



DEPARTMENT OF THE NAVY

BUREAU OF MEDICINE AND SURGERY
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IN REPLY REFER TO

6600

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22 Sep 08

MEMORANDUM FOR COMMANDER, NAVY MEDICINE EAST
COMMANDER, NAVY MEDICINE WEST
COMMANDER, NAVY MEDICINE NATIONAL CAPITAL AREA

SUBJECT: Appropriate Use of Hand-Held X-Ray Units for Oral and Maxillofacial Radiography

Hand-held x-ray units are a recent innovation and a number of these devices are available within the U. S. Navy. These devices offer distinct benefits for certain applications, such as in deployed environments, but they must not be used as a substitute for fixed, mounted dental x-ray tubes in permanent facilities. The guidelines below will assist in maximizing operator and patient safety as well as ensuring optimum image quality.

The Navy uses the Nomad hand-held x-ray unit manufactured by Aribex, Inc. This device has demonstrated substantial equivalence to a portable intraoral x-ray system designed for field use. It has not demonstrated equivalence to a mounted dental x-ray unit. Therefore, patients scheduled for routine radiographs in permanent facilities must be imaged using fixed x-ray systems, if available. Fixed units offer advantages that make them preferable for routine use: higher operating potentials and beam qualities, shorter exposure times, higher operation tempo, rigid mounting, and remote activation.

When it is either impractical or impossible to use a fixed x-ray system, the next choice is a portable x-ray unit with a rigid base and a remote switch. Advantages of these systems include a stationary focal spot, tube currents typically greater than 5 mA, and reduced operator radiation dose.

If the above two options are either impractical or impossible, then a hand-held x-ray unit can be considered for use. Appropriate applications include emergency and forensic uses outside the dental clinic, deployments, and humanitarian missions. Within the dental clinic there may also be scenarios where use of a hand-held unit is indicated. Examples include but are not limited to dental treatment in which the patient or required equipment cannot safely be moved to or from another room for the procedure, or doing so would unreasonably lengthen the procedure. The privileged dental provider is best able to determine when the hand-held x-ray unit should be used, keeping in mind guidelines stated above.

The manufacturer provides appropriate guidance for safe use of the Nomad. This guidance must be studied and followed. Additionally, the operator must stay within the "zone of significant occupancy," the shield must always be used, and only a single operator and the patient should be in the room during the exposure. Instructions for use of hand-held x-ray units manufactured by other sources that are acquired by Navy facilities must also be obtained, studied and followed.

NAVMED POLICY 08-024

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Security of hand-held x-ray units must be assured at all times. This includes guarding against both theft and unauthorized use. Security must be addressed in a local policy on the appropriate use of hand held x-ray units considering the scope of practice for the clinic. Staff must be appropriately trained, and procedures strictly enforced.

Please ensure widest dissemination to your activities and appropriate implementation of this policy. Points of contact are CDR Sean Meehan, Specialty Leader for Oral Medicine, Oral Pharmacology and Oral Radiology, sean.meehan@med.navy.mil, 301-295-4013; and LCDR Douglas Fletcher, Radiation Health Specialty Leader Assistant, douglas.fletcher@med.navy.mil, 301-295-5026.



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