Name of Policy: **Radiopharmaceutical Administration** **Policy Number**: 3364-135-088 **Approving Officer**: Chief Executive Officer **Responsible Agent**: Assistant Professor & Deputy Clinical Service Chief Director Radiology **Scope**: The University of Toledo Medical Center	UTOLEDO HEALTH **Effective date:** **Original effective date**: August 29, 1975
Key words: Radiopharmaceutical, Administration, Nuclear Medicine, Radioactive Materials, Competency	

	New policy proposal		Minor/technical revision of existing policy
X	Major revision of existing policy		Reaffirmation of existing policy

(A) Policy statement

Only ~~a~~state ~~-~~licensed ~~and state registered~~ nuclear medicine technologists credentialed by either the Nuclear Medicine Technology Certification board (NMTCB) or the American Registry of Radiologic Technologists (ARRT (N)) or an ~~a~~Authorized user (AU) of ~~unsealed~~ radioactive materials (RAM), who are properly trained and granted status from the University of Toledo Radiation Safety and Radioisotope Committee (RSC)~~radiation safety office~~, are authorized to administer radiopharmaceuticals. Nuclear medicine students and radiology residents may administer radiopharmaceuticals under the direct supervision of the AU, as part of their training and education, to obtain competency for specific uses of RAM.

Any nuclear medicine procedures requiring a written directive will be performed in the presence of ~~authorized users~~ an AU who ~~are~~is trained, educated, and approved for that specific administration by the radiation safety office. Details regarding the administration of radiopharmaceuticals requiring a written directive in policy 3364-135-089. Oral directives and/or revisions to written directives are described in policy 3364-135-091. ~~Radiopharmaceutical administration, oral directives and revisions to written directives.~~

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(B) Purpose of policy

This policy establishes authority to administer these medications and to ensure doses are kept as low as reasonably achievable to minimize unnecessary radiation exposure to the patient, staff, and members of the general public. The purpose of having a qualified physician available is due to the potential need for treatment in the event of adverse reactions to the medication or to provide specialized guidance involving radiopharmaceutical ~~incidents~~administrations.~~.~~

Therapeutic radiopharmaceuticals are often given in amounts which may have significant biological effects, and therefore, having the AU present to administer the material is desired for additional ~~security~~oversight and patient safety.

(C) Scope~~Procedure~~

~~Newly-employed nuclear medicine technologists in the nuclear medicine laboratory will be checked for their knowledge and skill in respect to injections and administration of medications. Appropriate safety, aseptic and sterility techniques will be used in accordance with USP 797, and departmental policy.~~

~~Nuclear medicine & PET/CT students from The University of Findlay will inject radiopharmaceuticals under the direct supervision of a registered technologist. All radiopharmaceutical doses will be checked and assayed by the assigned nuclear medicine technologist, prior to administration.~~

~~Since the availability of a physician is for the treatment of reactions or incidents, it is not specified that this physician should necessarily be a radiologist or any other particular type of specialist — only that a physician should be available for treatment of untoward incidents and reactions even though such are quite uncommon in nuclear medicine.~~

~~In the administration of therapeutic radioisotopes, the technologist will follow the usual radiation safety procedures and the physician will make sure that the administered agent is of the appropriate type and quantity and that the route of administration is in the desirable manner.~~

(1) All nuclear medicine technologists will be trained and oriented to the nuclear medicine ~~laboratory~~department, applicable equipment, and procedures associated with the safe handling, administration, and disposal of radiopharmaceuticals. All applicable policies and standards regarding radiation safety, department cleaning and disinfecting, garbing techniques, and aseptically administering radiopharmaceuticals will be enforced.

~~(9) Appropriate radiation safety, aseptic, cleaning/disinfecting, and garbing techniques will be enforced as required per USP standards, and hospital policy.~~

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~~(10)~~(2) As part of their clinical training, nuclear medicine and PET/CT students are authorized to ~~inject~~administer radiopharmaceuticals in the direct presence and supervision of a licensed ~~and registered~~certified nuclear medicine technologist. All radiopharmaceutical doses will be ~~checked and assayed~~verified by the assigned staff technologist, prior to administration ~~to~~into the patient.

(3) Prior to administration, the nuclear medicine technologist will verify and document the identity of the patient by name, date of birth, and/or medical record number. As applicable, the patient's pregnancy and breastfeeding status will also be verified ~~, and only after proper instruction and informed consent has been completed, will the medication be administered.~~ prior to administering the radiopharmaceutical.

~~(11)~~(4) Breastfeeding patients must be provided with instructions on the temporary or permanent ~~cessation~~interruption of breastfeeding per department policy and in accordance with regulatory requirements. Pediatric patients undergoing nuclear medicine procedures will have their doses adjusted based upon their weight in kilograms (kg), for which a dosing chart is posted in the hot lab for reference.

~~(12)~~(5) All radiopharmaceuticals ~~doses~~ will be assayed in the dose calibrator prior to administration, to verify the activity present, and that ~~the activity~~it is within the ~~acceptable range~~prescribed dose range ~~or prescribed dose variance~~ for the ~~procedure~~ intended procedure. If the dose is outside of the prescribed dose range ~~or percent variance~~, it may only be administered under the authority and direction of the AU. All measures will be taken by the technologist~~,~~ to aseptically administer the dose to the patient, as well as follow appropriate radiation safety standards regarding the use of PPE (e.g., gloves, lab coats, dosimeters, etc.) during the administration.

~~(13) A radiologist~~An AU must be available for consultation and oversight in the event of an adverse reaction to a radiopharmaceutical. If an adverse reaction is suspected in a patient, the event must be properly entered into the Patient Safety Net as well as other ~~applicable documentation listed in~~required reporting regarding adverse drug reactions. ~~policy 3364-100-70-2 Adverse drug reaction reporting.~~

~~(15)(6) Details regarding the administration of radiopharmaceuticals requiring a written directive are discussed in policy 3364-135-089 Administration of radiopharmaceuticals – QMP required.~~

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Approved by: Daniel Barbee, MBA, BSN, RN, FACHE Chief Executive Officer Date Nathan Egbert, MD Assistant Professor & Deputy Clinical Service Chief Date Ryan Landis, BSRT (R)(CT) Director, Radiology Date *Review/Revision Completed by:* Ryan Landis, BSRT (R)(CT) Director, Radiology	**Policies Superseded by this Policy:** • R-002 Initial effective date: August 29, 1975 Review/Revision Date: September 24, 1990 July 1, 1993 October 1, 1996 August 20, 1999 September 1, 2005 May 28, 2008 May 1, 2011 May 21, 2014 May 1, 2017 May 1, 2020 May 1, 2023 Next review date:

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