

## RADIOLOGY AND NUCLEAR MEDICINE SERVICES

Self-Assessment Questions	YES	NO	N/A	Date/Initials	Comments
<b>ORGANIZATION</b>					
For additional requirements refer to 10 CFR 20 Standards for Protection Against Radiation. CMS has published detailed definitions and recommendations within the regulations regarding mitigation of safety risk and maintaining compliance, it is strongly suggested to review the beginning portions of both COP §482.26 and COP §482.53.					
Are radiological services (including nuclear medicine, if offered) meeting the needs of the patients available at all times? 19 CSR 30-20.102(1) A-0529 COP §482.26(a) A-1026 COP §482.53	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are diagnostic radiologic services and therapeutic services, if provided, able to demonstrate that they meet professionally approved standards for safety and professional qualifications? A-0528 COP §482.26	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
If the hospital contracts for radiologic services off-site, does the hospital have an arrangement with the off-site facility to ensure services are provided within clinically required timeframes? A-0529 COP §482.26(a)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Is the hospital's nuclear medicine and radiological services integrated into the hospital-wide QA/PI program? A-0528 COP §482.26 A-1026 COP §482.53	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Does the nuclear medical services comply with 21 CFR subpart J "radiological health" and 10 CFR 20 — "U.S. Nuclear Regulatory Commission Standards for Protection Against Ionizing Radiation and ALARA Principles?" A-1026 COP §482.53	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Is the scope of nuclear medicine services provided defined in writing and approved by the medical staff? A-1027 COP §482.53(a)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are policies and procedures for specific radiologic services modalities based on professionally approved standards for safety and risk reduction, as well as ALARA principles? A-0535 COP §482.26(b)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

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Are protocols reviewed periodically and if applicable updated? Suggested best practice is annually. A-0535 COP §482.26(b)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are there policies and procedures addressing the following:					
a. protection of patients and personnel from radiation hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
b. labeling of radioactive materials, waste and hazardous areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
c. security of radioactive materials, including controlling access to radioactive materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
d. maintenance and proper storage of radiation monitoring badges?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
e. adequate shielding for patients, personnel and facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
f. proper maintenance and inspection of patient and personnel shields?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
g. transportation of radioactive materials between locations within the hospital?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
h. appropriate storage, use and disposal of radioactive materials and waste, including radio nucleotides and radiopharmaceuticals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
i. handling, calibration and testing of equipment for radiation hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
j. screening for high risk patients, e.g. pregnant patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
k. availability of qualified emergency radiology services 24/7?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
l. radiological tests which require interpretation by a radiologist?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
m. frequency and documentation of equipment inspections and corrective action taken?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
n. monitoring of employee radiation exposure levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
o. how to handle equipment malfunction or a patient safety event?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
p. ordering of inpatient radiation services, including nuclear medicine, by practitioners authorized by the medical staff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
q. ordering of outpatient radiation services, including nuclear medicine, by individuals other than the medical staff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
r. which personnel are qualified to use the radiology equipment and perform procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
s. responsibilities of the director of radiology?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

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A-0535 COP §482.26(b)(1)(2)(3)(4) A-1044 COP §482.53(c) A-1055 COP §482.53(d)(4) A-1035 COP §482.53(b) & (b)(2) 19 CSR 30-20.102(2)(4)(7)(8)(9)					
<b>Personnel</b>					
Is the radiologist who supervises radiology services qualified in terms of education, experience and/or certification? Is he or she a member of the medical staff and appointed by the governing board? 19 CSR 30-20.102(2) A-0546 COP §482.26(c)(1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Does the supervising radiologist (for both radiology services and nuclear medicine):					
a. implement the rules of the medical staff governing the quality and scope of radiology services and safety precautions to protect patients and personnel?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
b. enforce safety and infection control standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
c. ensure radiology reports are signed by the practitioner who interpreted them?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
d. ensure that authorized staff are available to furnish interpretation services ,either on-site or through teleradiology services, within clinically defined timeframes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
e. review records to ensure that only a radiologist interprets tests that have been designated by the medical staff to require interpretation by a qualified radiologist?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
f. assign duties to radiology services personnel that are relative to their training, experience and licensure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
g. ensure emergency care is provided to patients who experience an adverse reaction to diagnostic agents in the radiology service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
h. ensure files, scans and other image records are kept in a secure area and are readily retrievable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
i. train radiology staff on how to safely operate the equipment, performs tests offered by the facility and on the management of emergency radiation hazards and accidents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
j. supervise all radiology services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

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A-0529 COP §482.26(a) A-0547 COP §482.26(c)(2) A-0546 COP §482.26(c)(1) A-1035 COP §482.53(b) 19 CSR 30-20.102(2)(3)					
If the radiologist who interprets radiology tests is not located in Missouri, is this radiologist licensed in Missouri? A-0546 COP §482.26(c)(1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Is the nuclear medicine director(s) qualified by medical license, education and training in nuclear medicine? A-1027 COP §482.53(a)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are nuclear medicine staff qualifications, training, functions and experience necessary to perform each type of nuclear medicine procedures defined through policies and approved by the service/medical director? A-1027 COP §482.53(a)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are radiology staff assessed for competency periodically to ensure they are operating equipment according to manufacturer's instruction and hospital policy? A-0535 COP §482.26(b) A-0547 COP § 492.26(c)(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Does an examination of records document that radiology procedures are administered and the equipment is only used by qualified personnel? A-0547 COP §482.26(c)(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are records of the proper preparation, receipt, labeling, usage, transportation, storage, receipt, distribution and disposal of radiopharmaceuticals maintained in accordance with accepted standards of practice? A-1054 COP §482.53(d)(3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

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Does the hospital maintain records of all nuclear medicine procedures performed, this includes signed, dated and timed reports of interpretations and consultations? A-1051 COP §482.53(d)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are interpretations/reports signed and dated by the radiologist or other practitioner who performs radiology services? A-0553 COP §482.26(d) A-1053 COP §482.53(d)(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are copies of reports and printouts, films, scans and other image records complete, easily retrievable and retained for at least five years? A-0553 COP §482.26(d) A-1051 COP §482.53(d)(1)(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are the files, scans and other image records stored in a secure area that is inaccessible to unauthorized personnel? A-0553 COP §482.26(d)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are radiology requests authenticated and dated by the attending physician, licensed house staff or other medical staff? 19 CSR 30-20.102(4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Is each radiotherapy treatment documented, authenticated and part of the patient's medical record? 19 CSR 30-20.102(6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are written radiology interpretations, consultations and procedures authenticated, documented and dated only by practitioners authorized by the medical staff to perform these interpretations? 19 CSR 30-20.102(5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are conspicuous radiation warning signs and labels posted in all relevant areas throughout the hospital and on all radioactive material? A-1035 COP §482.53(b) & (b)(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are all readily accessible, but not normally occupied areas where a radiation hazard may exist, suitably restricted? A-1035 COP §482.53(b) & (b) (2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

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If applicable, are radiopharmaceuticals prepared in-house, prepared by or under the direct supervision of a qualified registered pharmacist or M.D./D.O.? A-1035 COP §482.53(b)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Do you perform periodic inspections of equipment on a regularly scheduled basis? 19 CSR 30-20.102(9) A-0537 COP §482.53(b)(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Is documentation of equipment inspections maintained and available for two years? 19 CSR 30-20.102(9)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are these periodic inspections carried out by or under the supervision of a medical physicist? 19 CSR 30-20.102(9) A-1044 COP §482.53(c)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
If nuclear medicine tests are performed, does the service meet the applicable requirement for laboratory services specified in A-0582 COP §482.27(a)? A-1038 COP §482.53(b)(3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Does your hospital use a preventive maintenance schedule to ensure nuclear medicine equipment is maintained in safe operating condition? A-1044 COP §482.53(c)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are identified problems corrected in a timely manner? A-1044 COP §482.53(c)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Is all equipment inspected, tested and calibrated at least annually by qualified personnel? A-1044 COP §482.53(c)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Are any lab tests performed in connection with nuclear medicine services in compliance with 42 CFR Part 493 CLIA?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

**Helpful Hints**

- [10 CFR 20](#) is the U.S.NRC (United States Nuclear Regulatory Commission), Part 20 are the standards for protection against radiation
- Check TAG 1044 and review checklist one more time

**Key Resources and Links**

- Additional information about protecting patients and personnel from radiation: [19 CSR 20.10.010](#) and [19 CSR 20.10.190](#)
- [21 CFR subpart J "radiological health"](#)
- [10 CFR 20](#)
- [COP §482.26](#)
- [COP §482.27](#)
- [COP §482.53](#)
- [19 CSR 30-20.102](#)