


Name of Policy:	<u>Radiopharmaceutical Administration</u>	
Policy Number:	3364-135-088	
Department:	Radiology	
Approving Officer:	Chief Operating Officer - UTM	
Responsible Agent:	Chairman & Professor, Radiology	
Scope:	Radiology	
		Effective Date: 5/1/2023
		Initial Effective Date: 8/29/1975
<input type="checkbox"/> New policy proposal <input type="checkbox"/> Major revision of existing policy		<input type="checkbox"/> Minor/technical revision of existing policy <input checked="" type="checkbox"/> Reaffirmation of existing policy

(A) Policy Statement

Only a licensed and state registered Nuclear Medicine Technologist or Authorized User (AU) of unsealed radioactive materials (RAM), who are properly trained and granted status from the 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 who are trained, educated, and approved for that specific administration by the Radiation Safety office. Oral directives and/or revisions to written directives are described in policy 3364-135-091.

(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.

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.

(C) Procedure

Nuclear Medicine technologists in the Nuclear Medicine Laboratory who are newly employed 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 be necessarily 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, applicable equipment, and procedures associated with the safe handling, administration, and disposal of radiopharmaceuticals. Appropriate radiation safety, aseptic, cleaning/disinfecting, and garbing techniques will be enforced as required per USP standards, and hospital policy.
2. As part of their clinical training, Nuclear Medicine and PET/CT students are authorized to inject radiopharmaceuticals in the direct presence and supervision of a licensed and registered Nuclear Medicine Technologist. All doses will be checked and assayed by the assigned staff Technologist, prior to administration to 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. Breastfeeding patients must be provided instruction on the temporary or permanent cessation of breastfeeding per department policy. Pediatric patients undergoing nuclear medicine procedures will have their doses adjusted based upon their weight (kg), for which a dosing chart is posted in the hot lab for reference.
4. All radiopharmaceutical doses will be assayed in the dose calibrator prior to administration, to verify the activity present, and that the activity is within the acceptable range or prescribed dose variance for the procedure intended. 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.
5. A Radiologist 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 UT policy 3364-100-70-2 regarding adverse drug reaction reporting.
6. Details regarding the administration of radiopharmaceuticals requiring a written directive are discussed in policy 3364-135-089.

Approved by:	Review/Revision Date:
<u>/s/</u> Haitham Elsamaloty, MD Chairman & Professor, Radiology	9/24/1990 7/1/1993 10/01/1996 8/20/1999 9/1/2005 5/28/2008 5/1/2011 5/21/2014 5/1/2017 5/1/2020 5/1/2023
<u>/s/</u> Christine Stesney-Ridenour, FACHE Chief Operating Officer - UTMC	<u>04/11/2023</u> Date <u>05/02/2023</u> Date
<i>Review/Revision Completed By:</i> <i>Haitham Elsamaloty, MD</i>	Next Review Date: 5/1/2026
Policies Superseded by This Policy: R-002	