheduling Nuclear Medicine Procedures.
d. **BED PATIENTS** are not accepted.
e. No Barium Radiology Procedures should be performed the day of the following Nuclear Medicine procedures:

Thyroid Imaging	Renal Imaging
Bone Imaging	Renogram Imaging
Liver-Spleen Imaging	Gallium Imaging
Biliary Imaging	Meckel's Imaging
Gastric Emptying Imaging	Indium 111 WBC Imaging
Gastric Reflux Imaging	Para-Thyroid Imaging
GI Bleed Imaging	

2. **SCHEDULE SEQUENCE**

a. All procedures are to be scheduled with an approved diagnosis. A Radiologist must approve any changes.
b. Mail or fax questionnaire and a copy of Physician order to PET department and call to schedule date and time for study.
c. Whole Body PET Scan
d. Brain PET Scan
e. PET Myocardial Perfusion
f. **All Patients for PET Scans will have a Blood Glucose Test performed in the PET Imaging Department prior to the start of the scan.**

APPROVED DIAGNOSES AND PATIENT PREP:

3. **WHOLE BODY PET SCAN FOR LUNG CANCER**
a. Mail or fax questionnaire and a copy of Physician order to PET department and call to schedule date and time for study.
b. A high protein low carbohydrate diet 24 hours prior to exam (if possible)
c. NPO after midnight prior to study.
d. 2hr minimum scan time
e. Off Chemotherapy 2weeks prior to exam
f. Off Radiation Therapy 3mos prior to exam
4. **WHOLE BODY PET SCAN FOR COLORECTAL CANCER**
a. Mail or fax questionnaire and a copy of Physician order to PET department and call to schedule date and time for study.
b. A high protein low carbohydrate diet 24 hours prior to exam (if possible)
c. NPO after midnight prior to study.
d. 2hr minimum scan time
e. Off Chemotherapy 2weeks prior to exam
f. Off Radiation Therapy 3mos prior to exam.
5. **WHOLE BODY PET SCAN FOR MELANOMA**
a. Mail or fax questionnaire and a copy of Physician order to PET department and call to schedule date and time for study.
b. A high protein low carbohydrate diet 24 hours prior to exam (if possible)
c. NPO after midnight prior to study.
d. 2hr minimum scan time
e. Off Chemotherapy 2weeks prior to exam
f. Off Radiation Therapy 3mos prior to exam
6. **WHOLE BODY PET SCAN FOR LYMPHOMA**
a. Mail or fax questionnaire and a copy of Physician order to PET department and call to schedule date and time for study.
b. A high protein low carbohydrate diet 24 hours prior to exam (if possible)
c. NPO after midnight prior to study.
d. 2hr minimum scan time
e. Off Chemotherapy 2weeks prior to exam
f. Off Radiation Therapy 3mos prior to exam.
7. **WHOLE BODY PET SCAN FOR HEAD AND NECK CANCER**
a. Mail or fax questionnaire and a copy of Physician order to PET department and call to schedule date and time for study.
b. A high protein low carbohydrate diet 24 hours prior to exam (if possible)
c. NPO after midnight prior to study.
d. 2hr minimum scan time
e. Off Chemotherapy 2weeks prior to exam
f. Off Radiation Therapy 3mos prior to exam.
8. **WHOLE BODY PET SCAN FOR ESOPHAGEAL CANCER**
a. Mail or fax questionnaire and a copy of Physician order to PET department and call to schedule date and time for study.
b. A high protein low carbohydrate diet 24 hours prior to exam (if possible)

c. NPO after midnight prior to study.
d. 2hr minimum scan time
e. Off Chemotherapy 2weeks prior to exam
f. Off Radiation Therapy 3mos prior to exam.

9. **WHOLE BODY PET SCAN FOR BREAST CANCER**

a. Mail or fax questionnaire and a copy of Physician order to PET department and call to schedule date and time for study.
b. A high protein low carbohydrate diet 24 hours prior to exam (if possible)
c. NPO after midnight prior to study.
d. 2hr minimum scan time
e. Off Chemotherapy 2weeks prior to exam
f. Off Radiation Therapy 3mos prior to exam

10. **WHOLE BODY PET SCAN FOR THYROID CANCER**

a. Mail or fax questionnaire and a copy of Physician order to PET department and call to schedule date and time for study.
b. A high protein low carbohydrate diet 24 hours prior to exam (if possible)
c. NPO after midnight prior to study.
d. 2hr minimum scan time
e. Off Chemotherapy 2weeks prior to exam
f. Off Radiation Therapy 3mos prior to exam
g. These patients are post Thyroidectomy or Radioablation
h. A negative I-131 Whole Body scan report from Nuclear Medicine
i. Thyroglobulin >10ng/ml

11. **PET BRAIN SCAN -- PRE-SURGERY EVALUATION FOR EPILEPSY**

a. Mail or fax questionnaire and a copy of Physician order to PET department and call to schedule date and time for study.
b. 2hr minimum scan time
c. No recent Brain Surgery

12. **PET PERFUSION HEART ASSESSMENT FOR MYOCARDIAL VIABILITY**

a. Mail or fax questionnaire and a copy of Physician order to PET department and call to schedule date and time for study.
b. Inclusive SPECT Nuclear Medicine Scan

Approved: _____

Otis Ball, M.D.

PEDIATRIC DIAGNOSTIC RADIOLOGY

Send request to Pediatric Radiology and schedule date and time for the following procedures:

1. **BARIUM ENEMA**

a. Up to one year -- NPO after 6:00 am.
b. 1-2 years -- NPO after midnight.
c. 2-10 years -- Low residue meal the evening before and the morning of examination.
d. One (1) Ducolax tablet (whole) with water before bed on the evening before the exam.
e. If no bowel movement in the morning, a Fleet Enema should be given before 8:00 am.
f. 10 years to Adult -- Same as 2 - 10 years <u>but</u> give Two (2) Ducolax tablets before bedtime.

2. **AIR CONTRAST BARIUM ENEMA**

a. Low residue diet for two (2) days, then <u>liquid diet only</u> on the day prior to examination.

b. Nothing by mouth after LIQUID breakfast on day of examination.
c. 2-10 years -- ONE (1) Ducolax tablet (whole) with water at bedtime on the evening before the exam. Fleet Enema at 7:00 am on morning of examination.
d. 10 years to adult -- TWO (2) Ducolax tablets whole with water at bedtime. Fleet Enema at 7:00 am on morning of examination.

3. **BARIUM SWALLOW**

a. Children under one year -- NPO after 6:00 am.
b. Children over one year -- NPO after midnight.

4. **CHOLECYSTOGRAM**

a. Strict consult basis only. Rarely done.

5. **IVP**

a. Children under one year -- no preparation necessary.
b. Children over one year -- NPO from midnight on the day of the study.

6. **UPPER GI**

a. Children under one year -- NPO after 6:00 am.
b. Children over one year -- NPO after midnight.

Approved: _____

Henry Giles, M. D.

E.

VASCULAR AND INTERVENTIONAL RADIOLOGY

1. **SCHEDULING PROCEDURES**

a. All Vascular and Interventional Radiology studies must be scheduled by consult with the Radiologist on Vascular
b. All Neuro Angiograms (Arteriograms) and Myelograms studies must be scheduled by consult with the Radiologist on Neuro-Radiology.

2. **VASCULAR AND INTERVENTIONAL STUDIES**

Vascular Studies	**Interventional Studies**
Arteriograms	Balloon Angioplasty
Aortograms	Vascular Stints
Venograms	Fibrinolysis (Urokinase)
Vena Cavagrams	Embolizations
Lymphangiograms	Filter placements
	TIPS
	Nephrostomy and Ureter Stent
	Biliary drainage and Stent
	Gastrostomy
	Biopsies
	Abscess drainage

3. **NEURORADIOLOGY STUDIES**

Myelogram

Carotid Arteriograms
Cerebral Arteriograms
Neuro embolization
Neuro Angioplasty
Intracerebral infusion therapies

4. **MYELOGRAMS**

a. Schedule by consult with Radiologist
b. Signed operative permit on chart
c. Preoperative medication given on call and ordered by clinical service responsible for patient.
d. NPO past midnight. Usually done in am.
e. Send chart and addressograph with patient. Patient must be transported **by stretcher**. Put hospital gown on patient and remove jewelry and wigs.

5. **ARTERIOGRAM**

a. Scheduled by consult with Radiologist
b. Signed consent on chart
c. Have patient empty bladder just before transport
d. Give pre-operative medication if it has been ordered
e. NPO after midnight unless otherwise specified

6. **NOTE:** Specific patient preparation for other studies will be furnished by the Radiologist and recorded in the patient's chart.

APPROVED: _____

Dr. James U. Morano, M.D.

F. ULTRASOUND

1. **AVAILABLE ULTRASOUND STUDIES**

Liver
Gallbladder
Biliary Ducts
Kidneys
Renal Transplant
Inferior Vena Cava
Parathyroid
Testicle
Deep Venous Ultrasound (leg, upper extremity)
Transcranial Doppler
Spleen
Pancreas
Abdominal Aorta
Pelvis/ Endovaginal
Obstetrical
Thyroid
Neonatal Head
Breast
Extremity Ultrasound (abcess, foreign body)

2. **PATIENT PREPRATION**

a. Patient should have a clear liquid breakfast for the following studies.

Inferior Vena Cava (IVC)
Liver
Pancreas
Biliary Ducts
Abdominal Aorta

b. Patient should be held NPO after midnight for **Gallbladder** study. This includes no smoking and no chewing gum.
c. No patient preparation is necessary for the following studies. It is desirable but not required that the patient be well hydrated for the renal sonogram.

Parathyroid	Transplant	Spleen
Thyroid	Testicle	Deep Venous Ultrasound (leg, upper extremity)
Kidney	Breast	Transcranial Doppler
Neonatal Heads	Extremity Ultrasound	

d. For OB and pelvic sonograms the patient must have a full bladder.
e. Out-Patients will complete the following form and return on day of procedure.
f. See outpatient form on following page

APPROVED: _____
Michael C. Doherty, M. D.

OUT-PATIENT INSTRUCTIONS FOR ULTRASOUND PROCEDURE

Ultrasound procedure to be on _____ at _____ .

Please follow these instructions carefully or your test will not be completed successfully.

Type of Procedure	Preparation
_____ Liver, Pancreas Aorta IVC, Biliary Ducts	**Do not** eat anything after midnight the night before the procedure. You may drink clear liquids. (i.e. fruit juice, black coffee) **Do not** drink milk or carbonated beverages (cokes).

Type of Procedure	Preparation
_____ Gallbladder	**Do not** eat or drink anything after midnight the night before the procedure.

Do not smoke or chew gum.

Type of Procedure	**Preparation**
_____ Thyroid, Kidney, Heads, Transplant, Testicle, Breast, Spleen, Deep Venous Ultrasound, Transcranial Doppler, Parathyroid Extremity Ultrasound	**No preparation** is necessary for these procedures.

Type of Procedure	**Preparation**
_____ Obstetrical	Full Bladder
_____ Pelvic, Endovaginal	Full Bladder

Follow each step carefully:

1. Approximately two hours before the time of the Ultrasound appointment go to the bathroom and urinate until the bladder is empty. **Do not** urinate again until **after the Ultrasound** study has been completed.
2. Next, begin drinking large cups of liquid (such as 8 ounces of water, tea, juice, etc.) and continue until 6 to 8 cups have been consumed.
3. Remember to be properly prepared for the Ultrasound procedure **do not urinate until the procedure has been completed.**
4. If the patient to be examined is a child one adult should accompany the patient. This exam is painless.