

## MAGNETIC RESONANCE IMAGING (MRI) SERIES

<b>Code No.</b>	<b>Class Title</b>	<b>Occ. Area</b>	<b>Work Area</b>	<b>Prob. Period</b>	<b>Effective Date</b>	<b>Last Action</b>
3873	Magnetic Resonance Imaging Technologist	02	447	6 mo.	01/15/20	Revised
3874	Magnetic Resonance Imaging Specialist	02	447	6 mo.	01/15/20	Revised
3875	Magnetic Resonance Imaging Manager	03	447	6 mo.	01/15/20	Revised

**Promotional Line: 360**

### Series Narrative

Employees perform magnetic resonance imaging (MRI) duties based on specific experience and formal certification. Employees in this series perform a variety of technical patient care and/or research subjects' tasks in the MRI department utilizing magnetic resonance energy and radio-frequency waves to produce medical/research images for diagnosis, treatment, and/or research studies. They may develop, direct, and coordinate MRI services and departmental activities in a health care or research facility. They may also initiate and conduct research studies involving MRI services.

### DESCRIPTION OF LEVELS OF WORK

#### **Level I: Magnetic Resonance Imaging (MRI) Technologist 3873**

Employees at this level perform a variety of technical and patient care and/or research subject tasks in the MRI department utilizing magnetic resonance energy and radio-frequency waves to produce medical/research images of the human body and animals for diagnosis, treatment, and/or research. The MRI Technologist also performs other clinical/research tasks such as administering contrast and secures the safety of patients/subjects when preparing and positioning patients/subjects for their MRI exams. The MRI Technologist also ensures that patients/subjects and visitors are screened for MRI safety prior to performing MRI exams and reconciles related orders, electronic images, and documentation.

A Magnetic Resonance Imaging (MRI) Technologist typically –

1. performs magnetic resonance procedures with knowledge of anatomical positioning and physiology so that independent selection or modification of technical factors and protocols will produce optimum results.
2. positions and transfer of patients/subjects on/off scan table, utilize immobilization devices as necessary.
3. assures that MRI exams are performed as defined by protocol with required information and quality imaging.
4. maintains cleanliness and orderliness within the department adhering to Joint Commission, IDPH and Infection Control policy or standards.
5. performs veni-puncture and administer contrast media per contrast Policy and Procedures in a clinical setting.

6. proficiently navigates electronic medical records information systems such as RIS, PACS, and Power Chart.
7. verifies all performed exams within the information systems or other media.
8. captures pertinent documentation for each patient as required by the department.
9. responsible for reporting equipment failure, shortage of supplies to supervisor and making the initial call for service.
10. adheres to all government and industry regulatory guidelines including those associated with respect to patient/subject privacy.
11. screens patients/subjects according to departmental policies and current safety standard.
12. assists with students and other MRI staff as needed.
13. calibrates and performs quality assurance on equipment or seek assistance as needed.
14. maintains awareness of safety hazards for patients/subjects and staff including staff that follows the patients/subjects from the hospital.
15. performs other related duties as assigned.

**Level II: Magnetic Resonance Imaging (MRI) Specialist****3874**

The MRI Specialist performs advanced and highly technical procedures in the MRI Department utilizing magnetic resonance energy and radio-frequency waves to produce medical/research images of the human body and animals for diagnosis, treatment, and/or research. The MRI Specialist organizes workflows, performs as a charge technologist and assists in supervisory responsibilities as needed. The MRI Specialist may also train and supervise students and staff.

A Magnetic Resonance Imaging (MRI) Specialist typically –

1. performs and assists with advanced or highly special/technical procedures in MRI imaging.
2. assures that MRI exams are performed as defined by protocol with required information and quality imaging.
3. acts as a supervisor/manager including overseeing work, providing technical and operational assistance, and assigning daily work schedules.
4. assists in training other employees and students in scanning MRI exams and techniques; explains principles of magnetic resonance imaging to students and staff; participates in coordination of safety trainings.
5. provides technical assistance to researchers who are conducting MRI studies.
6. assists with other departmental modalities.

7. instructs MRI technologists/research personnel, performs competencies, develops protocols, and assists with ACR Accreditation.
8. organizes and coordinate overall patient/research subjects flow (out patients/subjects as well as scheduling the in-patients/subjects for the day).
9. responds to patient, subject, and/or staff service issues.
10. function as a liaison between technicians/scientist and the radiologist or other healthcare/research personnel.
11. performs duties consistent with the next lower level(s) of this series.
12. performs other related duties as assigned.

**Level III: Magnetic Resonance Imaging (MRI) Manager****3875**

The MRI Manager performs advanced and highly technical procedures in the MRI Department utilizing magnetic resonance energy and radio-frequency waves to produce medical/research images of the human body and animals for diagnosis, treatment, and/or research. The MRI Manager also ensures that patients/subjects and visitors are screened for MRI safety prior to performing MRI exams and reconciles related orders, electronic images, and documentation. The MRI Manager supervises the operations of the MRI department; this includes the MRI ACR accreditation process and MRI Policies and Procedures.

A Magnetic Resonance Imaging (MRI) Manager typically –

1. performs magnetic resonance procedures with complex and advanced functional images which require knowledge of anatomical positioning and physiology so that independent selection or modification of technical factors will produce optimum results.
2. plans the scope, emphasis, and objectives of imaging technical programs of MRI programs.
  - a. confers with administrators and medical/research staff to ascertain their needs and recommends methods to meet those needs.
  - b. coordinates the department's technical operations with those of other departments or MRI Research users to ensure prompt, efficient, and complete patient care.
  - c. establishes procedures to incorporate hospital/university regulations and professional standards; directs the technical activities of departmental staff and students to ensure compliance with established procedures; ensures that technical personnel are aware of current policies and procedures regarding patient exposure and protective regulations.
  - d. researches and studies trends and developments in imaging practices and techniques; develops operational manuals such as developing emergency procedures; and provides manpower in disaster situations; develops and enforces policies and procedures related to the electronic medical/research records relating to new employee training, employee errors, employee termination, etc.

- e. assists with specific research projects and assigns specific projects to staff members.
3. participates in personnel actions such as hiring, transfers, discipline, promotions, and training.
  - a. assumes responsibility for performance evaluation of all imaging staff.
  - b. resolves problems and outlines policies, procedure, and methods for resolving departmental problems.
  - c. designs in-service training programs and keeps abreast of new procedures and equipment; assists with the coordination of continuing education to meet the requirements set forth by governmental and other regulatory agencies such as Joint Commission, IDPH, ACR, etc.
  - d. schedules, organizes, coordinates and supervises imaging staff.
  - e. provides support to staff and students with problems that occur throughout the daily operations of the Health/Research service.
4. serves as technical consultant and advisor to the department head in regards to budget and equipment.
  - a. assists in the preparation of budget estimates of personnel, supplies and equipment, contractual services, and upgrading of facilities; prepares bid specifications for technical items; reviews bids; prepares statistical reports of activities and expenditures.
  - b. initiates and participates in testing of new types of equipment; evaluates test results and makes recommendations for the purchase of new equipment; interviews sales and technical representatives from x-ray and pharmaceutical companies.
  - c. regulates supplies and equipment, making adjustments with ordering and budgets, and testing new products; removes and salvages x-rays according to state regulations for record retention and EPA guidelines for discarding waste.
5. performs administrative duties including developing and updating imaging department policy, procedures and protocols (such as quality control); maintains and updates protocol manuals.
6. performs duties consistent with the next lower level(s) of this series.
7. performs other related duties as assigned.

MINIMUM ACCEPTABLE QUALIFICATIONS REQUIRED FOR ENTRY INTO:

**Level I: Magnetic Resonance Imaging (MRI) Technologist**

**3873**

CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER

1. High school graduate or equivalent.

2. Current/valid registration or certification in Magnetic Resonance Imaging (MRI) by either the American Registry of Radiologic Technologists (ARRT) or the American Register of Magnetic Resonance Imaging Technologists (ARMRIT).

#### KNOWLEDGE, SKILLS AND ABILITIES (KSAs)

1. Knowledge of and ability to operate all MRI equipment.
2. Knowledge of health care/research facilities' computer systems.
3. Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
4. Knowledge of ancillary/emergency equipment that supports the department.
5. Knowledge of departmental policies, procedures and goals.
6. Knowledge of MRI principles and practices including patient and radiation safety procedures.
7. Skill in conducting patient education.
8. Skill in proper documentation results.
9. Skill in utilizing computers and associated specialized application software for diagnostic/research examination and evaluation.
10. Skill in the effective, efficient, and safe use of equipment.
11. Skill in preparing clear and concise reports, charts, and other written material.
12. Skill in controlling operations of equipment or systems.
13. Effective verbal and written communication skills.
14. Ability to use computer systems to manage patient information.

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#### **Level II: Magnetic Resonance Imaging (MRI) Specialist**

**3874**

#### CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER

1. High school graduate or equivalent.
2. Current/Valid registration or certification in Magnetic Resonance Imaging (MRI) by either the American Registry of Radiologic Technologists (ARRT) or American Registry of Magnetic Resonance Imaging Technologists (ARMRIT).
3. Two (2) years (24 months) of progressively more responsible work experience as a MRI technologist comparable to the lower level of this series.

*\*Note: A Bachelor's Degree in health care, general science or closely related field may be substituted for one (1) year (12 months) of experience.*

#### KNOWLEDGE, SKILLS AND ABILITIES (KSAs)

1. Knowledge of and ability to operate all MRI equipment.
2. Knowledge of health care/research facilities' computer systems.
3. Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
4. Knowledge of principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects.
5. Knowledge of ancillary/emergency equipment that supports the department.
6. Knowledge of departmental policies, procedures and goals.
7. Knowledge of MRI principles and practices including patient and radiation safety procedures.
8. Skill in conducting patient education.
9. Skill in proper documentation results.
10. Skill in utilizing computers and associated specialized application software for diagnostic/research examination and evaluation.
11. Skill in the effective, efficient, and safe use of equipment.
12. Skill in preparing clear and concise reports, charts, and other written material.
13. Skill in controlling operations of equipment or systems.
14. Demonstrate proficiency in all study protocols at health facility.
15. Effective verbal and written communication skills.
16. Ability to use computer systems to manage patient/subject information.
17. Ability to instruct technicians/technologists and students in the absence of a supervisor.
18. Ability to produce specialized MRI images.

**Level III: Magnetic Resonance Imaging (MRI) Manager****3875**

## CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER

1. High school graduate or equivalent.
2. Current/Valid registration or certification in MRI by either the American Registry of Radiologic Technologists (ARRT) or American Registry of Magnetic Resonance Imaging Technologists (ARMRIT).
3. Four (4) years (48 months) of progressively more responsible work experience in MRI including at least two (2) years (24 months) comparable to the lower level of this series.

*\*Note: A Bachelor's Degree in health care, general science or closely related field may be substituted for one (1) year (12 months) of general experience.*

## KNOWLEDGE, SKILLS AND ABILITIES (KSAs)

1. Knowledge of the operations and mechanics of all MRI equipment.
2. Knowledge of health/research care facilities' computer systems.
3. Knowledge of MRI machine and related equipment such as pulse oximeter.
4. Knowledge of MRI equipment such as visual stimulus presentation systems.
5. Skill in conducting patient education.
6. Skill in proper documentation results.
7. Skill in utilizing computers and associated specialized application software for diagnostic/research examination and evaluation.
8. Skill in the effective, efficient, and safe use of equipment.
9. Skill in preparing clear and concise reports, charts, and other written material.
10. Ability to plan the objectives of MRI program.
11. Ability to perform all phases of MRI.
12. Ability to examine and evaluate technical aspects of medical radiographic images.
13. Ability to develop MRI operation manuals.
14. Ability to perform administrative duties including mediating employee relation problems.
15. Ability to evaluate and determine priorities of patients/subjects' care.

16. Ability to quickly respond to patients/subjects' needs in an emergency situation.
17. Ability to organize, direct, and evaluate the activities of students and departmental staff members.
18. Ability to conduct cost analysis and studies on MRI equipment.
19. Ability to act as consultant to medical/research personnel.
20. Ability to conduct research studies and devise new methods for MRI examinations.
21. Ability to adapt and implement continual changes made to protocols and research paradigms.
22. Ability to prepare technical reports.

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