

## Reference Guide

### Nuclear Medicine Department Survey, Inspection Readiness

Infection Control				
Yes	No	NA	Guidelines	Explain "No" answers
			Checked for expired stock	
			Area is clean and free of clutter	
			Refrigerator temps and blanket warmer temps are recorded as required	
			Refrigerator thermometer is calibrated	
			Action taken for temps out of range	
			Food in refrigerator labeled and dated	
			Cleaning and defrosting of refrigerator policy in place	
			Patient food and staff food separated	
			No food in medical refrigerators	
			No torn mattresses or position wedges	
			No cardboard boxes on floor in storage rooms (insects)	
			No storage in cabinets under sinks	
			Linen carts covered	
			Sharps containers not full, not overflowing and secure (not tipping over) (75% full)	
			Glucometers strips checked for expiration and controls labeled with expiration date and time	
			No missing, broken, stained ceiling tiles	
			Staff are performing hand hygiene in/out of room and washing hands when visibly soiled.	
			Staff know disinfectant wipe "dwell/kill/contact time" (new wipes during shortage)	
			Any open containers dated, and date of "do not use after" is present	
Facility Safety				
Yes	No	NA	Guidelines	Explain "No" answers
			MSDS Info available to staff (binder or digital)	
			Annual site specific safety training (fire, active shooter, mass casualty, tornado, earthquake etc.) Completed	
			Staff know location of fire alarms and fire extinguishers	
			Fire extinguishers checked periodically	
			Storage or utility rooms: items on top shelf at least 18 inches from sprinkler	
			Staff can locate oxygen shut-off valves and can verbalize policy for shut-off	
			No propped doors, fire escape doors and stairwells are unobstructed.	

**Facility Safety (continued)**

Yes	No	NA	Guidelines	Explain "No" answers
			Unobstructed electrical panels (36" clearance).	
			Oxygen tanks secured (in holder / caddy). Full/in use cylinders separated.	
			Ensure hallways are clear and egress is met	
			Eyewash stations checked and in appropriate areas	

**Patient Safety**

Yes	No	NA	Guidelines	Explain "No" answers
			Process in place to verify correct patient, exam, parameters, etc.	
			Pediatric vs adult protocols in place (pediatric dose)	
			Alcohol gel present in all designated locations (no empty or expired containers)	
			Verbal orders / telephone orders authenticated per policy.	
			Patient information at desk covered, no open patient information left unattended	
			Consents are completed prior to procedures. Physician, patient, witness entries signed, date and scanned into media manager.	
			H&P present and within timeframe (30 days with update w/in 24 hrs. of procedure).	
			Time outs performed	

**Equipment**

Yes	No	NA	Guidelines	Explain "No" answers
			Daily crash cart checks and logs	
			PM schedules and records on all equipment available	
			Equipment tagged so staff know PM has been completed	
			Medication carts and drawers locked up properly	
			Manufacturers cleaning requirements available	

**Staff**

Yes	No	NA	Guidelines	Explain "No" answers
			Annual competencies on file (procedural, venipuncture, equipment)	
			All techs licenses and credentials are current and primary source verification completed	
			Job descriptions approved by medical staff	
			Color blind testing for areas that require it (E.G. Some quality control depends on color. Tech must be able to evaluate the proper color)	
			Credentials of person performing evaluations. Must be competent in the field they are evaluating staff member in. No lateral (peer) evaluations, must be at a higher level.	
			New employee orientations completed and on file	
			Current credentials on file for diagnostic medical physicists who evaluate equipment	

## Nuclear Medicine Specific Guidelines

### Organization

Yes	No	NA	Guidelines	Explain "No" answers
			Organizational chart on file (RSC, Senior Management, RSO, Physicist, Med Director)	
			Annual review of quality management program on file	
			Quality management program contains ordered amount, assay dose, route of admin, verify patient, and AU signature	
			Pharmacy review of radiopharmaceutical policy and oversight of medications administered for exams	
			Ensure USP 825 Compliance	

### Facility

Yes	No	NA	Guidelines	Explain "No" answers
			Shielding design and post-install survey performed for any new construction or changes to equipment requiring this and records on file (SPECT/CT)	
			Fume hood airflow is checked	
			For Xenon air flow is checked and negative pressure is maintained (dose limit to members of public)	
			Hot lab locked or monitored when not	
			After hours delivery process. Delivery personnel should not have access to the dept. Security should escort and lock dept after delivery or a drop box is in place.	

### NM Staff Records

Yes	No	NA	Guidelines	Explain "No" answers
			Employee HazMat training on file (DOT every 3 years, IATA every 2 years)	
			List of staff who have access to Nuc Med Dept on file	
			Annual rad safety training on file	
			Annual ancillary radiation safety training on file	

### Personnel Monitoring

Yes	No	NA	Guidelines	Explain "No" answers
			Any over exposures and was state notified	
			Annual dosimetry report distributed or accessible to monitored workers	
			Staff can access monitoring period dosimetry reports	
			Dosimetry reports reviewed by RSO	
			ALARA II investigations on file according to policy	
			Declared pregnant workers documentation on file	
			Any public exposures, state notified and records on file	

**Scope of RML**

Yes	No	NA	Guidelines	Explain "No" answers
			RSO named on RML	
			AUs current	
			RSO duties and agreement on file	
			Use and storage areas identified and current	
			RSO and storage locations were approved by the state	
			If doing Human Research does your RML allow this	
			You have current RML on file for any vendors from which you order sources and your radiopharmacy.	
			Doses are assayed or decay calculations are performed prior to administration	
			Review RAM License. Know what radioactive material and maximum quantity your license authorizes you to use.	
			Verify that your license and amendments are correct.	
			Has anything on license changed? Was amendment sent to state requesting change. (i.e. company name, address, new storage location, termination of storage location, etc.)	
			Read and be familiar with your operating, safety and emergency procedures.	
			RSC in place if required	
			RSC Membership List current	
			RSC composed of member for each use, RSO, Nursing, management	
			Meets the required number of times within a time frame	
			Quorum present during meeting	
			Signed copies of past RSC meeting minutes	
			Meeting agenda and supporting documentation on file	
			Radiation safety program is available	
			Radiation safety program is reviewed annually by the RSO	

**Mobile Unit**

Yes	No	NA	Guidelines	Explain "No" answers
			Whose RML are they operating under	
			Do you have letters on file authorizing use of RAM at the facility by mobile service if not does license have authorizing possession of the RAM	
			Is all RAM removed from facility prior to leaving	

**Equipment QC**

Yes	No	NA	Guidelines	Explain "No" answers
			Survey meters are calibrated annually	

Well Counter/Thyroid Probe			
			Efficiency
			MDA
			NMIS updated with new efficiency
			Daily calibrations and weekly chi square
Dose Calibrator			
			Linearity install and quarterly $\pm$ 10% accuracy
			Constancy each day $\pm$ 10% accuracy
			Geometry install and after repair or move or adjusted $\pm$ 10% accuracy
			Accuracy-install and annually $\pm$ 10% accuracy
Annual Equipment testing by diagnostic medical physicist is performed			
			Image and system uniformity (NM and PET)
			High contrast resolution/system spatial Resolution (NM and PET)
			Artifact evaluation (NM and PET)
			Image acquisition display monitor performance evaluation (NM and PET) (SMPTE Pattern installed on workstations)
			Max and min luminance
			Luminance uniformity
			Resolution
			Spatial accuracy
			Sensitivity (NM only)
			Energy resolution (NM only)
			Count rate performance (NM only)
			Low contrast resolution or detectability (PET Only)
Gamma Camera QC			
			Xenon alarm monitor is tested and recorded (mfg recommendations)
			Xenon filters are exchanged or decayed accordingly (charcoal trap rotation)
			Floods daily,
			Bars weekly (if applicable)
			COR monthly,
			Hi count Uniformity correction floods monthly.
			SPECT QC (phantoms if req)

PET/CT QC				
Yes	No	NA	Guidelines	Explain "No" answers
			Daily blank scan	
			Weekly/quarterly calibrations (mfg specific)	
			Daily tube warm Up (CT)	
			Daily fast calibration (CT)	
			Daily/weekly phantom scan (CT) (mfg specific)	
			Phantom testing for ACR	

### Written Directives

Yes	No	NA	Guidelines	Explain "No" answers
			Written directive policies in place and followed	
			Release of therapy patient's paperwork on file. Met release levels	
			Were written instructions given to patients to keep dose to others low	
			Were breast feeding instructions given if dose to child could exceed 100 mRem	
			Were documents signed by patient and AU	
			Are necessary pregnancy tests performed or documentation on file (I-131 proof of hysterectomy or negative pregnancy test)	
			Was state notified for doses which differ from the prescribed by 20%, regulation specific (Y-90 Theraspheres)	

### Notifications and Posting

Yes	No	NA	Guidelines	Explain "No" answers
			Previous violations posted and addressed. Will be focus of next inspection	
			Notice to employees	
			Hot lab posted properly "Caution Radioactive Materials"	
			Any stolen or lost sources reported to the state	
			Any medical events reported	
			Emergency contact info posted for the RSO and state dept	

### Surveys and Contamination Control

Yes	No	NA	Guidelines	Explain "No" answers
			Daily surveys and weekly wipes if applicable	
			Area survey and wipe map on file	
			Wipe results reported in dpm/100 cm <sup>2</sup>	
			Packages received and opened properly (inspector may observe process)	
			Sources in transport such as dose to cardio for stress tests are appropriately shielded, labeled, and secured	

**Sealed Sources and Leak Tests**

Yes	No	NA	Guidelines	Explain "No" answers
			Sealed source list on file and current	
			Any disposed sources documentation on file	
			Sealed source list checked every 6 months and signed by RSO	
			Leak tests performed and on file	
			Any sources that failed leak test disposed of	

**Waste Management**

Yes	No	NA	Guidelines	Explain "No" answers
			Records of receipt, transfer, and disposal of RAM maintained	
			DIS is less than 120 days unless authorized for greater (Lutathera)(Lu-177m 161 days)	
			Trash is surveyed daily so nothing radioactive is sent to landfill	
			Waste storage areas are labeled, secured and surveyed (storage areas outside of dept)	
			Long lived RAM and Short Lived RAM are segregated to ensure it is stored for minimum of 10 half lives	
			Waste down sink is monitored if applicable	
			RAM containers shipped back to the pharmacy are surveyed and wiped (if applicable) and records maintained	
			Labels for return containers are appropriate	
			LLRW forms completed and submitted to state	

*Disclaimer: This information is intended to assist you in developing your internal audit. It should be considered a template for creating a similar checklist more specific to the operations of your facility. The use of this information does not guarantee there will be no findings or deficiencies during an inspection or survey.*