

Rotation Goals & Objectives - Duke University Medical Center, Nuclear Medicine

The Nuclear Medicine Pathway candidate will complete a 2-month NM clinical rotation at Duke University Medical Center. This rotation is meant to supplement the experience at DH by providing exposure to distinct pathology, protocols, technologies, and ways of clinical practice and interpretation.

Required Activities:

- ☐ Attend, at minimum, one tumor board per week.
- ☐ Attend Grand Rounds (Via WebEx on Fridays, ask the link be sent to you).
- ☐ Attend all scheduled lectures (ask the monthly schedule is sent to you).
- ☐ Coordinate a visit to the on-site radiopharmacy.

Patient Care

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families.
- Gather essential and accurate medical and radiologic history pertinent to the procedure for which the patient is scheduled and/or for the imaging examination the patient had.
- Understand NRC regulations and radiation safety.
- Understand how to perform NM radiotherapy and contrast how techniques/protocols may vary in contrast to those at DH.

Medical Knowledge

- Continue to build upon knowledge of radiation biology, instrumentation and QC, and both planar/SPECT and PET radiopharmacy.
- Hone PET/CT and SPECT/CT interpretation skills.
- Know the common indications and pitfalls for the various gamma and PET studies.
- Become familiar with TNM staging for commonly imaged malignancies (breast, prostate, lung).
- Be familiar with the lymph drainage patterns for commonly image malignancies of the head, neck, chest, abdomen, and pelvis.
- Accurately tailor patient exams as needed.
- Radiotherapies – Be familiar with the common indications, contraindications (inclusive of relevant lab values), adverse reactions and their management, radiation safety protocols, and the administration protocol
 - I-131, Lutathera, Pluvicto, Xofigo
- Know the common indications and interpretation pitfalls for various nuclear medicine exams performed at Duke.

Interpersonal and Communication Skills

- Work professionally and effectively with technologists.
- Communicate with referring clinicians to optimize and prioritize performance of studies for all patients.
- Communicate and document communication of critical findings with appropriate medical personnel in a timely fashion.
- Participate in NM consultations.
- Participate in tumor boards and NM-specific lectures.

Professionalism

- Incorporate ethical practice, professional regulation and high personal standards of behavior.
- Work with any and all health care professionals to provide patient-focused and most appropriate care:
 - Consult with ordering providers to recommend the best imaging test
 - Address patient questions and concerns
 - Document these communications in the medical record, as appropriate.
- Understand how to be a committed, ethical, and professionally responsible physician.
- Understand patient privacy issues.

Practice-Based Learning and Improvement

- Become familiar with practice performance guidelines at Duke and contrast them with those at Dartmouth.
- Know where the protocol handbook is located and reference it as necessary.
- Perform image checks when prompted by the technologists.
- Administer Lasix for MAG3 studies when needed and as clinically appropriate.
- Protocol inpatient gamma study requests as appropriate.
 - Do NOT protocol any other exams unless explicitly asked to do so.
- Work-up inpatient PET requests and discuss with the attending.
- Spend time working side by side with the technologists to gain full understanding of the commonly utilized protocols.

Systems Based Practice

- Learn to use relevant computer systems to include the local PACS (Visage) and Maestro (EPIC).
- Understand basic billing and coding as it pertains to daily practice, particularly as it concerns 'diagnostic' and 'non-diagnostic' PET examinations.

Rotations & Educational Expectations

- The resident is expected to participate in all the nuclear medicine rotations
- The resident will spend 1 morning at the Duke radiopharmacy. E-mail Neil Petri to arrange for this.
 - Per Neil, ideal days for this are Tue-Thu.
 - Start time is 6:00am on those days. You will return to your scheduled assignment after your time at the radiopharmacy. This is NOT a free day.

- The resident is expected to attend all the 8:30AM Nuclear Medicine lectures. A schedule is sent out at the beginning of each month; ask one of the residents for the schedule if you do not receive this. **Please keep a copy of this schedule for record-keeping of the lectures attended.**
- Weekly Radiology Grand Rounds are on Thursdays at 7:30AM. **Attendance (virtual) is required.**
- You are not required to attend the routine diagnostic morning or noon didactics. As a visiting resident you are NOT allowed to attend the radiology M&M conference.
 - **Please make note that you may be asked to provide contrast coverage over the noon hour when the other residents are at their conference and if an attending is not available. Only do so after you've been shown where the CT and MRI suites are located.**
- The resident will attend at least 1 tumor board on a regular basis while at Duke with participation as determined by the moderating NM attending. A few TBs are listed below with the corresponding NM attending; it is your responsibility to then contact the organizer to be added to the listserv. **Documentation of tumor board attendance required.**
 - Endocrine - Monday @ 4pm
 - Primary attending: Dr. Kelleher
 - H&N Tumor Board - Monday @ 5pm
 - Primary attending: Dr. Wong
 - Melanoma - Wednesday @ 12pm
 - Primary attending: Dr. Howard.
 - CTEPH - Thursday @ 8:30am
 - Primary attending: Dr. Nedrud
- Duke currently uses a different platform for cardiac SPECT and PET which makes it difficult to track which studies the resident interpreted. As such, it is the **resident's responsibility to independently log all therapies and cardiac studies interpreted (even if not dictated!) during this 2-month rotation.**
 - If there are rare cases (cisternogram, F¹⁸-FES PET) which you actively participated in but did not dictate, it is important that you keep a log of these as well.
- Candie will pull a log of all your 'formally' interpreted cases and send them to Jill for documentation.