

Working Arrangements: Fluoroscopic Procedures

Radiation Protection Supervisors Hand Clinic:

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General

The Fluoriscan mobile image intensifier is a specialised piece of equipment to provide fluoroscopic fluorographic images of the extremities- usually hands- with minimal doses to staff and patient.

Occupancy of the X-ray room/treatment room one should be restricted to those people necessary during any fluoroscopic examination.

The door to the X-ray room/Procedure room should be closed during fluoroscopy, do not enter when the door is closed.

Only those examinations for which there is a direct benefit to the patient or the overall health of the population will be done. The radiation dose to the patient will be limited to the minimum necessary to obtain the required diagnostic information, paying regard to the sensitive tissues e.g gonads, female breast, foetus etc. Patients and medical staff in clinic are to wear lead Aprons provided, there is also a paediatric apron for use.

Examinations should conform to accepted practice and additional screening should not be undertaken without a clear diagnostic objective which has not already been fulfilled.

The logon system must be used to prevent unauthorised use of the equipment. The equipment must also be shut down at the end of the working session and disconnected from the mains.

During fluoroscopy the X- ray beam should preferably only be switched on for short periods, and left off when making manipulation of the patient and/or adjustments to instruments. On no account may an exposure be made when the operator is not looking at the monitor.

A temporary, unlabelled controlled area exists within a 2 m radius around the X-ray unit and patient and the direction of the main beam when the X-ray beam is on. The controlled area is under the direct supervision of the operator. All operators should have received and completed appropriate training prior to using equipment. The treatment room in the clinic complies with this.

Any person remaining within 2 meters of the equipment during exposures should wear a lead apron of at least 0,25mm lead equivalent.

Where it is essential to manipulate the patient during exposure, care must be taken to avoid getting the operators hand in the main X- ray beam. Note that using a lead cover over the hand can adversely affect the image quality, if it intrudes too far into the field. There is a lead protection sheet available in the clinic if required

The patient should be positioned close to the receptor, and the focal-spot to skin distance should never be less than 30 cm.

Dose steadily accumulates throughout the exposures so overall time must be minimised. An audible warning will be given at a pre-set time to remind the user. The accumulated time must be noted the patients record on a register held in the treatment room. (We are not connected to ORMIS or PACS)

Full use should be made of the automatic brightness control, last image hold, image store on the hard disk and the hard copy printer as this prints the image stored on the screen with no additional patient dose.

Ambient light falling on the television screen should be low, giving better contrast and resolution.

Further information, policy documents and local rules can be found in the 'Hand Clinic QA Radiation Equipment' folder in the Treatment Room, along with the user guide, copy of the local rules. Please refer to this for any further guidance.