

IMMEDIATE USE OF RADIOPHARMACEUTICALS UPDATED: DECEMBER 2020

1. **PURPOSE**

- 1.1. Describe Immediate Use dispensing of radiopharmaceuticals

2. **SCOPE**

- 2.1. Any person that manipulates an aseptically dispensed radiopharmaceutical dose in an ambient environment
- 2.2. Any person that manipulates an aseptically prepared radiopharmaceutical kit in an ambient environment
- 2.3. Common scenarios, but not limited to
 - 2.3.1. Emergency on-call situations by the Nuclear Medicine Technologist to compound a radiopharmaceutical for one patient and used on that patient within one hour from time of first septum puncture
 - 2.3.2. Adjustment of dispensed doses, change needles, or attached dose to administration tubing
 - 2.3.3. Red Blood Cell labeling with the *Ultrataq* kit
 - 2.3.4. Pooling cancelled/unused aseptically processed doses to create one patient dose
 - 2.3.5. Splitting doses to reduce the amount of radiation administered to a patient

3. **MATERIALS AND EQUIPMENT**

- 3.1. Gloves, hand sanitizer, clean gown
- 3.2. Optional ancillary supplies: Labels, sterile syringes, empty vial

4. **REFERENCES**

- 4.1. USP General Chapter <825>, Radiopharmaceuticals-Preparation, Compounding, Dispensing and Repackaging
- 4.2. Nuclear Pharmacy Operations Manual

5. **DEFINITIONS**

- 5.1. **Sterile Gloves:** Gloves labeled as sterile by manufacturer, often by irradiation
- 5.2. **Sanitized Gloves:** Gloves disinfected by user with sterile 70% isopropyl alcohol (IPA)
- 5.3. **BUD:** Beyond Use Date, time the dose will no longer be used-60 minutes from start of manipulation
- 5.4. **Pooling:** Combining 2 or more aseptically dispensed radiopharmaceuticals to create one dose
- 5.5. **Splitting:** Removing part of an aseptically dispensed radiopharmaceutical to reduce an administered dose

6. **RESPONSIBILITIES**

- 6.1. Preparation appropriate for use only for a single patient to be administered within 1 hour of the first exposure (or puncture) with ambient air
- 6.2. All leftover components (elution, kit, syringes, etc), and must be immediately discarded.
- 6.3. Label dose if left unattended, including the BUD of 1 hour
- 6.4. Personnel do not need to complete aseptic qualifications for immediate use of sterile radiopharmaceuticals.

7. **PROCEDURE**

- 7.1. Gather necessary supplies
- 7.2. Wash hands with soap and water, or disinfect with alcohol-based hand sanitizer, per UWH policy
- 7.3. Don clean coat/gown that has not been exposed to a patient or patient care area.
 - 7.3.1. Note that sterile gloves are not mandatory, but non-sterile gloves must be sanitized
- 7.4. Critical sites of the container must be swabbed with a sterile alcohol wipe and allowed to dry before first puncture; no limit to the number of punctures.
- 7.5. Note time of first puncture during manipulation.
 - 7.5.1. Dose must be labeled if preparer is not doing the administration.
- 7.6. Adjust or draw dose as necessary

8. **ATTACHMENTS**

- 8.1. None

9. **FORMS**

- 9.1. None

10. **REVISION HISTORY**

- 10.1. Original, December 2020

Reviewed By: S. Knishka, D. Fuerbringer

Scott Knishka, RPh, BCNP
Manager, Nuclear Pharmacy Services

Derek Fuerbringer, CNMT
Manager, Nuclear Medicine