GUIDELINE FOR RADIATION SAFETY INSTRUCTIONS

In accordance with the California code of Regulations, Title 17, the registrant/supervisor is responsible for radiation safety. Responsibilities include: 1) assuring that only competent persons operate x-ray equipment under his/her jurisdiction; 2) the supervisor must provide safety rules to each individual operating x-ray equipment under his/her control, and 3) no supervisor shall operate or permit the operation of x-ray equipment unless the equipment and installation meet the applicable requirements of the regulations.

A. Items pertinent to radiation safety include:

1. Careful collimation is used to restrict the x-ray beam to the area of clinical interest only. (The X-ray field may never be larger than the size of the film used.)
2. Gonadal shielding is used where and when appropriate. Policies regarding the use of gonadal shielding must be made available to X-ray technical personnel.
3. The X-ray room is cleared of all nonessential persons before X-ray technical personnel take X-rays.
4. X-ray technical personnel stand behind a leaded shield or in a protective booth for every X-ray exposure.
5. X-ray technical personnel wear personnel monitoring devices when required, and use these properly (on waist or collar; on the collar when a leaded apron is worm.)
6. X-ray technical personnel do not hold patients and no person is regularly or repeatedly used to hold patients. (Exception: In real emergencies when there is no other method of obtaining diagnostic radiographs, X-ray technical personnel may hold a patient.)
7. Individuals who hold patients use appropriate protective apparel such as a leaded apron (at least 0.25 millimeters of lead equivalence) and lead gloves or lead shields.

B. Items pertinent to technical aspects of X-ray examinations:

1. Use the best film-screen combination for the lowest dose practicable and commensurate with the objectives of the X-ray examination.
2. Know exactly what examination and which view or views to take.
3. Position the patient correctly for the required examination and view before making the actual exposure.
4. Use high (optimum) kilovolt peak (kVp) and low milliampere-seconds (mAs) techniques for low dose radiography, consistent with obtaining a diagnostic quality image.
5. Take steps to avoid patient motion by clearly instructing patient not to move, by using appropriate immobilization or positioning aids, and by keeping the patient comfortable and under constant observation.
6. Use unexposed film that has not passed its expiration date.
7. Handle films carefully to prevent artifacts due to static electricity, fingerprints, crinkle marks, and other causes.
8. Ensure that the cassette closure provides good film screen contact.
9. Keep the dark room light tight by sealing off light leaks.
10. Use only fresh (not exhausted) chemicals for film processing.
11. Make sure that the processing temperature is correct for the chemicals and film used.
12. Keep cassettes and screen clean.
13. Assure that the film processor is cleaned regularly.
14. Place positioning markers correctly on the film and identify each film with the patient's name.
15. Ensure that no sight development is done if films are hand developed.

NOTE: Failure to obtain diagnostic quality radiographs with the least exposure to the patient for the required X-ray examination means failure to meet the accepted standard of care.

WEST OAKS URGENT CARE CENTER RADIATION SAFETY PROTECTION PROGRAM

Date: 07/11/15

POLICY:

West Oaks Urgent Care Center's radiation protection program is intended to ensure that all activities and operations involving the use of X-rays are performed in such a way as to protect users, staff, patients and the public from exposure to unnecessary radiation in practices that use X-ray equipment.

PURPOSE:

To ensure that the safety of our staff and student population are maintained pursuant to ACR, state, and federal guidelines.

Radiation Safety and Protection Program

The following program is applicable to all persons working under the State of California Department of Health Radiology Branch

1. Intention
    a. To Protect operating personnel and the public from unnecessary exposure to radiation and to keep all exposures as low as reasonably achievable (ALARA) according to regulation specified in the California Code of Regulations, Title 17, Public Health or the Code of Federal Regulations, Nuclear Regulatory Commission (10CFR20)

2. Organization

    a. The Radiation Protection Program shall be audited/reviewed on an annual basis by the Radiation Safety Committee to ensure the program remains compliant with all pertinent regulations.

    b. Radiation Protection/Safety instructions shall be provided to and reviewed by all individuals who have the potential to be occupationally exposed to radiation.
    c. Radiation Protection/Safety instructions shall be updated as necessary and posted in a prominent area.

3. ALARA Program
   a. All Radiology personnel shall adhere to the ALARA principles with the intent to maintain safe conditions and low radiation doses to faculty and students.
   b. Managing the ALARA concept should include, but is not limited to
      i. Minimizing occupational dosage through
         1. Monitoring and reviewing occupational and area dosages
         2. Perform all exposures while behind the protective barrier
         3. Utilize protective apparel when appropriate
         4. Due to overall in-utero sensitivity, a *declared pregnant woman is advised make informed choices with regards to radiation safety and her pregnancy including, but not limited to those precautions listed above (as applicable)
      ii. Minimizing patient dosage through:
         1. Keeping repeat examination to a minimum
         2. Collimation to the area of interest
         3. Utilizing highest kVp, Lowest mAs while still producing diagnostic quality images
         4. Shielding radiosensitive tissue and organs

*a declared pregnant woman means a woman who has voluntarily informed the school, in writing, of her pregnancy and estimated date of conception.

4. Dosimetry

   a. Monitoring devices shall be supplied and worn, on the collar level by all Radiology personnel where it is possible to be exposed to radiation at levels sufficient to demonstrate compliance with occupational dose limits.

      i. All employees must utilize monitoring devices as specified by the manufacturer of the device. Any misuse and or deceptive exposure of any device is strictly prohibited and therefore would lead to disciplinary action by the company.

b. Women employees that are pregnant have the voluntary right to declare and or UN-declare pregnancy at any time. For all declared pregnant faculty or students, a "fetal" body dosimeter shall be provided in addition the whole body badge. This will be changed monthly and worn, at the waist level until the end of the pregnancy or when pregnancy is undeclared.

c. Control badges shall be used to monitor the amount of normal radiation exposed to the badges outside the working area.

d. Records shall be maintained indefinitely and reviewed of dose to an embryo/fetus with the records of dose to a declared pregnant woman.

e. Records shall be maintained and reviewed of the dose levels received by all monitored individuals not to exceed the total effective dose of 5 REM per year and will be kept indefinitely and supplied to those individuals upon request.

f. If an accident exposure to a pregnant employee exists, the employer will take all necessary precautions to immediately remove said employee from the department and make best efforts to document the amount of exposure.

5. Area Monitoring and Control

a. If the need arises to monitor, or if it is suggested to perform area monitoring, Landauer will provide such monitoring at the time of the determination.

b. Preventative Maintenance shall be performed in accordance with the original equipment manufacturers specifications.

6. Radiological Controls

a. No employee will enter any designated area without explicit permission from employer. All controlled areas shall be marked as an X-ray area by signs posted on the door.

b. In case of an emergency , employees should follow the employees protocols as stated in the safety program of the employer.

c. All entry doors to radiation producing equipment shall be marked with appropriate radiation "Caution X-ray " signs.

d. A current and up to date copy of title 17 must be maintained onsite or online and within the department.

e. A current copy of RH-2364(notice to Employees) shall be posted at all times for employees to read.

f. Any notice of violation involving radiological working conditions or any order issued pursuant to the radiation Control Law including its response must be post as required.

7. Disposal of Equipment

a. College will report to the CDPH-RHB any sale, transfer, or discontinuance of use of any reportable source of radiation.

b. Faculty and students shall utilize positing aids, gonadal shielding and protective aprons to minimize the amount of exposure to themselves and patients.

c. Faculty shall test shielding on an annual basis to assure they are free from cracks and or possible other breaches to ensure proper shielding.

8. Employer shall provide individual exposure reports when requested in accordance with 17CCR 30255 and document procedures addressing this requirement.

9. Radiation Safety Training

a. All personnel who have the potential to be occupationally exposed to radiation shall review Radiation Safety Instructions annually and review updates to the above mentioned instructions whenever applicable.

b. All Radiology personnel Licensed/permitted to utilized radiation producing equipment are required to review and have access to equipment Operating and Safety Procedures.

c. All individuals working in or frequenting any portion of a controlled area shall be informed of the use of radiation in the area.

d. All individuals working in or frequenting any portion of a controlled area shall be informed of potential health issues/problems associated with exposure to radiation.

10. Quality Assurance/ Management

a. Through consistent observation , quality of images on phantoms shall be monitored and any issues regarding diagnostic quality should be reported to the proper persons and personal for correction.