School of Radiography
Bradford Regional Medical Center
Clinical Plan of Education

Philosophy of Clinical Education

The role of the radiographer has grown in complexity with the development of more sophisticated procedures and equipment in the field of radiology. It is the philosophy of the program to provide the student with the optimum clinical experience and to insure that the student has the opportunity to perform all routine types of radiographic procedures in the appropriate proportions. Furthermore, the philosophy of the program is to provide demonstration, supervision, observation, counseling, and evaluation in the clinical setting whereby the student will effectively:

- Apply knowledge of the principles of radiation protection for the patient, themselves and others.
- Apply knowledge of anatomy, positioning, and radiographic technique to accurately demonstrate anatomical structures on a radiograph.
- Determine exposure factors to achieve optimum radiographic technique with a minimum of radiation exposure to the patient.
- Examine radiographs for the purpose of evaluating technique, positioning, and other pertinent technical and pathological qualities
- Exercise discretion and judgment in performance of medical imaging procedures.
- Provide patient care that is essential to the radiographic procedures.
- Establish interpersonal communications with the patient and other members of the health care team.

The primary goal of the School of Radiography's **Clinical Plan of Education** is to design a program whereby the student will be able to correlate clinical experience with the didactic portion of the program. This correlation is based upon a solid foundation of fundamental principles and procedures to lead the student to develop superior performance and knowledge and become a well-rounded, proficient radiographer.

TRAINING THE TRAINERS

The Clinical Coordinator in cooperation with the Program Director, arranges for the supervision of the student in all clinical rotation settings. Supervision of student performance is provided for by ARRT certified radiographers in a one-to-one ration. In preparation, the Program Director and Clinical Coordinator provide in-service education to supervising technologists instructing them in the schools methods of competency based education. The technologists are instructed in:

1. Role of the supervising technologists to demonstrate, assist, and instruct the student in accomplishing the required behavioral objectives of the individual rotation assignments.
2. Approximate performance level of a student during different stages of the program.
3. Need for constructive evaluation of the student clinical performance in the areas of:
    a. required views/projections
    b. proper image receptor type and size and use of markers
    c. coning and collimation
    d. technique selection and adjustment
    e. equipment manipulation

f. correct positioning and central ray alignment
g. radiation protection practices
h. patient comfort and safety
i. interpersonal skills
j. professional skills, grooming, and appearance

4. Methods available to communicate areas of weakness to the student in a constructive and remedial manner
5. Need to communicate a student's unsatisfactory clinical performance to the school officials.

SUPERVISION OF STUDENTS IN THE CLINICAL SETTING

This policy shall be followed in order to provide appropriate supervision for students during their 24 month program cycle. Clinical competence is a major goal of the program but never as the expense of quality radiological services and appropriate care to all patients. Also, it is essential to ensure adequate radiation protection for the patient, the student, and all other medical personnel.

Supervisory and/or staff technologists shall assume responsibility for patient care during all phases of student education. Students may assist staff radiographers and even independently care for patients but ARRT certified radiographers must be immediately available to assist as needed. Certified technologists must be prepared to recognize a student's capabilities and limitations and support their competency based training accordingly.

STAFF TECHNOLOGIST RESPONSIBILITIES FOR STUDENTS IN THE CLINICAL ASSIGNMENT

Staff radiographers will provide either direct or indirect supervision for the student during the clinical education phase of the program. A portion of a staff radiographers time may be spent supervising student clinical education and evaluation.

The staff radiographer will:

1. Provide direct or indirect supervision of the student in accordance with the clinical education policy titled Supervision of the Student in Clinical Education.
2. Assume full responsibility for patient care and comfort and instruct the student in methods of patient care.
3. Explain and demonstrate proper usage of radiographic imaging equipment and accessories including radiation protection devices.
4. Instruct the student in the proper method or procedure to be followed for each radiographic examination performed in the area of the clinical assignment.
5. Instruct and guide the student in the preparation and proper handling of contrast media and any drugs which may be required for a specific procedure.
6. Instruct and guide the student as to the proper method or procedure for assisting the radiologist during a specific examination.
7. Use effective communication to facilitate a positive staff-student rapport and create a positive learning environment in the clinical setting.
8. Guide the student in the correct use of oral and written medical communication.
9. Guide the student in the election of exposure factors which can be used to obtain diagnostic quality radiographs with minimum radiation exposure.
10. Instruct the student in the correct way to modify standard procedures to accommodate the patient condition and/or other variables.
11. Instruct the student in the correct method of body mechanics

12. Guide the student in the correct method of processing radiographs
13. Instruct the student in the proper way to adapt exposure factors for various patient conditions, equipment, accessories, and contrast media to maintain appropriate radiographic quality.
14. Guide the student in evaluating radiographic images for appropriate positioning and image quality.
15. Instruct the student in the proper way to evaluate the performance of radiographic systems and inform the student in the safe limits of equipment operation.
16. Guide the student in reporting equipment malfunctions to the proper authority.
17. Guide the student in the performance of quality control testing as needed.
18. Instruct the student as to the various ways to recognize emergency patient conditions, summon help, and initiate first aid and basic life support.
19. Guide the student in recognizing human anatomy, function, and pathology on the radiographic image.
20. Upon request of the Program Direction and Clinical Coordinator, evaluate the students' performance in the clinical area of assignment.

CLINICAL EDUCATION OBJECTIVES

The student will:

1. Perform and/or assist the radiographer with the radiographic procedure(s) assigned to that room. Level of supervision: Clinical Instructor or staff radiographer depending upon the level of clinical competency that student has achieved.
2. Be able to:
    a. evaluate each requisition
    b. demonstrate proper physical facilities readiness
    c. demonstrate proper patient-radiographer relationship
    d. demonstrate correct positioning skills
    e. manipulate equipment effectively
    f. show evidence of radiation protection
3. be able to evaluate the radiographic image for:
    a. anatomical parts
    b. proper alignment
    c. radiographic technique
    d. film identification
    e. evidence for radiation protection

CLIINICAL PERFORMANCE OBJECTIVES

By the end of the clinical week #1, the student must be able to:

1. Explain the division of didactic and clinical breakdown of the program
2. Dial the emergency number (8211)
3. Explain the purpose of the film badge and apply knowledge of the principles of radiation protection to the patient, self, and others.
4. Explain the procedures for gaining clinical expertise.
5. Identify key individuals of the program and department.

By the end of clinical week #2, the student must be able to:

1. Explain all program policies.
2. Interact with patients providing them with essential courtesy and demonstrating ethical conduct.
3. Call patients out of the waiting area and dressing rooms for radiographic procedures.

By the end of clinical week #3, the student must be able to:

1. Select proper patient form a work list.
2. By inspecting the requisition, be able to determine where the patient is located before beginning the examination
3. Demonstrate proficiency on operating locks on the overhead tube and operate bucky in the assigned room.
4. Log all exams on tally sheet according to prescribed area.
5. Satisfactorily perform their assigned responsibilities for the linen, classroom, dressing rooms, and assigned areas.
6. Demonstrate professional behavior at all times regardless of where they are.

By the end of clinical week #4, the student must be able to:

1. Select various Ma, time, and KV factors for the assigned room
2. Assemble fluoroscopic equipment if in assigned area and adjust table to upright position.
3. Adjust distance indicators on overhead tube for table top, bucky, and erect work.
4. Choose correct exam tag for selected procedure and be able to add and delete exam tags.
5. Trace the paper flow of the department

By the end of clinical week #5, the student should be able to:

1. Demonstrate the knowledge of positioning and directional terms.
2. Demonstrate understanding of clinical performance protocol, especially daily tally sheets and the procedure for laboratory testing.

By the end of clinical week #6, the student should be able to:

1. Name the bones of the hand, wrist, and forearm.
2. Assist the radiologist in fluoroscopy, most specifically by:
    a. handing the patient barium for an upper GI series
    b. clamping and unclamping the barium enema tube
    c. assisting the patient in assuming patient positions and offering them physical comfort

STUDENT RADIOGRAPHERS CLINICAL AND ADMINISTRATIVE DUTIES

Under the guidance of the Program Director, department administration and staff radiographer the student will perform radiographic procedures and technical duties according to the progress of their clinical competency.

Clinical Duties

The student will produce radiographs for the practice of clinical proficiency by:

1. Positioning the patient for various examinations according to their clinical competency level.
2. Selecting proper technical factors on individual patients based on their clinical competency level.
3. Transferring patients from the waiting area to the radiographic room.
4. Selecting and operating the equipment as required for various examinations according to their clinical competency level.
5. Providing radiation protection according to the standards.
6. Assisting the staff radiographer in preparing contrast media and medications.

7. Being responsible to the Clinical Instructor and/or staff radiographers in performance of routine and special radiographic procedures.
8. Using sterile techniques when needed.

Administrative Duties

The student will perform the following administrative duties by:

1. Maintaining order and cleanliness
2. Securing and returning supplies
3. Cooperating with all personnel through proper conduct.
4. Rotating through the department according to the posted schedule.
5. Maintaining ethical patient-student relationships
6. Maintaining accurate examination experience sheets.

HOW A STUDENT BECOMES CLINICALLY COMPETENT

Clinical learning begins in the classroom. In October, first year students will begin his/her clinical participation by first assisting a staff radiographer. The student has been shown the radiographic positioning by the didactic instructor and can do the procedure with supervision. Participation moves from observing with radiographic examinations to assisting with them. **As the student gains experience and confidence in various procedures they can gradually move into clinical assessment and have their skills challenged.**

Step #1: PRACTICE

Combines knowledge and clinical skills. Student will say, *"I want to practice*" and will work to perform the exam without error. In this case the student needs direct supervision. The radiographer is encouraged to stay close by but assist only if necessary.

Step #2: TESTING BEGINS USING THE PAPER

When the student feels confident, the student will say "*I want to take a paper*". The radiographer must allow the student to proceed with the exam without interfering. If the radiographer observes the student doing something incorrectly, they must intercede so the patient's exam is not compromised. If the radiographer steps in, the student fails the "paper" and the radiographer must grade it and return it to the student which will then be turned into the Clinical Coordinator. If the student passes, the radiographer grades the "paper" and gives it to the student. To pass a "paper", the exam from beginning to the end must be 100% perfect. The student saves it and, together with another successful "paper", is now eligible to take a competency test.

Step #3: COMPETENCY TESTING

After obtaining two papers, the student may request a competency evaluation. The student **must present** the evaluator the two signed papers. The student will say "*I want to take my competency*". This is a serious step for the student because failure of this test forces the student to forfeit the papers they earned and start the process again. The student must turn in the two papers with the failed information on it from the technologist and return to the Clinical Coordinator. **When a radiographer passes a student, they are indicating they believe the student has earned the right to perform that exam independently on future patients**. However, the student would at all times in the future, be expected to ask for assistance if needed. Likewise, if a patient requests to NOT have the student perform their exam, the student must comply with the request without question.

GRADING GUIDELINES FOR CLINICAL COMPETENCY

The evaluator will observe the student performing the procedure. The evaluator will deduct points from the total. Total points will then be subtracted from the total amount available for the examination. All examinations have a maximum of 100 points when they begin. **Passing grade for competency testing is 85 points.**

Students who have not received competency in the requested radiographic procedure shall be under direct supervision. The following points constitute direct supervision.

A. A registered radiographer reviews the request for the radiographic examination to:
   1. Make a decision as to whether or not the student can perform the examination with reasonable success.
   2. Determine that the condition of the patient does not contraindicate performance of the examination by the student.

B. The presence of a qualified radiographer is required.

C. The registered radiographer must review and approve the radiographs prior to dismissal of the patient.

D. A registered radiographer must place his/her initials on the x-ray requisition along with the student's initials following completion of the exam. By doing so the radiographer indicates his/her review of the student's notes or comments.

Provided that the student has achieved competency in the procedure to be done, supervision provided by the registered radiographer may be indirect. This means that the registered radiographer may or may not be present in the radiographic room during the procedure. However, …..

A. A registered radiographer reviews the request for the radiographic examination to:
   1. Make a decision as to whether or not the student can perform the examination with reasonable success.
   2. Determine that the condition of the patient does not contraindicate independent performance of the examination by the student.

B. **The presence of the registered radiographer is required under the following conditions**:
   1. A repeat radiograph is being performed
   2. The procedure is being performed on a patient 12 years or younger
   3. The patient requires an injection of a contrast agent.
   4. The patient requests a registered radiographer.
   5. The procedure is a portable, operative procedure, or fluoroscopic examination.
   6. If the patient or the IR requires holding**. <u>At NO time is a student permitted to hold a patient or IR.</u>**

C. The registered radiographer must review and approve the radiographs prior to dismissal of the patient.

D. A registered radiographer providing indirect supervision for a student must place his/her initials on the x-ray requisition along with the students initials.

REQUEST FOR COMPETENCY EVALUATION

The student may not request a competency evaluation until they have been instructed in the fundamentals of the examination through didactic training. Didactic instruction will be documented in the student file by the responsible procedures instructor.

After obtaining the required amount of supervised staff competency forms, (2 papers), they can request a competency evaluation. The student must present the authorized evaluator the signed staff competency forms (2 papers) and request that they be evaluated for competency. The evaluation will be done on a patient under direct supervision of the evaluator. The evaluator will observe the procedure from room readiness to examination follow up. The evaluator will not participate in the examination unless a gross error has been made. He/she will then direct the student through the error and let the student proceed if they are able. Evaluation will be made after the examination is over and the patient has been discharged. The evaluator will determine the student grade using the approved grading guidelines.

If there are any questions or areas that need clarification, these should be directed to the Program Director or Clinical Coordinator before any grades have been assigned. All staff radiographers and program officials are authorized to conduct competency evaluation. Other individuals may be appointed by the Program Director to perform clinical competency evaluation.

COMPTENCY EVALUATION

Continuous evaluation will be performed once a competency has been achieved for a radiographic procedure

If the student passes the clinical competency, this information will be recorded in the student's file. The student may record the clinical competency on the competency board in the set up area of the diagnostic imaging department. This allows the personnel in the set up area to realize where each student stands in competency.

When a student does not pass a clinical competency evaluation, the evaluator will explain the reason why he/she did not pass. The student will then refer back to the instructor who teaches that procedure for additional review or instruction. The student will then begin the process over again from the practice mode. The student will need to obtain the required number of staff competency forms prior to requesting another competency evaluation for that procedure. A grade of 65% will be recorded as a failed competency grade.

Clinical Evaluation

Clinical evaluations are submitted every three months. Assigned staff will evaluate each student using the student evaluation form. A grade will then be computed by the Clinical Coordinator using the evaluation analysis form. The Clinical Coordinator will review the evaluations with the student and make suggestions in areas in which the student may need to improve. The student will sign and date the evaluation as an indication of receipt of the evaluation, not as an agreement to the evaluation statement. The student evaluation grades will be used in the formation of the student's clinical grade.

Formation of the Clinical Grade

Students will receive a clinical grade at the end of each evaluation period. The clinical grade will be based upon 60% of the clinical evaluation grade and 40% of the average of clinical competency grades received during that evaluation period.

At the end of the second clinical year an overall clinical grade will be determined by the following formula:

33% average of clinical grade up to summer of senior year
34% final competency grades
33% senior summer clinical grade

All clinical grades will be recorded on the student transcript sheet.

FINAL COMP OUT

After the completion of all competencies the student will bring his/her comp book to the Program Director or Clinical Coordinator on Friday of the week that the last competency was completed. The student may then schedule their final comp out. The final competency test date will be made by the Program Director and the Clinical Coordinator. Final examinations will be done under simulated conditions. All of their criteria used in competency evaluation will remain the same. After successful completion of the student's final comp out, final clinical grades are recorded in the students file and they are considered to be clinically done with the program. If the competency attempt was unsuccessful, an explanation of the errors and how to correct those errors will be addressed. They will reschedule their comp out and begin the process again.

CLINICAL ASSIGNMENTS

The purpose of clinical assignments in the School of Radiography is to allow the student to apply theoretical principles of radiography, patient care, and departmental procedures, to practical experience. Students will have the status of learner wand will not replace departmental personnel. While in the diagnostic imaging department, the student is required to observe the regulations imposed by the facility on its employees in connection with patient welfare. The student is directly responsible to the staff member assigned to the clinical area to which the student is assigned. Should any operational or personality problems arise, a settlement on this level is preferred. If the matter cannot be resolved the Program Director should be consulted. If the student needs further aid in solving the problem he/she may state the problem to the Advisory Committee as directed in the policy on student appeal.

REGULATIONS GOVERNING CLINICAL ASSIGNMENTS

1. The student will be supervised in the clinical area by the clinical instructor and by the technical staff and is ultimately responsible to the radiologist in charge.
2. Clinical room assignments are posted monthly on the Student Schedule posted at the set-up area of the diagnostic imaging department.
3. Students are expected to report promptly at designated times to the staff radiographers in their assigned areas.
4. Students will be assigned a 30 minute lunch by the Clinical Instructor or the person in charge.

5. Students must remain at their assigned clinical areas and may not leave the department without permission by the supervising technologist.
6. Students will be evaluated on a regular basis to determine progress in clinical performance, professional judgment, organization and ethics.
7. Students will perform in the clinical area under direct or indirect supervision of a registered radiographer depending on their level of competency.
8. All repeat radiographs are to be performed under direct supervision.
9. A student shall not be scheduled a clinical assignment or academic instruction in excess of 40 hours per week or ten hours per day.
10. Students are not required to attend clinicals on weekend, over nights or holidays. However, if a student is interested they need to discuss this with school officials.

ROOM ROTATION FOR THE STUDENT

Students will rotate through the following assignments every week at BRMC for their freshman year.

Room 1
Room 2/set ups
Room 4
Room 6

Freshman students will be assigned a one week rotation on an off-shift, typically 2:30pm to 10:30pm, at BRMC. This assignment will be scheduled during the summer rotation between the freshmen and senior years. Other sites may allow their scheduled student to complete this off shift week, but the Clinical Coordinator will reach out and confirm this request.

Students will rotate through the following assignments every week at BRMC for their senior year.

Room 1
Room 2
Room 4
Room 6
Float- Portables/DEXA/CT/MRI/US

Senior students will rotate through CT, MRI, and US after didactic instruction has been completed. Senior students may request and assignment to Nuclear Medicine and lithotripsy for observation purposes.

Rotations will be in such a way that the student has an opportunity to work with every radiographer in the department, participate in a variety of examinations and learn the necessary ancillary functions of a busy radiology department. The student schedule will be posted at the set up area. Any changes to the clinical schedule will be made **only** with the approval of the Clinical Coordinator and/or the Program Director.

The technologist and student technologist assigned to a room are responsible for keeping items in the room stocked such as linen, contrast agents, syringes, etc. Items that require stocking will vary from room to room but each student will be instructed on items required in each individual room. Restocking of rooms need to be done first thing in the morning. Periodic room checks/restocking throughout the day will be made to ensure a complete and accurate stock of all rooms.

CLINICAL SCHOLARSHIP

The Bradford Hospital Auxiliary provides a scholarship for outstanding clinical skills to a senior student in August of the senior year. This scholarship will be awarded to the student based upon the highest average of clinical grades received through April of the senior year.

CLINICAL PROBATION

Unacceptable clinical performance by a student will not be tolerated. The following is a list of issues that will be dealt with:

1. Failure to meet clinical performance objectives
2. Behavior unacceptable by the program or diagnostic imaging department
3. Excessive absenteeism or tardiness.
4. Negligence.
5. Failure to follow established program policies.

Method: written warning- each infraction will be dealt with using a written statement describing the problem. The student will see and sign each statement. **Probation**- when three documented warnings, either for similar or different infractions are issued to one student the student will be placed on clinical probation. **Probationary period is three months.**

RE-EVALUATION

The Advisory Committee will meet at the end of this three month probation period to review the student's record. The committee at this time will recommend one of the following:

1. To continue probation
2. To reinstate the student
3. To dismiss the student

DISMISSAL

Any further infractions or warnings to a student on clinical probation may result in dismissal. A dismissal may be appealed to the Advisory Committee.

IMMEDIATE DISMISSAL

Any serious infraction of department or program policy may result in immediate expulsion or probation as decided by the Advisory Committee.

CLINICAL OBJECTIVES

Upon completion of the students clinical rotation in the outpatient department, he/she shall be able to demonstrate knowledge, skills, and understanding in the following areas:

I Patient Care and Safety
II Radiographic Procedures
III Radiographic Technique
IV Radiation Protection
V Radiographic Equipment and Accessories

An acceptable level of competency has been achieved when the student is able to:

I Patient Care and Safety

A. Safely transport and transfer patients
B. Check for correct patient identification using two (2) forms of identification
C. Correctly care for patients with infectious disease
D. Provide safe storage for patient's personal possessions which may be removed temporarily during a radiographic procedure
E. Communicate with patients in a concerned and professional manner
F. Explain and instruct patients regarding procedures to be performed
G. Provide patients modesty and comfort by using blankets, pas, sponges, etc.
H. Practice good medical asepsis to prevent the spread of diseases by: using correct hand washing procedures after each patient and clean equipment between cases

II Radiographic Procedures

A. Perform fluoroscopic and radiographic studies and evaluate from the standpoint of:
    1. Radiographic and diagnostic quality
    2. Accuracy of interpretation of the request
    3. Correct positioning of anatomical parts
    4. Correct use of markers and identification information
    5. Correct collimation
    6. Correct identification of radiographic exposure factors

III Radiographic Technique

A. Select the proper technical factors for routine situations and make appropriate adjustments for the non-routine examination:
The factors to be selected or arranged in varying patters of use include
    1. Kilovoltage
    2. Automatic exposure density adjustments
    3. Selection of appropriate automatic exposure fields
    4. Milliamperage
    5. Time

IV Radiation Protection

A. Provide radiation protection for patients and personnel by utilizing lead aprons, gloves, screens, collimation, patient restraints, filters, and employing correct technical factors to eliminate repeats
B. Provide protection from possible electrical hazards by routinely inspecting electrical wiring.

V Radiographic Equipment and Accessories

A. Describe the type of x ray tube and machine used by listing the:
    1. Manufacturer
    2. Focal spot size
    3. Heat capacity of tube (rating chart)
    4. Generator size and type (mA, kVp, mfg)
    5. Current phase (single or multi)
    6. Type of rectification
    7. Special features of the various radiographic/fluoroscopic units (i.e. video tape records, 100mm, spot film cameras, cine, spot film devices, etc.)
B. Properly use the various image recording devices (i.e. cine, 100mm. spot cameras, video tape recorders, if used by the facility.)
C. Prepare contrast agents (barium sulfate and iodinated compounds) for various prescribed studies
D. Know and understand various examination preparation procedures and the importance of a well prepared patient for specific contrast studies
E. Properly use upright bucky

REQUIRED COMPETENCIES (84)

2 staff competency forms required prior to competency attempt.

EXTREMITY GROUP (22)

- Thumb
- Finger
- Hand
- Wrist
- Forearm
- Elbow
- Humerus
- Shoulder (Non Trauma)
- Shoulder (Trauma)
- Clavicle
- Toes
- Foot
- Ankle
- Heel
- Lower Leg
- Knee
- Patella
- Femur
- Hip (non-trauma)
- Hip (trauma)
- Portable orthopedic
- C-arm orthopedic

THORAX/ABDOMEN/CONTRAST GROUP (17)

- Chest
- Chest- Room 2
- Wheelchair chest
- Cart chest
- Pediatric chest** (6 or younger)
- Portable chest
- Ribs
- Abdomen
- Surgical Abdomen
- Decubitus Abdomen***
- Portable Abdomen
- UGI Series
- Small Bowel Series
- Barium Enema Single*
- Barium Enema Double*
- C-arm line placement
- C-arm GB

SPINE GROUP (9)

- Cervical Spine
- Cross Lateral Cervical Spine*
- Soft Tissue Neck*
- Thoracic Spine
- Lumbar Spine
- Pelvis
- Sacrum/Coccyx
- SI Joints
- Bone Density

HEADWORK GROUP (6)

- Sinuses
- Nasal Bones
- Skull*
- Facial Bones*
- Mandible*
- Orbits*

SPECIAL COMPETENCY GROUP (25)

After didactic instruction, competency may be attained at student discretion.
No staff competency forms required prior to competency attempt.

- Geriatric Chest (75 or older)**
- Geriatric Upper Extremity(75 or older)**
- Geriatric Lower Extremity (75 or older) **
- Geriatric Hip/Spine (75 or older)**
- Pediatric Portable (6 or younger)**
- Pediatric Abdomen (6 or younger)**
- Pediatric Upper Extremity (6 or younger)**
- Pediatric Lower Extremity (6 or younger)**
- Trauma Upper Extremity (any age patient)**
- Trauma Lower Extremity (any age patient)**
- Interventional Procedure: (venogram, arthrogram, myelogram, hysterosalpingogram, etc.)
- IVP
- Cystogram/Voiding cystourethrogram Retrograde
- C-Arm Manipulation
- US
- MRI
- CT Head
- CT Sinuses
- CT Neck
- CT Chest
- CT Abdomen/Pelvis
- Sternum
- SC Joints
- AC Joints

COMPETENCIES PERFORMED UNDER SIMULATED CONDITIONS (5)

- Vital Signs
- Venipuncture
- CPR Administration
- Oxygen Administration
- Body Mechanics

* Only one staff competency required prior to competency attempt. After June 1st of a student's 2nd year, they may request simulated testing for the "paper". The competency testing should be done on a patient.
** Student must document competency in the exam ordered prior to performing this competency
*** Student can automatically be awarded this competency if they pass Barium Enema-Double competency

School of Radiography at BRMC Competency List (84 total)

	CHEST		THUMB		SINUSES		PEDS CHEST
	CHEST RM 2		FINGER		NASAL BONES		PEDS ABD*
	WC CHEST		HAND		SKULL**		PEDS UPPER*
	CART CHEST		WRIST		FACIAL BONES**		PEDS LOWER*
	RIBS		FOREARM		MANDIBLE**		PEDS PORTABLE*
	STERNUM*		ELBOW		ORBITS**		GERI CHEST*
	SC JOINTS*		HUMERUS		UGI		GERI HIP/SPINE*
	KUB		SHOULDER NT		SMALL BOWEL		GERI UPPER*
	SURG ABD		SHOULDER T		BE - SINGLE**		GERI LOWER*
	DECUB ABD		CLAVICLE		BE- DOUBLE**		CT HEAD*
	PELVIS		AC JOINTS*		IVP*		CT NECK*
	SI JOINTS		TOE		CYSTOGRAM*		CT SINUSES*
	SACRUM/COCC		FOOT		RETROGRADE*		CT CHEST*
	L-SPINE		ANKLE		SPECIALS*		CT ABD/PELVIS*
	T-SPINE		CALCANEUS		C-ARM MANIP*		US*
	C-SPINE		LOWER LEG		C-ARM LINE		MRI*
	X-TBL C-SPINE**		KNEE		C-ARM GB		VITALS*
	ST NECK**		PATELLA		C-ARM ORTHO		CPR*
	BONE DENSITY		FEMUR		PORT CHEST		02 ADMIN*
	TRAUMA UPPER*		HIP NT		PORT ABDOMEN		VENIPUNCTURE*
	TRAUMA LOWER*		HIP T		PORT ORTHO		BODY MECHAN*

Student _____ *Sign off **Paper/Comp

updated 01/2023

Competency Chart ("mini dot board") given to students so they can track papers and comps

CLINICAL EXPECTATIONS & EVALUATION CRITERIA

Patient Care Criteria

The student:

1. Prepare the x-ray room prior to the patients arrival by logging into the system and selecting the patient. The room was neat and organized and equipped with accessories needed to perform the exam. The student focused on the patient and did not leave the room during the exam.
2. Must comply with AIDET which means they must:
    a. Acknowledge (in a private setting) they have the correct patient by asking them name and DOB.
    b. Introduce themselves to the patient and acknowledge they are a student
    c. Describe the expected duration of the exam to the patient
    d. Explain to the patient what will occur during and throughout the exam
    e. Thank the patient when the exam is complete
3. Escorts the patient safely into the x-ray room making sure their gown is fastened properly, their modesty was protected and they wore something on their feet. Their belongings were secured.
4. Obtains and records pertinent medical history and explained what would occur during the exam. Assistance was solicited form the patient by providing clear instructions. Did the patient hear and understand the instruction?
5. Recognizes and adapts to the patient's physical limitations (including the need for assistance) so the patient was as comfortable as possible.
6. Upon exam completion, returned belongings, answer patient questions, explain the results and the reporting process, escort the patient from the room and guide them to their next destination. Students are expected to walk patients to elevators, exits or other hospital departments as needed.

Technique Selection

The student**:**

1. Selects the correct body region from anatomically programmed radiography to obtain a guide to primary exposure factors for the exam.
2. Chooses to modify the APR technique. Adjustments to standard techniques must result in x-ray exposures that fall within the EI for the site.
3. Parks the x-ray tube at the required SID. If the exam requires the table or upright bucky, the tube must be parked in detent and the CR centered to the IR.
4. Observes the post-processed image to make certain the EI is within acceptable range. If it's not, the student should be able to explain why it was not in range. Practices related to repeating images when EI's are out of range are site specific. **Failing the student for EI's that are too high or low is at the discretion of the RT. However, each site is expected to be consistent in how they make those decisions.**
5. Employs proper collimation and lead blockers to minimize the effects of scatter radiation and increase radiographic contrast.
6. Demonstrates and understands of when and how to employ immobilization devices/techniques, cones, stationary grids, lead blockers etc. as prescribed by their positioning manuals and consistent with department policy and ALARA.

Radiation Protection

The student:

1. Provides the needed immobilization and clear instructions to the patient to hold still and suspend respirations. Aside from images done with purposeful patient motion (ie. breathing techniques) radiographs should be free of patient motion.
2. Provides lead shielding for protection of gonads and other radiosensitive organs/tissues but does not obstruct the view of important anatomical structures.
3. Collimates properly for each view or projection to limit the amount of tissue exposed. As a general rule, each image should demonstrate a small collimated border around the entire anatomy of interest unless the entire IR must be used to prevent clipping of needed anatomy.
4. Directly observes the patient through the lead window during all exposures. Since all x-ray equipment provides and audible indication of exposure, there is no reason to look anywhere but at the patient.
5. Explains how various factors such as AEC, positioning, conventional mAs/kVp selections, grids, collimation, patient factors etc., affects the resulting EI. Can the student explain conceptually, how a change in factor(s) would likely change the EI?
6. Performs all required views without repeating any radiographs. In most circumstances, repeating a view/projection results in the failure of a clinical test.

Image Analysis

The student:

1. Log on to the system, selects the correct patient and exam. Some departments require checks related to accession number and other patient information to make sure the right patient is selected.
2. Properly bar codes the IR by selecting the correct histogram after each exposure.
3. Demonstrates the skills needed to identify lead markers within the FOV, annotate images, adjust the FOV, and label radiographs in compliance with department protocols. All radiographs must be approved by an R.T. prior to sending to PACS. Only a registered technologist can end an exam where a student was involved. Students should never end the exam under any circumstances.
4. Answers questions from the R.T. describing the quality of each image considering its positioning, centering, presence of lead markers, collimation, noise, EI targets, and shielding.
5. Describes the actions which would or could improve image quality.
6. Correctly identifies various anatomical structures viewed on each radiograph when asked to do so by the R.T.

Grading Guidelines for Competency Evaluations:

IR	Incorrect size	-3 points
	LW vs CW	-3 points
Distance	Per inch	-1 point
Patient Position	Slight error	-3 points
	Choppy movements	-3 points
Central ray	Entrance/exit	-3 points
Tube angulation	No angle	-6 points
	0-5 degrees off	-2 points
	6-10 degrees off	-4 points
	over 10 degrees off	-6 points
Snaps, metal, jewelry	In desired anatomy	-5 points
	In any anatomy	-2 points
Radiation protection	Inadequate	-6 points
Breathing instructions	Incorrect	-6 points
Markers	None used	-6 points
	Mismarked	-6 points
	Coned off	-3 points
Patient ID	Name band checked	-6 points
	Repeat name back	-6 points
Collimation	None	-6 points
	Inadequate	-3 points
Technique	Slight error	-3 points
Evaluation of requisition	Inadequate	-5 points
Failure to observe patient during exposure		-3 points
Failure to assist patient as needed		-6 points
Failure to prepare radiographic room		-5 points
Patient Safety Error		-5 points

AUTOMATIC FAILURE: (-16pts for each of the following)

1. Procedure was terminated by the evaluator
2. Assistance was required and/or given
3. Gross violation in radiation protection practice
4. Repeat exposure was required

CLINICAL EXPERIENCE (MONTHLY TOTALS)

STUDENT: _____ MONTH/YEAR:_____

	O	A	I	TOTAL
FINGER				
THUMB				
HAND				
WRIST				
FOREARM				
ELBOW				
HUMERUS				
SHOULDER- NT				
SHOULDER- T				
SCAPULA				
CLAVICLE				
SC JOINTS				
AC JOINTS				
TOE				
FOOT				
OS CALCIS				
ANKLE				
LOWER LEG				
KNEE				
PATELLA				
FEMUR				
HIP- NT				
HIP- T				
EXTREMITY TOTAL				
ABDOMEN- FLAT				
SURGICAL ABDOMEN				
ESOPHAGRAM				
UGI SERIES				
SMALL BOWEL				
BARIUM ENEMA- SINGLE				
BARIUM ENEMA- DOUBLE				
VCUG				
I.V.P.				
ABDOMEN TOTAL				
TOTAL				

	O	A	I	TOTAL
SKULL				
SINUSES				
ORBITS				
FACIAL BONES				
NASAL BONES				
MANDIBLE				
TMJ'S				
SOFT TISSUE NECK				
HEAD TOTAL				
CHEST 1 VIEW				
CHEST 2 VIEW				
CART CHEST				
WC CHEST				
STERNUM				
RIBS				
CHEST TOTAL				
CERVICAL SPINE				
THORACIC SPINE				
LUMBAR SPINE				
PELVIS				
SACRUM & COCCYX				
SCOLIOSIS STUDY				
CROSS LATERAL C-SPINE				
SI JOINTS				
SPINE TOTAL				
PORTABLE CHEST				
PORTABLE KUB				
OTHER PORTABLES				
C-ARM				
RETROGRADE				
ERCP				
PORTABLE TOTAL				
TOTAL				

	O	A	I	TOTAL
CT HEAD				
CT SINUSES				
CT NECK				
CT SPINE				
CT CHEST				
CT ABD/PELVIS				
CT EXTREMITY				
CT TOTAL				
MISC FLUOROSCOPY				
HYSTEROSALPINGOGRAM				
MYELOGRAM				
ARTHROGRAM				
BONE DENSITY				
US PROCEDURES				
NM PROCEDURES				
MRI PROCEDURES				
CATH LAB				
BONE AGE				
BONE LENGTH				
SKELETAL SURVEY				
SPECIALS TOTAL				
TOTAL				
MONTHLY TOTAL				
PEDIATRIC TOTAL				

School of Radiography at Bradford Regional Medical Center

Clinical Evaluation Form

Student Name: _____ Room Assignment: _____

Category	Rating	Comments
1. Recalls Required Views - Demonstrates knowledge		
2. Selects Proper Image Receptor and Film markers - Selects correct image receptor - Correctly positions all markers (R, L, decub, etc.) - Selects proper exam tag		
3. Coning and Collimation - Collimates to proper image receptor size, aligns tube to film but doesn't over collimate - Adds cone for improved quality		
4. Technique Selection and Adjustments - Correctly selects table top, table bucky or upright bucky - Correctly selects center or outer chamber(s) if AEC is used - Measures patients using calipers when necessary - Adjusts programmed techniques depending on patient size and/or Pathology		
5. Equipment Manipulation - Always utilizes correct button to unlock vertical, longitudinal and transverse tube locks. Never "hunts" and "pecks". - Always inserts and removes IR properly from holders, bucky trays. - Aligns tube to IR.		
6. Correctly Positions Patient, Central Ray and Film - Works efficiently, avoiding repositioning of patient or IR		
7. Radiation Protection Practices - Checks for pregnancy and LMP on females of child bearing age - Shields appropriately according to view or projection		
8. Patient Safety and Comfort - Communicates instructions during all aspects of the exam - Talks with patient in a concerned, professional manner and listens to responses - Keeps patient draped for modesty		
9. Interpersonal Skills - Always accepts suggestions without making excuses and/or becoming defensive - Anticipates needs while assisting staff, other students, and/or doctors - Follows instructions and avoids repeat errors		
10. Professional Skills - Looks professional; well groomed, fresh uniform and clean white shoes - Remains in assigned room and keep assigned room clean and well stocked		
11. Behavior - Helpful, mature considerate, honest, responsible, motivated, cooperative and pleasant		

Rating Scale: 0= Unacceptable (F) 1=Needs Major Improvement (D) 2=Needs Minor Improvement (C) 3= Acceptable/Good (B) 4= Excellent (A)

Technologist Signature _____ **Date**: _____

Technologist:

Thank you for taking a few minutes out of your busy day to assess our students' progress in your clinical setting. To complete the Clinical Evaluation forms (on the reverse side) please use the following as a guide:

FOR CATEGORIES 1 to 7: Please rate the student as though you are comparing their clinical performance and skills to those of an entry level technologist.

A rating of "4" (excellent) indicates to us that you feel the student demonstrates a level of skill and competence one might expect of a new graduate/entry level technologist to possess.
We will not be surprised if our freshman students receive ratings of "0" and "1" in some categories.

FOR CATEGORIES 8, 9, 10, and 11: Rate the student at the level you feel they deserve. These categories focus less on technical skills and more on their interpersonal aptitudes, behavior, and professional attributes.

A rating of "4" is acceptable in these four categories for both the seniors and freshmen, alike.
Any additional written comments are always greatly appreciated by the students and by us, as well. The clinical evaluation ratings will be reviewed with each student during their quarterly clinical evaluation session.

As always, your privacy will be protected. Students **never** see any of their original evaluation forms. Any comments made on an evaluation form will be typed onto their quarterly clinical review sheets to ensure that your privacy will be safeguarded.

Thank you for your time, enthusiasm, knowledge, and expertise that you willingly impart on our students daily!

With great gratitude,

Jeanne Capra, Program Director - School of Radiography at BRMC

Alixandra Coon, Clinical Coordinator - School of Radiography at BRMC

School of Radiography
Bradford Regional Medical Center

STAFF "Paper" COMPETENCY FORM

_____	_____	_____
Student	**Date Performed**	**X-Ray/MR Number**

Exam Done: _____

Technique and Distance used and CM Measurements: _____

_____

For Staff Technologist to complete:

	YES	NO	
1. Thoroughly review request; check pt. ID and order			
2. Have room and equipment ready			
3. Practice good pt. technologist relationship			
4. Demonstrate experience in doing the exam			
5. Demonstrate knowledge of how to use equipment			
6. Show evidence of radiation protection			
7. Position each projection properly			
8. Align the part of the IR correctly			
9. Measure: use chart; make proper adjustments for distance, grid, pathology			
10. Use correct lead marker(s) on the correct side in the FOV			
11. Collimate properly to the area			
12. Complete paperwork and release patient			
If film was repeated explain why:			

I, _____ feel this student is competent to do
Staff Signature

_____. _____
Date

School of Radiography at Bradford Regional Medical Center
Student Attendance Sheet

Date	**Time In**	**Staff Initials**	**Time Out**	**Staff Initials**

Student:____

Chest Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical Site: _____/_____

PA CHEST

_____ Patient erect
_____ Adjust IR so that it's upper border is 1 ½" to 2" above the relaxed shoulders
_____ Center the MSP of the patient's body to the midline of the IR
_____ Elbows flexed to rest backs of the hands low on the hips
_____ Rotate shoulders forward so they are in contact with the vertical grid device
_____ Head straight and chin lifted up
_____ CR directed perpendicular to the center of the IR to enter at the level of T7 (inferior angle of the scapulae)
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on inspiration
_____ Appropriate speed

LATERAL CHEST

_____ Patient erect
_____ True lateral position with the left side adjacent to the IR (reduce heart magnification)
_____ Adjust the patient's MSP so that it is parallel to the IR
_____ Thorax centered to the grid, midcoronal plane perpendicular
_____ Patient's arms extended upward, elbows flexed with forearms resting on the head
_____ Adjust IR so that it's upper border is 1 ½" to 2" above the relaxed shoulders
_____ CR directed to midpoint of IR at the level of T7
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on inspiration
_____ Appropriate speed

GRADE: _____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Chest Exam (Room 2 BRMC); Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical Site: _____/_____

PA CHEST Room 2

_____ Patient erect
_____ Adjust IR so that it's upper border is 1 ½" to 2" above the relaxed shoulders
_____ Center the MSP of the patient's body to the midline of the IR
_____ Elbows flexed to rest backs of the hands low on the hips
_____ Rotate shoulders forward so they are in contact with the vertical grid device
_____ Head straight and chin lifted up
_____ CR directed perpendicular to the center of the IR to enter at the level of T7 (inferior angle of the scapulae)
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on inspiration
_____ Appropriate speed

LATERAL CHEST Room 2

_____ Patient erect
_____ True lateral position with the left side adjacent to the IR (reduce heart magnification)
_____ Adjust the patient's MSP so that it is parallel to the IR
_____ Thorax centered to the grid, midcoronal plane perpendicular
_____ Patient's arms extended upward, elbows flexed with forearms resting on the head
_____ Adjust IR so that it's upper border is 1 ½" to 2" above the relaxed shoulders
_____ CR directed to midpoint of IR at the level of T7
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on inspiration
_____ Appropriate speed

GRADE: _____ PASS: _____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Chest Exam (Wheelchair); Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical Site: _____/_____

AP CHEST IN WHEELCHAIR

_____ Patient upright
_____ MSP centered to the IR
_____ Adjust the IR so that the upper border is 1 ½" to 2" above the relaxed shoulders
_____ If able, flex patient's elbows, pronate the hands, and place hands on the hips to move scapulae
_____ Shoulders in the same transverse plane
_____ Head straight and chin lifted up
_____ CR directed perpendicular to the long axis of the sternum, 3" below the jugular notch
_____ Remove all artifacts
_____ Respirations done on inspiration
_____ Appropriate speed

LATERAL CHEST IN WHEELCHAIR

_____ Patient erect
_____ Remove arm rests if possible
_____ True lateral position with the left side adjacent to the IR (reduce heart magnification)
_____ Adjust the patient's MSP so that it is parallel to the IR
_____ Thorax centered to the grid, midcoronal plane perpendicular
_____ Patient's arms extended upward, elbows flexed with forearms resting on the head
_____ CR directed to midpoint of IR at the level of T7
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on inspiration
_____ Appropriate speed

GRADE:_____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Chest Exam (Cart); Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical Site: _____/_____

AP CHEST ON CART

_____ Patient upright
_____ MSP centered to the IR
_____ Adjust the IR so that the upper border is 1 ½" to 2" above the relaxed shoulders
_____ If able, flex patient's elbows, pronate the hands, and place hands on the hips to move scapulae
_____ Shoulders in the same transverse plane
_____ Head straight and chin lifted up
_____ CR directed perpendicular to the long axis of the sternum, 3" below the jugular notch
_____ Remove all artifacts
_____ Respirations done on inspiration
_____ Appropriate speed

LATERAL CHEST ON CART

_____ Patient erect
_____ Put down bed rails
_____ True lateral position with the left side adjacent to the IR (reduce heart magnification)
_____ Adjust the patient's MSP so that it is parallel to the IR
_____ Thorax centered to the grid, midcoronal plane perpendicular
_____ Patient's arms extended upward, elbows flexed with forearms resting on the head
_____ CR directed to midpoint of IR at the level of T7
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on inspiration
_____ Appropriate speed

GRADE:_____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Chest Exam (Pediatric; age 6 & under); Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical Site: _____/_____

PA CHEST PEDIATRIC

_____ Pigg-O–Stat, IR holder stand, or wall bucky
_____ Patient erect/upright
_____ MSP centered to the IR
_____ Adjust the IR so that the upper border is 1 ½" to 2" above the relaxed shoulders
_____ If able, flex patient's elbows, pronate the hands, and place hands on the hips to move scapulae
_____ Shoulders in the same transverse plane
_____ Head straight and chin lifted up
_____ CR directed perpendicular to the center of the IR to enter at the level of T7 (inferior angle of the scapulae)
_____ Remove all artifacts
_____ Respirations done on inspiration/observe respirations to make exposure on full inspiration
_____ Appropriate speed

LATERAL CHEST PEDIATRIC

_____ Patient erect
_____ True lateral position with the left side adjacent to the IR (reduce heart magnification)
_____ Adjust the patient's MSP so that it is parallel to the IR
_____ Thorax centered to the grid, midcoronal plane perpendicular
_____ Patient's arms extended upward, elbows flexed with forearms resting on the head
_____ Adjust IR so that it's upper border is 1 ½" to 2" above the relaxed shoulders
_____ CR directed to midpoint of IR at the level of T7
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on inspiration/observe respirations to make exposure on full inspiration
_____ Appropriate speed

GRADE: _____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Chest Exam (Geriatric; age 75 & older); Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical Site: _____/_____

PA CHEST GERIATRIC

_____ Patient erect
_____ Adjust IR so that it's upper border is 1 ½" to 2" above the relaxed shoulders
_____ Center the MSP of the patient's body to the midline of the IR
_____ Elbows flexed to rest backs of the hands low on the hips
_____ Rotate shoulders forward so they are in contact with the vertical grid device
_____ Head straight and chin lifted up
_____ CR directed perpendicular to the center of the IR to enter at the level of T7 (inferior angle of the scapulae)
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on inspiration
_____ Appropriate speed

LATERAL CHEST GERIATRIC

_____ Patient erect
_____ True lateral position with the left side adjacent to the IR (reduce heart magnification)
_____ Adjust the patient's MSP so that it is parallel to the IR
_____ Thorax centered to the grid, midcoronal plane perpendicular
_____ Patient's arms extended upward, elbows flexed with forearms resting on the head
_____ Adjust IR so that it's upper border is 1 ½" to 2" above the relaxed shoulders
_____ CR directed to midpoint of IR at the level of T7
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on inspiration
_____ Appropriate speed

GRADE: _____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Ribs Exam; Clinical Competency Test

Student: _____ Exam #:_____

Date: _____ Evaluator/Clinical Site: _____/_____

AP/PA RIBS ABOVE DIAPHRAGM

_____ Patient erect
_____ Center the MSP perpendicular to the IR
_____ Adjust the IR so the top border is 1 ½" above the upper border of the shoulders
_____ Rest patient's hands against the hips with palms turned outward to remove scapulae from rib cage
_____ Adjust the shoulders to lie in the same transverse plan
_____ CR directed perpendicular to midpoint of IR at the level of T7, midway between the MSP and the lateral border of the affected side
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on inspiration
_____ Appropriate speed

ANTERIOR/POSTERIOR OBLIQUE RIBS

_____ Patient erect
_____ Rotate the patient's body for a 45° oblique projection
_____ Center the affected side on a longitudinal plane drawn midway between the MSP and lateral border of the bod, position this plane to the midline of the IR
_____ For AP projections: abduct the arm of the affected side and elevate it (remove scapula)
_____ For PA projections: place hand on bucky for support
_____ Center the top of the IR 1 ½" above the upper border of the relaxed shoulder
_____ CR perpendicular to the center of the IR
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on inspiration
_____ Appropriate speed

AP RIBS- BELOW DIAPHRAGM

_____ Patient erect
_____ MSP perpendicular to the IR
_____ IR centered ½ way between the xiphoid process and the lower rib margin (bottom near iliac crests)
_____ Adjust shoulders to lie in the same transverse plane
_____ CR directed perpendicular to the center of the IR
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on expiration
_____ Appropriate speed

GRADE: _____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Sternum Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

LATERAL STERNUM

_____ Patient erect, bring arms back and puff out chest, military stance
_____ Place top of IR 1 ½' above the jugular notch
_____ CR is directed perpendicular to midpoint of the IR and sternum
_____ All metal and plastic removed
_____ Proper markers
_____ Proper collimation
_____ Suspended respiration
_____ Appropriate speed

RAO STERNUM

____ Patient prone on table
____ Rotate the patient 15- 20 degrees (RAO)
____ CR perpendicular entering the elevated side at the level of T7 & 1 inch lateral to midsagittal plane
____ Place top of IR 1 ½' above jugular notch
____ All metal and plastic removed
____ Proper markers
____ Proper Collimation
____ Suspended respirations
____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Abdomen Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical Site: _____/_____

AP ABDOMEN

_____ Patient supine
_____ Center the MSP to the midline of the IR
_____ Place a support under the patient's knees to reduce strain
_____ Center the IR at the level of the iliac crests
_____ CR directed perpendicular to the IR at the level of the iliac crests (L4)
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on expiration
_____ Appropriate speed

GRADE: _____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Abdomen Exam (Surgical); Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical Site: _____/_____

SURGICAL ABDOMEN - PA CHEST

_____ Patient erect
_____ Adjust IR so that it's upper border is 1 ½" to 2" above the relaxed shoulders
_____ Center the MSP of the patient's body to the midline of the IR
_____ Elbows flexed to rest backs of the hands low on the hips
_____ Rotate shoulders forward so they are in contact with the vertical grid device
_____ Head straight and chin lifted up
_____ CR directed perpendicular to the center of the IR to enter at the level of T7 (inferior angle of the scapulae)
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on inspiration
_____ Appropriate speed

SURGICAL ABDOMEN – AP ERECT

_____ Patient erect
_____ Center the MSP to the midline of the IR
_____ Distribute the patient's weight equally on the feet
_____ Center the IR 2" above the level of the iliac crests or high enough to include the diaphragm
_____ CR directed perpendicular to the IR 2" above the level of the iliac crests to include the diaphragm
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on expiration
_____ Appropriate speed

SURGICAL ABDOMEN – AP SUPINE

_____ Patient supine
_____ Center the MSP to the midline of the IR
_____ Place a support under the patient's knees to reduce strain
_____ Center the IR at the level of the iliac crests
_____ CR directed perpendicular to the IR at the level of the iliac crests (L4)
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on expiration
_____ Appropriate speed

GRADE: _____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Abdomen Exam (Pediatric; age 6 and under); Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical Site: _____/_____

AP ABDOMEN-PEDIATRIC

_____ Patient supine
_____ Center the MSP to the midline of the IR
_____ Place a support under the patient's knees to reduce strain
_____ Center the IR at the level of the iliac crests
_____ CR directed perpendicular to the IR at the level of the iliac crests (L4)
_____ Remove all artifacts
_____ Proper markers
_____ Respirations done on expiration
_____ Appropriate speed

GRADE: _____ **PASS:_____** **FAIL:_____**

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Thumb Exam; Clinical Competency Test

Student: _____ Exam# _____

Date: _____ Evaluator/Clinical site: _____/_____

AP THUMB

_____ Patient seated at the end of table
_____ Internally rotate hand until posterior surface of thumb is on IR
_____ Hold back other fingers
_____ CR directed perpendicular to midpoint of IR through the 1st metacarpal joint
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

MEDIAL OBLIQUE THUMB

_____ Patient seated at end of table
_____ Rotate hand so surface of thumb is at a 45 degree angle to IR
_____ CR directed perpendicular to midpoint of IR through the 1st metacarpal joint
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL THUMB

_____ Patient seated at end of table
_____ Rotate thumb until in a lateral position
_____ CR directed perpendicular to midpoint of IR through the 1st metacarpal joint
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Finger Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/ Clinical site: _____/_____

PA FINGER

_____ Patient seated at end of table
_____ Pronate hand and spread fingers
_____ CR directed perpendicular to the PIP joint
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

MEDIAL OBLIQUE FINGER

_____ Patient seated at end of table
_____ Finger forms 45 degree angle with plane of IR
_____ Proper use of positioning aids (optional)
_____ CR directed perpendicular to the PIP joint
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL OBLIQUE FINGER

_____ Patient seated at end of table, hand wrist and forearm on table
_____ Finger forms 45 degree angle with plane of IR
_____ Proper use of positioning aids (optional)
_____ CR perpendicular to the PIP joint
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL FINGER

_____ Patient seated at end of table, hand wrist and forearm on table
_____ Index and middle finger-hand rests on radial side
_____ Ring and little finger-hand rests on ulnar side
_____ CR perpendicular to the PIP joint
_____ Proper use of positioning aids (especially lateral view)
_____ All metal and plastic removed
_____ Appropriate speed

GRADE:_____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Hand Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

PA HAND

_____ Hand, wrist, and forearm on table, elbow flexed 90 degrees
_____ CR perpendicular to midpoint of the IR, through 3rd MCP joint
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL OBLIQUE HAND

_____ Hand, wrist, and forearm on table. Elbow flexed 90 degrees
_____ Palm of hand forms a 45 degree angle with plane of IR
_____ CR directed perpendicular to midpoint of the IR through the 3rd MCP joint
_____ Proper use of positioning aids (optional)
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL HAND

_____ Hand wrist and forearm on table, elbow flexed 90 degrees
_____ Hand resting on ulnar side with fingers fanned
_____ Shoulder and elbow in same plane
_____ CR directed perpendicular to midpoint of the IR at the level of the 2nd MCP joint
_____ Proper use of positioning aids (optional)
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Wrist Exam; Clinical Competency Test

Student: _____ Exam# _____

Date: _____ Evaluator/Clinical site: _____/_____

PA WRIST

_____ Hand, wrist, and forearm on table, elbow flexed 90°
_____ Hand in loose fist
_____ CR directed perpendicular to the midpoint of the IR at the level of the mid-carpals
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL OBLIQUE WRIST – ULNAR DEVIATION

_____ Hand, wrist, and forearm on table. Elbow flexed 90°
_____ Rotate wrist until it forms a 45 degree angle with plane of IR
_____ Wrist deviated to ulnar side
_____ CR directed perpendicular to the midpoint of the IR at the level of the mid-carpals
_____ Proper use of positioning aids (optional)
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL WRIST

_____ Hand, wrist, and forearm on table
_____ Hand resting on ulnar side
_____ Shoulder and elbow in same plane, elbow bent 90°
_____ CR directed perpendicular to the midpoint of the IR at the level of the mid-carpals
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

PA AXIAL – NAVICULAR

_____ Hand, wrist, and forearm on table
_____ Wrist and IR elevated on 20° sponge
_____ CR perpendicular to the midpoint of the IR at the level of the scaphoid bone
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Forearm Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP FOREARM

_____ Hand, wrist, and forearm on table
_____ Hand supinated, humeral epicondyles parallel to IR
_____ Shoulder and elbow in same plane
_____ Mid shaft of forearm centered to IR
_____ CR directed perpendicular to midpoint of the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL FOREARM

_____ Hand, wrist, and forearm on table
_____ Shoulder and elbow in same plane
_____ Forearm resting on ulnar side, elbow flexed 90°
_____ Center mid-shaft of forearm midpoint of IR
_____ CR directed perpendicular to midpoint of IR
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Elbow Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP ELBOW

_____ Evaluation of requisition
_____ Forearm, elbow, and humerus on table, shoulder and elbow in same plane
_____ Hand supinated, humeral epicondyles parallel to IR
_____ Elbow centered to midpoint of IR section
_____ CR directed perpendicular to elbow joint
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

MEDIAL OBLIQUE ELBOW

_____ Forearm, elbow, humerus on table, shoulder and elbow in same plane
_____ Hand rotated internally, humeral condyles form a 45° angle to the plane of the IR
_____ CR directed perpendicular to elbow joint
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL OBLIQUE ELBOW

_____ Forearm, elbow, and humerus on table, shoulder and elbow in same plane
_____ Hand rotated laterally with palm outward, humeral condyles form an 45° angle to plane of IR
_____ CR directed to elbow joint
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL ELBOW

_____ Forearm, elbow, and humerus on table, shoulder and elbow in same plane
_____ Elbow bent 90°
_____ Hand resting on ulnar side
_____ Elbow centered to midpoint of the IR
_____ CR directed perpendicular to elbow joint
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Humerus Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP HUMERUS

_____ Hand supinated, humeral epicondyles parallel to IR
_____ Mid shaft of humerus centered to IR
_____ CR directed perpendicular to the mid shaft of the humerus
_____ All metal and plastic removed
_____ Proper markers
_____ Suspended respiration
_____ Appropriate speed

LATERAL HUMERUS

_____ Back of hand on hip or thigh so humeral epicondyles are perpendicular to IR
_____ Mid shaft of humerus centered to IR
_____ CR directed perpendicular to the mid shaft of the humerus
_____ All metal and plastic removed
_____ Proper markers
_____ Suspended respiration
_____ Appropriate speed

LATERAL HUMERUS-TRANSTHORACIC

_____ Place patient with lateral surface of the affected arm against upright bucky
_____ Raised uninjured arm over patients head to elevate uninjured shoulder
_____ Top of IR 1" above the to of affected shoulder
_____ CR directed horizontal to the midpoint of the IR at the level of the neck of the humerus
_____ All metal and plastic removed
_____ Proper markers
_____ Breathing technique
_____ Appropriate speed

GRADE: _____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Shoulder Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP EXTERNAL ROTATION SHOULDER

_____ Hand supinated, humeral epicondyles parallel to IR
_____ Center the coracoid process to the midpoint of IR
_____ CR directed perpendicular to the midpoint of the IR at a level 1" below the coracoid process
_____ Head turned away from side being examined
_____ All metal and plastic removed
_____ Proper markers
_____ Suspended respiration
_____ Appropriate speed

AP INTERNAL ROTATION SHOULDER

_____ Hand internally rotated, humeral epicondyles perpendicular to the IR
_____ CR directed perpendicular to the midpoint of the IR at a level 1" below the coracoid process
_____ Head turned away from side being examined
_____ All metal and plastic removed
_____ Proper markers
_____ Suspended respiration
_____ Appropriate speed

INFEROSUPERIOR AXIAL- (LAWRENCE) AXILLARY SHOULDER

_____ Affected arm abducted to form right angle with long axis of body
_____ Humerus in external rotation with head turned away from side being examined
_____ CR directed horizontal through axilla to the region of the acromioclavicular articulation
_____ All metal and plastic removed
_____ Proper markers
_____ Extension cylinder (if available)
_____ Suspended respiration
_____ Appropriate speed

AP/PA OBLIQUE- SCAPULAR Y

_____ Patients anterior or posterior surface against table or upright bucky
_____ Torso is rotated approximately 45°
_____ Arm adjusted to have posterior surface of scapula perpendicular to IR
_____ CR directed to the center of IR
_____ Suspend respiration
_____ Appropriate speed

GRADE: _____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Shoulder Exam (Trauma); Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP SHOULDER TRAUMA

_____ CR directed perpendicular to the midpoint of the IR at a level 1" below the coracoid process
_____ Head turned away from the side being examined
_____ All metal and plastic removed
_____ Proper markers
_____ Suspended respiration
_____ Appropriate speed

AP/PA OBLIQUE- SCAPULAR Y TRAUMA

_____ Patient placed in a 45-60° oblique position, LPO or RPO
_____ Arm placed across body
_____ Scapulohumeral joint centered to the midpoint of the IR
_____ CR directed to the midpoint of the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Suspended respiration
_____ Appropriate speed

TRANSTHORACIC SHOULDER TRAUMA

_____ Place patient with the lateral surface of the affected arm against upright bucky
_____ Raise uninjured arm over patients head to elevate uninjured shoulder
_____ Top of IR 1" above the top of the affected shoulder
_____ CR directed perpendicular at the level of the humeral neck
_____ All metal and plastic removed
_____ Proper markers
_____ Breathing technique
_____ Appropriate speed

GRADE: _____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Clavicle Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP/PA CLAVICLE

_____ Shoulders in same plane
_____ CR directed perpendicular to midpoint of IR at the mid-clavicle
_____ All metal and plastic removed
_____ Proper markers
_____ Suspended at the end of expiration
_____ Appropriate speed

AP/PA AXIAL CLAVICLE

_____ Shoulders in same plane
_____ CR directed 15-30° cephalic to the midpoint of the IR at the mid-clavicle
_____ All metal and plastic removed
_____ Proper markers
_____ Suspended at the end of inspiration
_____ Appropriate speed

GRADE:_____ PASS: _____ FAIL: _____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Sternoclavicular Joints Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

PA SC JOINTS

_____ Shoulders in same plane
_____ CR directed perpendicular to midpoint of IR at the SC Joints (T3; posterior to Jugular Notch.)
_____ All metal and plastic removed
_____ Proper markers
_____ Proper Collimation
_____ Suspended at the end of expiration
_____ Appropriate speed

PA OBLIQUE SC JOINTS; RAO

_____ Place patient's body in a 10-15 degree oblique
_____ CR directed perpendicular to the SC Joint closest to the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Proper Collimation
_____ Suspended at the end of expiration
_____ Appropriate speed

PA OBLIQUE SC JOINTS; LAO

_____ Place patient's body in a 10-15 degree oblique
_____ CR directed perpendicular to the SC Joint closest to the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Proper Collimation
_____ Suspended at the end of expiration
_____ Appropriate speed

GRADE:_____ PASS: _____ FAIL: _____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Acromioclavicular Joints Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP BILATERAL (PEARSON) WITH WEIGHTS AC JOINTS

_____ Shoulders in same plane
_____ Patient Erect
_____ CR directed perpendicular to midpoint of IR at the midsagittal plane
_____ 72 inch SID
_____ All metal and plastic removed
_____ Proper markers
_____ Respirations Suspended
_____ Appropriate speed

AP BILATERAL (PEARSON) WITHOUT WEIGHTS AC JOINTS

_____ Shoulders in same plane
_____ CR directed perpendicular to the midpoint of the IR at the midsagittal plane
_____ 72 inch SID
_____ All metal and plastic removed
_____ Proper markers
_____ Respirations Suspended
_____ Appropriate speed

GRADE:_____ PASS: _____ FAIL: _____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Upper Extremity Exam (Pediatric; age 6 & under); Clinical Competency Test

Student: _____ Exam # _____

Exam Type: _____

Date: _____ Evaluator/Clinical site: _____/_____

AP UPPER EXTREMITY PEDIATRIC

_____ IR placed under extremity correctly
_____ Adhered to proper positioning criteria for AP view
_____ CR directed perpendicular to midpoint of IR
_____ Proper use of positioning aids
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL UPPER EXTREMITY PEDIATRIC

_____ IR placed under extremity correctly
_____ Adhered to proper positioning criteria for lateral view
_____ CR directed perpendicular to midpoint of IR
_____ Proper use of positioning aids
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Upper Extremity Exam (Geriatric; age 75 & older); Clinical Competency Test

Student: _____ Exam # _____

Exam Type: _____

Date: _____ Evaluator/Clinical site: _____/_____

AP UPPER EXTREMITY GERIATRIC

_____ IR placed under extremity correctly
_____ Adhered to proper positioning criteria for AP view
_____ CR directed perpendicular to midpoint of IR
_____ Proper use of positioning aids
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL UPPER EXTREMITY GERIATRIC

_____ IR placed under extremity correctly
_____ Adhered to proper positioning criteria for lateral view
_____ CR directed perpendicular to midpoint of IR
_____ Proper use of positioning aids
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Upper Extremity Exam (Trauma); Clinical Competency Test

Student: _____ Exam # _____

Exam Type: _____

Date: _____ Evaluator/Clinical Site: _____/_____

AP UPPER EXTREMITY TRAUMA

_____ IR placed under extremity correctly
_____ Adhered to proper positioning criteria for AP view
_____ CR directed perpendicular to midpoint of IR
_____ Proper use of positioning aids
_____ All metal and plastic removed
_____ Proper Markers
_____ Appropriate speed

LATERAL UPPER EXTREMITY TRAUMA

_____ IR placed under extremity correctly
_____ Adhered to proper positioning criteria for lateral view
_____ CR directed perpendicular to midpoint of IR
_____ Proper use of positioning aids
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Toe Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP TOE

_____ Knee bent, foot flat
_____ Center the MTP joint of great toe or PIP of toes 2-5 to the midpoint of the IR
_____ CR directed perpendicular to the midpoint of the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

MEDIAL OBLIUQE TOE

_____ Rotate toe medially until the plantar surface of the foot forms a 45° angle to the IR
_____ Center MTP joint of great toe or PIP of toes 2-5 to the midpoint of the IR
_____ All metal and plastic removed
_____ Appropriate speed

LATERAL TOE

_____ Patient lies on side, tape other toes out of the way of the affected toe
_____ Center MTP joint of great toe or PIP of toes 2-5 to midpoint of the IR
_____ CR directed perpendicular to midpoint of the IR
_____ All metal and plastic removed
_____ Appropriate speed

GRADE: _____ **PASS**:_____ **FAIL**: _____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Foot; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP AXIAL FOOT

_____ Patient supine or sitting with knee flexed
_____ Plantar surface of foot resting firmly on IR
_____ Center base of third metatarsal to midpoint of IR
_____ CR directed 10° cephalic to the midpoint of IR
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

MEDIAL OBLIQUE FOOT

_____ Patient supine or sitting upright with knee flexed
_____ Rotate the foot medially until the plantar surface forms an angle of 30° to the IR
_____ CR directed perpendicular to the base of the 3rd metatarsal
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL OBLIQUE FOOT

_____ Patient supine or sitting upright with knee flexed
_____ Rotate the foot laterally until the plantar surface forms and angle of 30° to the IR
_____ CR directed perpendicular to the base of the 3rd metatarsal
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL FOOT

_____ Patient in lateral recumbent position
_____ Place lateral side of the foot on table and adjust to true lateral position (dorsiflex)
_____ CR perpendicular to the base of the 3rd metatarsal
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Calcaneus (Os Calsis) Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

PLANTODORSAL/DORSOPLANTAR AXIAL CALCANEUS

_____ Patient supine on table affected leg extended
_____ Toes dorsiflexed until planter surface of foot is perpendicular to table
_____ CR directed 40° cephalad to enter at the level of the base of the 3rd metatarsal
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL CALCANEUS

_____ Patient lies on affected side
_____ Place lateral aspect of affected foot in contact with IR, dorsiflex ankle
_____ Center mid-calcaneus to center of IR
_____ CR directed perpendicular to midpoint of IR
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENT:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Ankle Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP ANKLE

_____ Patient supine or sitting, affected leg extended
_____ Flex foot and ankle to place long axis of foot in vertical position
_____ Center ankle joint to midpoint of IR
_____ CR directed perpendicular to midpoint of the IR at the level of the ankle joint
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

MEDIAL OBLIQUE ANKLE- MORTISE JOINT

_____ Patient supine or sitting, affected leg extended
_____ Dorsiflex foot and rotate leg medially 15-20°
_____ Ankle joint centered to midpoint of IR
_____ CR directed perpendicular to the IR at the level of the ankle joint
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL OBLIQUE ANKLE

_____ Patient supine or sitting, affected leg extended
_____ Dorsiflex foot and rotate leg laterally 45°
_____ Ankle joint centered to midpoint of IR
_____ CR directed perpendicular to the IR at the level of the ankle joint
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL ANKLE

_____ Patient lies on affected side
_____ Place foot in lateral position with ankle dorsiflexed
_____ Ankle joint centered to midpoint of the IR
_____ CR directed perpendicular to the IR at the level of the ankle joint
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Lower Leg Exam (Tibia/Fibula); Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP TIBIA/FIBULA

_____ Patient supine, affected leg extended in true AP position
_____ Center mid shaft of tibia to midpoint of the IR
_____ CR directed to the midpoint of the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

MEDIAL OBLIQUE TIBIA/FIBULA

_____ Patient supine, affected leg extended and rotated medially 45°
_____ Center mid shaft of tibia to midpoint of the IR
_____ CR directed to the midpoint of the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL TIBIA/FIBULA

_____ Patient lies on affected side
_____ Place knee and foot in lateral position
_____ Center mid shaft of tibia to midpoint of the IR
_____ CR directed perpendicular to midpoint of the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Knee Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP KNEE

_____ Patient supine or sitting with leg extended
_____ Femoral epicondyles parallel to IR
_____ Center knee joint to midpoint of IR (approx. ½ inch below the apex of the patella)
_____ CR directed 5-7° cephalic to the midpoint of the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

MEDIAL OBLIQUE KNEE

_____ Patient supine or sitting with leg extended
_____ Rotate knee medially 45°
_____ Center knee joint to midpoint of IR (approx. ½ inch below the aped of the patella)
_____ CR directed 5-7° cephalic to the midpoint of the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL OBLIQUE KNEE

_____ Patient supine or sitting with leg extended
_____ Rotate knee laterally 45°
_____ Center knee joint to midpoint of IR (approx. ½ inch below the aped of the patella)
_____ CR directed 5-7° cephalic to the midpoint of the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL KNEE

_____ Patient lies on affected side with knee bent approx. 20°
_____ Femoral epicondyles perpendicular to IR
_____ Center knee joint to midpoint of IR
_____ CR directed 5-7° cephalic to the midpoint of the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ **PASS**: _____ **FAIL**: _____

Staff Signature : _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Patella Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

TANGENTIAL (SETTEGAST) PATELLA

_____ Patient prone, knee slowly flexed so the tibia and fibula form a 50-60° angle from the table top
_____ Can also be done supine
_____ CR directed perpendicular to the space between the patella and the femoral condyles
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Femur Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP FEMUR- PROXIMAL

_____ Patient supine, center affected thigh to midline of IR
_____ Internally rotate leg to place femoral epicondyles parallel with the IR
_____ CR directed perpendicular to the midpoint of IR
_____ All metal and plastic removed
_____ Proper markers
_____ Breathing instructions on suspended respiration
_____ Appropriate speed

AP FEMUR- DISTAL

_____ Patient supine, center affected thigh to midline of IR
_____ Internally rotate leg to place femoral epicondyles parallel with the IR
_____ CR directed perpendicular to the midpoint of IR
_____ All metal and plastic removed
_____ Proper markers
_____ Breathing instructions on suspended respiration
_____ Appropriate speed

LATERAL FEMUR- PROXIMAL

_____ Place patient on the affected side, center affected thigh to midpoint of IR
_____ Flex knee 45° and adjust to true lateral position
_____ CR directed perpendicular to midpoint of IR
_____ Proper markers
_____ Breathing instructions on suspended respiration
_____ Appropriate speed

LATERAL FEMUR -DISTAL

_____ Patient supine, affected hip over midline of IR
_____ Flex knee, fully abduct side of interest
_____ CR directed perpendicular through femoral neck to midpoint of the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Breathing instruction on suspended respiration
_____ Appropriate speed

GRADE:_____ **PASS:_____** **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Hip Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP HIP

_____ Patient supine, center affected hip to the midpoint of the IR
_____ Invert toes of affected hip 15° to place along axis of leg parallel with IR
_____ CR is directed through the femoral neck to the midpoint of the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Breathing instructions on suspended respiration
_____ Appropriate speed

FROG LATERAL HIP

_____ Patient supine, abduct affected leg 45°
_____ CR directed perpendicular through femoral neck to midpoint of the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Breathing instruction on suspended respiration
_____ Appropriate speed

GRADE: _____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Hip Exam (Trauma); Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP HIP TRAUMA

____ Patient supine, center affected hip to the midpoint of the IR.
____ CR is directed through the femoral neck to the midpoint of the IR
____ All metal and plastic removed
____ Proper markers
____ Breathing instructions on suspected respiration
____ Appropriate speed

LATERAL HIP TRAUMA

____ Raise and support unaffected leg
____ CR directed horizontal to the femoral neck
____ Proper use of positioning landmarks; symphysis pubis and ASIS
____ All metal and plastic removed
____ Proper markers
____ Breathing instructions on suspended respiration
____ Appropriate speed

GRADE: _____ PASS:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Lower Extremity Exam (Pediatric; age 6 & under); Clinical Competency Test

Student: _____ Exam # _____

Exam Type: _____

Date: _____ Evaluator/Clinical site: _____/_____

AP LOWER EXTREMITY PEDIATRIC

_____ IR placed under extremity correctly
_____ Adhered to proper positioning criteria for AP view
_____ CR directed perpendicular to midpoint of IR
_____ Proper use of positioning aids
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL LOWER EXTREMITY PEDIATRIC

_____ IR placed under extremity correctly
_____ Adhered to proper positioning criteria for lateral view
_____ CR directed perpendicular to midpoint of IR
_____ Proper use of positioning aids
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Lower Extremity Exam (Geriatric; age 75 & older); Clinical Competency Test

Student: _____ Exam # _____

Exam Type: _____

Date: _____ Evaluator/Clinical site: _____/_____

AP LOWER EXTREMITY GERIATRIC

_____ IR placed under extremity correctly
_____ Adhered to proper positioning criteria for AP view
_____ CR directed perpendicular to midpoint of IR
_____ Proper use of positioning aids
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERAL LOWER EXTREMITY GERIATRIC

_____ IR placed under extremity correctly
_____ Adhered to proper positioning criteria for lateral view
_____ CR directed perpendicular to midpoint of IR
_____ Proper use of positioning aids
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Lower Extremity Exam (Trauma); Clinical Competency Test

Student: _____ Exam # _____

Exam Type: _____

Date: _____ Evaluator/Clinical Site: _____/_____

AP LOWER EXTREMITY TRAUMA

_____ IR placed under extremity correctly
_____ Adhered to proper positioning criteria for AP view
_____ CR directed perpendicular to midpoint of IR
_____ Proper use of positioning aids
_____ All metal and plastic removed
_____ Proper Markers
_____ Appropriate speed

LATERAL LOWER EXTREMITY TRAUMA

_____ IR placed under extremity correctly
_____ Adhered to proper positioning criteria for lateral view
_____ CR directed perpendicular to midpoint of IR
_____ Proper use of positioning aids
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Hip/Spine Exam (Geriatric; age 75 & older); Clinical Competency Test

Student: _____ Exam # _____

Exam Type: _____

Date: _____ Evaluator/Clinical site: _____/_____

AP HIP/SPINE GERIATRIC

_____ IR placed correctly
_____ Adhered to proper positioning criteria for AP view
_____ CR directed perpendicular to midpoint of IR
_____ Proper use of positioning aids
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

LATERALHIP/SPINE GERIATRIC

_____ IR placed correctly
_____ Adhered to proper positioning criteria for lateral view
_____ CR directed perpendicular to midpoint of IR
_____ Proper use of positioning aids
_____ All metal and plastic removed
_____ Proper markers
_____ Appropriate speed

**Do any other views as indicated by clinical site/radiologist and patient's condition.

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Soft Tissue Neck Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

LATERAL SOFT TISSUE NECK – UPPER AIRWAY

____ Patient erect, MSP parallel to IR
____ CR directed perpendicular to midpoint of IR at the level of the laryngeal prominence
____ All metal and plastic removed
____ Proper markers
____ Breathing instructions. Exposure is taken on inspiration
____ Appropriate speed

AP SOFT TISSUE NECK – UPPER AIRWAY

____ Patient in AP position, MSP centered to midline of bucky
____ Shoulders to lie in same horizontal plane
____ Extend patient's chin to remove the mandible from superimposition.
____ CR directed perpendicular to the midpoint of IR at the level of the laryngeal prominence.
____ All metal and plastic removed
____ Proper markers
____ Breathing instructions. Exposure is taken on inspiration.
____ Appropriate speed

GRADE: _____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Cervical Spine Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP C-SPINE

____ Patient erect, MSP centered to midline of the IR
____ Raise chin
____ Center C4 to the midpoint of the IR
____ CR directed 15° cephalic through C4
____ All metal and plastic removed
____ Proper markers
____ Appropriate speed

AP AXIAL OBLIQUE C-SPINE-LPO

____ Patient erect and rotated 45° toward the left side
____ Head remains in line with body
____ Center C4 to the midpoint of the IR
____ CR is directed 15° cephalic through C4
____ All metal and plastic removed
____ Proper markers
____ Appropriate speed

AP AXIAL OBLIQUE C-SPINE-RPO

____ Patient erect and rotated 45° toward right side
____ Head remains in line with body
____ Center C4 to the midpoint of the IR
____ CR is directed 15° cephalic through C4
____ All metal and plastic removed
____ Proper markers
____ Appropriate speed

LATERAL C-SPINE (GRANDY)

____ Patient in lateral erect position, MSP parallel to IR
____ Lift chin to remove rami of mandible from 1st and 2nd cervical bodies
____ Center C4 to the midpoint of the IR
____ CR is perpendicular to the level of C4
____ Use sandbag weights to drop shoulders
____ All metal and plastic removed
____ Proper markers
____ Appropriate speed

OPEN MOUTH C-SPINE

____ Center MSP to midline of the bucky
____ Place arms at the sides & adjust shoulders to lie in same transverse plane
____ Place occlusal plane perpendicular to IR
____ CR is directed perpendicular to the mid-point of the open mouth
____ All metal and plastic removed
____ Proper markers
____ Use extension cylinder cone (if available)
____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Cervical Spine Exam (Cross Table Lateral); Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

CROSS TABLE LATERAL C-SPINE (HORIZONTAL BEAM)

____ Keep patient in cervical restraint
____ Patient supine in stretcher, maintain immobilization/**NEVER remove c-collar**
____ Center C4 to the midpoint of IR
____ CR is directed perpendicular to C4
____ Proper markers
____ Shoulders are lowered
____ Appropriate speed

GRADE: _____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Thoracic Spine Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP T-SPINE

_____ Patient supine, MSP centered to midline of the IR
_____ Arms along sides, hips and shoulder in same plane.
_____ Place top of IR 1 ½' above shoulders
_____ CR is directed perpendicular to midpoint of the IR at the level of T7
_____ All metal and plastic removed
_____ Proper markers
_____ Suspended respiration
_____ Appropriate speed

LATERAL T-SPINE

____ Patient lies on left side, knees bent for support
____ Arms at right ankles to body, elbows bent
____ Center midaxillary line to the midpoint of the IR
____ All metal and plastic removed
____ Place top of IR 1 ½' above shoulders
____ Place lead blocker behind patient
____ CR is directed perpendicular to the midpoint of the IR at the level of T7
____ All metal and plastic removed
____ Proper markers
____ Breathing instructions, expose during quite breathing
____ Appropriate speed

LATERAL SWIMMERS (TWINNING)

____ Patient in true lateral position
____ Arms closest to IR raised above head
____ Depress opposite shoulder and rotate it posteriorly
____ Center midaxillary line to midline of IR
____ CR is directed at the level of C7-T1 interspace
____ All metal and plastic removed
____ Proper markers
____ Suspend respiration or expose during quiet breathing
____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Lumbar Spine Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP L-SPINE

_____ Patient supine, MSP centered to mid-point of the IR, knees may be flexed
_____ Adjust shoulders and hips to lie in same transverse plane
_____ Center film 1" above iliac crest
_____ CR is directed perpendicular to mid-point of the IR
_____ All metal and plastic removed
_____ Proper markers
_____ Suspended respiration
_____ Appropriate speed

L5-S1 LATERAL SPOT

____ Patient lies on left side, knees bent for stability, arms at right angles, elbows bent
____ Center 1 to 2" posterior to the MCP
____ CR is 5° caudal directed through a point midway between the iliac crest & ASIS
____ All metal and plastic removed
____ Proper markers
____ Use extension cylinder cone (if available)
____ Suspend respiration
____ Appropriate speed

AP OBLIQUE L-SPINE-RPO

____ Rotate MSP 45° to the left side and place the longitudinal plane 2" medial to the ASIS.
____ Center L3 to the midpoint of the IR
____ CR is directed perpendicular to the midpoint of the IR
____ All metal and plastic removed
____ Proper markers
____ Suspend respiration
____ Appropriate speed

AP OBLIQUE L-SPINE-LPO

____ Rotate MSP 45° to the right side and place the longitudinal plane 2" medial to the ASIS
____ Center L3 to the midpoint of the IR
____ CR is directed perpendicular to the midpoint of the IR
____ All metal and plastic removed
____ Proper markers
____ Suspend respiration
____ Appropriate speed

LATERAL L-SPINE

____ Patient lies on left side, knees bent for stability, arms at right angles, elbows bent
____ Center iliac crest to the midpoint of the IR
____ CR is directed perpendicular to the midpoint of the IR.
____ Place a lead blocker behind patient to reduce scatter
____ All metal and plastic removed
____ Proper markers
____ Suspended respiration
____ Appropriate speed

GRADE: _____ **PASS**:_____ **FALL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Sacrum and Coccyx Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP AXIAL SACRUM

_____ Patient supine, MSP centered to midline of table bucky, shoulders and hips in the same plane.
_____ CR is directed 15° cephalic to a point midway between the ASIS and the symphysis pubis
_____ All metal and plastic removed
_____ Proper markers
_____ Suspended respiration
_____ Appropriate speed

AP AXIAL COCCYX

_____ Patient supine. MSP centered to the midline of IR, hips and shoulder in the same plane
_____ CR directed 10° caudal to a point 2" superior to the symphysis pubis
_____ All metal and plastic removed
_____ Proper markers
_____ Use extension cylinder (if available)
_____ Suspended respiration
_____ Appropriate speed

LATERAL SACRUM & COCCYX

_____ Patient lies on left side, knees flexed for stability, arms at right ankles, elbows bent
_____ Spine horizontal
_____ CR is directed perpendicular 3 ½" posterior to the ASIS
_____ All metal and plastic removed
_____ Proper markers
_____ Suspended respiration
_____ Appropriate speed

GRADE:_____ PASS:_____ FAIL:_____

Staff Signature: _____

COMMENTS

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Pelvis Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP PELVIS

____ Patient supine, MSP centered to midline of IR
____ Rotate legs internally 15-20° to correct the foreshortening of the femoral necks
____ Top of IR 1" above the iliac crest
____ CR directed perpendicular to midpoint of IR 2" below the ASIS or 2" above the pubic symphysis
____ All metal and plastic removed
____ Proper markers
____ Suspend respiration
____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Sacroiliac Joints Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP AXIAL SI JOINTS

_____ Patient supine, MSP centered to midline of the IR
_____ CR 30° cephalic for males, 35° cephalic for females to a point 3" above the symphysis pubis
_____ All metal and plastic removed
_____ Proper markers
_____ Suspended respiration
_____ Appropriate speed

AP OBLIQUE SI JOINTS-RPO

_____ Patient supine, MSP centered to the midline of the IR
_____ Elevate right side 25°
_____ CR directed perpendicular to a point 1" medial to the elevated ASIS
_____ All metal and plastic removed
_____ Proper markers
_____ Use cylinder cone (if available)
_____ Suspended respiration
_____ Appropriate speed

AP OBLIQUE SI JOINTS-LPO

_____ Patient supine, MSP centered to the midline of the IR
_____ Elevate left side 25°
_____ CR directed perpendicular to a point 1" medial to the elevated ASIS
_____ All metal and plastic removed
_____ Proper markers
_____ Use cylinder cone (if available)
_____ Suspend respiration
_____ Appropriate speed

GRADE:_____ **PASS:_____** **FAIL:_____**

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Sinuses Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

PA AXIAL (CALDWELL) SINUSES

_____ Patient erect, resting on forehead and nose, MSP centered to the midpoint of the IR
_____ CR directed 15° to exit the nasion
_____ All metal and plastic removed, remove dentures
_____ Proper markers
_____ Use cylinder cone (if available)
_____ Appropriate speed

PA SINUSES

_____ Patient erect, resting on forehead and nose, MSP centered to the midpoint of the IR
_____ CR directed perpendicular to exit the nasion
_____ All metal and plastic removed, remove dentures
_____ Proper markers
_____ Use of cylinder cone (if available)
_____ Appropriate speed

PARIETOACANTHIAL (WATERS) SINUSES

_____ Patient erect, resting on the chin, MSP centered to the midpoint of the IR
_____ OML forms 37° angle to the IR
_____ CR directed perpendicular to the midpoint of the IR to exit the acanthion
_____ All metal and plastic removed, remove dentures
_____ Proper markers
_____ Use cylinder cone (if available)
_____ Appropriate speed

LATERAL SINUSES

_____ Patient erect resting on the affected side
_____ MSP parallel, IOML parallel to transverse axis, IPL perpendicular to IR
_____ CR directed perpendicular to the midpoint of the IR at the outer canthus
_____ All metal and plastic removed, remove dentures
_____ Proper markers
_____ Use cylinder cone (if available)
_____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL:_____**

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Nasal Bones Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

PA NASAL BONES

_____ Patient erect, resting on the forehead and nose, MSP centered to the midpoint of the IR
_____ CR is perpendicular to exit the acanthion
_____ All metal and plastic removed, remove dentures and/or any denture wear
_____ Proper markers
_____ Use cylinder cone (if available)
_____ Appropriate speed

PARIETOACANTHIAL (WATERS) NASAL BONES

_____ Patient erect, resting on the chin, MSP centered to the midpoint of the IR
_____ OML forms 37° angle to the IR
_____ CR directed perpendicular to the midpoint of the IR to exit the acanthion
_____ All metal and plastic removed, remove dentures and/or any denture wear
_____ Proper markers
_____ Use cylinder cone (if available)
_____ Appropriate speed

LATERAL NASAL BONES RIGHT

_____ Place patient in semi prone position
_____ Head resting on ear of affected side
_____ MSP and IOML parallel to transverse axis of the IR, IPL perpendicular to the IR
_____ CR directed perpendicular to the midpoint of the IR ½" distal to the nasion
_____ All metal and plastic removed
_____ Proper markers
_____ Proper use of a cylinder cone with additional collimation
_____ Appropriate speed

LATERAL NASAL BONES LEFT

_____ Place patient in semi prone position
_____ Head resting on ear of affected side
_____ MSP and IOML parallel to transverse axis of the IR, IPL perpendicular to the IR
_____ CR directed perpendicular to the midpoint of the IR ½" distal to the nasion
_____ All metal and plastic removed
_____ Proper markers
_____ Proper use of a cylinder cone with additional collimation
_____ Appropriate speed

GRADE: _____ **PASS**:_____ **FAIL:_____**

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Orbits Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

PA AXIAL (CALDWELL) ORBITS

_____ Patient erect, resting on forehead and nose, MSP centered to the midpoint of the IR
_____ CR directed 15° to exit the nasion
_____ All metal and plastic removed, remove dentures and/or any denture wear
_____ Proper markers
_____ Use cylinder cone (if available)
_____ Appropriate speed

MODIFIED PARIETOACANTHIAL (MODIFIED WATERS) ORBITS

_____ Patient erect, resting on nose and chin, MSP centered to the midpoint of the IR
_____ OML 50° to the plane of the IR
_____ CR directed perpendicular to midpoint of IR to exit the acanthion
_____ All metal and plastic removed
_____ Proper markers
_____ Proper use of cylinder cone (if available)
_____ Appropriate speed

OBLIQUE RIGHT (RHESE) ORBITS

_____ Patient erect, resting on cheek, nose, and chin
_____ MSP rotated 53° to plane of IR, AML perpendicular
_____ CR directed perpendicular to the midpoint of the IR 1" superior and 1" posterior to the TEA
_____ All metal and plastic removed
_____ Proper markers
_____ Proper use of cylinder cone (if available)
_____ Appropriate speed

OBLIQUE LEFT (RHESE) ORBITS

_____ Patient erect, resting on cheek, nose, and chin
_____ MSP rotated 53° to plane of IR, AML perpendicular
_____ CR directed perpendicular to the midpoint of the IR 1" superior and 1" posterior to the TEA
_____ All metal and plastic removed
_____ Proper markers
_____ Proper use of cylinder cone (if available)
_____ Appropriate speed

LATERAL ORBITS

_____ Head in true lateral position, MSP parallel, IOML parallel, IPL perpendicular
_____ CR perpendicular to the midpoint of the IR, 1" posterior to the outer canthus
_____ All metal and plastic removed
_____ Proper markers
_____ Use cylinder cone (if available)
_____ Appropriate speed

GRADE: _____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Skull Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

PA AXIAL (CALDWELL) SKULL

_____ Patient erect, resting on forehead and nose, MSP centered to the midpoint of the IR
_____ OML is perpendicular to the IR
_____ CR directed 15° caudad through the nasion
_____ All metal and plastic removed, remove dentures and/or any denture wear
_____ Proper markers
_____ Suspend respiration
_____ Appropriate speed

LATERAL RIGHT SKULL

_____ Patient erect, resting on right side
_____ MSP parallel IOML parallel to the transverse axis, IPL perpendicular to the IR
_____ CR directed perpendicular to a point 2" superior to the EAM
_____ All metal and plastic removed, remove dentures and/or any denture wear
_____ Proper markers
_____ Appropriate speed

LATERAL LEFT SKULL

_____ Patient erect, resting on left side
_____ MSP parallel, IOML parallel, IPL perpendicular to the IR
_____ CR directed perpendicular to a point 2" superior to EAM
_____ All metal and plastic removed, remove dentures and/or any denture wear
_____ Proper markers
_____ Appropriate speed

AP AXIAL (TOWNE) SKULL

_____ Patient supine, MSP centered to the midpoint of the IR
_____ Place OML or IOML perpendicular to IR
_____ CR directed 30-37° caudad 2 ½" above the glabella
_____ All metal and plastic removed, remove dentures
_____ Proper markers
_____ Appropriate speed

GRADE: _____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Mandible Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

PA MANDIBLE

_____ Patient erect resting on forehead and nose for rami pain or nose and chin for mental point pain.
_____ CR perpendicular to exit the acanthion for rami pain or the level of the lips for mental point pain
_____ All metal and plastic removed, remove dentures and/or any denture wear
_____ Proper markers
_____ Proper cylinder cone (if available)
_____ Appropriate speed

LATERAL MANDIBLE

_____ Patient erect, resting on affected side
_____ MSP and IOML parallel to the IR, IPL perpendicular to the IR
_____ Extend chin to remove rami from the area of the cervical spine
_____ CR directed perpendicular thru the mandible to the midpoint of the IR
_____ All metal and plastic removed, remove dentures and/or any denture wear
_____ Proper markers
_____ Use cylinder cone (if available)
_____ Suspend respiration
_____ Appropriate speed

AXIOLATERAL OBLIQUE RIGHT (ZANELLI) MANDIBLE

_____ Adjust head so that the MSP forms an angle of 30° to the plane of the IR
_____ CR enters the left mandibular region directed perpendicular to the midpoint of the IR
_____ All metal and plastic removed, remove dentures and/or any denture wear
_____ Proper use of markers
_____ Use cylinder cone (if available)
_____ Appropriate speed

AXIOLATERAL OBLIQUE LEFT (ZANELLI) MANDIBLE

_____ Adjust head so that the MSP forms an angle of 30° with the plane of the IR
_____ CR enters the right mandibular region directed perpendicular to the midpoint of the IR
_____ All metal and plastic removed, remove dentures and/or any denture wear
_____ Proper use of markers
_____ Use cylinder cone (if available)
_____ Appropriate speed

AP AXIAL (EXAGGERATED TOWNE) MANDIBLE

_____ Place patient supine, MSP centered to the midpoint of the IR
_____ Place the OML or IOML perpendicular to the IR
_____ CR directed 37° caudad exiting the TMJs if the OML is perpendicular
_____ CR directed 44° caudad exiting the TMJs if the IOML is perpendicular
_____ All metal and plastic removed, remove dentures and/or any denture wear
_____ Proper markers
_____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____
COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Facial Bones Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

PA AXIAL (CALDWELL) FACIAL BONES

_____ Patient erect, head resting on forehead and nose. OML perpendicular to the IR
_____ MSP centered to the midline of bucky
_____ CR 15° caudad to exit the nasion
_____ All metal and plastic removed, remove dentures and/or any denture wear
_____ Proper markers
_____ Use cone (if available)
_____ Appropriate speed

PARIETOACANTHIAL (WATERS) FACIAL BONES

_____ Patient erect, head resting on the chin. OML forms a 37° angle to the IR
_____ MSP centered to the midline of the IR
_____ CR perpendicular to the midpoint of the IR to exit the acanthion
_____ All metal and plastic removed, remove dentures and/or any denture wear
_____ Proper markers
_____ Use cone (if available)
_____ Appropriate speed

MODIFIED PARIETOACANTHIAL (MODIFIED WATERS) FACIAL BONES

_____ Patient erect, head resting on nose and chin. OML forms a 55° angle to the IR
_____ MSP centered to the midline of the IR
_____ CR perpendicular to exit the acanthion
_____ All metal and plastic removed, remove dentures and/or any denture wear
_____ Proper markers
_____ Use cone (if available)
_____ Appropriate speed

LATERAL FACIAL BONES

_____ Patient erect, head resting on affected side. MSP and IOML parallel, IPL perpendicular
_____ CR perpendicular to the IR to enter the malar bone
_____ All metal and plastic removed, remove dentures and/or any denture wear
_____ Proper markers
_____ Use cone (if available)
_____ Appropriate speed

SUBMENTOVERTEX (SMV) FACIAL BONES

_____ Patient supine with head extended; IOML parallel with the IR
_____ CR perpendicular to the IOML
_____ All metal and plastic removed
_____ Proper markers
_____ Use cone (if available)
_____ Appropriate speed
_____ If both zygomatic arches are not opened, ("May view" can be attempted without penalty or exam failure)

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Intravenous Pyelogram; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP SCOUT IVP

_____ Patient supine, MSP centered to midpoint of IR
_____ CR perpendicular to L4 at the level of iliac crests
_____ Proper markers
_____ Breathing instruction on expiration
_____ Appropriate speed

SCOUT TOMOGRAM IVP

_____ Patient supine, MSP centered to midpoint of IR
_____ Equipment set to tomographic mode
_____ Fulcrum level selected and set
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

3 TOMOGRAMS POST INJECTION IVP

_____ Patient supine, MSP centered to midpoint of IR
_____ Equipment set to tomographic mode
_____ Fulcrum level selected and set
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

AP 5 AND 10 MIN DELAY IVP

_____ Patient supine, MSP centered to midpoint of IR
_____ CR perpendicular to L4 at the level of iliac crests
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

OBLIQUE 15 MIN DELAY RPO IVP

_____ Patient supine, MSP centered to midline of table bucky
_____ 30° oblique
_____ CR perpendicular to L4 at the level of the iliac crests, 2" lateral to the midline of the elevated side
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

OBLIQUE 15 MIN DELAY LPO IVP

_____ Patient supine, MSP centered to midline of table bucky
_____ 30° oblique
_____ CR perpendicular to L4 at the level of the iliac crests, 2" lateral to the midline of the elevated side
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

PA 15 MIN DELAY IVP

_____ Patient prone, MSP centered to the midpoint of the IR
_____ CR perpendicular to L4 at the level of the iliac crests
_____ All metal and plastic removed
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

POST VOID IVP

_____ Patient supine, MSP centered to the midpoint of the IR
_____ CR perpendicular to L4 at the level of the iliac crests
_____ All metal and plastic removed
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

GRADE: _____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Upper GI; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP SCOUT UGI

_____ Patient supine, MSP centered to the midpoint of the IR
_____ CR perpendicular to L4 at the level of the iliac crests
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

RAO DRINKERS UGI

_____ Patient in the RAO position, MSP 35-40° to the IR
_____ CR perpendicular to T5-T6, top of light at the lips
_____ Proper markers
_____ Instruct when the patient is to start and stop drinking
_____ Appropriate speed

RAO STOMACH UGI

_____ Patient in the RAO position. MSP 40-70° to the IR
_____ CR perpendicular 1-2" above the lower rib margin at the level of L1/L2
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

PA UGI

_____ Patient prone, MSP perpendicular to the IR
_____ CR perpendicular 1-2" above the lower rib margin at the level of L1/L2
_____ All metal and plastic removed
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

LATERAL RIGHT UGI

_____ Patient in right lateral recumbent position
_____ CR perpendicular 1-2" above the lower rib margin at the level of L1/L2
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

AP UGI

_____ Patient supine, MSP perpendicular to the IR
_____ CR perpendicular 1-2" above the lower rib margin at the level of L1/L2
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

GRADE: _____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Small Bowel Follow Through; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP SCOUT SMALL BOWEL

_____ Patient supine, MSP centered to the midpoint of the IR
_____ CR perpendicular to L4 at the level of the iliac crests
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

TIME DELAYED STUDY SMALL BOWEL

_____ Patient prone, MSP centered to the midpoint of the IR
_____ CR perpendicular to L4 at the level of the iliac crests
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

FLOUROSCOPY ROOM READINESS SMALL BOWEL

_____ Compression paddle ready and available
_____ Anticipates and meets radiologist's needs and checks images with radiologist
_____ Accurately entered patient's name and information into the digital imager
_____ Was able to accurately send images to PACS

GRADE: _____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Barium Enema (Single Contrast); Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP SCOUT SINGLE BE

_____ Patient supine, MSP centered to midpoint of IR
_____ CR perpendicular to L4 at level of iliac crests
_____ Proper markers
_____ Breathing instruction on expiration
_____ Appropriate speed

AP SINGLE BE

_____ Patient supine, MSP centered to midpoint of IR
_____ CR perpendicular to L4 at level of iliac crests
_____ Proper markers
_____ Breathing instruction on expiration
_____ Appropriate speed

POST EVAC SINLGE BE

_____ Patient supine, MSP centered to midpoint of the IR
_____ CR perpendicular to L4 at the level of the iliac crests
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

OBLIQUE RPO SINGLE BE

_____ Patient supine, 35-45° oblique
_____ CR perpendicular to L4 at the level of the iliac crests 1-2" lateral to the midline of the elevate side
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

OBLIQUE LPO SINGLE BE

_____ Patient supine, 35-45° oblique
_____ CR perpendicular to L4 at the level of the iliac crests 1-2" lateral to the midline of the elevate side
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

LATERAL RECTUM SINGLE BE

_____ Patient in left lateral recumbent position
_____ MCP perpendicular to the IR
_____ CR perpendicular to enter the MCP at the level of the ASIS
_____ Proper markers
_____ Suspend respiration
_____ Appropriate speed

PA SIGMOID SINLGE BE

_____ Patient prone, MSP centered to midpoint of IR
_____ CR 30-40° caudal to enter the MSP at the level of the ASIS
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____
COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Barium Enema (Double Contrast); Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

AP SCOUT DOUBLE BE

_____ Patient supine, MSP centered to midpoint of IR
_____ CR perpendicular to L4 at level of iliac crests
_____ Proper markers
_____ Breathing instruction on expiration
_____ Appropriate speed

AP DOUBLE BE

_____ Patient supine, MSP centered to midpoint of IR
_____ CR perpendicular to L4 at level of iliac crests
_____ Proper markers
_____ Breathing instruction on expiration
_____ Appropriate speed

OBLIQUE RPO DOUBLE BE

_____ Patient supine, 35-45° oblique
_____ CR perpendicular to L4 at level of iliac crests 1-2" lateral to the midline of the elevate side
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

OBLIQUE LPO DOUBLE BE

_____ Patient supine, 35-45° oblique
_____ CR perpendicular to L4 at level of iliac crests 1-2" lateral to the midline of the elevate side
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

LATERAL RECTUM DOUBLE BE

_____ Patient in left lateral recumbent position
_____ MCP perpendicular to the IR
_____ CR perpendicular to enter the MCP at level of ASIS
_____ Proper markers
_____ Suspend respiration
_____ Appropriate speed

PA SIGMOID DOUBLE BE

_____ Patient prone, MSP centered to the mid-point of the IR
_____ CR 30-40° caudal to enter the MSP at level of the ASIS (AP-CR 30-40^0 cephalad 2"below ASIS)
_____ Proper markers
_____ Breathing instructions on expiration
_____ Appropriate speed

RIGHT LATERAL DECUBITUS

____ Patient is lying on right side, MSP centered to the midpoint of the IR
____ CR directed horizontal to L4, at the level of the iliac crests
____ Proper markers
____ Suspend respiration
____ Appropriate speed

LEFT LATERAL DECUBITUS

____ Patient is lying on left side, MSP centered to the midpoint of the IR
____ CR directed horizontal to L4, at level of the iliac crests
____ Proper markers
____ Suspend respiration
____ Appropriate speed

POST EVAC DOUBLE BE

____ Patient supine, MSP centered to the midpoint of the IR
____ CR perpendicular to L4, at level of the iliac crests
____ Proper markers
____ Suspend respiration
____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Decubitus Surgical Abdomen Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

RIGHT LATERAL DECUBITUS SURGICAL ABDOMEN

____ Patient in the right lateral recumbent position, MSP centered to the midpoint of the IR
____ CR directed horizontal to L4 at the level of the iliac crests
____ Proper markers
____ Suspend respiration
____ Appropriate speed

LEFT LATERAL DECUBITUS SURGICAL ABDOMEN

____ Patient in the left lateral recumbent position, MSP centered to the midpoint of the IR
____ CR directed horizontal to L4 at the level of the iliac crests
____ Proper markers
____ Suspend respiration
____ Appropriate speed

GRADE: _____ **PASS**:_____ **FAIL**: _____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Cystogram; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

SUPPLIES CYSTOGRAM

____ Catheterization tray
____ Betadine solution
____ Sterile gloves
____ Chux pads
____ 1 bottle of contrast Isovue 370
____ Sheet to cover patient
____ Fluid administration tubing
____ Clamp
____ Scissors
____ Tape

POST PROCEDURE CYSTOGRAM

____ Instructs patient to empty bladder
____ 14 x 17 IR in table bucky
____ Patient supine, MSP centered to midline of the IR
____ Center IR to level of iliac crest
____ CR perpendicular to midpoint of IR
____ Proper markers
____ Suspend respiration
____ Appropriate speed
____ Checks images with radiologist

CYSTROGRAM PROCEDURE

____ Assists in obtaining informed consent
____ Assists in evaluating patient to determine if pre-procedure orders were followed
____ 14 x 17 IR in table bucky
____ Patient supine, MSP centered to midline of IR
____ IR centered to level of iliac crest
____ CR directed perpendicular to the midpoint of the IR
____ Proper markers
____ Suspend respiration
____ Appropriate speed
____ Checks images with radiologist
____ Assists nurse in patient catheterization
____ Properly prepares and handles supplies
____ Maintains sterile field
____ Follows universal precautions policy and procedure

ROOM READINESS/FLUOROSCOPY CYSTOGRAM

____ Radiographic tube placed in home position
____ Bucky moved to head of table
____ Foot pedal properly placed
____ TV monitor ready and properly located
____ Fluoro tower marked for side of interest
____ Anticipates and meets radiologist needs
____ Properly instructs patient to maintain position
____ Takes overhead radiographs as directed
____ Accurately entered patient name and information into digital imager
____ Was able to accurately acquisition images from the digitizer as requested by the radiologist

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

Interventional Procedure (Specials); Clinical Competency Test

Student: _____ Exam # _____

Procedure: _____

Date: _____ Evaluator/Clinical site: _____/_____

ROOM READINESS INTERVENTIONAL PROCEDURE

____ Radiographic tube placed in the home position
____ Bucky moved to head/foot of table
____ Foot pedal properly placed
____ TV monitor ready and properly located
____ Footboard on table (if applicable)
____ Mark fluoro tower with appropriate marker
____ Accurately entered patients name and information in computer monitor
____ Was able to accurately acquisition images from the fluoro monitor to PACS
____ Was able to aid radiologist with digital imaging as needed

INTERVENTIONAL COMPETENCY PROCEDURE

____ Assists in obtaining allergy history.
____ Assists in obtaining informed consent.
____ Patients personal articles removed if necessary
____ Patient placed supine on table.
____ Properly prepares and handles supplies
____ Maintains sterile field
____ Assists radiologist as needed
____ Follows universal precautions policy and procedures
____ Takes overhead radiographs as directed
____ Appropriate speed

POST PROCEDURE INTERVENTIONAL PROCEDURE

____ Provides patient with proper discharge instructions
____ Assists radiologist/radiographer with patient care requirements
____ Proper disposal of supplies
____ Checks images with radiologist
____ Informs charge person of status of exam as needed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Patient Care Criteria

_____ 1. Prepared radiographic room prior to exam.

_____ 2. Verified patient's name, DOB, LMP, change of pregnancy etc.

_____ 3. Escorted patient to x-ray room with gown fastened. Secured personal belongings.

_____ 4. Obtained medial history and explained exam to the patient.

_____ 5. Adapted to the patient's physical limitations. Minimized patient's discomfort.

_____ 6. Upon exam completion, properly discharged patient.

Technique Selection

_____ 1. Selected correct Anatomically Programmed Radiography (APR) option.

_____ 2. Modified suggested APR technique correctly, as needed.

_____ 3. Set proper SID and set x-ray tube to detent (if appropriate).

_____ 4. Exposure Index (EI) was in acceptable range.

_____ 5. Employed proper collimation to minimize the effects of scatter radiation.

_____ 6. Properly utilized accessory devices, (i.e. cylinder cones, stationary grids, lead blockers etc.)

Radiation Protection

_____ 1. Provided immobilization and breathing instructions to avoid patient motion.

_____ 2. Shielded gonads and other radiosensitive organs/tissues.

_____ 3. Collimated to limit the amount of tissue exposed.

_____ 4. Directly observed the patient through lead window during all exposures.

_____ 5. Explained how the S-value for each image relates to selected exposure factors.

_____ 6. No repeat exposures were needed.

Image Analysis

_____ 1. Logged on to the system and selected the correct patient and exam.

_____ 2. Selected the appropriate exam tag.

_____ 3. Processed image, annotating as needed, prior to sending images to PACS.

_____ 4. Answered questions from R.T. related to image quality.

_____ 5. Described actions needed to improve quality.

_____ 6. Named various anatomical structures viewed on each radiograph.

CLINIAL OBJECTIVES
PORTABLE RADIOGRAPHY

Upon completion of the student's clinical rotation on portable procedures the student shall be able to demonstrate knowledge, skills, and understanding of:

I. Patient care and safety
II. Mobile and radiographic equipment and accessories
III. Mobile and radiographic procedure for positioning
IV. Radiographic technique
V. Radiation protection

An acceptable level of competence has been attained when the student is able to:

I. Patient care and safety

a. correctly identify patient
b. communicate with the patient in a concerned and professional manner
c. explain and instruct patient regarding procedure to be performed
d. provide safe storage for patient's personal possessions which may have been removed temporarily during the procedure
e. provide for patient's modesty and comfort using blankets, pads, sponges, etc.
f. safely position patient to protect lines and tubes
g. correctly care for patients with infectious disease
h. practice good medial asepsis to prevent spread of disease by using correct hand washing procedures before and after each patient and routinely cleaning equipment

II. Accurately provide description of the mobile radiographic equipment:

a. heat capacity or tube rating
b. unit output capacity and type (ma, mas, kvp)
c. power source (conventional, battery operated or capacitor)
d. current phase (single or three phase)
e. special features or accessories

III. Radiographic Procedure

a. perform the portable procedure form the standpoint of:
    1. radiographic and diagnostic quality
    2. interpretation of the request
    3. identify the correct radiographic procedure on film evaluation
    4. identify anatomical parts on film evaluation
    5. correct beam limitation and filtration

IV. Radiographic Technique

a. select the proper technical factors for routine and non-routine situations and make the appropriate adjustments for the non-routine examinations

V. Radiation Protection

a. demonstrate appropriate radiation protection methods
b. provide protection from possible electrical hazards by inspecting electrical wiring

Portable Pediatric Exam (age 6 & under); Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

PORTABLE PEDIATRIC EXAM AGE 6 AND UNDER

Y N Turn equipment on/off properly

Y N Accurately check patient for correct identification

Y N Obtains history from patient or patient charge and record information

Y N Accurately interpreted requisition

Y N Removed and/or placed articles away from areas of anatomic interest

Y N Utilized equipment correctly when positioning for portable examination

Y N Adhered to proper positioning criteria

Y N Properly instructed patient concerning moving and breathing

Y N Observed correct immobilization techniques

Y N Used correct identification markers

Y N Accurately directed CR to properly align part, tube and IR

Y N Performed clerical tasks accurately

Y N Accurately evaluated radiograph in terms of correct position, respiration, and technique

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Portable Chest Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

PORTABLE CHEST

Y N Turn equipment on/off properly

Y N Accurately check patient for correct identification

Y N Obtains history from patient or patient charge and record information

Y N Accurately interpreted requisition

Y N Removed and/or placed articles away from areas of anatomic interest

Y N Utilized equipment correctly when positioning for portable examination

Y N Adhered to proper positioning criteria

Y N Properly instructed patient concerning moving and breathing

Y N Observed correct immobilization techniques

Y N Used correct identification markers

Y N Accurately directed CR to properly align part, tube and IR

Y N Performed clerical tasks accurately

Y N Accurately evaluated radiograph in terms of correct position, respiration, and technique

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Portable Abdomen Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

PORTABLE ABDOMEN

Y N Turn equipment on/off properly

Y N Accurately check patient for correct identification

Y N Obtains history from patient or patient charge and record information

Y N Accurately interpreted requisition

Y N Removed and/or placed articles away from areas of anatomic interest

Y N Utilized equipment correctly when positioning for portable examination

Y N Adhered to proper positioning criteria

Y N Properly instructed patient concerning moving and breathing

Y N Observed correct immobilization techniques

Y N Used correct identification markers

Y N Accurately directed CR to properly align part, tube and IR

Y N Accurately evaluated radiograph in terms of correct position, respiration, and technique

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Portable Orthopedic Exam; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

PORTABLE ORTHOPEDICS

Y N Turn equipment on/off properly

Y N Accurately check patient for correct identification

Y N Accurately interpreted requisition

Y N Accurately explained examination to be performed

Y N Removed and/or placed articles away from areas of anatomic interest

Y N Utilized equipment correctly when positioning for portable examination

Y N Adhered to proper positioning criteria

Y N Properly instructed patient concerning moving and breathing

Y N Observed correct immobilization techniques

Y N Used correct identification markers

Y N Accurately directed CR to properly align part, tube and IR

Y N Accurately evaluated radiograph in terms of correct position, respiration, and technique

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

OPERATING ROOM

Upon completion of the clinical rotation in the OR, the student shall be able to demonstrate the knowledge, skills, and understanding necessary to:

1. comply with instructions and guidelines from supervising technologist
2. understand the mechanics and function of the C-ARM and demonstrate knowledge of manipulation
3. understand techniques for surgical procedures
4. assemble and disassemble the C-ARM equipment such as the monitor
5. known and beware of sterile equipment and personnel and avoid contamination of sterile fields
6. select patient from a work list and know how to manually enter patient information
7. assist and identify procedures that require cleaning and draping of equipment
8. evaluate quality of images after each case and send quality images to PACS
9. assist technologist with final paper work

C-ARM Manipulation; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

MANIPULATION

Y N Plugs in and assembles the c-arm using the proper sequence of steps

Y N Demonstrates knowledge of the tube side vs. image intensifier side

Y N Accurately entered patient information into c-arm

Y N Accurately manipulate the c-arm up and down

Y N Accurately manipulate the c-arm in and out and ability to move c-arm side to side

Y N Accurately manipulate the c-arm with tilting, arc, and pivoting

Y N Demonstrate knowledge with the control panel on the c-arm

Y N Demonstrate knowledge with orientation, workstation, magnification, collimation, contrast, generator, and 5 minute timer buttons on c-arm control panels

Y N Was able to answer questions related to c-arm knowledge and manipulation

Y N Perform cleaning of c-arm (pre/post use), unplug and disassemble the c-arm correctly

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

C-ARM/Urography Unit Retrograde; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

RETROGRADE

Y N Turn equipment on/off properly

Y N Obtains history from patient or patient chart and record information

Y N Removed and/or placed articles away from areas of anatomic interest

Y N Utilized equipment correctly when positioning for examination

Y N Adhere to proper positioning criteria

Y N Properly instructed patient concerning moving and breathing as needed

Y N Observed correct identification markers

Y N Demonstrated experience in moving c-arm

Y N Was able to answer questions related to the procedure and anatomy

Y N Performed clerical tasks accurately

Y N Accurately evaluated radiograph in terms of correct position, respiration and technique

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

C-ARM Gallbladder; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

GALLBLADDER

Y N Obtains history from patient chart and record information

Y N Accurately interpreted requisition

Y N Accurately entered patient information into c-arm

Y N Removed and/or placed articles away from areas of anatomic interest as needed

Y N Utilized equipment correctly during c-arm procedure

Y N Adhered to proper positioning criteria

Y N Demonstrate experience in moving c-arm

Y N Was able to answer questions related to the procedure and anatomy

Y N Performed clerical tasks accurately

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

C-ARM Orthopedic; Clinical Competency Test

Student: _____ Exam # _____

Procedure: _____

Date: _____ Evaluator/Clinical site: _____/_____

ORTHOPEDIC

Y N Turn equipment on/off properly

Y N Obtains history from patient chart and record information

Y N Accurately interpreted requisition

Y N Accurately entered patient information into c-arm

Y N Removed and/or placed articles away from areas of anatomic interest as needed

Y N Utilized equipment correctly during c-arm procedure

Y N Adhered to proper positioning criteria

Y N Demonstrated experience in moving the c-arm

Y N Was able to answer questions related to the procedure and anatomy

Y N Performed clerical tasks accurately

Y N Proper examination follow through

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

C-ARM Line Placement; Clinical Competency Test

Student: _____ Exam # _____

Procedure: _____

Date: _____ Evaluator/Clinical site: _____/_____

LINE PLACEMENT

Y N Turn equipment on/off properly

Y N Accurately interpreted requisition

Y N Accurately entered patient information into c-arm

Y N Removed and/or placed articles away from areas of anatomic interest as needed

Y N Utilized equipment correctly during c-arm procedure

Y N Adhered to proper positioning criteria

Y N Demonstrated experience in moving the c-arm

Y N Was able to answer questions related to the procedure and anatomy

Y N Performed clerical tasks accurately

GRADE: _____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

CLINICAL OBJECTIVES
CT SCANNER

Upon completion of the student's clinical rotation in the CT scanner area, the student shall be able to demonstrate knowledge, skills and understanding in the following areas:

I. Patient care and safety
II. Software
III. Hardware and accessories
IV. The basics of CT imaging

An acceptable level of competency has been attained when the student is able to:

I. Patient care safety

a. check patient for correct identification
b. safely transport and transfer patients
c. communicate with patient in a concerning and professional manner
d. explain and instruct patient regarding procedure to be performed
e. provide safe storage for patient possessions which may have been removed during procedure
f. provide for patient's modesty and comfort using blankets, pads, sponges, etc.
g. correctly care for patients with infectious disease
h. practice good medial asepsis to prevent spread of disease by using correct hand washing procedures after each patient and routinely cleaning equipment

II. Software

a. describe the capability of the equipment in terms of:
    1 .programs available
    2. application of program to procedure being performed

III. Hardware and accessories

a. explain the equipment necessary by describing the accessories located in each of the following areas:
    1. scan room
    2. control area
    3. computer area

IV. The basics of CT imaging

a. x-ray production
b. data acquisition
c. data processing
d. image display
e. windows and levels

CT Head; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

CT HEAD

____ Can accurately position patient on table.

____ Knows and understands buttons on gantry

____ Can accurately type in patient information

____ Knows what protocol to select for which exam
(i.e. angio/venous)

____ Knows how to choose head first and feet first exams and the reason to do so.

____ Knows how to set up and use the injector

____ Knows filming icon and window settings needed for each exam
(ex. Soft tissue, lung, liver and bone)

____ Can accurately set up scan area, sure start and Helical Run

____ Knows selected anatomy

____ Knows how to archive exam after completed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

CT Sinuses; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

CT SINUSES

____ Can accurately position patient on table.

____ Knows and understands buttons on gantry

____ Can accurately type in patient information

____ Knows what protocol to select for which exam

____ Knows how to choose head first and feet first exams and the reason to do so.

____ Knows how to set up and use the injector

____ Knows filming icon and window settings needed for each exam
(ex. Soft tissue, lung, liver and bone)

____ Can accurately set up scan area, sure start and Helical Run

____ Knows selected anatomy

____ Knows how to archive exam after completed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

CT Neck; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

CT NECK

____ Can accurately position patient on table.

____ Knows and understands buttons on gantry

____ Can accurately type in patient information

____ Knows what protocol to select for which exam
(i.e. cervical spine, soft tissue neck, angio/venous)

____ Knows how to choose head first and feet first exams and the reason to do so.

____ Knows how to set up and use the injector

____ Knows filming icon and window settings needed for each exam
(ex. Soft tissue, lung, liver and bone)

____ Can accurately set up scan area, sure start and Helical Run

____ Knows selected anatomy

____ Knows how to archive exam after completed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

CT Chest; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

CT CHEST

____ Can accurately position patient on table.

____ Knows and understands buttons on gantry

____ Can accurately type in patient information

____ Knows what protocol to select for which exam
(i.e. PE sure start for PE study, not CT chest)

____ Knows how to choose head first and feet first exams and the reason to do so.

____ Knows how to set up and use the injector

____ Knows filming icon and window settings needed for each exam
(ex. Soft tissue, lung, liver and bone)

____ Can accurately set up scan area, sure start and Helical Run

____ Knows selected anatomy

____ Knows how to archive exam after completed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

CT Abdomen and Pelvis; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

CT ABDOMEN AND PELVIS

____ Can accurately position patient on table.

____ Knows and understands buttons on gantry

____ Can accurately type in patient information

____ Knows what protocol to select for which exam
(i.e. stone protocol, angio/venous)

____ Knows how to choose head first and feet first exams and the reason to do so.

____ Knows how to set up and use the injector

____ Knows filming icon and window settings needed for each exam
(ex. Soft tissue, lung, liver and bone)

____ Can accurately set up scan area, sure start and Helical Run

____ Knows selected anatomy

____ Knows how to archive exam after completed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

CLINICAL OBJECTIVES
BONE DENSITY

Upon completion of the clinical rotation in Bone Densitometry, the student shall be able to demonstrate the knowledge, skills, and understanding of the following areas:

I. Patient care and safety
II. Hardware
III. Software and accessories
IV. Basics of Bone Density

An acceptable level of competency has been attained when the student is able to:

I. Patient care safety

a. check patient for correct identification
b. safely transport and transfer patients
c. communicate with patient in a concerning and professional manner
d. explain and instruct patient regarding procedure to be performed
e. provide safe storage for patient possessions which may have been removed during procedure
f. provide for patient's modesty and comfort using blankets, pads, sponges, etc.
g. correctly care for patients with infectious disease
h. practice good medial asepsis to prevent spread of disease by using correct hand washing procedures after each patient and routinely cleaning equipment

II. Software

a. describe the capability of the equipment in terms of:
    1 .programs available
    2. application of program to procedure being performed

III. Hardware and accessories

a. explain the equipment necessary
    1. machine
    2. scanning computer
    3. accessories for obtaining images (forearm board, triangle for hips)

IV. The basics of Bone Densitometry

a. follow instructions and guidelines from technologist
b. assist with QA if possible
c. understand the importance of obtaining a medical history and entering information into the computer
d. position patients for selected scans according to protocols
e. identify and determine correct anatomy to be analyzed and properly perform scans
f. analyze data properly, send and print reports according to facility
g. assist in accurately completing paperwork

Bone Density; Clinical Competency Test

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

BONE DENSITY

____ Equipment readiness and patient set-up
____ Select perform exam option
____ Select new patient and type in name and all pertinent information as needed from questionnaire
____ Select scan type (lumbar spine)
____ Position patient correctly
____ Select start scan
____ Select reposition scan option as needed and proceed
____ Select new scan
____ Select scan type (hip of non-dominant side)
____ Position patient correctly with positioning device
____ Reposition scan as needed and proceed
____ Select analyze scan and proceed with analysis set-up of hip
____ Select close when analysis set-up procedure of hip is complete
____ Select the analyze another scan option
____ Select lumbar spine and proceed with analysis set-up of lumbar spine
____ Select close when analysis set-up procedure of lumbar spine is complete
____ Select the report option on the computer screen
____ Highlight both the hip and the lumbar spine under scan type selection
____ Select the print process and then close
____ Proceed with the archiving procedure
____ Appropriate speed

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

CLINICAL OBJECTIVES
MAGNETIC RESONANCE IMAGING

Upon completion of the students' clinical rotation in the MRI area, the student must be able to demonstrate a basic understanding of the following:

I. patient care and patient safety
II. basic physics of MRI image formation
III. the basic equipment components and how they are used
IV. how images of the brain, cervical spine, lumbar spine, and knee appear on a cathode ray tube (CRT) or laser film

An acceptable level of competence has been attained after the student has observed prescribed sections of the MRI safety video and the student is able to do the following:

I. Patient care and patient safety

a. Check all patient types (out-patient, ED & in-patient) for correct identification. Make sure the patient was prepared properly for the exam.
b. Assist the patient with the screening form to make sure the patient is safe to enter scan room.
c. When/if the patient is not ambulatory, transport the patient in a non-magnetic wheelchair or non-magnetic cart to the scan room. Assist the patient on to the MRI couch,making certain IV poles, O2 canisters, etc, are not placed where they could become dangerous projectiles.
d. Explain to the patient what they will experience in terms of sights & sounds during the exam.
e. Explain what measures are taken to prepare claustrophobic patients for exams.
f. Explain the special precautions, including the use of special consent form(s), used if a patient must have a gadolinium product injected during the exam

II. Basic physics of the MRI image formation

a. At a basic level, explain how the body's hydrogen atoms are affected when a patient is placed in a high field strength magnet.
b. At a basic level, explain how/when radio frequency energy is involved in image formation.
c. Name the conventional & SI units for magnetism and discuss the effect magnetic field strength has on image quality. Also discuss the field strength as it related to traditional magnets versus "open" magnets.

III. Basic equipment components and how they are used.

a. At a basic level, describe how MRI technologists select scan parameters before a scan begins.
b. Explain what coils the technologists select for imaging different anatomy.
c. Describe how the patient is positioned on couch for different exams.
d. Explain how the technologist communicates with patient during the exam. (ex. breathing)

IV. How do images of the brain, cervical spine, lumbar spine and knee appear on a cathode ray tube (CRT) or laser film.

a. Explain what types of physician orders and/or pathology requires the injection of a gadolinium-based contrast agent.
Explain where and how that injection takes place (ie. intravenous, intrathecal etc)
b. Identify T1 and T2 weighted images and explain how they differ in appearance on scans.
c. Identify what plane (sagittal, axial, or coronal) the image is displayed in.
d. Identify specific anatomy on a knee, brain, abdomen, cervical spine, and lumbar spine.

Magnetic Resonance Imaging; Clinical Performance

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

MRI SCANNING

_____ Can accurately position patient on table.

____ Knows and understands button on gantry

____ Can accurately type in patient information

____ Knows what protocol to select for exam

____ Knows how to choose head first and feet first exams and the reason to do so

____ Can assist the technologist with injection

____ Can identify types of imaging for the scan ie. T1 and T2

____ Can identify different planes in which the scans are obtained

____ Can identify specific anatomy

____ Knows and understands window settings needed for each exam:
(Ex. Soft tissue, lung, liver, and bone)

____ Student was able to observe MRI of the:

_____ knee

_____ brain

_____ cervical spine

_____ lumbar spine

_____ abdomen

Staff Signature: _____

COMMENTS:

CLINICAL OBJECTIVES
ULTRASOUND

Upon completion of the student's clinical rotation in ultrasound, the student shall be able to demonstrate knowledge, skill and understanding in the following areas:

I. Patient care and safety
II. The basics of ultrasound
III. Controls and indicators
IV. Clinical operations

An acceptable level of competence has been attained when the student is able to describe:

I. Patient care and safety

a. Check patient for correct identification
b. Safely transport and transfer patient
c. Communicate with patient in a concerned and professional manner
d. Explain and instruct patient regarding procedures to be performed
e. Provide safe storage for patient's possessions which may be removed during procedure
f. Provide safe storage for patient's modesty and comfort using blankets, pads, sponges, etc.
g. Correctly care for patients with infectious diseases
h. Practice good medical asepsis to prevent spread of disease by using correct hand washing procedures after each patient and routinely cleaning equipment between cases.
i. Communicate proper patient preparation instructions

II. The basics of ultrasound

a. Transducer
b. Sound wave production
c. Multi image camera
d. Gray scale
e. Doppler

III. Controls and indicators

a. Mode
b. Filter
c. Auxiliary
d. Gain
e. Depth
f. Image reversal

IV. Clinical operations

a. Image of transverse/sagittal planes
b. Be able to identify anatomical structures on film

Ultrasound; Clinical Performance

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

ULTRASOUND

Y	N	Accurately check patient for correct identification
Y	N	Safely transport and transfer patient
Y	N	Obtain history from patient and record information
Y	N	Remove and retain jewelry and other articles superimposing area of interest
Y	N	Properly instruct patient concerning moving and breathing
Y	N	Display knowledge and concept of sound waves
Y	N	Display knowledge of multi-image camera
Y	N	Display knowledge of terms basic to ultrasound
Y	N	Accurately explain the difference between transverse and sagittal planes as related to ultrasound
Y	N	Properly develop and reload ultrasound film

Staff Signature: _____

COMMENTS:

Vital Signs / Venipuncture / Oxygen Administration; Clinical Performance

Student: _____

Date: _____ Evaluator/Clinical site: _____/_____

VITAL SIGNS

RESPIRATION

____ Place patient in comfortable position, in quite state
____ Observe patent without letting patient know they are being assessed
____ Observe chest wall for symmetry of movement
____ Observe skin color
____ Count the number of times patient's chest rises and falls
____ Appropriately document results
____ Recognizes abnormal findings

PULSE

____ Lightly place index finger and middle finger over the anatomical area chosen for assessment
____ Count throbbing of the artery for one minute
____ Appropriately document results
____ Recognize abnormal findings
____ Wash hands

BLOOD PRESSURE

____ Roll up patient's sleeve
____ Place deflated sphygmomanometer cuff around the patient's upper arm above the elbow
____ Secure cuff so that it will not loosen
____ Place bell of stethoscope over the brachial artery
____ Place gauge of sphygmomanometer on flat surface
____ Place earpieces of stethoscope in your ears
____ Tighten thumb screw of pressure bulb and pump bulb until the indicator or mercury reaches 180mmHg
____ Open valve slowly by loosening the thumb screw
____ Listen carefully for the pulse beat to begin
____ Take reading on the gauge where it first heard (systolic pressure)
____ Continue to listen to the pulsations until pulsation is inaudible (diastolic reading)
____ Loosen sphygmomanometer from around patient's arm
____ Record systolic and diastolic values (systolic/diastolic)
____ Wash hands

TEMPERATURE

____ Place patient in supine position or upright position
____ Place a clean plastic sheath on the oral route probe
____ Place the sheathed probe under the patient's tongue
____ Hold firmly in place until the temperature registers automatically on the meter
____ Remove probe and discard sheath
____ Wash hands
____ Document reading
____ Recognize abnormal finding

VENIPUNCTURE

_____ Verification of order
_____ Patient identification
_____ Equipment and supplies
_____ alcohol prep
_____ tape
_____ 21 gauge butterfly needle (or appropriate size)
_____ sterile gauze pads
_____ tourniquet
_____ Proper hand washing prior to injection
_____ Proper explanation to patient
_____ Gloving
_____ Skin preparation
_____ Venipuncture
_____ Securing butterfly to skin
_____ Regulating flow/flushing needle
_____ Patient monitoring
_____ Removal of needle
_____ Safe handling of sharp instrument
_____ Appropriate pressure to injection site
_____ Bandage to injection site once bleeding has stopped
_____ Appropriate follow up instructions given to patient
_____ Proper documentation of injection procedure recorded

OXYGEN ADMINISTRATION

O2 ADMINISTRATION

_____ Identify patients' needs for oxygen administration
_____ If patient arrives with portable oxygen in use, determine flow rate
_____ Prepare transfer to alternate source of oxygen
_____ Disconnect tubing from original source and turn off flow valve
_____ Reconnect tubing to working source and adjust oxygen to proper setting

USE OF SUCTION DEVICE

_____ Locate suction device in exam room or holding area
_____ Locate correct tubing and attach it to suction device
_____ Assist physician or nurse as directed
_____ Dispose of used suction container in red bag trash container
_____ Re-assemble suction device and make sure device is ready for future use

GRADE: _____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

COMMENTS:

Proper Body Mechanics / Patient Care in Imaging; Clinical Performance

Student: _____

Date: _____ Evaluator/Clinical site: _____/_____

PROPER LIFTING OF OBJECTS

____ Knowledge of importance of proper lifting of objects
____ Keeps back straight when lifting
____ Bend at the knees not at the waist
____ Keep the object close to your core or abdominal wall
____ Do not twist or turn back
____ Recognizes when object is too large or too heavy to lift alone
____ Displays proper lifting of objects

TRANSFER OF PATIENTS

____ Knowledge of importance of proper transferring of patients
____ Knowledge as to where to find out if patient is a 1 or 2 person lift, or a Hoyer lift patient
____ Transferring patient from bed or x-ray table to wheelchair
____ Transferring patient from wheelchair to bed or x-ray table
____ Transferring patient from bed or x-ray table to cart/gurney
____ Transferring patient from cart/gurney to x-ray table
____ Knowledge of where to find Hoyer lift and importance of always being plugged into a wall outlet, preferably a **red wall outlet**
____ Knowledge of how Hoyer lift operates; able to assist & operate equipment with patient transfer
____ Knowledge of transferring a CVA patient; always transfer to their strong side not the weak side

TOTAL HIP ARTHROPLASTY (THA) PRECAUTIONS

____ Knowledge of importance of proper transferring of patients with a recent THA
____ Posterior dislocation precautions: Do not have patient flex or bend the surgical hip more than 90^{o} or rotate affected side internally (pigeon toe)
____ Anterior and Lateral dislocation precautions: Do not have patient lie prone or rotate affected side externally (outwardly) or adduct the surgical leg (crossing their legs)

USE OF ASSISTED DEVICES

____ Use of a standard walker: patient to move walker first, then weaker leg and finally stronger leg
____ Use of a rolling walker: patient to move walker first, then weaker leg and finally stronger leg, but with a more fluent gate than with a standard walker
____ Use of a cane: patient to have cane in hand OPPOSITE weak side: Move both first, then strong leg
____ Use of crutches non-weight bearing: patients to keep weaker leg in front of them advancing weaker leg with crutches following with strong leg
____ Use of crutches partial-weight bearing: patients advance weaker leg with crutches, then strong leg

WEIGHT BEARING STATUS

____ Displays knowledge of these abbreviations & importance of understanding before transfer
NWB - non weight bearing with involved leg
TTWB - toe touch weight bearing with involved leg
PWB - partial weight bearing with involved leg (30-50% of patients weight)
WBAT - weight bearing as tolerated; allows patient to determine how much weight they can tolerate with involved leg as per pain or functional tolerance

GRADE:_____ **PASS**:_____ **FAIL**:_____

Staff Signature: _____

Cardiopulmonary Resuscitation; Clinical Performance

Student: _____

Date: _____ Evaluator/Clinical site: _____/_____

A **CPR** certification course for a competency credit for the student to have in compliance valid after graduation will be scheduled by the program director during the summer of senior year.

CLINICAL OBJECTIONS
EVENING SHIFT ROTATION
(Not a competency, but still a clinical requirement)

It is the objective of this clinical assignment to provide the student with the opportunity to increase their experience with radiographic procedures in headwork and trauma patients during the evening shift.

Upon completion of the shift rotations the student shall be better able to demonstrate a more complete knowledge and understanding of the patient care and equipment manipulation required when dealing with the pediatric and trauma patient.

A. Under the direction of the assigned clinical instructor the student may:

1. Assist in the performance of radiographic procedures to include:
2. The correct identification of the patient.
3. Instruction of the patient in regard to the procedure being performed
4. The safe transportation and transfer of the patient
5. Assist patients in routine care procedures and provide adequate radiation protection for the patient.
6. Assist in positioning and participate in technique manipulation
7. Instruct the patient regarding breathing technique
8. Effect the exposure
9. Utilize appropriate immobilization devices for the requested radiographic procedure based upon patient type and/or condition.
10. Accurately assess the patient for possible change in patient condition
11. Complete required documentation and examination data follow through

Evening Shift Rotation; Clinical Performance

Student: _____ Dates:_____

Evaluator/Clinical site: _____/_____

EVENING SHIFT ROTATION

Y	N	Accurately check patient for correct identification
Y	N	Safely transport and transfer patient
Y	N	Remove and retain jewelry and other articles superimposing area of interest
Y	N	Properly instruct patient concerning moving and breathing
Y	N	Properly select cassette
Y	N	Properly follow through the entire procedure related to patient examination
Y	N	Utilize equipment correctly when positioning radiographic examinations
Y	N	Utilize correct immobilization technique based upon patient type and condition
Y	N	Use correct identification markers
Y	N	Provide appropriate radiation protection for patient and personnel
Y	N	Accurately select technical factors
Y	N	Accurately document properly
Y	N	Proper utilize processing equipment and accessories
Y	N	Identify normal anatomic structure on radiographs
Y	N	Evaluate routine diagnostic exams in terms of projection accuracy
Y	N	Display knowledge of routine examinations in terms of radiographic exposures
Y	N	Observe patient for change in medical condition

Staff Signature: _____

Clinical Objectives
Front Desk – File Room
(Possible Additional Assignment)

Upon completion of the clinical rotation to the front desk film room area, the student shall be able to demonstrate the knowledge, skills, and understanding necessary to:

A. Effectively operate and perform functions to include:

1. Correctly order radiographic procedure requested for patient.
2. Notify charge person of arrival of scheduled patient.
2. Greet patients appropriately.
3. Use proper phone reception procedures.
4. Use proper paging methods
5. Distribute preparations for exam as required to outpatients.
6. Have knowledge of add/cancel/change examination as needed.
7. Obtain knowledge of creating CDs for patients.

Clinical Performance; Front Desk/ File Room

Student: _____

Date: _____ Evaluator/Clinical site: _____/_____

Front Desk/File Room

Please consider and evaluate the following:

Y N Receive and process examination requests to include patient data

Y N Use proper phone reception procedures

Y N Display knowledge of patient scheduling procedures

Y N Effectively instruct patient in proper patient preparation procedure for the examination scheduled

Y N Properly incorporate patient data processing procedures

Y N Display assertiveness in performing front desk duties

Y N Display knowledge of Imaging Services procedures in the emergency department and imaging sections

Y N Displays assertiveness in file room duties

Y N In an organized manner and at an acceptable level of performance, display the knowledge, skills and understanding of all functions of all file room and front desk functions and film handling

Staff Signature: _____

Clinical Objectives
Set Ups
(Possible Additional Assignment)

Upon completion of the clinical rotation to the front desk film room area, the student shall be able to demonstrate the knowledge, skills, and understanding necessary to:

1. know the flow of a department, which exams go where
2. know who the charge person (lead technologist) is and what they do
3. answer phone appropriately (professionally)
4. understand department schedules such as fluoro, CT, and MRI
5. receive an examination request and know how it is processed
6. maintain a neat and organized area
7. understand how patient's from the ER, outpatient, and inpatient are handled and processed

Clinical Performance; Set Ups

Student: _____

Date: _____ Evaluator/Clinical site: _____/_____

Set Ups

Y	N	Use proper phone reception procedure
Y	N	Properly interpret various departmental schedules
Y	N	Receive examination request from front desk and initiate processing
Y	N	Display knowledge of imaging procedures in the emergency room and the imaging departments
Y	N	Display assertiveness in performing set up desk duties
Y	N	Maintain a neat and organized work area
Y	N	In an organized manner and at an acceptable level of performance, display the knowledge, skills and understanding of all functions of the set up area

Staff Signature: _____

Clinical Objectives
Mammography
(Possible Additional Assignment)

Upon completion of the student's clinical rotation in mammography, the student shall be able to demonstrate knowledge, skill and understanding in the following areas:

I. Patient care and safety
II. The basics of mammography
III. Controls and indicators
IV. Clinical operations

An acceptable level of competence has been attained when the student is able to describe:

I. Patient care and safety

a. Check patient for correct identification
b. Safely escort patient to mammography room
c. Communicate with patient in a concerned and professional manner
d. Explain and instruct patient regarding procedure(s) to be performed
e. Provide safe storage for patient's clothing/possessions that will need to be removed for the procedure
f. Maintain patient's modesty and comfort level at all times during procedure
g. Correctly care for patients with infectious diseases or open wounds
h. Practice good medical asepsis to prevent spread of disease by using correct hand washing procedures before and after each patient and routinely cleaning equipment between cases with approved disinfectant/cleansing agent
i. Communicate proper patient discharge instructions

II. The basics of mammography

a. Imaging tower
b. Compression paddles
c. Foot pedals/hand controls for breast compression
d. Control panel
e. Viewing monitor(s)
f. Magnification stand

III. Controls and indicators

a. Mode-2D or 3D
b. Anode/Filter combinations
c. Degree of angulation for MLO's
d. Exposure buttons
e. Emergency stop/release
f. Artifacts

IV. Clinical operations

a. Analyzing images in CC views, MLO views, misc.views, 3D tomo views (if available), and CAD
b. Be able to identify anatomical structures

Clinical Performance; Mammography

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

Mammography

Y N Accurately check for correct patient always using two patient identifiers, such as full name and date of birth.

Y N Safely transport patient to mammography room

Y N Provide for patient comfort and cooperation by familiarizing patient with the equipment, giving a general overview of the procedure while stressing the importance of breast compression

Y N Obtain history from patient and document including any family history of breast cancer

Y N Document location of lumps, scars, moles, etc., by means of radiopaque markers on the breast and/or diagram on patient's clinical history sheet, as per department protocol

Y N Properly instruct patient on what needs to be removed, ie. clothing, jewelry, etc., and change into the given gown

Y N Properly explain issues due to patient motion and importance of following breathing instructions

Y N Display knowledge of selecting equipment appropriate to the patient and the views to be performed, ie. compression paddles, magnification stand, etc.

Y N Display knowledge of adjusting exposure factors depending upon a patient's modified breast structure

Y N Display knowledge of terms basic to mammography

Y N Accurately explain the difference between the screening views of CC and MLO

Y N Display knowledge of the location of the emergency compression release button/switch

Y N Properly turns on and turns off mammography equipment

Staff Signature: _____

Clinical Objectives
Angiography
(Possible Additional Assignment)

Upon completion of the student's clinical rotation in angiography, the student shall be able to demonstrate knowledge, skill and understanding in the following areas:

I. Patient care and safety
II. The basics of angiography
III. Clinical operation

I. Patient care and safety

a. Check patient for correct identification
b. Safely transport and transfer patient
c. Communicate with patient in a concerned, professional manner
d. Assist in explaining and instructing the patient regarding procedures to be performed
e. Provide safe storage for patient possessions which may be removed during the procedure
f. Provide for patient modesty and comfort using blankets, pads, sponges, etc.
g. Practices good medical asepsis to prevent spread of disease by using correct hand washing techniques before and after every patient
h. Acknowledges and adheres to patient privacy and confidentiality.

II. The basics of angiography

a. Develop a general understanding of angiography**********
b. Observes the simulation aspects of treatment planning
c. Observes a computerized dosimetry plan and discuss its development with the dosimetrist
d. Observe activities of the lab and the development of prescribed filters for treatment.

III. Clinical operations

a. Observe the set up for radiation therapy using the following:
    1. The patient's chart which includes the position of the patient and devices needed for treatment.
    2. Appropriate shaping of wedges, if indicated
    3. Selection of treatment time to give appropriate dose
        a. linear accelerator
        b. Bennet Dx X-ray unit
        c. Processor
        d. Huestis block fabrication
        e. Superficial therapy unit

Patients diagnostic work-up including

1. History and physical
2. Diagnostic tests (blood work, CT, US, etc.)
3. Tumor pathology
4. Clinical impression
5. Treatment plan

Clinical Performance; Angiography

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

Angiography

Y N Accurately check patient for correct identification

Y N Safely transport or transfer patient

Y N Remove and retain jewelry or other articles

Y N Protects patient's privacy and confidentiality

Y N Practices good medial asepsis

Y N Displays general understanding of related terminology

Y N Displays general understanding of radiation therapy equipment

Y N Observed development of filter in lab

Y N Reviewed specific case progression with radiation therapist

Y N Completed required typed report within one week of rotation

Staff Signature: _____

Clinical Objectives
Radiation Therapy
(Possible Additional Assignment)

Upon completion of the student's clinical rotation in radiation therapy, the student shall be able to demonstrate knowledge, skill and understanding in the following areas:

I. Patient care and safety
II. The basics of radiation therapy
III. Clinical operation

I. Patient care and safety.

a. Check patient for correct identification
b. Safely transport and transfer patient
c. Communicate with patient in a concerned, professional manner
d. Assist in explaining and instructing the patient regarding procedures to be performed
e. Provide safe storage for patient possessions which may be removed during the procedure
f. Provide for patient modesty and comfort using blankets, pads, sponges, etc.
g. Practices good medical asepsis to prevent spread of disease by using correct hand washing techniques
h. Acknowledges and adheres to patient privacy and confidentiality.

II. The basics of radiation therapy

a. Develop a general understanding of related therapy
b. Observes the simulation aspects of treatment planning
c. Observes a computerized dosimetry plan and discuss its development with the dosimetrist
d. Observe activities of the lab and the development of prescribed filters for treatment.

III. Clinical operations

a. Observe the set up for radiation therapy using the following:
1. The patient's chart which includes the position of the patient and devices needed for treatment.
2. Appropriate shaping of wedges, if indicated
3. Selection of treatment time to give appropriate dose
a. linear accelerator
b. Bennet Dx X-ray unit
c. Processor
d. Huestis block fabrication
e. Superficial therapy unit

Patients diagnostic work-up including

1. History and physical
2. Diagnostic tests (blood work, CT, US, etc.)
3. Tumor pathology
4. Clinical impression
5. Treatment plan

The student is also required to complete a 2-3 page typed report to address an overview of radiation therapy. This paper is due one week after completing the scheduled rotation.

Clinical Performance; Radiation Therapy

Student: _____ Exam # _____

Date: _____ Evaluator/Clinical site: _____/_____

Radiation Therapy

Y	N	Accurately check patient for correct identification
Y	N	Safely transport or transfer patient
Y	N	Remove and retain jewelry or other articles
Y	N	Protects patient's privacy and confidentiality
Y	N	Practices good medial asepsis
Y	N	Displays general understanding of related terminology
Y	N	Displays general understanding of radiation therapy equipment
Y	N	Observed development of filter in lab
Y	N	Reviewed specific case progression with radiation therapist
Y	N	Completed required typed report within one week of rotation (to be viewed by the Program Director)

Staff Signature: _____

School of Radiography
STUDENT VACATION REQUEST

STUDENT NAME:_____

HOURS _____

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STUDENT SIGNATURE

DATE:
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DATES REQUESTED
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School of Radiography
STUDENT VACATION REQUEST

STUDENT NAME:_____

HOURS _____

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STUDENT SIGNATURE

DATE:
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DATES REQUESTED
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