

KINGSTON GENERAL HOSPITAL

IMAGING SERVICES DEPARTMENT MANUAL

Subject: Safe Work Procedure for Mobile Radiography **Number:** 17-001(5)

Prepared by: Director, Imaging Services

Page: 1 of 2

Original Issue: 2005.07

Reviewed by: Department Head

Last Revision: 2009.08

Date Revised: 2013.08

POLICY

Mobile radiography procedures are performed throughout Kingston General Hospital (KGH) for diagnostic, interventional, surgical and experimental purposes.

It is the policy of Kingston General Hospital that all authorized staff working with mobile radiography equipment be aware of the following procedure to ensure compliance with all pertinent regulatory requirements and also to ensure that personal exposures are kept As Low As Reasonably Achievable (ALARA).

Mobile units must be used only if the condition of the patient is such as to make it inadvisable for the examination to be carried out with a stationary unit in the main x-ray department. (Safety Code 35)

PROCEDURES

A. Authorization to operate mobile radiography equipment

Mobile radiography equipment throughout KGH may only be operated by physicians or medical radiation technologists with current registration with the College of Medical Radiation Technologists of Ontario and in compliance with the Canadian Healing Arts Radiation Protection Act, Occupational Health & Safety, X-ray Safety and Safety Code 35. Operation of the machine includes plugging it in and setting it up.

B. Responsibilities

The person or persons authorized to operate mobile radiography equipment (see A) must ensure the following:

- Only authorized personnel or personnel essential for the critical care of the patient are within 1 meter (39 inches) of the target of irradiation.
 - It is always recommended that people stand as far away as is reasonable during exposures.
- Any non-essential personnel are more than 6 feet from the target of radiation.
- That any personnel within 1 meter (39 inches) of the target of irradiation must wear a lead apron and should wear a thyroid collar.
- Optimum collimation is used and that exposure reduction factors are maximized in order to ensure that doses are kept As Low As Reasonably Achievable.
- That female patients of childbearing age (between 10 and 65 years of age) be asked whether there is any chance that they are pregnant. In the event of a suspected or actual pregnancy, the physician and radiologist must consider the risks and benefits of the examination in light of the potential dose to the fetus. The medical physics department can be consulted for dose determination to the fetus and the radiation protection department can advise on risks.
- That no personnel are directly in line with the beam during horizontal beam procedures.
- That an oral announcement is made warning of impending exposure so that staff within 6 feet of the target may clear the area.

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C. Dosimetry

- All authorized personnel must wear Thermo Luminescent Dosimeters (TLD) or Optical Stimulated Luminescence Dosimeter (OSL) when around a Mobile Radiography machine.
- Personnel wearing portable shielding should wear their TLD or OSL at the appropriate location beneath the portable shielding (whole body TLD should be worn between neck and waist and under two layers of lead and the neck dosimeter is worn outside on the thyroid collar).

D. Reporting Incidents

- Any potential incidents must be reported to the Radiation Protection Officer or designate.
- All other applicable incident forms must be filled in. See the charge technologist to find out which forms are required.

E. Between Operation

- When not under direct supervision by an authorized user, the unit should be turned off and plugged in for recharging.
- Once a week, each unit should be allowed to fully charge for 12 hours.

Authorizing Signature:

Dr. Annette McCallum
Department Head