

NUCLEAR MEDICINE

Department of Radiology

SCOPE OF PRACTICE

PGY-2 – PGY-5

Welcome to Nuclear Medicine. In order to make this rotation as enjoyable and educational as possible, we wish to detail for you your responsibilities when serving in the Nuclear Medicine clinics at the Medical University of South Carolina and Ashley River Tower.

Nuclear Medicine residents are expected to work closely with the technologists from 7:30 a.m. until all the day's scans are completed and dictated. The nuclear medicine resident will be in charge and responsible for either the MUH or ART clinics during their rotations and will be required to keep the clinical coordinators informed as to where they are during all times of the day.

One year after beginning residency training, Nuclear Medicine residents are expected to share call with the Nuclear Medicine Attendings. Call for all emergency NM procedures begins at 7 a.m. on Monday and extends until 6:59 a.m. the following Monday, and consequently requires 24 beeper coverage. Radiology residents cover in hospital responsibilities in the "off hours" while the NM call physician typically responds remotely via phone and PC (Telenuclear medicine) as backup for the Radiology resident.

Each nuclear medicine procedure is the responsibility of the resident in charge of the clinic. Each study will be evaluated for appropriateness by this resident and protocolled on line. If there is any question about the protocol, make sure you address it, and then review scan protocol changes with the technologist to optimally tailor the scan (e.g. views, position, window level, etc.).

Usually, the technologist will inject the patient with radioactivity, but for certain drugs and investigational isotopes (and when technologists cannot obtain IV access), they will ask you to inject the patient. Make sure you assess appropriateness, follow universal precautions and wear gloves to protect yourself.

Many times the clinical question to be answered by a scan is not well defined. We expect you to take a brief history from the patient, examine them and if necessary call the ordering physician then design the most appropriate test. The resulting scan should be tailored to answer this clinical question.

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Certain radiopharmaceuticals need to be ordered ahead of time. These included Thallium, Indium, Iodine (including I-131 and I-123), MIBG, ProstaScint, Bexxar, etc., and if you agree to perform a test with one of these, make sure you inform both the nuclear pharmacy at ext 2-3238, and the clinical coordinator/scheduler.

During the day, consulting physicians may ask for emergency procedures. If you think these are warranted, obtain all relevant patient clinical and demographic information and then refer it to the appropriate clinical coordinator. Make sure the referring physician completes a request, albeit an electronic one (EPIC, Practice Partner or CPOE/eCare) for MUSC clinicians or a faxed, signed request for extramural physicians.

It is expected that you remain in the nuclear medicine clinical area throughout the day, except for occasional morning and daily noon conferences which you should make every effort to attend. The nuclear medicine attendings will answer most calls and requests from the technologists during conference times.

All nuclear medicine scans need to be checked by the responsible resident to ensure diagnostic accuracy and that the study will answer the clinical question asked of you by the referring physician. Patients may need to be examined and if necessary, markers placed on areas for better anatomical localization. If you are unsure, speak to the attending nuclear medicine physician. Once you are satisfied that all necessary images have been obtained, the patient can leave. You always need old nuclear medicine studies and relevant x-rays, CT, MRI, US, etc.

There is a daily schedule of attending coverage. Most attendings check out films throughout the day and have a main check-out session in the afternoon (2:30-4:00 p.m. and 3:00-5:00 p.m. for cardiac studies). There is a logbooks in the reading room at ART for cardiac procedures to document stress type and scan results. Please discuss any problems with an attending if you have any questions. Check with the attending to determine whether they would like you to pre-dictate prior to check-out session. All examinations need to be **dictated** on the day they are **performed**. Many nuclear medicine procedures have more than one accession card (bar code). Make sure that you dictate under the appropriate accession number. Nuclear Medicine Residents must log their cases daily/weekly on the ACGME website.

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When using “Talk Technology (Agfa)” to dictate, take advantage of the available macros. The impression should be concise and answer the clinical question asked by the referring doctor and should include one of the following: “normal, abnormal, or unchanged”. The impression becomes the most conspicuous portion of the patient’s medical record.

If a patient is injected with a dose and fails to complete the scan, you are required to report the injection (i.e. dictation) since a legal record of the dosing needs to be maintained in the patient’s medical record.

I-131 Iodine Therapy:

- 1) **For each iodine therapy you participate in, you must have your thyroid gland monitored within one month after the patient’s dosing. It is the resident’s responsibility to ensure that this happens and failure to be monitored may result in the loss of this clinical privilege.**
- 2) For each resident, an accurate participation record needs to be kept of all I-131 therapies. Since you are required to participate in a minimum of 10 thyroid cancer therapies and 10 hyperthyroid therapies for licensing, obtain and complete all of the special forms that need to be filled in and Nuclear Medicine Residents must log this cases in the ACGME Web site. It is the resident’s responsibility to make sure this is done and given to the nuclear medicine program coordinator. Only 3 residents can watch a procedure and get credit. The forms are located in the reception office at MUH.

Technologists will try and help you as much as possible. They are an excellent learning resource, if you treat them with respect. They can make your life much easier if you give them time and patience.

The techs are allowed to inject radiopharmaceuticals, but cannot inject morphine. A physician also needs to decide on sedation when necessary for certain patients. A description of all administered drugs must be included in the dictated report. Always examine the patient, consult with the technologist to decide whether you think sedation is necessary.

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If you have interesting teaching cases, mark these in the logbook. You should also include them in your and the nuclear medicine PACS teaching files. You should include a brief history, description of physical findings and discussion.

There are numerous textbooks that provide a good introduction and review of nuclear medicine. These include Mettler and Guilberteau (Clinical Nuclear Medicine), Datz (Atlas), or the “Nuclear Medicine Requisites by Zeissman, et.al. You should try to read a good basic textbook prior to your rotation, or at least by the end of your first week.

Whenever a question or concern develops, feel free to consult Dr. Spicer (beeper 14293/wireless 6-6548/office 6-4217), Dr. Gordon (beeper 14119/office 2-3269) or Dr. Bradshaw (beeper 14588/office 2-6713).