Entrustable Professional Activities (EPAs)

List of EPAs for Nuclear Medicine

EPA Title	EPA Entrustment Level to be Attained by Exit
EPA 1: Managing Patients Referred for Radionuclide Therapy	Level 4
EPA 2: Conducting Nuclear Medicine Diagnostic Studies	Level 4
EPA 3: Handling Unsealed Radioactive Sources	Level 4
EPA 4: Conducting Nuclear Cardiology Stress Test	Level 4
EPA 5: Educating Patients, Allied Health Professionals, Residents and Peers about Nuclear Medicine and Radiation Safety	Level 4

Entrustment Scale

Entrustment Level	Description
Level 1	Be present and observe, but no permission to enact EPA
Level 2	Practice EPA with direct (pro-active) supervision
Level 3	Practice EPA with indirect (re-active) supervision
Level 4	Unsupervised practice allowed (distant oversight)
Level 5	May provide supervision to junior learners

NUCLEAR MEDICINE EPA 1 - Managing Patients Referred for Radionuclide Therapy

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Title	**Managing Patients Referred for Radionuclide Therapy**
Specifications and limitations	1) Evaluates patients for radionuclide therapy 2) Selects appropriate radionuclide therapeutic procedure 3) Confirms therapeutic procedure setup and technique 4) Confirms patient preparation and requests additional studies/ consultations as needed 5) Performs appropriate procedural steps for the radionuclide therapy 6) Makes appropriate follow-up arrangements Inclusions - a) Radionuclide therapy for benign thyroid disease b) Radionuclide therapy for thyroid malignancy c) Parenteral radionuclide therapy
	Limitations: Complex conditions require senior and multi-disciplinary input
EPA Entrustment Level to be Attained by Exit	Level 4

NUCLEAR MEDICINE EPA 2 - Conducting Nuclear Medicine Diagnostic Studies

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Title	**Conducting Nuclear Medicine Diagnostic Studies**
Specifications and limitations	1) Obtains patient information and does focused patient evaluation 2) Synthesizes patient information and selects appropriate procedures for routine andcomplex cases 3) Proposes procedure, patient preparation and procedure modification based on examrequest and patient information 4) Assesses for completion of procedure before allowing patient to leave 5) Accurately interprets and reports imaging studies 6) Reports the hybrid scan succinctly and provides appropriate differential diagnoses 7) Communicates findings to patients and referring clinicians, specially informingreferring team of emergent findings 8) Recognizes radiotracer and contrast extravasation and manages this complication safely
	Limitations: Some nuclear medicine studies may be infrequently performed
EPA Entrustment Level to be Attained by Exit	Level 4

NUCLEAR MEDICINE EPA 3 - Handling Unsealed Radioactive Sources

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Title	**Handling Unsealed Radioactive Sources**
Specifications and limitations	1) Demonstrates the appropriate handling, transport and administration of unsealed radioactive sources including the use of safety apparatus such as the use of double glovesand PPE 2) Checks activity of radiopharmaceuticals before and after administration to patients 3) Disposal of used syringes after radiopharmaceutical administration in a safe andappropriate manner 4) Applies the ALARA principles of shielding, time, and distance in radiation protection 5) Locates survey meters and decontamination kits within the Department and conducts aradiation contamination survey using a survey meter 6) Locates and follows the department SOP on management of radioactive spills 7) Safely clean up after a radioactive spill and proper marking of contamination area withinand outside of the Department of Nuclear Medicine and Molecular Imaging 8) Demonstrates proper personal radiation contamination survey and handling radioactivewastes 9) Demonstrates appropriate handling of contaminated patients, staff, and equipment.
	Limitations: Excludes handling of uncommon radioactive treatments such as implantation of radioactivebeads. These uncommon treatments will require specialized input from the department Radiation Safety Officer
EPA Entrustment Level to be Attained by Exit	Level 4

NUCLEAR MEDICINE EPA 4 - Conducting Nuclear Cardiology Stress Test

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Title	**Conducting Nuclear Cardiology Stress Test**
Specifications and limitations	1) Applies the appropriate use criteria for myocardial perfusion imaging in identifying patients for MPI 2) Performs treadmill exercise stress testing using Bruce protocol or accepted alternatives 3) Performs pharmacological stress testing with dipyridamole, adenosine or dobutamine 4) Demonstrates knowledge of the testing end points; detection of common complications arising from stress testing and appropriate corrective measures and antidotes 5) Applies the principles of Advanced Cardiac Life Support in event of cardiac emergencies 6) Ability to process images using dedicated cardiac imaging software such as QGS/QPS 7) Understands how artefacts occur, their effect on image quality & how their effect can be reduced 8) Report cardiac MPI in a standardized method
	Limitations: More complex cases may require input of the senior
EPA Entrustment Level to be Attained by Exit	Level 4

NUCLEAR MEDICINE EPA 5 - Educating Patients, Allied Health Professionals, Residents and Peers about Nuclear Medicine and Radiation Safety

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Title	**Educating Patients, Allied Health Professionals, Residents and Peers about Nuclear Medicine and Radiation Safety**
Specifications and limitations	1. Understand the different types, choice and purpose of radiation detectors used 2. Select appropriate radiation detector for measuring different types and units of radiation 3. Know the legal framework in which nuclear medicine is practiced, including dischargecriteria for patients who have received radionuclide therapy a) Radionuclide therapy for benign thyroid disease b) Radionuclide therapy for thyroid malignancy c) Parenteral radionuclide therapy (e.g., Peptide Receptor Radionuclide Therapy, Prostate Specific membrane therapy, Y-90 microsphere therapy for Liver malignancies etc.)
	Limitations: Complex issues or reportable events may require input from medical physicists
EPA Entrustment Level to be Attained by Exit	Level 4