XR Arthrogram

PURPOSE

For administration of intra-articular contrast media

SUPPORTIVE DATA

Written or verbal order from provider.

Exam performed based on acuity status when ordered by provider.

All protocols are in accordance with ACR guidelines.

INDICATIONS

Include but are not limited to:

- Internal derangement
- intra-articular bodies
- cartilage evaluation
- surgical planning
- postoperative patients
- rotator cuff tears
- labral pathology
- pain

PATIENT PREPARATION

Patients should stop taking blood thinners 5 days prior to procedure at referring provider's discretion.

If the INR level is above 3.5 the study may be cancelled per Radiologist.

EQUIPMENT LIST

- Fluoroscopy unit
- Isovue 300 or Omnipaque 240
- Contrast Media (contrast amount and type may vary depending on protocol recommended by supervising provider)
- Buffered lidocaine 1%

PROCEDURE

The patient will be brought to the Fluoroscopy Room and identified using 2 patient identifiers.

The technologist will explain the procedure and answer any questions the patient may have.

The technologist will review consent form and after-care instructions.

The Time-Out procedure will be performed and documented.

The provider will clean and prep the patient.

The provider will administer subcutaneous buffered lidocaine.

With fluoroscopic guidance the provider will administer an intra-articular injection of contrast.

Images will be placed on PACS with any pertinent information.

The technologist will assist the patient to the appropriate department for further imaging.

Charges will be billed, and exam will be completed in the EHR.

CONTRAST

MRI-Shoulder/Hip/Elbow/Ankle/Wrist:

- 0.06 mL of Gadavist or Dotarem in 20 mL preservative free sodium chloride intra-articular injection by bolus

MRI- Knee:

- 0.12 mL of Gadavist or Dotarem in 40 mL preservative free sodium chloride intra-articular injection by bolus

CT- Shoulder:

- 6 mL Isovue 300 or Omnipaque 240 in 6 mL preservative free sodium chloride intra-articular injection by bolus

CT- Elbow:

- 5 mL air contrast intra-articular injection by bolus

CT- Knee:

- 30 mL Isovue 300 or Omnipaque 240 in 30 mL preservative free sodium chloride intra-articular injection by bolus

DOCUMENTATION

- The technologist will end exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

SAFETY/RADIATION DOSE MANAGEMENT

The technologist will provide appropriate shielding for all patients.

The technologist will apply dose reduction techniques and follow appropriate exposure techniques depending on patient age and body habitus.

All radiation equipment is annually checked and is up to date with all state and manufacturer guidelines in regards to radiation safety.

Use of Automatic Exposure Control capability

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Barium Enema

PURPOSE

Rectal administration of contrast media

SUPPORTIVE DATA

Written or verbal order from provider.

Exam performed based on acuity status when ordered by provider.

All protocols are in accordance with ACR guidelines.

INDICATIONS

Include but are not limited to:

- Postoperative Patients
- Incomplete Colonoscopy
- Diarrhea
- Constipation
- Rectal Bleeding
- Pain

PATIENT PREPARATION

Clear liquid diet for 48 hours prior to procedure

Bowel Preparation

Get 1 Colyte Prep, 1 Dulcolax suppository and 2 Dulcolax tablets over the counter at local pharmacy.

Mix Colyte Prep per package instructions.

Starting at 4:00 PM the day before procedure drink 1 liter of prepared Colyte Prep per hour for 5 hours, until 9:00 PM.

Patient may have clear liquids during this time (apple juice, cranberry juice, Jell-O, plain tea, broth, etc.)

Before Bed, take the 2 Dulcolax tablets by mouth and have nothing by mouth from this point until the completion of the procedure.

On the morning of the procedure, use the Dulcolax suppository at 2 hours prior to the scheduled exam time.

EQUIPMENT LIST

- Fluoroscopy Unit
- Contrast Media (contrast amount may vary depending on protocol recommended by supervising provider)
- Barium Sulfate Suspension
- Gastrographin
- Glucagon

- Colyte Prep
- Dulcolax Tablets

PROCEDURE

The patient will be brought to the X-ray department and identified using 2 patient identifiers.

The technologist will explain the procedure and answer any questions the patient may have.

The technologist will review after-care instructions.

The technologist will insert enema tip rectally, with fluoroscopic confirmation of placement by provider.

The provider will administer 1 mL of 1mg/mL intravenous Glucagon by bolus if necessary.

The provider will administer up to 2 L of rectal contrast while obtaining fluoroscopic images.

Images will be placed on PACS with any pertinent information.

Charges will be billed, and exam will be completed in the EHR.

DOCUMENTATION

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

SAFETY AND RADIATION DOSE MANAGEMENT

The technologist will provide appropriate shielding for all patients.

The technologist will apply dose reduction techniques and follow appropriate exposure techniques depending on patient age and body habitus.

All radiation equipment is annually checked and is up to date with all state and manufacturer guidelines in regard to radiation safety.

Use of Automatic Exposure Control capability

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Bone Survey - Child

PURPOSE:

To maintain consistency in technique for specified exam.

To maintain appropriate collimation to include all required anatomy.

SUPPORTIVE DATA:

Written or verbal order from the referring physician.

The exam to be performed as soon as possible upon request.

Radiologist recommendation for required anatomy.

Textbook of Radiographic Positioning and related anatomy.

CONTENT STATEMENT:

The imaging protocol for the skeletal survey will depend on the particular clinical indication.

Known or suspected Child Abuse:

Each anatomic region (see Skeletal Survey Table) should be imaged with a separate radiographic exposure to ensure uniform image density and maximize image sharpness. A single radiograph (babygram) of the entire infant should not be performed. Each extremity should be radiographed in at least the frontal projection. Radiographs of the axial skeleton should be obtained in two projections. Additionally, right and left posterior oblique views of the entire rib cage should be acquired. Additional views as needed should be obtained to fully document suspected abnormalities and may include: a Towne view of the skull and lateral views of selected joints.

Skeletal Dysplasias, Syndromes, and Metabolic Disorders:

Skeletal dysplasias and syndromes

Imaging of skeletal dysplasias, including those in children with disproportionate stature and a wide variety of syndromes, including many dysmorphic disorders and some endocrineopathies, should conform to the standard skeletal survey protocol (see the Skeletal Survey Table below) with the following exceptions.

Entire arms and legs can be exposed on a single film when the size of the child permits.

In newborns and young infants, whole-body anteroposterior (AP) and lateral radiographs may be appropriate, but separate views of the skull (frontal and lateral), hands posteroanterior (PA), and feet (AP) are advisable. Lateral views of the feet and ankles may be useful in selected cases.

As previously noted, review by a qualified physician is essential, with additional views obtained as required (e.g., flexion and extension lateral views of the cervical spine for certain skeletal dysplasias).

In selected cases the regions encompassed, and radiographic projections obtained will depend on the differential diagnoses being considered.

Metabolic disorders

In general, it is not necessary to survey the entire bony skeleton for metabolic disorders. A targeted examination focusing on the appropriate anatomic regions of interest is recommended.

Neoplasia and Related Conditions

A protocol similar to that in section A.1 should be used. Additional orthogonal projections of areas suspected to be abnormal on clinical or other imaging grounds should be obtained.

COMPLETE SKELETAL SURVEY TABLE

APPENDICULAR SKELETON

- Humeri (AP, Bilateral)
- Forearms (AP, Bilateral)
- Hands (PA, Bilateral)
- Femurs (AP, Bilateral)
- Lower legs (AP, Bilateral)
- Feet (AP, Bilateral)

AXIAL SKELETON

- Thorax (AP, lateral, right and left obliques), to include ribs, thoracic and upper lumbar spine
- Pelvis (AP), to include the mid lumbar spine
- Lumbosacral spine (lateral)
- Cervical spine (lateral)
- Skull (frontal and lateral)

DOCUMENTATION:

The technologist will end the exam in the EHR.

All images are dictated and stored in the PACS system.

Notes will be placed in PACS regarding reason for exam.

SAFETY:

The technologist will provide appropriate shielding to all patients.

The technologist will use appropriate collimation on all exams to include required anatomy.

REFERENCE:

This study can also be called skeletal survey. This may be post-mortem, involving the coroner, and also for suspected child abuse cases.

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Bone Survey - Metastatic

PURPOSE:

To maintain consistency in technique for specified exam.

To maintain appropriate collimation to include all required anatomy.

SUPPORTIVE DATA:

Written or verbal order from the referring physician.

The exam to be performed as soon as possible upon request.

Radiologist recommendation for required anatomy/

Merrill's Atlas for positioning and radiologic procedures.

ROUTINE VIEWS:

- AP PELVIS
- AP T-SPINE
- LAT T-SPINE
- AP FEMURS
- LAT L-SPINE
- LAT SKULL
- AP BILAT HUMERI

DOCUMENTATION:

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

SAFETY:

The technologist will provide appropriate shielding to all patients.

The technologist will use appropriate collimation on all exams to include required anatomy.

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Catheter Patency

PURPOSE

Administration of contrast media through Intravenous Catheter

SUPPORTIVE DATA

Written or verbal order from provider.

Exam performed based on acuity status when ordered by provider.

All protocols are in accordance with ACR guidelines.

INDICATIONS

Include but are not limited to:

- Postoperative patients
- Venous access device malfunction
- Pain

PATIENT PREPARATION

None

EQUIPMENT LIST

- Siemens Luminous Agile
- Contrast Media (contrast amount may vary depending on protocol recommended by supervising provider)
- Isovue 300
- Lidocaine
- Heparin

PROCEDURE

The patient will be brought to the X-ray department and identified using 2 patient identifiers.

The technologist will explain the procedure and answer any questions the patient may have.

The technologist will review consent form and after-care instructions.

The Time-Out procedure will be performed and documented.

IV therapy will access the Venous Access Device

The provider will administer up to 50 mL of Isovue 300 contrast by bolus through the Venous Access Device while obtaining fluoroscopic images

IV therapy will de-access and flush the venous access device if necessary.

Images will be placed on PACS with any pertinent information.

Charges will be billed and exam will be completed in the EHR.

DOCUMENTATION

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

SAFETY/RADIATION DOSE MANAGEMENT

The technologist will provide appropriate shielding for all patients.

The technologist will apply dose reduction techniques and follow appropriate exposure techniques depending on patient age and body habitus.

All radiation equipment is annually checked and is up to date with all state and manufacturer guidelines in regards to radiation safety.

Use of Automatic Exposure Control capability

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Cystogram

PURPOSE

Contrast administration into bladder

SUPPORTIVE DATA

Written or verbal order from provider.

Exam performed based on acuity status when ordered by provider.

All protocols are in accordance with ACR guidelines.

INDICATIONS

Include but are not limited to:

- Postoperative patients
- Recurrent UTI's
- Voiding Dysfunction
- Enuresis
- Hematuria
- Pain

PATIENT PREPARATION

None

EQUIPMENT LIST

- Siemens Luminous Agile
- Contrast Media (contrast amount may vary depending on protocol recommended by supervising provider)
- Isovue 300
- Foley Catheter

PROCEDURE

The patient will be brought to the X-ray department and identified using 2 patient identifiers.

The technologist will explain the procedure and answer any questions the patient may have.

The technologist will review after-care instructions.

If necessary, SOU nurse will place a Foley catheter.

The provider will administer up to 360 mL Isovure 300 retrograde contrast through the foley catheter by bolus into the bladder while obtaining fluoroscopic images.

Images will be placed on PACS with any pertinent information.

Charges will be billed and exam will be completed in the EHR.

DOCUMENTATION

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

SAFETY/RADIATION DOSE MANAGEMENT

The technologist will provide appropriate shielding for all patients.

The technologist will apply dose reduction techniques and follow appropriate exposure techniques depending on patient age and body habitus.

All radiation equipment is annually checked and is up to date with all state and manufacturer guidelines in regards to radiation safety.

Use of Automatic Exposure Control capability

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Fistulagram

PURPOSE

Contrast administration into Fistula

SUPPORTIVE DATA

Written or verbal order from provider.

Exam performed based on acuity status when ordered by provider.

All protocols are in accordance with ACR guidelines.

INDICATIONS

Include but are not limited to:

- Postoperative patients
- Drain malfunction/leakage
- Pain

PATIENT PREPARATION

None

EQUIPMENT LIST

- Siemens Luminous Agile
- Contrast Media (contrast amount may vary depending on protocol recommended by supervising provider)
- Isovue 300
- Gastrographin
- 0.9% Sodium Chloride flush

PROCEDURE

The patient will be brought to the X-ray department and identified using 2 patient identifiers.

The technologist will explain the procedure and answer any questions the patient may have.

The technologist will review after-care instructions.

The Time-Out procedure will be performed and documented.

The provider will administer up to 120 mL Isovue 300 contrast by bolus while obtaining images fluoroscopically.

Images will be placed on PACS with any pertinent information.

Charges will be billed and exam will be completed in the EHR

DOCUMENTATION

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

SAFETY AND RADIATION DOSE MANAGEMENT

The technologist will provide appropriate shielding for all patients.

The technologist will apply dose reduction techniques and follow appropriate exposure techniques depending on patient age and body habitus.

All radiation equipment is annually checked and is up to date with all state and manufacturer guidelines in regards to radiation safety.

Use of Automatic Exposure Control capability

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Hysterosalpingogram

PURPOSE

Contrast administration into uterine cavity.

SUPPORTIVE DATA

Written or verbal order from provider.

Exam performed based on acuity status when ordered by provider.

All protocols are in accordance with ACR guidelines.

INDICATIONS

Include but are not limited to:

- Postoperative patients
- Infertility
- Vaginal Bleeding
- Pain

PATIENT PREPARATION

None

EQUIPMENT LIST

- Fluoroscopy Unit
- Contrast Media (contrast amount may vary depending on protocol recommended by supervising provider)
- Isovue 300
- Hysterosalpingogram tray

PROCEDURE

The patient will be brought to the X-ray department and identified using 2 patient identifiers.

The technologist will explain the procedure and answer any questions the patient may have.

The technologist will review after-care instructions.

The Time-Out procedure will be performed and documented.

The provider will use a speculum and uterine catheter to gain access to the uterine cavity.

The provider will administer up to 50 mL of Isovue 300 contrast by bolus into the uterine cavity.

Images will be placed on PACS with any pertinent information.

Charges will be billed, and exam will be completed in the EHR.

DOCUMENTATION

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

SAFETY/RADIATION DOSE MANAGEMENT

The technologist will provide appropriate shielding for all patients.

The technologist will apply dose reduction techniques and follow appropriate exposure techniques depending on patient age and body habitus.

All radiation equipment is annually checked and is up to date with all state and manufacturer guidelines in regards to radiation safety.

Use of Automatic Exposure Control capability

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Joint Aspiration

PURPOSE

For aspiration of intra-articular fluid.

SUPPORTIVE DATA

Written or verbal order from provider.

Exam performed based on acuity status when ordered by provider.

All protocols are in accordance with ACR guidelines.

INDICATIONS

Include but are not limited to:

- Infection
- Swelling
- Pain

PATIENT PREPARATION

Patients should stop taking blood thinners 5 days prior to procedure at referring provider's discretion.

If the INR level is above 3.5 the study may be cancelled per Radiologist.

EQUIPMENT LIST

- Fluoroscopy Unit
- Contrast Media (contrast amount may vary depending on protocol recommended by supervising provider)
- Isovue 300
- Buffered lidocaine 1%
- 0.9% Sodium Chloride- preservative free

PROCEDURE

The patient will be brought to the X-ray department and identified using 2 patient identifiers.

The technologist will explain the procedure and answer any questions the patient may have.

The technologist will review consent form and after-care instructions.

The Time-Out procedure will be performed and documented.

The provider will administer subcutaneous buffered lidocaine.

With fluoroscopic guidance, the provider will administer up to 50 mL Isovue 300 contrast to localize the aspiration.

Sodium chloride may be administered by bolus into joint to aid with aspiration.

Images will be placed on PACS with any pertinent information.

Charges will be billed, and exam will be completed in the EHR.

DOCUMENTATION

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

SAFETY/RADIATION DOSE MANAGEMENT

The technologist will provide appropriate shielding for all patients.

The technologist will apply dose reduction techniques and follow appropriate exposure techniques depending on patient age and body habitus.

All radiation equipment is annually checked and is up to date with all state and manufacturer guidelines in regards to radiation safety.

Use of Automatic Exposure Control capability

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Joint Injection

PURPOSE

For administration of intra-articular medication.

SUPPORTIVE DATA

Written or verbal order from provider.

Exam performed based on acuity status when ordered by provider.

All protocols are in accordance with ACR guidelines.

INDICATIONS

Include but are not limited to:

- Arthritis
- Pain

PATIENT PREPARATION

Patients should stop taking blood thinners 5 days prior to procedure at referring provider's discretion.

If the INR level is above 3.5 the study may be cancelled per Radiologist.

EQUIPMENT LIST

- Fluoroscopy Unit
- Contrast Media (contrast amount may vary depending on protocol recommended by supervising provider)
- Isovue 300
- Buffered lidocaine 1%
- Kenalog/Ropivicaine

PROCEDURE

The patient will be brought to the X-ray department and identified using 2 patient identifiers.

The technologist will explain the procedure and answer any questions the patient may have.

The technologist will review consent form and after-care instructions.

The Time-Out procedure will be performed and documented.

The provider will administer subcutaneous buffered lidocaine.

With fluoroscopic guidance, the provider will administer intra-articular Isovue 300 contrast by bolus and medication.

The technologist will conduct a pre/ post procedure pain assessment and document the results.

Images will be placed on PACS with any pertinent information.

Charges will be billed, and exam will be completed in the EHR.

INTRA-ARTICULAR STEROID INJECTION

Hip joint-Anterolateral approach:

- Kenalog (Triamcinolone) 40 mg/ml-1 mL, Ropivacaine 0.5%-3 mL intra-articular injection by bolus

Ankle joint- Anterior approach:

- Kenalog (Triamcinolone) 40 mg/ml-1 mL, Ropivacaine 0.5%-2 mL intra-articular injection by bolus

Shoulder joint-Anterior approach:

- Kenalog (Triamcinolone) 40 mg/mL- 1 mL, Ropivacaine 0.5%-3 mL intra-articular injection by bolus

Elbow joint- Lateral approach:

- Kenalog (Triamcinolone) 40 mg/mL-1 mL, Ropivacaine 0.5%-3 mL intra-articular injection by bolus

Wrist joint- Posterior approach:

- Kenalog (Triamcinolone) 40 mg/mL- 0.5mL, Ropivacaine 0.5%-1mL intra-articular injection by bolus

Knee Joint- Subpatella approach:

- Kenalog (Triamcinolone) 40 mg/mL- 2 mL, Ropivacaine 0.5%- 5 mL intra-articular injection by bolus

DOCUMENTATION

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

SAFETY/RADIATION DOSE MANAGEMENT

The technologist will provide appropriate shielding for all patients.

The technologist will apply dose reduction techniques and follow appropriate exposure techniques depending on patient age and body habitus.

All radiation equipment is annually checked and is up to date with all state and manufacturer guidelines in regard to radiation safety.

Use of Automatic Exposure Control capability

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Lumbar Puncture

PURPOSE

Diagnostic and Therapeutic removal of Cerebrospinal Fluid

SUPPORTIVE DATA

Written or verbal order from provider.

Exam performed based on acuity status when ordered by provider.

All protocols are in accordance with ACR guidelines.

INDICATIONS

Include but are not limited to:

- Infection
- Pseudotumorcerebri
- Pain

PATIENT PREPARATION

Patients should stop taking blood thinners 5 days prior to procedure at referring provider's discretion.

If the INR level is above 3.5 the study may be cancelled per Radiologist.

EQUIPMENT LIST

- Siemens Luminous Agile
- Buffered lidocaine 1%
- Contrast Media (contrast amount may vary depending on protocol recommended by supervising provider)
- Isovue-M 200
- Isovue-M 300
- Lumbar Puncture Tray

PROCEDURE

The patient will be brought to the X-ray department and identified using 2 patient identifiers.

The provider will explain the procedure and answer any questions the patient may have.

The provider will review consent form and after-care instructions.

The Time-Out procedure will be performed and documented.

The provider will administer subcutaneous buffered Lidocaine.

With fluoroscopic guidance, the provider will verify spinal canal access by administering up to 50 mL of either Isovue-M 200 or Isovue-M 300 intra-thecal contrast by bolus per provider discretion.

With fluoroscopic guidance the provider will remove CSF.

The technologist will deliver the CSF specimen to the lab.

Images will be placed on PACS with any pertinent information.

Charges will be billed, and exam will be completed in the EHR.

DOCUMENTATION

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- The technologist will store the imaging specimen invoice in PACS.
- Notes will be placed in PACS regarding reason for exam.

SAFETY/RADIATION DOSE MANAGEMENT

The technologist will provide appropriate shielding for all patients.

The technologist will apply dose reduction techniques and follow appropriate exposure techniques depending on patient age and body habitus.

All radiation equipment is annually checked and is up to date with all state and manufacturer guidelines in regard to radiation safety.

Use of Automatic Exposure Control capability

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Lumbar Puncture Chemotherapy

PURPOSE

Intra-thecal administration of chemotherapy medication.

SUPPORTIVE DATA

Written or verbal order from provider.

Exam performed based on acuity status when ordered by provider.

All protocols are in accordance with ACR guidelines.

INDICATIONS

Include but are not limited to:

- Cancer
- Pain

PATIENT PREPARATION

Patients should stop taking blood thinners 5 days prior to procedure at referring provider's discretion.

If the INR level is above 3.5 the study may be cancelled per Radiologist.

EQUIPMENT LIST

- Fluoroscopy Unit
- Buffered lidocaine 1%
- Chemotherapy medication as prescribed by ordering physician
- Contrast Media (contrast amount may vary depending on protocol recommended by supervising provider
- Isovue-M 200
- Isovue-M 300

PROCEDURE

The patient will be brought to the X-ray department and identified using 2 patient identifiers.

The provider will explain the procedure and answer any questions the patient may have.

The provider will review consent form and after-care instructions.

The Time-Out procedure will be performed and documented.

The pharmacy will prepare and deliver the chemotherapy medication.

The provider will administer subcutaneous buffered lidocaine.

With fluoroscopic guidance, the provider will verify spinal canal access by administering up to 50 mL of either Isovue-M 200 or Isovue-M 300 intra-thecal contrast by bolus per provider discretion.

The chemotherapy nurse will assist the provider in preparation of chemotherapy medication.

With fluoroscopic guidance the provider will administer intra-thecal medication.

Images will be placed on PACS with any pertinent information.

Charges will be billed, and exam will be completed in the EHR.

DOCUMENTATION

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

SAFETY/RADIATION DOSE MANAGEMENT

The technologist will provide appropriate shielding for all patients.

The technologist will apply dose reduction techniques and follow appropriate exposure techniques depending on patient age and body habitus.

All radiation equipment is annually checked and is up to date with all state and manufacturer guidelines in regards to radiation safety.

Automatic Exposure Control capability

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Myelogram/Cisternogram

PURPOSE

Intra-thecal administration of radiopharmaceutical and contrast media.

SUPPORTIVE DATA

Written or verbal order from physician.

Exam performed based on acuity status when ordered by physician.

All protocols are in accordance with ACR guidelines.

INDICATIONS

Include but are not limited to:

- Degeneration
- disc herniations
- canal or foraminal stenosis
- Pain

PATIENT PREPARATION

Outpatients are informed of prep instructions during the scheduling of their exam by their ordering provider.

EQUIPMENT LIST

- Siemens Luminous Agile
- Contrast Media (contrast amount may vary depending on protocol recommended by supervising provider)
- Isovue-M 300
- Isovue-M 200
- Buffered lidocaine 1%
- In111-DTPA

PROCEDURE

<u>Cisternogram</u>

The patient will be brought to the X-ray department and identified using 2 patient identifiers.

The provider will explain the procedure and answer any questions the patient may have.

The provider will review consent form and after-care instructions.

The Time-Out procedure will be performed and documented.

The nucmed tech will prepare and deliver radio-isotope.

The provider will administer subcutaneous buffered lidocaine.

With fluoroscopic guidance, the provider will verify spinal canal access by administering up to 50 mL of either Isovue-M 200 or Isovue-M 300 intra-thecal contrast by bolus per provider discretion.

With fluoroscopic guidance, the provider will administer radioisotope per NM Cisternogram Protocol

the Nuclear Medicine technologist will remove all possibly radioactive materials and dispose per protocol.

The technologist will assist the patient to the appropriate department for further imaging.

Images will be placed on PACS with any pertinent information.

Charges will be billed, and exam will be completed in the EHR.

Myelogram

The patient will be brought to the X-ray department and identified using 2 patient identifiers.

The provider will explain the procedure and answer any questions the patient may have.

The provider will review consent form and after-care instructions.

The Time-Out procedure will be performed and documented.

The provider will administer subcutaneous buffered lidocaine.

With fluoroscopic guidance, the provider will administer up to 50 mL of either Isovue-M 200 or Isovue-M 300 intra-thecal contrast by bolus per provider discretion.

The technologist will assist the patient to the appropriate department for further imaging.

Images will be placed on PACS with any pertinent information.

Charges will be billed, and exam will be completed in the EHR.

DOCUMENTATION

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

SAFETY/RADIATION DOSE MANAGEMENT

The technologist will provide appropriate shielding for all patients.

The technologist will apply dose reduction techniques and follow appropriate exposure techniques depending on patient age and body habitus.

All radiation equipment is annually checked and is up to date with all state and manufacturer guidelines in regard to radiation safety.

Use of Automatic Exposure Control capability

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Oral Contrast Studies

PURPOSE

For oral administration of contrast media.

SUPPORTIVE DATA

Written or verbal order from provider.

Exam performed based on acuity status when ordered by provider.

All protocols are in accordance with ACR guidelines.

INDICATIONS

Include but are not limited to:

- Dysphagia
- Coughing
- Anemia
- Nausea
- Vomiting
- Weight Loss
- Postoperative patients
- Pain

CONTRAINDICATION

Please contact Radiologist for the following contraindications:

Gastrographin:

- Patient with any known risk of aspiration is contraindicated from having Gastrographin.

Barium:

- Perforation in GI track or less than 7 days post biopsy.
- Blockage in GI track or sever constipation.
- Severe problems with swallowing or high risk of aspiration.

PATIENT PREPARATION

Speech Studies and Esophagram

- None

All Other Oral Contrast Studies

- NPO after 10:00 PM night before procedure

EQUIPMENT LIST

- Fluoroscopy unit
- Contrast Media (contrast amount may vary depending on protocol recommended by supervising provider)
- Effervescent Granules (sodium bicarbonate)
- Barium Sulfate Tablet
- Barium Sulfate Suspension
- Gastrographin

PROCEDURE

The patient will be brought to the X-ray department and identified using 2 patient identifiers.

The technologist will explain the procedure and answer any questions the patient may have.

The technologist will review after-care instructions.

The provider will direct the patient to orally administer contrast while fluoroscopy images are obtained.

Images will be placed on PACS with any pertinent information.

Charges will be billed and exam will be completed in EHR.

DOCUMENTATION

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding pertinent patient history.

SAFETY AND RADIATION DOSE MANAGEMENT

The technologist will provide appropriate shielding for all patients.

The technologist will apply dose reduction techniques and follow appropriate exposure techniques depending on patient age and body habitus.

All radiation equipment is annually checked and is up to date with all state and manufacturer guidelines in regard to radiation safety.

Use of Automatic Exposure Control capability

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Scoliosis Study

PURPOSE:

To maintain consistency in the technique for specified exam.

To maintain appropriate collimation to include all required anatomy.

SUPPORTIVE DATA:

Written or verbal order from the referring physician.

The exam will be performed as soon as possible upon request.

Radiologist recommendation for required anatomy.

CONTENT STATEMENT:

- AP or PA stitched view
- Lateral Stitched view.

Exam to be done upright, with feet spread apart slightly. Line up shoulders and feet.

Film to include from C-7 to the top of the hips. Collimate to include all required anatomy.

SAFETY:

The technologist will provide appropriate shielding to all patients.

The technologist will use appropriate collimation to include all required anatomy.

DOCUMENTATION:

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Shunt Series

PURPOSE:

To maintain consistency in technique for specified exam.

To maintain appropriate collimation to include all required anatomy.

CONTENT STATEMENT:

To evaluate a ventricular peritoneal shunt catheter for possible kinks or disconnection.

SUPPORTIVE DATA:

Written, electronic, or verbal order from the referring physician.

The exam will be performed as soon as possible upon request.

Procedure:

- AP and lateral views of the skull
- AP cervical spine
- AP chest
- AP abdomen

Some amount of overlap will be needed. The entire catheter must be imaged. Have the patient wait and show the films to the Radiologist. The Radiologist may request additional views. A report will be called to the referring physician. There may be instructions to pass on to the patient.

SAFETY:

The technologist will provide appropriate shielding to all patients.

The technologist will use appropriate collimation on all exams to include required anatomy.

DOCUMENTATION:

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Sialogram

PURPOSE

Contrast administration into Salivary gland or duct

SUPPORTIVE DATA

Written or verbal order from provider.

Exam performed based on acuity status when ordered by provider.

All protocols are in accordance with ACR guidelines.

INDICATIONS

Include but are not limited to:

- Inflammation
- Pain

PATIENT PREPARATION

None

EQUIPMENT LIST

- Fluoroscopy Unit
- Contrast Media (contrast amount may vary depending on protocol recommended by supervising provider)
- Isovue 300
- Sialogram Catheter
- Lemon Juice

PROCEDURE

The patient will be brought to the X-ray department and identified using 2 patient identifiers.

The technologist will explain the procedure and answer any questions the patient may have.

The technologist will review after-care instructions.

The Time-Out procedure will be performed and documented.

The provider will access the salivary gland and administer up to 10 mL of Isovue 300 contrast by bolus while obtaining fluoroscopic images.

Images will be placed on PACS with any pertinent information.

Charges will be billed, and exam will be completed in the EHR.

DOCUMENTATION

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

SAFETY/RADIATION DOSE MANAGEMENT

The technologist will provide appropriate shielding for all patients.

The technologist will apply dose reduction techniques and follow appropriate exposure techniques depending on patient age and body habitus.

All radiation equipment is annually checked and is up to date with all state and manufacturer guidelines in regard to radiation safety.

Use of Automatic Exposure Control capability

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Specimen Radiograph

PURPOSE:

To maintain consistency in technique for specified exam.

CONTENT STATEMENT:

After the surgeon has reviewed the image, place the image online.

Call Skagit Radiology at 424-6161 or extension 2353. Speak with the Radiologist and let them know there is a breast specimen image to be reviewed. Let the Radiologist know what operating room and surgeon they will need to call.

Assign the exam to the Radiologist that you spoke with.

DOCUMENTATION:

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Surgical Count: Foreign Body

Purpose

To outline steps to expedite and ensure completeness of x-ray images performed for reconciliation of count discrepancy in procedural or surgical cases.

Procedure

In performing the x-rays, the Technologist will include the entire anatomical area to be x-rayed (IE: when performing an abdomen image, the coverage should be from the diaphragm superiorly to the symphysis pubis inferiorly and both left and right abdominal walls).

More than one image may be necessary to accomplish these parameters but will only account for one view.

Once the exam is complete, the Technologist will send the image(s) to PACS to be interpreted by the Radiologist.

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

XR Tube Placement

PURPOSE

Fluoroscopic placement of an NG or OG Feeding Tube.

SUPPORTIVE DATA

Written or verbal order from provider.

Exam performed based on acuity status when ordered by provider.

All protocols are in accordance with ACR guidelines.

INDICATIONS

Include but are not limited to:

- Aspiration
- Gastric Decompression
- Tube pulled out/displaced
- Pain

CONTRAINDICATION

Patient with any known risk of aspiration is contraindicated from having Gastrographin

PATIENT PREPARATION

None

EQUIPMENT LIST

- Fluoroscopy Unit
- Contrast Media (contrast amount may vary depending on protocol recommended by supervising provider)
- Gastrographin
- Air
- Lidocaine Hydrochloride Jelly, 2%
- Feeding Tube

PROCEDURE

The patient will be brought to the X-ray department and identified using 2 patient identifiers.

The technologist will explain the procedure and answer any questions the patient may have.

The technologist will review after-care instructions.

The Time-Out procedure will be performed and documented.

The provider will apply Lidocaine Jelly to the Nares if necessary.

With fluoroscopic guidance the provider will place the tube.

The provider will fluoroscopically confirm placement with administration of upt to 120 mL of Gastrogaphin contrast by bolus or air through NG or OG tube.

Images will be placed on PACS with any pertinent information.

Charges will be billed, and exam will be completed in EHR

DOCUMENTATION

- The technologist will end the exam in the EHR.
- All images are dictated and stored in the PACS system.
- Notes will be placed in PACS regarding reason for exam.

SAFETY AND RADIATION DOSE MANAGEMENT

The technologist will provide appropriate shielding for all patients.

The technologist will apply dose reduction techniques and follow appropriate exposure techniques depending on patient age and body habitus.

All radiation equipment is annually checked and is up to date with all state and manufacturer guidelines in regard to radiation safety.

Use of Automatic Exposure Control capability

Approved by Medical Director, Dr. Muneer Desai, on 02/14/2022

Post Operative Diagnostic Imaging SRC Orthopedic Clinics

Purpose

To ensure post operative orthopedic patients have follow up imaging orders in place at the time of or prior to follow up appointments.

Protocol

The Registered Nurse (RN), Licensed Practical Nurse (LPN), or Medical Assistant (MA-R or MA-C) is authorized to initiate post operative imaging standing orders for orthopedic as detailed below:

Fractures:

- Repeat XR of site at 2 weeks, 4 weeks, and 6 weeks post op.

Total Knee:

- XR surgical side -Left or Right 2 View at 2 weeks and 6 weeks post op.

Hip:

- XR surgical side -Left or Right 2 View AP Pelvis/Lateral Hip at 2 weeks and 6 weeks post op.

Documentation

- Order Entry Mode: Per protocol cosign required

References

Reviewed and approved for adoption by SRC Orthopedic and Pain Management Provider groups 4/14/2022