

## CONFERENCE OF RADIATION CONTROL PROGRAM DIRECTORS, INC. BOARD POSITION STATEMENT

## Relating to: The use of mobile x-ray units in ambulatory care facilities in place of installing a fixed x-ray device.

The position of the Conference of Radiation Control Program Directors, Inc. (CRCPD) regarding the use of mobile x-ray units in ambulatory care facilities in lieu of installing fixed units is not considered best practice. This position is supported by the following:

The Primary imaging source for ambulatory care facilities or facilities where patients are ambulatory a permanently installed stationary imaging system, should be installed for the following reasons.

- 1- Ambulatory care facilities are outpatient settings where ambulatory patients are provided care by health care professionals. Mobile x-ray units are intended for bedside use when a patient cannot be transported to the designated imaging room with a permanently installed imaging system. Examples include intensive care, critical care, emergency, and surgical patients.
- 2- Mobile x-ray units have limited imaging factors. Some technique settings require a longer exposure time, which results in an increased patient dose and may lead to image blur.
- 3- Mobile x-ray tubes are not as stable during imaging. Unstable tubes result in repeat images, which leads to an increase in patient dose, and poor-quality images due to tube motion.
- 4- Inconsistent source-to-image distance affects anatomy magnification. Without a means to ensure the source-to-image receptor distance is constantly accurate and the correct angle is used, it would not demonstrate the accuracy and constancy of a standard technique required for the exam. This inaccuracy results in repeat imaging, due to magnification and anatomy cut-off, which leads to an increase in patient dose.
- 5- Mobile x-ray units limit the types of exams that can be ordered which results in poor patient care and would not be considered best practice.
- 6- The image quality without the use of grid or proper positioning can lead to repeat exams or images with motion artifacts.

- 7- Overall, the use of mobile x-ray units in place of a permanently installed imaging system, results in the following:
  - May increase the radiation dose to the patient
  - May increase repeat imaging
  - May produce substandard images
  - May increase the chance of a missed diagnosis
  - In terms of radiation protection and image quality it is not conducive, instead it is preferred to have one x-ray room that has been properly shielded and fitted with a fixed unit.

Adopted by the CRCPD Board of Directors on December 15, 2023.

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