Cochise Regional Hospital

Radiology Department Policies & Procedures
SCOPE OF SERVICE

POLICY: To outline the scope of service for the Diagnostic Imaging Department.

PROCEDURE:

This department is under the direct supervision of a Radiologist, certified by the American Board of Radiology and having a current license from the State of Arizona to practice medicine.

A technologist registered by the American Registry of Radiologic Technologists and certified by the State of Arizona is available 24 hours per day and will assist the radiologist(s) in acquiring needed images on a referred patient.

Radiographs, commonly called x-rays, must be ordered by an attending physician, and are taken by a certified Radiologic Technologist. Following processing of the radiographs, the radiologists dictate their interpretation.

Radiographic images are permanently stored in the Picture Archiving and communication System (PACS).

The goal of the Department of Radiology will be to ensure that all patients treated will receive high quality care in the most expedient and professional manner possible.

Although services include CT scanning, diagnostic ultrasound and magnetic resonance imaging (MRI), nuclear medicine, and mammography, x-ray procedures still constitute the majority of the daily procedural load. Services related or concomitant to imaging include quality assurance monitoring and evaluation, quality control (including protecting patients and staff from harmful radiation), image interpretation, dictation, transcription, patient billing, marketing, equipment purchasing and continuing education.

Technologists or other non-physician personnel do not perform interventional studies or diagnostic fluoroscopy without a radiologist present.

Portable x-ray equipment allows radiographs to be obtained in surgery, as well as medical/surgical and intensive care units.

Radiologists are consultants, responsible for advising referring physicians on which imaging procedures to do and in which sequence. In addition, when emergency physicians request films and interpret them, staff radiologists are responsible for the confirming or amending of the emergency physician’s initial interpretations.

All personnel within the department are under the direction of the Diagnostic Imaging Department Director.
IMAGING TECHNOLOGIST CERTIFICATION AND DUTIES

Policy:

All technologists in the Radiology department will be categorized and work in the modalities to which they are registered. They must be able to perform all required procedures with expertise and proficiency, following established protocols and guidelines on patients of all ages and conditions.

Description of Modalities

Diagnostic Radiology and Special Procedures: Able to perform ED, surgery and portable procedures.

Mammography: Able to perform screening, diagnostic, magnification, needle localizations, specimen and advanced special views as needed. May be asked to do general diagnostic radiographic procedures if necessary.

MRI: Able to do all diagnostic procedures and rotate through diagnostic radiology as schedule demands.

CT: Able to do all diagnostic procedures and rotate through diagnostic radiology as schedule demands.

Ultrasound/ Echocardiography: Able to perform all diagnostic studies (Vascular, OB-GYN, Abdominal, small parts, cardiacls). Advanced training in Echosonography may be required.

Nuclear Medicine: Able to perform all diagnostic procedures and may be asked to do general diagnostic radiographic procedures if necessary.
IMAGING TECHNOLOGIST RESTRICTIONS

POLICY:

To insure appropriate patient care is provided by the delivery of results of procedures through the proper channels to avoid misdiagnosis and/or treatment.

PROCEDURE:

It is the policy of the Diagnostic Imaging Department that all technologists working in the department will not work beyond their scope of practice.

1. Technologists will not perform any diagnostic procedure without the written order of a physician.
2. All technologists work under the supervision of the radiologists.
3. Technologists will not make a diagnosis based on any radiograph or image.
4. Technologists will not operate any equipment without having been trained to operate it safely and effectively.
5. Technologists will not report results to any patient; this shall be done by the physician or the radiologist.
6. Technologists will not be allowed to work without a valid and current license by the ARRT and the MRTBE.
7. Technologists will not perform breast palpations except to position the breast for radiographic purposes.
DEPARTMENTAL SAFETY

Policy: To assure safety of all employees and patients.

PROCEDURE:

• The Radiology Department Manager is responsible for maintaining safety standards, developing and refining safety rules, and supervising and training personnel in departmental standards.
• The Diagnostic Imaging Department Manager is responsible for notifying the Safety Officer in case of any safety hazard.
• All Diagnostic Imaging Department employees shall report defective equipment, unsafe conditions, acts or safety hazards to the Manager.
• Smoking or the consumption of alcoholic beverages will not be allowed at any time, while on duty.
• Proper body mechanics and lifting techniques will be observed at all times.
• Electrical cords will be clear of traffic areas. Electrical extension cords will not be used without written approval from the Maintenance Director. Maintenance personnel will inspect all personal electrical appliances before use. All electrical machines with heat producing elements must be turned off or unplugged when not in use.
• Only authorized personnel will be allowed to operate diagnostic imaging equipment.
• Faulty equipment will be reported to the Maintenance Director or the vendor, per policy.
• Equipment and furniture must be arranged to allow adequate passage and access to exits at all times.
• The employee who discovers a spill will clean up minor spills, such as water. This is to be done immediately. Environmental Services will clean up major spills.
• The Maintenance Staff will be notified immediately of improper illumination and/or ventilation.
• Scissors, knives, pins, razor blades and other sharp instruments must be stored and used safely. Use of sharp spindles is prohibited.
• File drawers and cabinet doors will be closed when not in use.
• Employee clothing will be in accordance with hospital policy.
• Only authorized personnel shall be allowed in exam rooms.
• Technologist who calls for patient will check the ID band on the patient's wrist to verify correct patient identity.
• Outpatients will be asked date of birth and/or to give full name and spelling of name.
• Employees will be aware of location of fire extinguishers and fire exits. Employees will be educated in evacuation of area during a fire code.
ARIZONA STATUES FOR RADIOLOGY SERVICES

POLICY
All rules and regulation will be followed and adhered to in compliance with Arizona Department of Health Services Statute R9-10-219 as related to Radiology and Diagnostic Imaging Services.
PATIENT CARE GUIDELINES FOR RADIOLOGY STAFF

PURPOSE:

To have a keen sense of all our patient’s feelings and needs, and to be perceived by all others (both internal and external) as a knowledgeable, understandable, helpful and caring resource. To make all patients feel special.

PROCEDURE:

1. Professionalism and appearance – to look and conduct oneself in a manner perceived as positive by all others, both internal and external. To create a work environment that projects an image of excellence.
   
   a. Dress code adhered to.
   b. Managing emotions and stress at all times in all situations.
   c. Proper knowledge, use and care of equipment in all areas of assigned work.
   d. Clean, safe and organized work area.
   e. Accurate record keeping.

2. Knowledge and expertise – to be perceived as knowledgeable and up-to-date in the field of radiological technology and all the services offered by the department.

   a. Possess knowledge of all the services offered with the ability to guide and describe each modality to doctors, nursing, interdepartmental staff, clinic personnel, lay people, etc.
   b. Have equipment knowledge and annual proficiencies reviewed and documented.
   c. Maintain professional certifications as mandated by ARRT, ACR, and the Medical Radiologic Technology Board of Examiners (Arizona State Licensure Board).
   d. Keep up-to-date in the field of radiology and areas of expertise, by attending seminars, in-services, and organizational/professional meetings.
   e. Network with staff at other hospitals and/or clinics.
   f. Adhere to radiation protection and safety guidelines at all times in all situations. Follow ALARA (to keep all radiation exposure as low as reasonably achievable). Shield all patients, especially those of childbearing age. Follow all standards set forth by the NCRP (National Council on Radiation Protection and Measurements).
   g. Adhere to ARRT standards.
3. Communication and projection – Communicate positively with all internal and external customers and project through communication, professionalism, knowledge and high standards.

a. Be sensitive to people of different cultural and religious backgrounds. They may view illness and treatment methods differently.
b. Patient and their families, many of whom may not speak or understand English, need to know that the hospital staff is acting in their best interest. (Please ask for assistance in communication when needed. There are staff members who speak different languages who may be of assistance.)
c. Always use appropriate and effective delivery and tonal quality.

4. Geriatrics and pediatrics – Caring for the adolescent or geriatric patient can present unique challenges for the technologist or nurse. Each age group has particular anxieties and concerns. It is up to the technologist or nurse to provide an understanding, supportive, and compassionate environment. All staff members who assess, treat, or care for these patients should be able to understand, adjust and meet their special needs.

a. Geriatrics

   i. Address each client appropriately and professionally at his or her level. (i.e. Adult) “Hello, Mr. Smith. My name is Jane and I will be performing your CT exam today.”
   ii. Never ignore your patient, even though you may think they do not hear or understand. Address them appropriately and explain what you are going to do before you do it.
   iii. Never call an elderly patient “sweetie, honey, or dear”; use their respectful title or name.
   iv. Never treat an elderly patient like a child.
   v. Never leave a patient unattended. Always put up the side rails on carts. Always check to make sure the brake is set on the cart or wheelchair for patient safety.

b. Pediatrics

   i. Address each client appropriate and professionally at his or her level. (i.e. Child) “Hi, Jimmy. My name is Jane and I am going to take a picture of your chest today with a special camera that can see inside of you. Maybe we will be able to see why you have been coughing so hard.”
   ii. Do not confuse children by using technical terms. Talk to them on their level, and look at them directly when speaking to them.
   iii. Praise them for holding still and cooperating with you.
   iv. Demonstrate what you are going to do before you do it.
   v. Always shield children!
vi. Let the parents know what you are going to do. If the mother is not pregnant, you may ask her to help with the child (be sure to give her a lead apron to wear, and note on the requisition that the mother stated she was not pregnant and was given a lead apron for radiation protection). Children are more comfortable with their parents nearby in strange surroundings and situations.


5. Customer focus – Understand and service customers’ needs and wants to meet their expectations.
   
a. Know what your customer wants.
b. Be a key link to the patient care effort.
c. Market your department and educate others of your services.
d. Think in terms of service excellence.

6. Standards – Set and adhere to high work standards that are noticed and regarded as positive by all others.
   
a. Follow the organizational values, vision and mission statement.
b. Produce high quality radiographs at all times.
c. Have ownership and accountability of work.
d. Have pride in work and the department.
e. Set high levels of performance.
f. Be flexible to continue to meet the demands of the healthcare field of today and tomorrow.
g. To follow the RT Code of Ethics at all times.
DIAGNOSTIC IMAGING DEPARTMENT SCOPE OF SERVICES

POLICY: To outline the scope of care at Cochise Regional Hospital.

SERVICES OFFERED:

• X-Ray
• CT
• Ultrasound
• Mammography
• MRI
• Echocardiography
• Nuclear Medicine

PROCEDURE:

HOURS OF OPERATION:

• Scheduled outpatient imaging services will be offered and performed Monday through Friday from 8:00 AM to 4:30 PM, excluding holidays.

SCHEDULING:

• All outpatient ultrasound, computed tomography, mammography, and all other imaging requests are scheduled through the Radiology Department at CRH by calling 520-364-7931 ext 5733 or 5734. Walk-in X-rays are always welcome at CRH!
• All services requiring the administration of contrast need to be scheduled in designated slots to coordinate with the work schedule.

PATIENT REQUESTS:

All outpatient requests must have a written order from a licensed physician or practitioner. All orders must have pre-authorization from their Referring Physician’s office, if necessary, before the exam can be performed. All other pertinent information for the patient in regards to their exam will be given by the Radiology Staff person scheduling the exam.
PURPOSE: To establish guidelines for after-hours STAT outpatient Diagnostic Imaging procedures.

AFTER HOURS IMAGING FOR COMPUTED TOMOGRAPHY, NUCLEAR MEDICINE, AND ULTRASOUND PROCEDURES

Diagnostic Imaging after-hours is considered Monday- Friday 4:30pm- 7pm.

Note. After 7pm on weekdays or on holidays or weekends patients with a STAT order for any of the above mentioned modalities should be directed to the Emergency Dept.

- All STAT after-hours outpatients must be registered and the order must be placed into Empower Electronic Health Record (EHR) in the Outpatient Radiology (OP-RAD) location.
- The technologist will perform the exam.
- Upon completion of the procedure/exam the technologist will place the patient in the radiology waiting area. The Rapid Radiology radiologist will read the study and dictate the exam results and inform the technologist if the patient needs to be admitted to the Emergency Department or can go home. Note: The technologist will directly communicate with the patient regarding results. Tech aides or students will be prohibited from communicating results to any patient.
ANATOMICAL SITE CHECK

POLICY:

To insure the correct anatomical site is radiographed or the correct side (left or right) is correctly identified before any imaging procedure is performed.

PROCEDURE:

It is the policy of the Department of Radiology and Diagnostic Imaging that all patients undergoing any imaging procedure are to have the correct site identified before the exam begins in order to insure patient safety.

To achieve the above, the following safety measures will be followed:

1. The technologist will check for the correct patient by two means, i.e., the patient’s name and date of birth.
2. The technologist will confirm the spelling of the name and confirm the date of birth.
3. The technologist will check the written order to verify “left” or “right”.
4. The technologist will ask the patient on which side they are having the procedure performed and to point to the specific area.
5. The technologist will place a laterality marker on the all films notifying the tele-radiologist of which side of body is being performed.
CARE OF CRITICALLY ILL PATIENT

POLICY: To establish guidelines for the care of the critically ill patient in the Department of Diagnostic Imaging.

PROCEDURE:
• A Registered Nurse must accompany all critically ill patients to and from the Department of Radiology as well as remaining during the entire x-ray procedures.

• The x-ray room must be prepared to accommodate the patient in case of emergency (oxygen, crash cart, suction, etc.).

• Expediency of the exam is emphasized. The technologist shall utilize the radiographic and auxiliary equipment to its maximum potential and shall always be alert to the patient's condition.

• When radiography is required for a patient in the room or at bedside, the technologist will always report to the nurse in charge on the ward, station or floor.

• The technologist will check the patient ID and verify the patient name and date of birth.

• The technologist should remember the directions and cautions the charge nurse communicated concerning the patient, and make any necessary adjustments to accommodate the patient's special needs and/or condition.

• When it is necessary to change a patient's position, the rules of body mechanics shall be observed, to safely and comfortably lift and move the patient.

• After completion of radiographic procedure, the technologist shall make the patient comfortable and advise the charge nurse of the completion of the examination.

Policy
All rules and regulation will be followed and adhered to in compliance with Arizona Department of Health Services Statute R9-10-219 as related to Radiology and Diagnostic Imaging Services.
CARE OF PATIENTS FROM ANOTHER HEALTH CARE FACILITY

POLICY: To insure appropriate care of patients arriving at Cochise Regional Hospital (CRH) from another health care facility for the purposes of radiological examinations or procedures.

PROCEDURE:

It is the policy of the Diagnostic Imaging Department that all patients being transferred from another health care facility for the purposes of radiological examinations or procedures will be transferred via ambulance. The patient will be registered in client services and received into our Diagnostic Imaging Department. The ambulance transport team will remain with the patient at all times.

Between the hours of 0700 and 1530

1. A Registered Nurse (RN) on duty will accept the patient if the patient is stable and able to undergo the radiological procedures as ordered. The RN will be responsible for periodic assessment of the patient while the patient remains in the Diagnostic Imaging Department.
2. In the event that the RN is obligated to assist with patient care in other previously scheduled radiological procedures, the Nursing Supervisor will be notified for further nursing assistance.
3. In the event that the patient’s status deteriorates, the patient will be taken to the Emergency Department to be treated as an acute Emergency Department admission.

Between the hours of 1430 and 0700 or on Weekends

1. The Nursing Supervisor will be notified of the request for Diagnostic Imaging on a patient from another health care facility. The Nursing Supervisor will locate and assign an RN staff to accept this patient upon arrival. This nurse will follow steps number 1, 2, and 3 as written above.
2. The transferring facility will provide the patient’s medical chart to SVRHC upon transfer to our facility to aide in appropriate and safe patient care.
3. Patients may not be transferred from another facility via his/her own personal vehicle. Appropriate transportation must be arranged by the transferring facility.
ADMINISTRATION OF ORAL CONTRAST MEDIA FOR OUTPATIENT EXAMS

PURPOSE: To provide a guideline for outpatient procedures which require the administration for an oral contrast media.

PROCEDURE:

1. All patients having a computed tomography exam which requires oral contrast media as an outpatient will be advised to report to the Radiology Department at least one day before the scheduled exam to pick up the oral contrast. The patient will be given two pre-mixed bottles of oral contrast.

2. The Patient will be given proper instructions by the technologist on how they are to administer the oral contrast the night before their exam (1 bottle just before bed time) and for in the morning of the scheduled exam (1 hour prior to the scheduled appointment).

3. Patient should be NPO- nothing to eat or drink after midnight.

4. The Patient needs to arrive at least 30 minutes before their scheduled procedure.

5. A registered radiologic technologist will obtain the patient’s medical history; to include any medication allergies.

6. The exam will be performed once the technologist feels the oral contrast media has been ingested correctly and it has fully coated the bowel.
INTRAVENTOUS ACCESS/INFUSION

POLICY: To ensure safe and appropriate initiation of intravenous access for administration of contrast media for prescribed diagnostic imaging procedures.

PROCEDURE:
1. For inpatients that have existing intravenous infusions, it is the responsibility of the technologist to find out from the Emergency or Acute Care Department nursing staff:
   a. If the infusion may be stopped and the site converted to a saline lock, or
   b. If the infusion is to continue and another access placed.

2. The diagnostic imaging technologist is not authorized to stop or interrupt an infusion in order to inject contrast into the same intravenous access as the continuous infusion.

3. Prior to initiation of intravenous access:
   a. The diagnostic imaging technologist will be familiar with the Infection Control Policy and departmental and hospital policies regarding management of contrast reaction.
   b. The diagnostic imaging technologist will have attended and successfully completed the Cardiopulmonary Resuscitation (CPR) course and CPR certification will be current.

4. The diagnostic imaging technologist will ensure the following:
   a. An order for the procedure is completed.
   b. Adequate clinical information is obtained (disease history, medications, and laboratory results) as needed for specified procedure. If there is a history of renal disease or diabetes, the attending radiologist should be notified.
   c. If there is a GFR level less than 60, the hospital physician on duty should be notified.
   d. The patient’s identity is verified prior to initiation of intravenous access. This is done verbally as well as by visually examining the patient identification bracelet.
   e. The patient has given informed consent prior to the invasive procedure, and a ‘Consent for IV Contrast’ form has been signed by the patient.
   f. Any known allergies or significant history is reported to the radiologist prior to the procedure.
   g. The type, strength, and volume of contrast agent are documented.
   h. All emergency medical response team members, as well as emergency code cart are readily available.

5. Appropriate aseptic technique will be employed to minimize the risk of cross-infection, to include the following:
   a. Thorough hand washing technique.
   b. Proper use of alcohol wipes.
c. Use of disposable gloves.
d. Safe disposal of needle and injecting equipment following injection.
e. If an existing intravenous access exists, the site will be flushed with normal saline to ensure patency prior and after to injection with contrast.
f. The technologist will seek the assistance of the diagnostic imaging nurse following two failed venipuncture attempts or prior to attempts if the technician is not confident to proceed with venipuncture on a particular patient.
g. If an adverse reaction occurs, the radiologist and diagnostic imaging nurse will be summoned immediately. Should the reaction be deemed immediately life-threatening, the cardiac arrest team will be alerted without delay using the overhead page, and speaking into phone receiver: “CODE BLUE to...(CT, MRI, etc.)”
CONTRAST REACTION – EMERGENCY REACTION

POLICY: To establish the necessary actions to be taken during a contrast/emergency reaction.

PROCEDURE:
1. A small emergency tray of medication is kept in the CT and Nuclear Medicine rooms in the Diagnostic Imaging Department. This tray contains antihistamines, adrenaline, steroids and other drugs to counteract adverse reactions to contrast media. Whenever these drugs are administered, the patient’s chart must be logged accordingly and signed by the radiologist or the attending physician.
2. Contrast allergy will be noted on Contrast Form and in the Empower EHR.

Contrast Reaction | Treatment
---|---
Mild
• Vomiting | Observe / Monitor
• Nausea | Oxygen
• Localized hives/itching | Benadryl (PO)

Moderate
• Facial swelling | Observe / Monitor
• Generalized hives/itching | Oxygen
• Early Laryngeal Edema
• Respiratory Involvement | Epinephrine (SQ /Epi Pen)
  * Wheezing | Benadryl PO
  * Shortness of Breath | Call 911

Severe
• Laryngeal Edema | Call Code Blue - 88
  - call 911
• Pulmonary edema | Oxygen
• Unconsciousness
• Shock | Epinephrine (SQ Epi Pen)
• Respiratory or Cardiac Arrest

Necessary actions to be taken during an emergency contrast reaction:

1. Contact Emergency Room Staff ASAP.
2. Start CPR if necessary.
GFR GUIDELINES FOR ADMINISTRATION OF INTRAVENOUS CONTRAST

PURPOSE: To ensure the patients renal safety when GFR laboratory results are below 60.

PROCEDURE:
• Any patient with a GFR laboratory result in the range of 50-60 should be well hydrated with I.V. fluids prior to the exam.
• If the ordering physician feels the exam should be performed with a GFR below 60 and understands all the risks, they must give consent to the Radiology department to perform the procedure.

BACKGROUND:
• Radiology literature recommends any GFR below 50 should not receive intravenous contrast. Patients with a GFR value in the range of 50-60 should receive I.V. fluids before the procedure. If < 50 and the referring physician feels the need for the exam outweighs the patient’s renal safety, they must document this in the patient’s record. Once documented the exam will be done as ordered.

GFR

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<tr>
<th>GFR</th>
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<tr>
<td>&gt; 60</td>
<td>Normal exam</td>
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<tr>
<td>50-60</td>
<td>Rehydrate with IV fluids prior to the exam</td>
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<tr>
<td>Less than 50 exam</td>
<td>No contrast and/or have referring physician sign consent before exam</td>
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PROCEDURE FOR CT THORAX WITH I.V. CONTRAST FOR PULMONARY EMBOLISM

Policy: To assure that all CT Thorax with I.V. contrast exams are performed with the proper size I.V. catheter, all images are optimal, and to reduce extravasations.

PROCEDURE:

- All CT Thorax with I.V. contrast for Pulmonary Embolism require at least a 20 gauge I.V. catheter in the Antecubital Vein or above. Note: If a 20 gauge I.V. catheter cannot be placed in the Antecubital Vein or above, the ordering department must be notified. The exam will not be performed if the patient does not have a 20 gauge I.V. catheter or greater in the Antecubital Vein or above.
- The I.V. access must be flushed with regular saline to assure patency before and after any I.V. contrast injection.
- A rate of at least 3.5ml per second will be used for ALL Pulmonary Embolism studies.
STORAGE OF DIAGNOSTIC IMAGING AGENTS

Policy: To insure proper storage and safety of diagnostic imaging agents.

Procedure:

1. The Diagnostic Imaging Department shall properly store the agents (i.e., protect from light) and keep them secured and locked in the CT Room cupboard.

2. Stock will be rotated by Pharmacy Staff.

3. Managed inventory is performed by Pharmacy Staff.

4. If the Diagnostic Imaging Department at any time runs out of stocked Imaging agents, the Diagnostic Imaging Department will order the necessary agents from the pharmacy. The Pharmacy staff will then restock the imaging agents used.

5. If no Pharmacy Staff is on duty at the time the necessary imaging agent(s) run out, the Technologist will ask the Supervisor Registered Nurse on duty to go into the Pharmacy and get the necessary imaging agent(s). The RN is to only take what is needed for the exam(s) taking place at the time.
POLICY: To establish policy for call-back and completion of imaging orders in the Diagnostic Imaging Department.

The following Diagnostic Imaging services will be available 24 hours/7 days per week:

- CT
- X-Ray

CT and X-ray staff is available in-house 24 hours/7 days per week.

Nuclear Medicine, MRI and Echosonography are available in-house during business hours Monday through Friday from 8am – 4:30pm. Ultrasound is available 7 days a week 8am–4:30 pm.

The Diagnostic Imaging Staff for X-ray and CT is on call during the weekends on Friday and Saturday Nights from 12:00am-7:00am. Sunday – Thursday Nights will be staffed each week by a Full-Time Technologist not an On-Call Technologist.

PROCEDURE:

STAT CT and X-ray procedures will be started within 30 minutes or as soon as physically possible. ROUTINE procedures will be started within 24 hours.

During the weekend, Diagnostic Imaging staff must be notified of all STAT orders pending. The Diagnostic Imaging staff will clock in on the MedGenix time clock and begin imaging the STAT patient requests. Upon completion of any STAT request, the Technologist will review the “Empower Launcher” for any pending ROUTINE procedures. Routine procedures will be imaged and the technologist will check with every department for pending orders before leaving or clocking out.
DIAGNOSTIC IMAGING PRIORITIZATION AFTERHOURS

POLICY: To establish guidelines for prioritization and after-hours Diagnostic Imaging procedures for the Inpatient and Emergency Department settings.

The following Diagnostic Imaging services will be available 24 hours/7 days per week:
   CT   X-Ray

PROCEDURE:

IMAGING PRIORITIZATION

Diagnostic Imaging procedures may be ordered STAT or ROUTINE.

STAT procedures will be started within 30 minutes or As Soon As Physically Possible. ROUTINE procedures will be started within 24 hours.

STAT PROCEDURE

STAT procedures are ordered ONLY when a physician deems that a patient may suffer loss of life, limb or body function. Patients requiring STAT imaging from outside facilities should be admitted to the Emergency Department.

If possible, the ordering physician will review STAT plain films after-hours. A tele-radiologist is available for consult of STAT plain films if requested.

The radiologist will respond to STAT orders for CT according to the Medical Staff By-Laws. If the ordering physician would like verbal results, contact information from the ordering physician must be written on the orders for the radiologist to call results. For example, “Please call me at 417-XXXX with results”. The technologist will place this information in the comment section of Cerner.

ROUTINE PROCEDURE

ROUTINE procedures are ordered when the physician deems the imaging could be performed within the next 24 hours. The procedure will be started within 24 hours of receipt of the order.

ROUTINE procedures with a specific time requested by the ordering physician will be started by the specific time requested, unless other STAT orders are preceding it. The test will then be completed at its earliest convenience. If the test cannot be completed within one hour of the requested time, the radiology technician will contact the ordering physician/charge nurse on the unit to follow-up and give the anticipated competed time.
Procedures ordered by physician offices or Urgent Care facilities for same day service will be completed within our normal business hours of 0800 to 1630. The physician should write "TODAY" on the order. If orders cannot be completed on this day due to triage of patients, the radiology department will notify the physician/patient to make arrangements for the procedure to be completed the next business day.

If the ordering physician would like verbal results, contact information from the ordering physician must be written on the orders for the radiologist to call results. Otherwise, results will be faxed to the ordering physician every two hours between 0700 to 1900 hours.

**AFTER HOURS IMAGING**

Diagnostic Imaging technical staff is available in-house 24 hours a day / 7 days per week for CT and X-ray imaging. Ultrasound staff is not on-call during weekends, holidays, and after-hours for STAT inpatient and Emergency Department patients. Nuclear Medicine is not available Saturday and Sundays.

The Rapid Radiology and Radiology Reports Online Tele-Radiologists are available 24 hours a day / 7 days per week.

- On-call Diagnostic Imaging staff must be notified when a STAT order is written on an inpatient or ED patient. The Diagnostic Imaging Staff will respond according to the above prioritization procedure.

- If a physician order requests a timed procedure to be completed by a certain time, the order with the specific timeframe must be inputted into the Empower EHR and relayed to the appropriate on-call technician. The Diagnostic Imaging technologist will then ensure that the procedure is completed by this time.

- For all procedures, the referring department must ensure that the patient is prepped and in a gown, pregnancy consent form completed (if needed), and ready for each procedure before the on-call diagnostic imaging technician arrives. No patient should be treated at anytime without proper identification bands.

- If the diagnostic imaging technologist is called in to do a STAT procedure, the technologist will review the Empower Tracker for ROUTINE orders. After completing the STAT procedures, the technologist will complete any pending ROUTINE procedures before leaving the hospital, if needing to be completed within the 24-hour timeline.

If the diagnostic imaging technologist is NOT called in to do a STAT procedure, the technologist will then determine if there are any ROUTINE orders that need to be completed within 24 hours. If so, the technologist will complete any of these pending ROUTINE procedures.
ESCORTING OUTPATIENTS TO THE RADIOLOGY DEPARTMENT

POLICY: To ensure customers are properly escorted to Radiology.

PROCEDURE:

• After a patient is checked in at the registration or greeter station, the greeter or expeditor will direct the patient to the Radiology Waiting area.
• The greeter or expeditor will gather the patient medical record from the registration desk, greet the patient, and direct the patient to the Radiology Outpatient Office/ waiting area.
  o Once the Patient arrives to the Outpatient Radiology Office, a Radiology Office Staff will greet them and take all of the patient’s medical record and order information.
  o The Radiology Office Staff person will then input the patient order and notify the appropriate designated modality and technologist.
• The tech will then pick the patient up from the Radiology Outpatient Office/ waiting area.
  o The tech will ask for 2-patient identifiers before beginning any exam with a patient.
• Upon completion of the exam, the technician will escort the patient to its designated Radiology Outpatient Office/ waiting area.
RADIOLOGY REGISTRATION

POLICY: To ensure timely registration of Radiology patients.

PROCEDURE:

• Walk-In patients that need to register for diagnostic imaging services will be registered using the current hospital standards as outlined in the training manual at the Central registration Area.
  o The clerk will collect the signed copy of the COA, copy of referral and/or authorization, the original order, face sheet and one sheet of labels for the patient.
  o Pending scheduled appointments will be logged into the Empower- ADT as a pre-admission until the day of the patient visit.
• A copy of the patient’s insurance cards, picture ID, script and referral and/or authorization will be made and sent to diagnostic imaging along with paperwork by the Registration Clerk.

• A properly completed Physician’s order should be obtained prior to sending the patient to Radiology. When needed, the clerk will contact the physician’s office and request a corrected order to be faxed to registration.

• The Radiology Office Staff will assure that if an authorization or referral is required, there is one on file prior to completing the exam. When unable to get the appropriate script, authorization, referral or Physician’s signature in a timely manner, the Radiology Staff will reschedule the patient for another day or if okay with the patient, patient will wait in the Radiology waiting area until an appropriate script and authorization is received.

• All patients sent to Radiology must be properly banded with their pertinent information. Armbands are to be verified and initialed by the patient or patient’s representative.
HANDLING OF RADIOACTIVE MATERIAL

PURPOSE: To assure safe and effective handling of radioactive materials delivered to Cochise Regional Hospital

PROCEDURE

All radioactive material will be delivered directly to the Nuclear Medicine Department.

- The Nuclear Medicine Technologist will inspect the package for any damage and will keep a log which must include the following:

  1. Name of the person who delivered and received the package.
  2. Time the package was received.
  3. The condition the package was in upon delivery to Nuclear medicine. Note: If the package is damaged in any form or if the packaging seal has been broken, the Nuclear Medicine Technologist will inspect the box and determine that no radioactive material has leaked.
  4. Any suspicion of damage will be reported to the Radiation Safety Officer.
  5. The package must not be opened by anyone who is not trained in the procedure for handling radioactive materials.

- No deliveries will be accepted after normal working hours.
- The Nuclear Medicine Department will keep a “Radioactive Material-Package Receipt Log” and a “Radioactive Seeds – Inventory/Utilization Log”.
- The radioactive material receipt information is documented on a “Radioactive Material Inventory Form”
- After opening the package, the contents are checked for agreement with the packing slip and the integrity of the radioactive material is checked. Any suspicion of damage to package is reported to the Radiation Safety Officer and to the manufacturer. Any suspicion of contamination is evaluated by performing a wipe test and assay by the Nuclear Medicine technologist.
- The empty package will be checked for radiation levels, the radioactive materials labels are removed and the package either kept for return or trashed.
INFECTION CONTROL GUIDELINES

**POLICY:** To ensure consistency with the implementation of infection control guidelines within the Diagnostic Imaging department.

**PROCEDURE:**

I. Personnel

   A. Employee health guidelines will be followed by all employees of the Radiology and Diagnostic Imaging department.

II. General infection control practices

   A. Careful hand hygiene must be practiced as outlined in the hospital infection control manual. Hand hygiene must be performed after patient contact, contact with contaminated items, or contact with mucous membranes.
   B. Standard precautions will be followed for all patients. Body substances from all patients are to be considered potentially infectious.
   C. Isolation precautions will be observed as appropriate. Specific precautions and indications for isolation can be found in the hospital infection control manual.
   D. Linen is to be changed between each patient. Clean linen is stored in a closed cupboard. Soiled linen is disposed of in dirty linen hampers within the department. Soiled linen is collected by Housekeeping.
   E. Disposable items are for single patient use only and discarded after use.
   F. Sterile patient care items will be kept in closed cupboards. All supplies will be checked for outdates periodically and prior to patient use for damage to outer package.
   G. During sterile procedures, only personnel involved in the procedure are permitted in the room.
   H. Exam tables/Buckys/patient contact surfaces in all imaging areas (MRI, Mammography, Ultrasound, Echocardiography, X-ray, CT, and Nuclear Medicine) will be cleaned between each patient with an Infection Control Committee approved disinfectant.
   I. Instruments/sterile trays are returned to Sterile Processing for decontamination and sterilization. Items must be transported in a closed bag/container, which is labeled as biohazard.
   J. A schedule for routine cleaning of all portable equipment must be maintained and cleaning must be documented. In addition, portable equipment must be cleaned prior to entering a surgical suite and upon leaving an isolation room.
K. Laboratory specimens should be collected in a careful manner. Prior to transport, tubes or slides must be placed in a plastic bag and sealed. The bag must be labeled as biohazard.

L. Sterile technique must be observed when starting IV lines or inserting urinary catheters.

M. Care must be taken when handling contaminated sharps. Used syringes must be disposed of in an appropriate puncture resistant biohazard container.

N. Injectable fluids must be checked for expiration date and any sign of degradation (cloudiness or particulates) prior to use.

O. Sonographic probes that will have contact with mucous membranes should be covered with a latex barrier, if possible. Probes must be cleaned and high-level disinfected after use.
LEAD APRON QUALITY ASSURANCE

PURPOSE: To maintain quality assurance of lead aprons used to reduce exposure to Radiation.

POLICY: Lead aprons will be inspected annually under fluoroscopy.

PROCEDURE: Annual inspection of lead aprons under fluoroscopy by a radiological technologist.

• Gather lead aprons.
• Annually fluoroscope aprons to visualize holes or cracks in the lead.
• Document lead apron number and status of apron on appropriate form.
• Document disposal of aprons that show evidence of cracks or radiation permeation in the body of the apron.
• Notify manager of aprons that must be discarded so that a replacement apron may be ordered.
• A record of all discarded lead aprons and the reason for the discard will be kept on file.
• Radiological technologist is responsible to evaluate quality of lead aprons in Radiology
• Department Manager will be notified of any defects in lead aprons.
• Department manager will be responsible for reordering new aprons as defective aprons are destroyed.
• Newly acquired aprons will be tagged with a number, inspected and added to the list for subsequent annual inspections.
• Findings of the lead apron inspection report will be logged by the Radiology Department Manager and verified for accuracy by the Radiologic Technologist who scanned the aprons.

. Personal lead aprons will not be used for any purpose in the facility.
LINEN USAGE

PURPOSE:

To establish a policy and procedure for cost efficient linen usage in the Radiology Department.

PROCEDURE:

1. Linens will be stored in the following locations:
   a) X-ray
   b) CT Room
   c) Ultrasound/ Echocardiography
   d) Mammography
   e) MRI
   f) Nuclear Medicine

2. Linens will be stored in a linen cabinet.
3. Section leaders maintain an inventory of linens in the section for which they are responsible.
4. One sheet and one pillowcase are acceptable for each patient, as well as a blanket, as necessary.
5. One or two gowns may be used for each patient, depending on need. If a gown is soiled, it will be replaced with a clean one.
6. White washcloths and towels are for patient use.
7. Chux will be utilized in place of Geri pads, and then discarded in appropriate container after use.
8. Yellow protective wear will be available in all exam rooms.
9. A yellow soiled linen hamper shall be placed in all exam rooms where linen is used. All soiled linen is to be placed into the yellow can upon completion of exam.
LOST AND FOUND

PURPOSE:

To establish guidelines for the Radiology Department in compliance with Cochise Regional Hospital Human Resources Lost and Found Policy.

PROCEDURE:

1. Any items lost or found in patient exam or other areas are to be secured in the following manner:
   a. Contact the Department Head and notify them of a lost or found item.
   b. An Incident Report is to be filled out and given to the Department Head.
   c. The lost or found item will be placed in the Lost and Found in the Admitting Office.
   d. A valuable item will be given directly to an Admitting clerk on duty who will lock it in the safe.

2. Do not keep a lost item and attempt to contact the patient or patient’s family.

3. The Admitting clerk will be responsible for logging in all items placed in the box in the Admitting Office, and following up to return the item to the correct individual.

4. If a patient or customer reports a lost item to an employee of the Diagnostic Imaging Department, the employee should contact the Admitting Office clerk and make them aware of the situation and follow the above reporting steps.

5. If someone coming to claim a lost item approaches an employee, the employee should contact the Admitting Clerk on duty at that time.

Items will be retained for a period of 30 days. If left unclaimed after 30 days, items will be turned over to St. Vincent De Paul support centers.
OCCUPATIONAL EXPOSURE MONITORING

POLICY
It is the policy of Cochise Regional Hospital (CRH) to monitor personnel working with or around radiation emitting sources or devices and who are likely to receive 10% of the annual radiation dose limits identified in by the Arizona Radiation Regulatory Agency (ARRA).

PURPOSE
The purpose of this policy is to establish guidelines to ensure personnel exposures to radiation are maintained as low as reasonably achievable (ALARA) and meet the CRH ALARA goals.

AUTHORITY AND RESPONSIBILITY
Office of Radiation Safety is responsible for:
1. Providing radiation monitoring devices as requested by personnel.
2. Ensure appropriate personal monitoring equipment is provided for the type or radiation to be monitored.
3. Providing instructions to personnel on how to wear personal monitoring equipment.
4. Reviewing personnel monitoring reports.
5. Investigating causes for employee exposures which exceed the ALARA investigational limits or have abnormally high exposure quarterly readings.

Employees are responsible for:
1. Wearing the personal monitoring equipment (dosimeter) assigned while working in areas where radiation emitting sources or devices are used and/or stored.
2. Making sure that the dosimeter does not leave CRH property at any time except when being sent out for development and reading.
3. Making sure that the dosimeter for a particular wear period is exchanged for a dosimeter for the new wear period by the return due date.
4. Informing the Radiation Safety Officer, in writing, if they want to declare their pregnancy.
5. Using appropriate ALARA principles (time, distance and shielding) when required or applicable to maintain individual exposure to within ALARA levels.

MONITORING REQUIREMENTS
• All persons whose work is associated with radiation that could result in exposure above 10% of the above limits must wear radiation monitoring badges (5% for persons under 18 years of age). * Whole body badges and extremity badges are issued for a
three-month wear cycle and are used to monitor exposure from high-energy beta, gamma-ray, and neutron sources.

- Ring badges and whole body badges are required for workers using I-131, TC-99m,
- I-125 and Xe-133.
- Workers that use 10 mCi or more of P-32 or other high-energy beta emitters at a time or use more than 1 mCi of a gamma-ray source are required to wear a whole-body dosimeter and ring badge.
- Employees whose work is associated with radiation from X-ray producing equipment and are likely to receive exposure in excess of 10% of the annual dose limits must wear radiation monitoring badges (dosimeters).
- A declared pregnant women must be monitored if she is likely to receive during the entire pregnancy, from radiation sources external to the body, a deep dose equivalent in excess of 1 mSv (0.1 rem) or is likely to receive a committed effective dose equivalent in excess of 0.5 mSv (0.05 rem).

Pregnant employees have the option to voluntarily declare their pregnancy, in writing, to the Radiation Safety Officer. Declaration of the pregnancy allows the radiation exposure to the fetus to be closely monitored and allow for additional precautions, if needed. If you should have any questions, please contact the Office of Radiation Safety.

- **Exposure Limits - Quarterly**
  1. Total Effective Dose Equivalent (TEDE) [Exposure to the Whole Body]: 1,250 mRem
  2. Shallow Dose Equivalent (SDE) [Exposure to the Skin or any Extremity]: 1,875 mRem
  3. Minor Dose Limits [Less than 18 years old]: 10% of Adult Doses listed in Items 1 – 3 above
  4. Declared Pregnant Worker [Dose Equivalent to an Embryo/Fetus]: 500 mRem during the gestation period

**REQUESTING OR CANCELING RADIATION MONITORING BADGES**

1. To initiate monitoring service for exposure to radiation an individual must complete all information on the radiation monitoring request sheet. This will ensure the proper monitoring device(s) is issued to the individual and will assist in determining if the individual has any previous exposure history. The individual shall submit the request sheet to their manager for signature. The completed request sheet shall be submitted to the Radiology Department Manager.

2. The Radiology Department Manager will issue the monitoring device(s) to the individual as noted on the request sheet.

3. Radiation monitoring badges must be ordered and discontinued by the Radiology Department Manager several weeks in advance. The manager
must submit request sheets in our office by the 15th of the month to ensure that a permanent badge is started or canceled effective the first of the following month.

LOCATION OF INDIVIDUAL MONITORING DEVICE

The radiation monitoring device shall be worn in the appropriate location on the whole body or extremity as follows:

- The whole body monitoring device shall be worn at the unshielded location of the whole body likely to receive the highest exposure. Note: When a protective apron is worn, the location of the monitoring device is typically at the neck (collar). The whole body means, for purposes of external exposure, head, trunk (including male gonads), arms above the elbow and legs above the knee.
- The extremity monitoring device shall be worn on the extremity likely to receive the highest exposure and shall be oriented on the appropriate finger (label inward toward palm) to measure the highest dose to the extremity being monitored. The extremity badge must be protected from contamination; therefore, it must be worn under gloves when you are working with unsealed radioactive material.
- The monitoring device to monitor the dose to an embryo/fetus of a declared pregnant woman shall be located at the waist under any protective apron being worn by the woman.
- Radiation monitoring badge should remain in a secure area and should not be taken home after normal work hours.

Please Note: Radiation monitoring badges are to be worn only by the individual to whom they are assigned to.

EXCHANGE AND PROCESSING OF MONITORING DEVICE

- The manager is responsible to ensure every monitored individual in their section shall exchange their radiation monitoring device quarterly for the new wear period monitor by the 1st day of the month of the current (new) badge wear period.
- The manager is responsible to collect the old badges and mailing them to the outside Radiation monitoring device Vendor by the 10th of each
- The vendor provides exposure reports to the Radiology Department Manager and a copy is provided to the Department.
- The exposure reports are reviewed by the Radiation Safety Officer (RSO) or designee.
REVIEW AND INVESTIGATION OF EXPOSURES

The RSO will review the exposure reports and evaluate individual exposures exceeding the following ALARA investigational limits:

- **Quarterly Investigational Limits for Monthly Wear Dates**
  - **Total Effective Dose Equivalent (TEDE)** [Exposure to the Whole Body]: Level I Investigational Limit: \( \geq 300 \text{ mRem} \) and Level II Investigational Limit: \( \geq 600 \text{ mRem} \)
  - **Hands and forearms, feet and ankles**: Level I Investigational limit \( \geq 1875 \text{ mRem} \) at Level II Investigational limit \( \geq 5625 \text{ mREM} \)
  - **Shallow Dose Equivalent (SDE)** [Exposure to the Skin or any Extremity]: Level I Investigational Limit: \( \geq 750 \text{ mRem} \) and Level II Investigational Limit \( \geq 2250 \text{ mRem} \)

The RSO or RSO designee will conduct his/her investigation as follows:

1. If a personnel dose is less than Investigational Level I no further action will be taken unless deemed appropriate.
2. If a personnel dose is equal to or greater than Investigational Level I but less than Investigational Level II the RSO or RSO designee will submit a notice to the individual who received the exposure informing them of the exposure and to remind them of ALARA principles to be used. No further action will be taken unless deemed appropriate by the RSO or RSO designee.
3. If a personnel dose is equal to or greater than Investigational Level II the RSO or RSO designee will submit a notice to the individual who received the exposure informing them of the exposure and to remind them of ALARA principles to be used. In addition, the notice will require the individual to provide an explanation for the recorded dose. Review of the individual’s workload and handling procedures and often factors that may have contributed to the exposure may be institutional by the RSO, if deemed necessary by the RSO.
4. A summary of personnel exposures exceeding Investigational Levels I and II will be presented to the Radiation Safety Committee.
5. In the event a worker’s or a group of workers’ doses need to exceed an investigational level, a new, higher investigational level may be established for that individual or group on the basis that it is consistent with good ALARA practices. Justification for new investigational levels will be documented and must be approved by the Radiation Safety Committee.
6. The employee(s) who receive a notice of exceeding a investigational level must complete the following:
   - If receiving a notice for a dose equal to or greater than Investigational Level I but less than Investigational Level II, the employee shall review
their procedural technique for possible reduction of exposure and apply the basic rules of time, distance and shielding to keep their exposure ALARA.

- If receiving a notice for a dose greater than Investigational Level II, the employee shall be consulted with their supervisor and the RSO. In addition, the employee shall review their procedural technique for possible reduction of exposure and apply the basic rules of time, distance and shielding to keep their exposure ALARA.

- If an employee exceeds annual allowable limit identified by ARRA before the end of the calendar year, the employee may be reassigned to a different position to minimize future radiation exposure.

7. The RSO or RSO designee will determine if any other actions should be implemented to assure adequate protection in the future.
ORDERING EXAMS FOR OUTPATIENTS

POLICY:

To ensure that only appropriate exams are performed.

PROCEDURE:

1. Exams shall be performed only upon the order of a person who is lawfully authorized to diagnose, treat and prescribe.
2. All requests for exams should contain the reasons for the examination. The requesting medical staff member is responsible for providing this information.
3. For outpatients, a physician’s prescription should be provided.
ORDERING EXAMS

POLICY:

To ensure that only appropriate exams are performed.

PROCEDURE:

1. Exams shall be performed only upon the order of a person who is lawfully authorized to diagnose, treat and prescribe.
2. All requests for exams should contain the reasons for the examination. The requesting medical staff member is responsible for providing this information.
3. In the case of inpatients, the requisition or order for examination should be provided in compliance with the hospital’s established procedure.
4. In the case of outpatients, a physician’s prescription should be provided.
5. All requisitions on inpatients shall be verified against the physician’s orders on the patient’s chart or prescription. Any contraindication requires an immediate call to the referring physician for clarification of the order.
6. Once the order or prescription is confirmed, check the patient’s ID bracelet or otherwise establish the patient’s identity to make sure the correct patient is being scanned. Always verify the patient identity twice, by name and date of birth.
PATIENT ASSESSMENT

POLICY:

Patient assessment is made with the interdisciplinary approach of the physician, nursing and the Radiology Department technologist to provide the most relevant information to allow for the optimum radiological exam and results.

PROCEDURE:

It is the policy that the assessment of patients undergoing diagnostic imaging procedures takes place in the following manner:

1. A history of the patient’s condition will be reviewed prior to the test being performed.
2. A written order will be reviewed by the radiologist and technologist.
3. The patient will be questioned about his/her condition by the technologist and the information documented on the Rapid Radiology or Radiology Reports Online systems for the radiologist to review.
4. Questionnaires will be given to patients to fill out when pertinent or for safety measure. (MRI, Mammography, CT, Ultrasound, Nuclear Medicine, and Echocardiography).
5. Verbal communication between the ordering physician and the radiologist is encouraged.
6. Technologists and nursing will assess the patient during the procedure being performed.
7. If the patient condition changes, it will be reported to the radiologist or ordering physician immediately.
8. All actions necessary for response to an adverse reaction will be documented by staff and reported in Empower EHR.
9. A Registered nurse will be available for pre and post monitoring when necessary.
PATIENT SHIELDING

PURPOSE:
To insure patient safety during radiographic procedures/examination.

PROCEDURE:
It is the policy that appropriate measures will be taken to protect patients from unnecessary direct and scatter radiation through the following measures:

• All females of childbearing age will be shielded with a lead apron.
• The technologist will ensure that all children being radiographed have proper gonadal shielding and that proper collimation of the x-ray machine be utilized to expose only the area or anatomy of interest.
• All expectant females will be properly shielded and the x-ray collimated to the area or anatomy of interest only. Orders should be carefully considered against the risks.
• Expectant females MUST NOT be allowed to hold or immobilize children for radiographs and they WILL NOT be allowed in the x-ray area during exposures.
RADIOLOGIC EXAMINATIONS IN PREGNANT PATIENTS

PURPOSE

To assure that all reasonable steps are taken to protect an unborn child during radiological exams.

PROCEDURE

• All female patients will be asked if they may be pregnant prior to the examination.
• A written informed consent is required in the event that a radiological exam must be performed on a pregnant patient.
• The pregnant patient will be shielded and technique adjusted to be as low as possible without compromised diagnostic quality.
• For exams of the abdominal and pelvic area:
  - The radiologist is to be made aware of the scheduled procedure.
  - The radiologist will contact the referring physician to discuss possible alternatives or modifications of the exam to minimize exposure to the fetus/embryo.
  - Due to emergency, if informed consent cannot be obtained, the radiologist will document in the medical record the reason for the exam and steps taken to minimize risks to the embryo/fetus.
• In utero irradiation:
  - The radiologist will notify the physicist for retrospective estimate of fetal dose.
  - A report will be filed with the Radiation Safety Officer by the next working day. The radiologist will inform the referring physician regarding the patient's exposure and will counsel the patient on the radiation risks.
• Nuclear Medicine:
  If the patient is, or thinks that she may be pregnant, the radiologist in consultation with the
  Referring physician will determine if the benefits of the exam outweigh the risks.
  - A written, informed consent will be obtained by the radiologist.
  - Magnetic Resonance Imaging:
An MRI is not to be done during the first trimester of pregnancy unless it is a medical emergency.

Should the radiologist, in consultation with the referring physician, feel that the test should be performed; a written informed consent will be obtained.
PROCEDURE FOR RAPID RADIOLOGY, RADIOLOGY REPORTS ONLINE, OR EMPOWERPACS DOWNTIME

**POLICY:** To establish guidelines for downtime of the RAPID RADIOLOGY, RADIOLOGY REPORTS ONLINE, OR EMPOWERPACS computer systems.

**PROCEDURE:**

**SCHEDULED RAPID RADIOLOGY, RADIOLOGY REPORTS ONLINE, OR EMPOWERPACS DOWNTIME:**

1. Admitting Office will send a copy of the Patient Information Sheet (PIS) to the Diagnostic Imaging Department. The Diagnostic Imaging Department will then keep a log of all patients examined and their orders.
2. Upon completion of the exams, the Technologist will call Rapid Rad or Radiology Reports Online and follow their downtime instructions in regards to getting the completed exams read and the final results back to CRH.
3. The Diagnostic Imaging Department will manually forward the results of the study to the requesting departments.

***Rapid Radiology, Radiology Reports Online, or EmpowerPACS, during their scheduled downtime of their software will notify the Diagnostic Imaging Department prior to their scheduled downtime and how long they intend to be down to allow CRH to get their downtime protocols in place beforehand.***
RADIATION PHYSICIST SERVICES

**POLICY:** To ensure radiation safety procedures are followed.

**PROCEDURE:**

The services of a Radiation Physicist should be available for the Radiology Department for the following:

- Consultation
- Periodic safety checks
- Supervision of radiation safety procedures
- Participation in educational programs
- Consultant to the Hospital Radiation Safety Committee
- Review of QC Program
- Review of MQSA for mammography
- Annual equipment calibration
RADIOLOGY EXAM ROOM CLOSURE PROCEDURE

POLICY:

To establish the procedure to follow when requesting a room closure.

PROCEDURE:

The Radiology leads are allowed to request the closing only with Manager/Director approval.

The request has to be done by e-mail; verbal orders will not be accepted.

1. The lead will e-mail request to the Manager/Director requesting to close the room, with a carbon copy to the Scheduling Coordinator.
2. The Manager/Director will approve/not approve the request via email and cc the Scheduling Coordinator
3. Once the Scheduling Supervisor completes the request, she will “reply to all” on the original e-mail to let everybody know that it has been completed.
RADIOLOGY INTERPRETATION AND FOLLOW UP

POLICY:

To provide follow-up care of all patients who have had standard radiographs done while in the Emergency Department.

PROCEDURE:

1. Under normal operating circumstances, all preliminary and final readings will be completed by the RAPID RADIOLOGY or RADIOLOGY REPORTS ONLINE Tele-Radiologist.

2. Results will post in the RAPID RADIOLOGY, RADIOLOGY REPORTS ONLINE system and then finalized reports will be copied and pasted in the patient’s Empower EHR chart.

3. The Radiologists will do their best to interpret exams in a timely manner. If the Emergency Department Physician feels a preliminary read is needed, they will conduct a “wet read” and a notation will be made in the Empower EHR documenting their preliminary findings.
SCANNER QUALITY CONTROL FOR CT

POLICY: To ensure that all imaging is of the highest possible quality.

PROCEDURE:

1. Quality Control test procedures are to be performed to meet all manufacturer recommendations.
2. Systems that have software-driven mandatory system checks may have all checks completed without additional (written) records.
3. Documentation of QC Daily Requirements shall be retained and shall be available for use by operators and engineering service personnel.
4. All scanner problems should be reported to the Radiology Department Manager. Remedial repair items should be communicated to the General Electric (GE) service engineer by the Radiology Department Manager by use of communications through the GE client support number.
5. Radiographic equipment will be operated only by personnel meeting all State of Arizona and federal licensing requirements.
6. All radiographic equipment will be annually calibrated by the physicist.
RADIOLOGY SCHEDULING DATA ENTRY

POLICY:

To establish and administer a uniform and consistent policy and procedure concerning Radiology Scheduling which will help monitor accurate data entry of orders and improve customer service.

PROCEDURE:

The Radiology Department will monitor data entry for accurate scheduling from the original order. All Radiology Scheduling staff who is directly involved in the data entry or review of orders will be held accountable to the following:

1. The correct entry of the ordering provider.
2. The correct entry of the exam/procedure according to the physician script/order.
3. The correct entry of billing information (i.e. financial number, encounter).
4. The correct patient priority level (Stat vs. Routine)
5. The appointment is entered into Empower ADT.

Occurrences of errors as listed above shall result in disciplinary action as follows:

1. 3 occurrences in a 6 month period: verbal warning
2. 4 occurrences in a 6 month period: documented verbal warning
3. 5 occurrences in a 6 month period: written warning
4. 6 occurrences in a 6 month period: second written warning, further disciplinary action, not to exclude suspension or termination.
SCHEDULING PROCEDURES AT CRH

POLICY: To insure efficient workflow, scheduling, and tracking of patients and exams.

PROCEDURE:

1. Diagnostic radiology procedures shall be performed upon receipt of the written request of a physician.
2. All requests for radiologic procedures shall contain the procedure, diagnosis, and/or reasons for the examination and doctor’s signature.
3. All inpatient diagnostic radiologic procedures will be performed as soon as possible upon receiving the request, with the exception of those which require special preparation such as diagnostic gastrointestinal work. Preparation for routine CT procedures is available in the Radiology Department. These preparations will be followed routinely unless otherwise specified by either the referring physician or the radiologist. In cases where several procedures are ordered simultaneously, preferential treatment will be given those patients who have undergone special preparation for a specific examination.
4. All outpatient radiologic procedures will be scheduled through the Radiology Outpatient Office Coordinator, at which time specific instructions for any special preparation will be given the patient if he/she has not received it from the ordering physician.
5. Only physicians with proper privileges, and who have been authorized to do so by the medical staff may authenticate reports. These reports are part of the medical record and are filed accordingly. Inpatient reports are filed in medical records along with Emergency Department patient reports. Outpatient reports are sent to the requesting physician. Reports are archived in the RAPID RADIOLOGY, RADIOLOGY REPORTS ONLINE, and OR EMPOWERPACS computer program.
VOLUNTEER TESTING FOR NEW CLINICAL APPLICATION PROCEDURES

PURPOSE:

It is occasionally necessary for CRH staff to test new technologies, FDA approved technologies, and/or new equipment applications prior to its' full implementation. In order to accomplish this, and to assure the safe and proper testing of such new technologies and equipment and for quality control purposes it is necessary to enlist the assistance of human subject volunteers. All volunteers will be requested to sing the CRH Volunteer Acknowledgement of Non-Liability, Consent and Release. The contents and implications of this Acknowledgement will be fully and completely explained to the volunteer by an appropriate CRH staff member.

PROCEDURE FOR VOLUNTEERS:

1. Upon receipt of approval of the request for volunteers, the appropriate department Director or Manager will send a CRH email to “ALL” advising staff members for the need for volunteers to assist in the Application competency process. The email will provide information on the procedure to be performed and instruct any interested staff member to make contact with the Department Manager in order to determine suitability and to be screened by the radiologist for the desired procedure. Note: 1) the first ten (10) volunteers, who meet criteria, will be accepted for the procedure and 2) Exams on staff volunteers will ONLY be performed on “off-hours” and not during scheduled work shifts, nor will compensation be offered for time volunteered.

2. All volunteers will have a script written by a staff radiologist for the procedure/exam deemed necessary during the applications training period. The volunteer will be screened and the procedure and associated risks will be explained.

3. Images will only be used to establish protocols and imaging parameters/sequences and will NOT be used for ANY clinical evaluations.

4. Images will not be archiving in PACS and will not remain part of the volunteer’s medical record.

5. All volunteers will be given post procedure discharge instructions.

6. In that these procedures are conducted for testing on a new “Application” they will be performed on a “NO CHARGE” basis.
PROCEDURE FOR VOLUNTEERS WITH A SCRIPT FROM A PRIMARY CARE PHYSICIAN

1. All volunteers must have a valid script from a physician.
2. Upon receipt of the script/exam order, all volunteers will be required to complete SVRHC’s patient registration process and must complete and sign Form AD-100E Conditions of Admission and/or Treatment.
3. On all APPLICATIONS TESTING PATIENTS, Client Services staff will be required to select the institutional account #01987191 to register the volunteers and will document SVRHC as the account guarantor.
4. The volunteer will be screened and the procedure and associated risks will be explained and the necessary Consent to Operate or Procedure and/or Anesthetics and/or Blood or Blood Products and Patient information, and if necessary, Guidelines and Risks for contrast Material forms must be completed and signed by the volunteer.
5. Patient identifiers will be labeled on all test and/or images. Images will be archived under the patient’s name in PACS and remain part of their medical record.
6. Volunteers will be given post procedure discharge instructions
7. To validate quality, radiologists or other medical professionals may view the procedure results. A report will be generated with the exam findings and will become part of the volunteer’s medical record.
8. In that these procedures are conducted for testing on a new “Application” they will be performed on a “NO CHARGE” basis. All account charges will be adjusted off via a general ledger PAT code established by the Business Office Department.