Practice Analysis Report: Magnetic Resonance Imaging - Effective February 2025

Introduction

ARRT establishes the job relatedness of an examination via a practice analysis (also called a job analysis). Practice analyses document the role to be credentialed, the topics to be covered by the examination used in the credentialing decision, as well as the degree of emphasis that each topic receives. The rationale for practice analyses is outlined in *The Standards for Educational and Psychological Testing* (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 2014) and in the National Commission for Certifying Agencies (NCCA) *Standards for the Accreditation of Certification Programs* (NCCA, 2021). Legislation and legal precedent also stress the importance of practice analysis in the development and validation of certification exams. The ARRT conducts a practice analysis for each discipline approximately every five years. Regular updates are important for professions that continually evolve due to advances in technology because they help ensure that the content specifications and other certification requirements reflect current practice.

This report describes the practice analysis for Magnetic Resonance Imaging (MRI) conducted from October 2022 to October 2023. The project sought to identify tasks currently required of the typical MRI Technologist and to determine what knowledge and cognitive skills are required to effectively perform those tasks.

To accomplish this task, ARRT hosted several meetings with a committee of subject matter experts (SMEs) to develop a survey of job tasks; evaluate survey results; and revise the content specifications, content outline, and clinical requirements. ARRT selected five SMEs for this committee from across the United States and from a range of practice settings (e.g., hospitals, clinics, educational programs). These SMEs represented a range of expertise including four certified and registered technologists and one radiologist.

All statistical analyses were performed by trained statisticians employed by ARRT and meetings were primarily conducted by ARRT's Assessment Development Coordinators with psychometric support provided by ARRT psychometric staff.

The ARRT Board of Trustees reviewed all changes to exam content and eligibility requirements before giving approval in January 2024. The first exam under the new content and eligibility requirements was administered in February 2025.

Task Inventory

Survey Development

ARRT begins the practice analysis process by revising the task inventory, which is a listing of clinical and supporting procedures related to practice. The committee reviewed the previous task inventory and content outline before creating an updated list of job tasks by adding, deleting, or rewording tasks as necessary to reflect changes and current practice in the profession.

The committee used the updated job task list to create a survey for distribution to individuals working in the profession. The first section of this survey consisted of 139 questions asking current MRI Technologists how frequently they perform each task utilizing a six-point scale with the following options: *Never Perform, Yearly, Quarterly, Monthly, Weekly,* and *Daily*. Based on past research, ARRT uses a frequency scale with absolute anchors because data from scales like importance and criticality, which use subjective anchors, have inferior statistical properties (Babcock, Risk, & Wyse 2020). The data gathered by absolute anchor frequency scales also correspond well to medical imaging practice as defined by external data sources (Babcock & Yoes, 2013) and add value beyond advisory committee members' judgement without data (Wyse & Babcock, 2018).

To reduce the length and burden of the practice analysis survey, the committee identified tasks from the previous task inventory that they believed were so ubiquitous in practice that over 90% of respondents would report that they do perform the task. The following tasks were omitted from the survey and included in the new task inventory without further discussion:

- Evaluate patient's ability to understand and comply with requirements for the requested examination (e.g., need for medical interpreter, physical, sensory, or cognitive impairments).
- Obtain pertinent medical history.
- Manage interpersonal interactions in an effective manner.
- Explain and confirm patient's preparation (*e.g., diet restrictions, preparatory medications, allergies) prior to imaging.
- Review imaging the examination request to verify information is accurate, appropriate, and complete (e.g., patient history, clinical diagnosis, physician's order).
- Explain examination instructions to patient, patient's family, or authorized representative (e.g., pre- and postprocedure).
- Respond as appropriate to examination inquiries from the patient, patient's family, or authorized representative (e.g., scheduling delays, examination duration, other imaging modalities).
- Verify examination protocols.
- Follow environmental protection standards for the handling and disposing of biohazardous materials (e.g., sharps, blood, body fluids).
- Provide for patient safety, comfort, and privacy.
- Notify appropriate personnel of adverse events or incidents (e.g., patient falls, burns, contrast reactions, wrong patient imaged).
- Verify that informed consent is obtained as necessary.
- Recognize abnormal or missing lab values relative to the imaging ordered (e.g., eGFR, creatinine, beta-hCG).

- Communicate relevant information to appropriate members of the care team (e.g., critical findings).
- Use positioning aids, as needed, to enhance the examination and promote patient comfort and/or ensure safety.
- Use proper ergonomics and MR appropriate patient transfer devices to promote patient and personnel safety.
- Recognize and communicate the need for prompt medical attention.
- Clean, disinfect, or sterilize facilities and equipment.
- Document required information in the patient's medical record (e.g., images, contrast, adverse events).
- Maintain controlled access to Zones III and IV to ensure safety of patients, visitors, and hospital personnel.
- Monitor RF induced heating (SAR).
- Select appropriate imaging sequences.
- Select alternate sequences to compensate for patient related issues or patient limitations (e.g., patient motion, metal artifact, claustrophobia, RF heating).
- Manipulate parameters to compensate for patient related issues or patient limitations (e.g., patient motion, metal artifact, claustrophobia, RF heating).

The second section of the survey included 17 questions regarding the respondent's role and workplace such as hours worked, primary job title, and department composition.

Survey Sample

ARRT staff identified an initial population of 24,752 MRI technologists from the ARRT database of certified and registered technologists. All sampled individuals listed MRI as their primary discipline and were working in a hospital or clinic as a technologist (or other similar title). The final sample consisted of a random sample of 4,000 registrants with an MRI certification that listed MRI as their primary discipline.

ARRT's survey vendors mailed and emailed the survey in January 2023. A total of 827 recipients returned their survey by close in February 2023, for an absolute response rate of 20.7%. ARRT staff screened responses to ensure that the surveys were correctly filled out by the intended population, retaining 721 for an effective response rate of 18.0%.

Analysis

ARRT psychometric staff first calculated the percentage of respondents who report performing the task and the percent who report performing the task daily or weekly (Table 1). ARRT allows tasks performed by 40% or more of respondents to be included on the task inventory without further discussion so that committees may focus on discussions most likely to impact task inclusion. However, committees still review all survey results and may choose to include tasks below the threshold or reject tasks above the threshold as they see fit based on their joint expertise.

ARRT psychometric staff next compared the percent of entry-level (0-5 years of experience) and experienced (6+ years) respondents performing each task to ensure that the tasks included on the inventory are relevant to entry-level practice. Table 2 provides a list of tasks that differed in a potentially meaningful way, and staff presented these results to the committee for discussion.

ARRT psychometric staff also compared the percent of respondents at small (less than or equal to 250 beds) and large (greater than 250 beds) facilities performing each task to ensure that the tasks included on the inventory are relevant to entry-level practice. Table 2 provides a list of tasks

that differed in a potentially meaningful way, and staff presented these results to the committee for discussion.

Finally, ARRT staff summarized results for the 17 items that covered the respondent's role and workplace (Tables 3 - 19).

Table 1.
Percent of technologists performing tasks

Item	Task	% Performing	% Daily/Weekly
1	Prioritize procedures (e.g., imaging examinations) to avoid affecting subsequent examinations.	95.6	90.0
2	Verify the patient's identity.	100.0	99.6
3	Monitor the patient's auxiliary medical equipment (e.g., IVs, oxygen).	89.3	81.1
4	Follow environmental protection standards for handling hazardous materials (e.g., cleaning materials, disinfectants).	98.3	96.0
5	Demonstrate and promote professional and ethical behavior (e.g., confidentiality, regulation compliance).	99.9	99.2
6	Verify a time-out is performed as necessary.	73.2	59.6
7	Handle, label, and submit laboratory specimens (e.g., biopsy tissue).	35.0	19.2
8	Practice Standard Precautions.	99.9	98.3
9	Follow appropriate transmission-based precautions.	98.9	95.6
10	Review information to prepare appropriate type and dosage of the following medications:		
	a. intervenous gadolinium-based contrast	99.0	97.5
	b. oral contrast	60.4	31.3
	c. lidocaine	20.4	10.5
	d. glucagon	34.9	17.5
	e. heparin	13.6	6.9
	f. other _____	13.9	10.7
11	Prior to the administration of a contrast agent, determine if the patient is at risk for an adverse reaction.	98.3	96.5
12	Use sterile or aseptic technique when indicated.	89.0	80.2
13	Perform venipuncture.	93.2	87.2
14	Program and/or activate power injector.	91.7	88.5
15	Assess patient after administration of a contrast agent to detect adverse events.	98.9	96.4
16	Monitor patient after administration of a medication, other than a contrast agent, to detect adverse events.	62.6	53.5
17	Obtain vital signs (e.g., pulse, blood pressure) when appropriate.	69.6	42.4
18	Monitor patient sedation.		
	a. oral	55.8	44.6

Item	Task	% Performing	% Daily/Weekly
	b. IV	45.7	35.1
	c. general anesthesia	34.2	21.1
19	Provide hearing protection to patient and others in Zone IV.	87.9	35.7
20	Recognize the need for and initiate emergency care (e.g., evacuate patient from Zone IV, call a code, initiate CPR) as needed.	99.7	99.0
21	Recognize and respond to equipment-based emergencies (e.g., fire, quench) as needed.	72.4	39.4
22	Evaluate the impact of the magnetic field strength, RF, and SAR on implants or devices.	96.9	90.1
23	Screen patient for contraindications to MRI.	100.0	99.4
24	Screen patient for pregnancy.	99.4	95.4
25	Perform and document the results of QC tests (e.g., center frequency, signal to noise ratio, image quality, artifacts).	87.5	75.9
26	Interpret results of QC tests to assure that performance standards are met.	78.1	66.4
27	Inspect equipment to make sure it is operable and safe (e.g., coils, cables, door seals).	95.3	84.7
28	Please mark ‘monthly’.	99.6	1.0
29	Notify appropriate personnel of equipment malfunctions and potential repairs as needed.	99.6	59.2
30	Research implantable medical devices for safe, conditional, or unsafe labeling.	99.0	91.1
31	Monitor scan room (e.g., cryogen levels, temperature, humidity).	91.5	84.4
32	Select optimal imaging coils.	99.7	98.5
33	Perform frequency tuning.	61.0	47.8
34	Select or adjust one or more imaging parameters	99.7	99.0
35	Select or adjust one or more imaging options (e.g., saturation pulse, flow compensation, fat suppression, gating).	98.6	94.7
36	Perform image postprocessing (e.g., MPR, subtraction).	97.8	91.3
37	Assess images to determine successful completion of the procedure (e.g., anatomy, pathology, artifacts).	100.0	99.3
38	Optimize technical parameters to maintain or correct diagnostic image quality.	99.0	98.2
39	Verify exam coding.	75.4	70.2
40	Store, transfer, or retrieve images to/from data storage devices	99.6	97.9
41	Brain (e.g., trauma, stroke)	98.8	95.3
42	Brain for MS	97.9	78.8
43	Brain for seizure	98.0	76.9

Item	Task	% Performing	% Daily/Weekly
44	Infant brain (e.g., less than one year old)	40.0	18.1
45	Fetus	30.1	6.9
46	Brain diffusion tensor imaging	74.8	62.8
47	CSF flow	62.8	20.1
48	Brain Spectroscopy	33.0	9.6
49	Functional brain	26.5	11.2
50	IACs	97.6	73.2
51	Pituitary	97.1	69.9
52	Orbits	97.5	64.3
53	Cranial nerves (non IACs)	88.8	43.4
54	Sinuses	72.6	26.9
55	Soft tissue neck	96.0	37.4
56	Vascular head MRA	97.2	78.5
57	Vascular head MRV	94.6	53.4
58	Vascular neck	94.6	63.8
59	Cervical	99.6	98.1
60	Thoracic	99.4	95.4
61	Lumbar	99.7	98.2
62	Sacroiliac (SI) joints	92.2	33.8
63	Sacrum/coccyx	97.1	34.4
64	Spinal trauma	86.3	53.5
65	Total spine	88.9	55.3
66	Vascular spine	34.9	8.4
67	Brachial plexus	90.9	14.3
68	Lumbar plexus	65.5	10.5
69	Chest (noncardiac)	79.3	15.8
70	Chest (cardiac)	29.1	20.1
71	Breast	57.0	44.4
72	Vascular thorax	42.4	9.5
73	Abdomen	95.1	86.1

Item	Task	% Performing	% Daily/Weekly
74	Dedicated Liver	90.8	79.8
75	Dedicated Pancreas	88.1	72.3
76	Dedicated Spleen	55.4	24.2
77	Dedicated Adrenals	83.3	32.1
78	Dedicated Kidneys	88.5	58.3
79	Enterography	65.5	30.6
80	Vascular abdomen MRV	46.3	8.9
81	Please mark ‘Yearly’	97.9	0.8
82	Vascular abdomen MRA	66.7	9.6
83	MRCP	94.7	81.3
84	Soft tissue pelvis (e.g., bladder, rectum)	90.3	57.8
85	Female soft tissue pelvis (e.g., uterus)	94.2	62.3
86	Male soft tissue pelvis (e.g., prostate)	77.7	55.2
87	Vascular pelvis MRV (e.g., femoral, iliac)	40.0	7.5
88	Vascular pelvis MRA (e.g., femoral, iliac)	46.3	8.3
89	Temporomandibular joints (TMJs)	74.8	11.1
90	Sternum	63.8	4.0
91	Sternoclavicular (SC) joints	65.1	5.6
92	Shoulder	99.6	89.8
93	Long bones (upper extremity)	99.3	65.4
94	Elbow	98.5	60.6
95	Wrist	99.0	67.3
96	Hand	98.8	63.4
97	Fingers (non-thumb)	93.5	45.6
98	Thumb	92.8	41.8
99	Bony pelvis	99.3	72.8
100	Hip	99.3	85.7
101	Long bones (lower extremity)	99.7	68.4
102	Knee	99.6	93.1
103	Ankle	99.3	89.7

Item	Task	% Performing	% Daily/Weekly
104	Foot	99.0	90.7
105	Arthrogram	76.8	49.9
106	Vascular extremities (e.g., runoff MRA)	45.1	5.0
107	Soft tissue (e.g., tumor, infection, injury)	93.7	63.9
108	CINE (e.g., CSF flow study, TMJs)	57.6	18.2
109	Surgical preplanning (e.g., image guided surgery software)	51.9	29.9
110	Elastography	18.4	9.0
111	Perfusion		
	a. Head and Neck	49.6	30.1
	b. Spine	17.4	9.6
	c. Thorax	14.9	8.2
	d. Abdomen	19.6	14.2
	e. Pelvis	19.7	13.2
	f. Musculoskeletal	14.7	9.2
112	Spectroscopy		
	a. Head and Neck	28.0	9.3
	b. Spine	6.1	4.0
	c. Thorax	5.0	2.6
	d. Abdomen	6.3	3.9
	e. Pelvis	5.6	3.8
	f. Musculoskeletal	6.3	4.1
113	MR guidance for interventional procedures (e.g., biopsy)		
	a. Head and Neck	8.6	4.7
	b. Spine	5.0	2.5
	c. Thorax	13.1	6.8
	d. Abdomen	5.3	2.2
	e. Pelvis	6.8	3.6
	f. Musculoskeletal	4.9	2.7

Item	Task	% Performing	% Daily/Weekly
114	MR guidance for intra-operative procedures (e.g., LITT)		
	a. Head and Neck	10.1	3.8
	b. Spine	3.5	1.5
	c. Thorax	3.3	1.0
	d. Abdomen	3.1	1.2
	e. Pelvis	3.3	1.5
	f. Musculoskeletal	2.8	1.1

Table 2.
Percent performing select tasks for entry-level (0-5 years) and experienced (6+ years) MRI technologists

Item	Task	Entry-Level	Experienced
44	Infant brain (e.g., less than one year old)	40.8%	39.2%
72	Vascular thorax	39.7%	45.0%
87	Vascular pelvis MRV (e.g., femoral, iliac)	36.6%	43.2%
90	Sternum	57.7%	70.4%
91	Sternoclavicular (SC) joints	59.9%	70.3%

Table 3.
Percent performing tasks for those with more or less than 250 beds

Item	Task	*250 ≤ beds*	*> 250 beds*
7	Handle, label, and submit laboratory specimens (e.g., biopsy tissue).	34%	40%
10d	Review information to prepare appropriate type and dosage of the following medications: glucagon	34%	43%
18c	Monitor patient sedation: general anesthesia	39%	56%
44	Infant brain (e.g., less than one year old)	32%	71%
45	Fetus	22%	51%
47	CSF flow	53%	82%
48	Brain Spectroscopy	20%	58%
49	Functional brain	16%	41%
66	Vascular spine	25%	54%
68	Lumbar plexus	55%	79%
70	Chest (cardiac)	24%	50%
72	Vascular thorax	39%	56%
79	Enterography	59%	84%
80	Vascular abdomen MRV	38%	65%
86	Male soft tissue pelvis (e.g., prostate)	69%	91%
87	Vascular pelvis MRV (e.g., femoral, iliac)	31%	58%
88	Vascular pelvis MRA (e.g., femoral, iliac)	40%	62%
90	Sternum	53%	75%
106	Vascular extremities (e.g., runoff MRA)	37%	63%
108	CINE (e.g., CSF flow study, TMJs)	50%	77%
109	Surgical preplanning (e.g., image guided surgery software)	42%	77%
110	Elastography	10%	31%
111a	Perfusion: Head and Neck	39%	73%
112a	Spectroscopy: Head and Neck	17%	51%

Table 4.
Percent performing tasks for those that are outpatient versus inpatient

Item	Task	*Outpatient*	*Inpatient*
6	Verify a time-out is performed as necessary.	54.2%	81.4%
18b	Monitor patient sedation: IV	24.8%	55.6%
18c	Monitor patient sedation: general anesthesia	6.5%	47.2%
44	Infant brain (e.g., less than one year old)	15.4%	51.5%
45	Fetus	16.3%	36.8%
70	Chest (cardiac)	12.2%	37.1%
72	Vascular thorax	31.1%	47.7%
80	Vascular abdomen MRV	34.4%	51.9%
87	Vascular pelvis MRV (e.g., femoral, iliac)	29.4%	44.5%
88	Vascular pelvis MRA (e.g., femoral, iliac)	36.2%	50.7%
106	Vascular extremities (e.g., runoff MRA)	35.3%	50.1%
109	Surgical preplanning (e.g., image guided surgery software)	35.6%	59.7%
111a	Perfusion: Head and Neck	35.3%	56.3%

Table 5.
How many total hours per week are you employed in MRI?

Response	Count	Percentage
Less than 16 hours	25	3.5
16 - 31 hours	75	10.4
32 - 40 hours	421	58.4
More than 40 hours	197	27.3

Table 6.
How many years have you been performing MRI?

Response	Count	Percentage
0 - 1 year	27	3.7
2 - 3 years	164	22.7
4 - 5 years	173	24.0
6 - 10 years	283	39.3
11 - 20 years	62	8.6
More than 20 years	9	1.2

Table 7.
Which of the following best describes your job title?

Response	Count	Percentage
Staff or senior technologist	619	85.9
Lead or chief technologist	81	11.2
Manager or Administrator	0	0.0
Educator or clinical coordinator	0	0.0
Other_____	18	2.5

Table 8.
In a typical month, approximately how much time do you spend performing Body imaging procedures?

Response	Count	Percentage
None	27	3.7
Up to one-third	287	39.8
Between one-third and two-thirds	224	31.1
At least two-thirds	180	25.0

Table 9.
In a typical month, approximately how much time do you spend performing MSK imaging procedures?

Response	Count	Percentage
None	14	1.9
Up to one-third	252	35.0
Between one-third and two-thirds	232	32.2
At least two-thirds	220	30.5

Table 10.
In a typical month, approximately how much time do you spend performing Neuro imaging procedures?

Response	Count	Percentage
None	14	1.9
Up to one-third	102	14.1
Between one-third and two-thirds	210	29.1
At least two-thirds	392	54.4

Table 11.
Which of the following best describes your place of employment?

Response	Count	Percentage
Academic/university hospital	115	16.0
Dedicated research facility	1	0.1
Community (non-critical access) hospital	147	20.4
Critical access hospital	137	19.0
Government (military/VA) hospital	26	3.6
Outpatient imaging center	214	29.7
Physician's office or clinic	25	3.5
Free-standing emergency facility or urgent care	2	0.3
Mobile MRI	8	1.1
Other_____	30	4.2

Table 12.
If you work in a hospital/medical center providing inpatient care, what is the approximate size (number of beds)?

Response	Count	Percentage
Not applicable	221	30.7
Less than 50	57	7.9
50 - 100	54	7.5
101 - 250	133	18.4
251 - 500	133	18.4
More than 500	111	15.4

Table 13.
What field strength are your MRI scanners?

Response	Count	Percentage
Less than 1.5T	72	10.0
1.5T	662	91.8
3T	377	52.3
4T	0	0.0
7T	8	1.1
Greater than 7T	0	0.0

Table 14.
*In the last year, has the number of **approved** full-time positions for MRI technologists at your facility changed?*

Response	Count	Percentage
No change	381	52.8
Increased	285	39.5
Decreased	51	7.1

Table 15.
*In the last year, has the number of **employed** full-time MRI technologists at your facility changed?*

Response	Count	Percentage
No change	296	41.1
Increased	217	30.1
Decreased	203	28.2

Table 16.
Does your facility have an MR safety officer?

Response	Count	Percentage
No	196	27.2
Yes, non-certified	124	17.2
Yes, certified MRSO (MRSCTM)	394	54.6

Table 17.
What is your facility's staff-per-magnet expectation for each routine study (e.g., excluding interventional studies)?

Response	Count	Percentage
1 technologist	270	37.4
1 technologist and 1 aide	143	19.8
2 technologists	280	38.8
More than 2 technologists or aides	23	3.2

Table 18.
Does your facility's staff-per-magnet expectation change by time of day?

Response	Count	Percentage
No	339	47.0
Yes	376	52.1

Table 19.
Does your facility require patients to remove all personal clothing prior to procedure (gown to skin)?

Response	Count	Percentage
Yes	424	58.8
No	290	40.2

Changes to Task Inventory

The practice analysis committee met in April 2023 to review the practice analysis survey data and determine whether any tasks should be dropped from or added to the task inventory. The committee also clarified the wording of several tasks.

The following tasks were removed:

- Administer contrast agents as required for the examination.

The following tasks were added:

- Monitor the patient's auxiliary medical equipment (e.g., IVs, oxygen).
- Verify a time-out is performed as necessary.
- Program and/or activate power injector.
  Monitor the patient after administration of a medication, other than a contrast agent, to detect adverse events.
- Monitor patient sedation.
- Recognize and respond to equipment-based emergencies (e.g., fire, quench) as needed.
- Screen the patient for pregnancy.
- Verify exam coding.
- Enter patient data, position the patient, and perform the following types of scans or procedures:
  - brain perfusion
  - abdomen
  - spleen
  - soft tissue (e.g., tumor, infection, injury).

The Board of Trustees approved the final task inventory in July 2023. The final task inventory may be found on the ARRT website: https://www.arrt.org/pages/arrt-reference-documents/by-document-type/task-inventories

Content Specifications and Clinical Requirements

Changes to Content Specifications

The practice analysis committee updated the content specifications based on changes to the task inventory and the field. The committee considered the knowledge and cognitive skills required to successfully perform the tasks in the final task inventory and verified that those topics were covered in the content specifications, adding additional content as necessary. The committee also removed any topics that could not be linked to the updated task inventory.

The updated content specifications were then made available for public comment in August 2023, and the committee met again in October 2023 to discuss the comments before making any final adjustments.

The most notable changes from the previous version of the content specifications were:

- Patient Care
- Some of the areas were revised to provide consistency in patient care across other ARRT disciplines.
- Image Production
    - Nyquist theorem was added to Data Manipulation.
- Procedures
    - Soft tissue was added.

In addition, the committee edited all sections of the content specifications for clarity and updated terminology to reflect current practice.

The Board of Trustees approved the final content specifications in January 2024. The final content specifications may be found on the ARRT website: https://www.arrt.org/pages/arrt-reference-documents/by-document-type/examination-content-specifications

Content Weighting

The practice analysis committee determined the number of items that should be assigned to each section of the exam through a process known as content weighting. First, the committee performed a bottom-up exercise where members individually estimated the number of unique items that should be included in each section. Second, the committee performed a top-down exercise where members individually estimated the relative proportion of the exam that should be dedicated to each section. Finally, ARRT staff provided the committee with summary values from the two exercises and the committee held a discussion to finalize their recommendation for the number of items assigned to each section (Table 20).

Table 20.
Number of Items per Section

Content Area	Number of Scored Items
Patient Care	**16**
Patient Interactions and Management	16
Safety	**21**
MRI Screening and Safety	21
Image Production	**106**
Physical Principles of Image Formation	40
Sequence Parameters and Options	36
Data Acquisition, Processing, and Storage	30
Procedures	**57**
Neurological	25
Body	15
Musculoskeletal	17
Grand Total	**200**

Changes to Clinical Competency Requirements

The purpose of the clinical competency requirements is to document that individuals have demonstrated competence performing the clinical activities fundamental to a particular discipline. Competent performance of these fundamental activities, in conjunction with mastery of the cognitive knowledge and skills as documented by the examination requirement, provides the basis for the acquisition of the full range of procedures typically required in a variety of settings. Demonstration of clinical competence means that the candidate has performed the procedure independently, consistently, and effectively during the course of their formal education.

The practice analysis committee reviewed and updated the previous clinical competency requirements considering the final task inventory and content specifications. The updated clinical competency requirements were then made available for public comment in August 2023 and the committee met again in October 2023 to discuss the comments before making any final adjustments.

The most notable changes from the previous version of the clinical competency requirements were:

- Total spine was added to the elective list.
- Soft tissue was added to the elective list.
- The number of elective procedures increased from 11 to 12.

The Board of Trustees approved the final clinical requirements in January 2024. The final clinical competency requirements may be found on the ARRT website: https://www.arrt.org/pages/arrt-reference-documents/by-document-type/didactic-and-clinical-competency-requirements

Changes to Clinical Experience Requirements

ARRT created clinical experience requirements to verify that candidates have completed a subset of clinical procedures within a modality. Successful performance of these fundamental procedures, in combination with mastery of the cognitive knowledge and skills covered by the certification examination, provides the basis for the acquisition of the full range of clinical skills required in a variety of settings.

The practice analysis committee reviewed and updated the previous clinical experience requirements considering the final task inventory and content specifications. The updated clinical experience requirements were then made available for public comment in August 2023 and the committee met again in October 2023 to discuss the comments before making any final adjustments.

The most notable changes from the previous version of the clinical experience requirements were:

- Total spine was added to the procedure list.
- Soft tissue was added to the procedure list.

The Board of Trustees approved the final clinical requirements in January 2024. The final clinical experience requirements may be found on the ARRT website: https://www.arrt.org/pages/arrt-reference-documents/by-document-type/didactic-and-clinical-competency-requirements

Conclusion

Numerous individuals contributed to this project, as committee members, document reviewers, or as survey respondents. Periodic practice analysis is a necessary step in the life cycle of an exam program to ensure that the content of the exam and the eligibility requirements remain relevant with current practice. This study noted significant changes to the field of Magnetic Resonance Imaging, and thanks to the efforts of all involved it assures that the ARRT Magnetic Resonance Imaging exam program will continue to be an excellent assessment of MRI Technologists wishing to demonstrate their qualifications by seeking certification and registration.