



American Society of Radiologic Technologists
33rd Session of the House of Delegates

Red Rock Casino, Resort and Spa
Las Vegas, NV
June 22-24, 2018

33rd Session of the ASRT House of Delegates

Red Rock Casino, Resort and Spa

Las Vegas, NV

June 22-24, 2018

First Business Meeting	1
I. Call to Order	1
II. Opening Ceremony	1
III. Introductions	1
IV. Delegate Orientation	1
V. Credentials Report	1
VI. Adoption of House of Delegates’ Standing Rules (2/3 vote required)	1
VII. Adoption of Agenda	1
VIII. Memorial Resolution	2
IX. Courtesy Resolutions	2
X. ASRT Annual Report	2
XI. Awards	2
XII. Introduction of Late Main Motions (2/3 Vote to Debate)	3
XIII. Nominations for Speaker and Vice Speaker	3
XIV. Announcements	3
XV. Adjournment	3
Second Business Meeting	4
I. Call to Order	4
II. Credentials Report	4
III. Committee on Bylaws Report	4
IV. Commission Report and Consent Calendar	5
V. Unfinished Business	7
VI. New Business	7
VII. Introduction of Late Main Motions (3/4 Vote to Debate)	7
IX. Election of Speaker and Vice Speaker	8
XI. Adjournment	8
Motions Appendix	9
2018 Memorial Resolution	10
Articles of Incorporation and Bylaws	11
ASRT Position Statements	32
ASRT Advisory Opinion Statements	39
ASRT Practice Standards	71

33rd Annual Meeting of the ASRT House of Delegates

Red Rock Casino, Resort and Spa
Las Vegas, NV
June 22-24, 2018

First Business Meeting

I. Call to Order

Speaker of the House Beth Weber called the 33rd Annual Meeting of the ASRT House of Delegates to order at 8:06 a.m., Friday, June 22, 2018.

II. Opening Ceremony

Speaker of the House Beth Weber appointed Jason Bradley, ASRT Director of Governance and Affiliate Relations, to take the minutes of the House meetings.

III. Introductions

IV. Delegate Orientation

Speaker of the House Beth Weber presented delegate orientation.

V. Credentials Report

Vice Speaker of the House Joseph Whitton, presented the Credentials Report. Out of a possible 157 delegates, 157 were credentialed as follows:

Credentialed Affiliate Delegates:	100
Credentialed Chapter Delegates:	<u>57</u>
Total Credentialed Delegates:	157

Action: Adopted with a majority of delegates voting in the affirmative. The Credentials Report established that a quorum was present.

VI. Adoption of House of Delegates' Standing Rules (2/3 vote required)

Action: Adopted by a 99% vote of delegates.

VII. Adoption of Agenda

Action: Adopted by majority vote of delegates voting.

VIII. Memorial Resolution

Motion: Whereas, all members of the American Society of Radiologic Technologists are of immeasurable value within our organization and invaluable as members of the health team in the field of medicine, we present the names of members who have passed since our last House of Delegates Meeting

Resolved: Be it resolved, that the American Society of Radiologic Technologists expresses its sorrow over the passing of these members since our 2017 House of Delegates meeting in Orlando, FL., and affirms our sorrow by rising for a moment of silence in memory of our departed colleagues.

Action: Adopted by a rising vote without objection ([The list of deceased members can be found in the attached appendix](#)).

IX. Courtesy Resolutions

One courtesy resolution was received from the Registered Radiologist Assistant chapter.

Motion: Whereas, in consideration of his exceptional dedication to the RA chapter, our profession, the ASRT, and the ISRRT and whereas through his seemingly limitless energy, enthusiasm and unwavering positivity, Jonathan Mazal advanced our profession, made it stronger, and helped countless people throughout the world with his international outreach efforts.

Resolved: Be it resolved, that the House of Delegates express our gratitude to Johnathan Mazal for his dedication to our profession and resolved the House further expresses its thanks to Johnathan's wife Stephanie and his son Joey for sharing him with us.

Action: Adopted without objection.

X. ASRT Annual Report

President of the ASRT Amanda Garlock presented the annual report.

XI. Awards

ASRT Foundation Affiliate Annual Drawing awards were presented as follows:
Most tickets sold- first place – Ohio, second place – Philadelphia.
Most money raised per capita – first place – Vermont, second place – Virginia.

ASRT Individual Advocacy Award was presented to Brian Rich, R.T.

ASRT Affiliate Advocacy Award was presented to the Pennsylvania Society of Radiologic Technologists.

Most active chapter award was presented to the Registered Radiologist Assistant chapter delegates. Second place was awarded to the Education and Magnetic Resonance chapter and third place was awarded to the Computed Tomography chapter.

XII. Introduction of Late Main Motions (2/3 Vote to Debate)

No late motions were received

XIII. Nominations for Speaker and Vice Speaker

Speaker
Beth Weber

Vice Speaker
Joseph Whitton

XIV. Announcements

XV. Adjournment

Speaker of the House Beth Weber adjourned the first business meeting of the 2018 House of Delegates at 10:13 a.m., Friday, June 22, 2018.

33rd Annual Meeting of the ASRT House of Delegates

Red Rock Casino, Resort and Spa
Las Vegas, NV
June 22-24, 2018

Second Business Meeting

I. Call to Order

Speaker of the House Beth Weber called the second business meeting of the 33rd Annual Meeting of the ASRT House of Delegates to order at 8:00 a.m., Sunday, June 24, 2018.

II. Credentials Report

Vice Speaker of the House Joseph Whitton presented the Credentials Report. No changes occurred in the credentials report. Out of a possible 157 delegates, 157 were credentialed as follows:

Credentialed Affiliate Delegates: 100
Credentialed Chapter Delegates: 57
Total Credentialed Delegates: 157

Because no change occurred in the credentials report, there was no need for another vote to accept the credentials report.

III. Committee on Bylaws Report

Chairman Daniel DeMaio presented the Committee on Bylaws report.

Amendment Number	Proposed Amendment	Action
1	The Committee on Bylaws moves to amend Article XI, Commission and Main Motions, Section 2. Deadline, by striking out January and inserting February.	Adopted with 100% vote of delegates in the affirmative.
2	The Committee on Bylaws moves to amend Article XIV Amendments, Letter A, Number 2. and Letter C, by striking out January and inserting February.	Adopted with 100% vote of delegates in the affirmative.

[Adopted Bylaws](#)

IV. Commission Report and Consent Calendar

Action: Motions 3, 5, 6, 7, 13 and 14 were removed from the Consent Calendar. The remainder of the Consent Calendar, consisting of motions 1, 2, 4, 8, 9, 10, 11, 12, 15, and 16 were adopted by consent.

Chairman Mike Odgren presented the Commission report. The full content of each motion can be found in the attached appendix. The results of each motion are as follows:

Main Motion	Title	Action
C-18.01	Amend the Magnetic Resonance Practice Standards, pager MR 1-32, by substitution.	Adopted on consent calendar
C-18.02	Rescind the Position Statement titled Pregnant Radiologic Technologists and the Magnetic Resonance Environment.	Adopted on consent calendar
C-18.03	Amend the Medical Dosimetry Practice Standards, pages MD 1-32, by substitution as amended by the Commission. The following Amendment was offered by the commission and voted on separately prior to taking a vote on the main motion: 1. Amend by striking out the word “during” at line 849.	Without objection by the House of Delegates, a voice vote was taken for the amendment. Amendment #1 was accepted by a voice vote of delegates. Main motion adopted as amended with 100% vote of delegates in the affirmative.
C-18.04	Amend the Radiologist Assistant Practice Standards, pages RA 1-31, by substitution.	Adopted on consent calendar
C-18.05	Amend the Practice Standards Glossary, pages 1-6, by substitution. The following Amendments were offered by the commission and voted on separately prior to taking a vote on the main motion: 1. Amend lines 17-19 by striking out “A structure or feature produced by the technique used and not occurring naturally” and inserting “Extraneous information on the image that interferes with or distracts from image quality.” 2. Amend by striking out “radiographic table” and inserting “imaging equipment” at line 144.	Without objection by the House of Delegates, a voice vote was taken for the amendments. Amendment #1 was accepted by a voice vote of delegates. Amendment #2 was accepted by a voice vote of delegates. Main motion adopted as amended with 100% vote of delegates in the affirmative.

Main Motion	Title	Action
C-18.06	Amend the Advisory Opinion Statement titled <i>Guidance for the Communication of Clinical and Imaging Observations and Procedure Details by Radiologist Assistants to Supervising Technologists</i> , by substitution.	Withdrawn by the Practice Standards Council without objection in favor of C-18.07
C-18.07	Amend by substitution the Advisory Opinion Statement titled <i>Guidance for the Communication of Clinical and Imaging Observations and Procedure Details by Radiologist Assistants to Supervising</i>	Adopted with 100% vote of delegates in the affirmative.
C-18.08	Amend by substitution the Advisory Opinion Statement titled <i>Administering Medication in Peripherally Inserted Central Catheter Lines or Ports with a Power Injector</i> .	Adopted on consent calendar
C-18.09	Amend by substitution the Advisory Opinion Statement titled <i>Placement of Personal Radiation Monitoring Devices</i> .	Adopted on consent calendar
C-18.10	Amend by substitution the Advisory Opinion Statement titled <i>Use of Post-Exposure Shuttering, Cropping and Electronic Masking in Radiography</i> .	Adopted on consent calendar
C-18.11	Amend by substitution the Advisory Opinion Statement titled <i>Medication Administration by Medical Imaging and Radiation Therapy Professionals</i> .	Adopted on consent calendar
C-18.12	Amend by substitution the Advisory Opinion Statement titled <i>Medication Administration Through Existing Vascular Access</i> .	Adopted on consent calendar
C-18.13	Rescind the Position Statement titled <i>Level of Education for the Medical Imaging and Radiation Therapy Profession</i> .	Withdrawn by the Practice Standards Council without objection.
C-18.14	Amend the Position Statement titled <i>Entry Level of Education for Radiation Therapists</i> .	Withdrawn by the Practice Standards Council without objection.
C-18.15	Rescind the Position Statement titled <i>Opposition to Supervision by Limited Xray Machine Operators</i> .	Adopted on consent calendar
C-18.16	Rescind the Position Statement titled <i>Qualifications for Performing Image Acquisition With Hybrid Imaging Equipment</i> .	Adopted on consent calendar

V. Unfinished Business

There was no unfinished business

VI. New Business

VII. Introduction of Late Main Motions (3/4 Vote to Debate)

No late motions were received.

VIII. Courtesy Resolutions

Without objection, the House of Delegates agreed to suspend the rules to allow Student Leadership Development Participants to bring a motion of courtesy thanking the ASRT for the opportunity to attend the ASRT Student Leadership Development Program and the Annual Governance and House of Delegates meeting.

Motion: WHEREAS, the 2018 SLDP participants are grateful for the Board of Directors and the House of Delegates, as well as our individual affiliates and the military, for selection and the opportunity to attend the ASRT Annual Governance and House of Delegates meeting.

WHEREAS, we appreciate the opportunity to expand our professional knowledge and networking.

Resolved: Be it RESOLVED, that as relative newcomers to the profession, we anticipate and look forward to a rich and rewarding career. We thank you for the opportunity and the hospitality.

Action: Adopted with delegates showing their appreciation through applause.

IX. Report of Election of Chapter Committee Chairmen

Bone Densitometry

Chairman Cheryl Travelstead
Vice Chairman Lynn Howley

**Cardiac Interventional
and Vascular Interventional
Technology**

Chairman Karen Leek
Vice Chairman Christopher Steelman

Computed Tomography

Chairman Jen Smith
Vice Chairman Christina Williamson

Education

Chairman Jeffrey Daniel DeMaio
Vice Chairman Donna Caldwell

Magnetic Resonance

Chairman Ashley Perkins
Vice Chairman Lorenza Clausen

Mammography

Chairman Erin Zubia
Vice Chairman Michelle Sanders

Management

Chairman Jerri Doyle
Vice Chairman Susan Castanette

Medical Dosimetry

Chairman Leigh Beevers
Vice Chairman Stacy Anderson

Military
Chairman Geisha Patton
Vice Chairman Dennis Roseta

Radiation Therapy
Chairman Marissa Mangrum
Vice Chairman Cheryl Turner

Nuclear Medicine
Chairman Barbara Hente
Vice Chairman Lucas Gross

Radiography
Chairman Diane Mayo
Vice Chairman Jonathan Havrda

Quality Management
Chairman Donna Julie Gill
Vice Chairman Starla Mason

Registered Radiologist Assistant
Chairman Elizabeth Eslich
Vice Chairman Thomas Carrington

Sonography
Chairman Tammy McSperitt
Vice Chairman Diana Mishler

X. Election of Speaker and Vice Speaker

Without objection, the House of Delegates agreed to cast a single voice vote for the election of both the Speaker and Vice Speaker.

Action: Beth Weber was elected as speaker for 2018-19 House of Delegates by affirmative voice vote of the delegates.

Joseph Whitton was elected as vice speaker for 2018-19 House of Delegates by affirmative voice vote of the delegates.

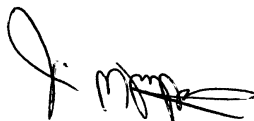
XI. Adjournment

Speaker of the House Beth Weber adjourned the second meeting of the 33rd Annual Meeting of the House of Delegates at 9:08 a.m., Sunday, June 24, 2018.

Approved:



Speaker
Chairman, Minutes Approval Committee
Beth Weber



Vice Speaker
Joseph Whitton

33rd Annual Meeting of the ASRT House of Delegates

Motions Appendix



2018 Memorial Resolution

The American Society of Radiologic Technologists House of Delegates moves the following:

Whereas, all members of the American Society of Radiologic Technologists are of immeasurable value within our organization and invaluable as members of the health team in the field of medicine, we present the names of members who have passed since our last House of Delegates Meeting:

Carl Antonisen - Lady Lake, FL
Frances Apple - Durham, NC
Betty Austin - Ontario, CA
Ellis Blanton - Louisville, KY
Leslie Brewer - Kingman, KS
Musonda Bukozsky - Yonkers, NY
Phyllis Chupurdia - Hibbing, MN
Glenn Davis - Farmington Hills, MI
Thomas Devlin - Boxford, MA
Jackee Dickerson - Gurley, AL
Susan Dodds - Marion, OH
Carlos Dominguez - Hackensack, NJ
Joyce Drylewski - Niagara Falls, NY
Margaret Flynt - Mentor, OH
Roberta Frazier - Bennington, VT
Wendy Gorena - Tucson, AZ
Lou Hall - Hot Springs National Park, AR
Sandra Hanawalt - Doylestown, OH
Karen Hawk - Miramar, FL
Bonnie Heins - Indian River, MI
Katherine Higbee - Jacksonville, FL
Ilaine Holdren - Fords, NJ
Jo-Ann Karmonick - Walnutport, PA
Elizabeth King - RI
Carol Kramer - Madison, SD
Linda Krause - Chippewa Falls, WI
Edgar Mc Daniel - Salem, VA
Gary McHone - Boulder Creek, CA
David Mellquist - WV

Danny Miranda - Hollywood, FL
Bradley Miyasaki - Rexburg, ID
Conni Otto - Sheffield, IL
Betty Palmer - Portland, OR
Cynthia Parker - Pisgah Forest, NC
Edgardo Piansay - Accokeek, MD
Brenda Pollock - Waldorf, MD
Ferrin Pomeroy - Carlyle, IL
Robin Pritchard - Metairie, LA
Harry Rivera - Hempstead, NY
Jacquelyn Roehr - N Ft Myers, FL
Dana Sanderson - San Antonio, TX
Patricia Schweighardt - Parsippany, NJ
Shawn Snider - Springfield, MO
Stephen Stanton - Dowell, IL
Joel Stirewalt - Hickory, NC
Rachel Stone - Waverly, IA
Robert Styres - Charlotte, NC
Grace Theoharidis - Dennis, MA
Susan Thomas - Walnut Creek, CA
David Thuma - Cooperstown, NY
Michael Tunney - Mint Hill, NC
Ross Ubben - Chatsworth, CA
Robert Uhley - Cape Canaveral, FL
Margaret Usuriello - Staten Island, NY
Jennifer Valentine - MS
John Ward Jr - Salisbury, NC
Kimberly Ziegelmeyer - Blanchester, OH



ASRT Articles of Incorporation, 2017

ASRT Bylaws, 2018

Adopted June 24, 2018

American Society of Radiologic Technologists, 15000 Central Ave. SE, Albuquerque, NM 87123-3909
505-298-4500 • 800-444-2778 • Fax 505-298-5063 • www.asrt.org

Contents

Articles of Incorporation.....	1
ASRT Bylaws	2
ARTICLE I, Name.....	2
ARTICLE II, Definition and Purpose.....	2
Section 1. Definition	2
Section 2. Purpose.....	2
ARTICLE III, Membership	2
Section 1. Policy and Procedure	2
Section 2. Categories of Membership.....	2
Section 3. Dues and Fees	4
Section 4. Resignation	4
Section 5. Reinstatement.....	4
ARTICLE IV, Officers	4
Section 1. Positions.....	4
Section 2. Qualifications.....	4
Section 3. Terms of Office.....	5
Section 4. Duties	5
Section 5. Vacancies	5
ARTICLE V, House of Delegates.....	6
Section 1. Purpose.....	6
Section 2. Composition.....	6
Section 3. Delegate Requirements and Qualifications.....	6
A. Affiliate delegates	6
B. Chapter delegates	7
Section 4. Meetings.....	8
Section 5. Quorum	8
Section 6. Voting	8
Section 7. Absences and Vacancies	9
Section 8. Probation	9
Section 9. Nominations and Elections of Speaker and Vice Speaker.....	9
Section 10. Qualifications for Speaker and Vice Speaker	10
Section 11. Terms of Speaker and Vice Speaker	10
Section 12. Duties of Speaker and Vice Speaker.....	10
Section 13. Vacancy of Speaker and Vice Speaker	11

ARTICLE VI, Nominations and Elections	11
Section 1. Composition and Responsibilities of the Committee on Nominations	11
Section 2. Nominations	11
Section 3. Balloting.....	11
Section 4. Election and Notification	11
ARTICLE VII, Board of Directors	12
Section 1. Composition.....	12
Section 2. Duties	12
Section 3. Meetings.....	12
Section 4. Quorum	12
ARTICLE VIII, Censure, Reprimand and Removal.....	13
ARTICLE IX, Committees	13
ARTICLE X, Affiliate Organizations and Chapters	14
Section 1. Affiliate Organizations.....	14
Section 2. Chapters	15
ARTICLE XI, Commission and Main Motions	15
Section 1. Composition and Responsibilities of the Commission	15
Section 2. Deadline	16
Section 3. Notification	16
Section 4. Late Main Motions.....	16
ARTICLE XII, Electronic Meetings and Communication	16
ARTICLE XIII, Parliamentary Authority.....	17
ARTICLE XIV, Amendments	17
ARTICLE XV, Indemnification	17
ARTICLE XVI, Dissolution	17

The General Nature of the Bylaws

Bylaws are rules adopted and maintained by an association or society that define and direct its internal structure and management. They are subordinate, and complementary, to an association's articles of incorporation.

Articles of incorporation are the primary law of an association used to establish the general organization and governing of the association to achieve corporate existence.

Bylaws are the secondary law of an association best used to detail how the society is formed and run.

In some states, bylaws are not specifically required for an incorporated or unincorporated association, or they are only mentioned in a cursory manner. ASRT's state of incorporation, Illinois, requires them. Even where legally optional, most associations elect to have a set of bylaws because of its usefulness in management operations.

If the articles constitute an agreement between the society and the state, the bylaws shall be viewed as constituting the terms of an agreement between an association and its members. The agreement ordinarily shall be honored and enforced in a court of law. Bylaws describe the relationships, rights and obligations for the members, directors, officers and staff of an association. They can be invaluable in avoiding or resolving differences among those who are part of the association or who deal with it.

Consequently, bylaws should be kept current, taking into account the changes of an association. Members and staff also should familiarize themselves with the document to better understand the organization they represent and that represents them.

*- Prepared September 2003 by ASRT's legal counsel,
Webster, Chamberlain and Bean, Washington, D.C.*

ARTICLES OF INCORPORATION

ARTICLE I

The name of this organization shall be known as the American Society of Radiologic Technologists. The general nature of its business shall be educational, scientific and socioeconomic. The principal place of business of this corporation shall be located in the City of Chicago, County of Cook, State of Illinois, or at any other such place or places within the State of Illinois as the Board of Directors may from time to time determine by resolution thereof.

ARTICLE II

The time of commencement of this corporation shall be Jan. 16, 1932, and the period of its duration shall be in perpetuity.

ARTICLE III

The names and places of residence of the persons forming this corporation are:

Margaret Hoing, Chicago, Ill., president;
Virginia Eller, Janesville, Wis., second vice president;
Emma C. Grierson, St. Paul, Minn., secretary-treasurer.

ARTICLE IV

The management of this corporation shall be vested in a Board of Directors chosen to serve in accordance with the provisions of the Bylaws of the corporation.

The officers of this corporation shall consist of a chairman, president, president-elect, vice president and a secretary and treasurer. They shall be selected annually by the membership in accordance with the provisions of the Bylaws and shall serve for a period of one year or until their successors have been selected and assumed office.

The Board of Directors shall meet at least once a year at the annual meeting of the corporation. The election of officers shall be conducted as in the Bylaws provided.

ARTICLE V

Individual members shall be admitted to this corporation in accordance with the qualifications and procedures established by the Bylaws. The candidate shall be notified of acceptance and shall be issued a certificate of membership. The membership may be renewed annually upon payment of such dues as shall be required. Rules of conduct for members, admission, expulsion of members and other related matters shall be governed by suitable Bylaws of this corporation.

Organizations engaged in and existing for purposes analogous to the nature of and business of this corporation may make application for and receive affiliate membership in this corporation upon such conditions and pursuant to such rules as shall be established by the Bylaws of this corporation.

ARTICLE VI

This corporation shall be nonprofit and nonsectarian. No part of any net earnings shall inure to the benefit of any individual, member or affiliate.

ARTICLE VII

Amendments to these Articles of Incorporation may be made by two-thirds of the members voting, following proper notification as established by the Bylaws of this corporation.

ASRT BYLAWS

ARTICLE I

Name

The name of this organization shall be the American Society of Radiologic Technologists, hereinafter referred to as the ASRT.

ARTICLE II

Definition and Purpose

Section 1. Definition

Radiologic technologist shall be the term used to define radiographer, nuclear medicine technologist, radiation therapist, sonographer and magnetic resonance technologist and shall be used to describe the areas of certification or licensure. Additional terms of description may be adopted by the ASRT to define new areas of certification or licensure.

Section 2. Purpose

The purpose of ASRT shall be to advance the profession of medical imaging and radiation therapy, to maintain high standards of education, to enhance the quality of patient care, and to further the welfare and socioeconomics of radiologic technologists.

ARTICLE III

Membership

Section 1. Policy and Procedure

- A. The ASRT is committed to equal opportunity and nondiscrimination in all programs and activities. No one shall be denied opportunities or benefits on the basis of age, sex, color, race, creed, national origin, religious persuasion, marital status, sexual orientation, gender identity, military status, political belief or disability.
- B. The name of the ASRT or any delegate in the House of Delegates, its Board of Directors or its staff, in their official capacities, shall not be used in connection with a corporate company for other than the regular functions of the ASRT.
- C. A candidate for membership shall submit an application for membership along with the required fee to the ASRT office.

Section 2. Categories of Membership

Voting

- A. Active members are those who are registered or certified in a primary modality by certification agencies recognized by the ASRT or hold an unrestricted license in medical imaging or radiation therapy under state statute. They shall have all rights, privileges and obligations of membership including the right to vote, hold office and serve as a delegate.

- B. Student members are those who are enrolled in primary medical imaging or radiation therapy programs. They shall have all rights, privileges and obligations of Active members. Eligibility for Student membership shall terminate upon initial certification.
- C. Graduate Bridge members are those who meet the following qualifications:
1. have graduated from an accredited program or a program in an accredited institution accepted by certification agencies recognized by the ASRT in their initial medical imaging or radiation therapy program within the past 24 months; or
 2. are registered or certified in a primary modality by certification agencies recognized by the ASRT and are within 24 months of their initial certification.
- They shall have all rights, privileges and obligations of Active members.
- D. Emeritus members are those who have reached age 65, maintained membership in good standing in the ASRT for at least 30 years and applied for emeritus status. They shall have all rights, privileges and obligations of Active members except to hold office or serve as a delegate. They shall pay no membership dues. No new members shall be inducted into this category after January 1, 1990.
- E. Life members are those voting members who have provided exceptional service and dedication to the ASRT and the profession. For every 2,500 active members, one living member who has maintained continuous membership for a minimum of 30 years will be eligible to become a Life member. Life member nominees shall be selected by three- fourths vote of the entire membership of the Board of Directors. They shall have all rights, privileges and obligations of Active members. They shall pay no membership dues.
- F. Retired members are those who meet the following qualifications:
1. have requested this status from the ASRT and
 - a. have retirement status or hold a certificate of recognition from a certification agency recognized by the ASRT or
 - b. meet Social Security Administration requirements for retirement.
- They shall have all rights, privileges and obligations of Active members except to hold office or serve as a delegate.
- G. Radiologist assistants are those registered radiologic technologists who hold the credential R.R.A. They shall have all rights, privileges and obligations of Active members.

Nonvoting

- A. Associate members are those who are or have been employed in the technical, educational, managerial or corporate aspects of the medical imaging and radiation therapy profession and do not qualify for Active membership. They shall have all rights, privileges and obligations of Active members except to vote, hold office or serve as a delegate.

- B. Limited x-ray machine operators are those who perform diagnostic x-ray procedures on selected anatomical sites and are not registered radiologic technologists. They shall have all rights, privileges and obligations of Active members except to vote, hold office or serve as a delegate.
- C. International members are those who reside outside the United States or any of its territories, are not registered by certification agencies recognized by the ASRT, and are employed in the technical, educational, managerial or corporate aspects of the medical imaging and radiation therapy profession. They shall have all rights, privileges and obligations of Active members except to vote, hold office or serve as a delegate.

Section 3. Dues and Fees

- A. Dues for all members, proposed by the Board of Directors, require adoption by a two-thirds vote of the delegates voting at the annual meeting of the House of Delegates.
 - 1. Intent to change dues shall be communicated to all delegates a minimum of 45 days prior to the beginning of the annual meeting of the House of Delegates.
- B. One chapter membership shall be included as part of the annual ASRT dues. Each additional chapter membership shall require a fee as established by the ASRT Board of Directors.
- C. Dues shall be paid by the expiration date.

Section 4. Resignation

Any member shall have the right to resign by written communication to the ASRT office.

Section 5. Reinstatement

A member who has resigned or whose membership has been revoked by the ASRT for other reasons may be reinstated only after filing a new application, acceptance of the application by the Board of Directors, and paying the fees as a new member.

ARTICLE IV Officers

Section 1. Positions

The officers of the ASRT shall be chairman, president, vice president, president-elect, secretary and treasurer.

Section 2. Qualifications

- A. General qualifications
 - 1. Shall practice in the medical imaging and radiation therapy profession or health care.
 - 2. Shall be a voting member of the ASRT and must have been a voting member for four years immediately preceding nomination.

3. Shall be a voting member of an ASRT affiliate or serve on active duty in the United States Armed Forces.
 4. Shall have served as a delegate for a minimum of two years.
 5. Shall not serve concurrently on the board of any national medical imaging or radiation therapy certification or national accreditation agency, or in the House of Delegates.
 6. Shall have the time and availability for necessary travel to represent the ASRT.
- B. President-elect
1. Shall have served on the ASRT Board of Directors.
- C. Vice president
1. Shall have served on the ASRT Board of Directors.
- D. Secretary and Treasurer
1. Shall have fulfilled two years in any appointed or elected ASRT position, or as president of an affiliate society.
- E. An officer who met qualification requirements at the time of nomination shall be permitted to complete the term regardless of employment status changes.

Section 3. Terms of Office

- A. The vice president, secretary and treasurer shall serve for a term of one year or until their successors have been elected or appointed.
- B. The president-elect shall serve for a term of one year as president-elect, one year as president and one year as chairman.
- C. Terms shall begin at the close of the annual meeting of the House of Delegates.

Section 4. Duties

- A. Officers shall perform the duties prescribed by these bylaws.
- B. Chairman
 1. Shall preside at meetings of the Board of Directors.
- C. President
 1. In the absence or inability of the chairman to serve, the president shall preside at meetings of the Board of Directors.
 2. For additional duties related to committees see Article
- D. Vice President
 1. Shall assume the duties of the president when necessary.

- E. President-elect
 - 1. Shall become familiar with all ASRT activities and be prepared to assume the office of president.
 - 2. For additional duties related to committees see Article
- F. Secretary and Treasurer
 - 1. Shall perform duties assigned by the Board of Directors.

Section 5. Vacancies

- A. A vacancy in the office of president shall be filled by the vice president.
- B. A vacancy in the office of president-elect shall be filled by a special election of the membership.
- C. A vacancy in the office of vice president, secretary or treasurer shall be filled by appointment by a majority vote of the entire remaining membership of the Board of Directors.

ARTICLE V House of Delegates

Section 1. Purpose

The House of Delegates shall be the legislative body of the ASRT. The House of Delegates establishes professional standards of practice.

Section 2. Composition

- A. The House of Delegates shall be composed of the speaker and vice speaker, affiliate delegates and chapter delegates.
- B. Each affiliate shall be represented by two delegates.
- C. Each chapter shall be represented by four delegates.

Section 3. Delegate Requirements and Qualifications

- A. Affiliate delegates
 - 1. Two delegates and two alternate delegates shall be elected or appointed by each ASRT affiliate in accordance with affiliate procedures.
 - 2. Affiliates shall submit completed affiliate delegate information forms to ASRT for the delegates and alternate delegates by the end of the last business day of January. Delegate and alternate delegate positions not filled with qualified members by the last business day of January shall remain open until after the annual meeting of the House of Delegates.
 - 3. A delegate shall be a voting member of the ASRT and the affiliate being represented for two years immediately preceding nomination.

4. For affiliates who have not had active status with ASRT for a minimum of 24 months, delegates shall be a voting member of ASRT for two years immediately preceding nomination and a member of the affiliate being represented at the time of nomination.
5. A delegate shall have served as an officer, or on the Board of Directors or as a committee member in the affiliate being represented.
6. A delegate shall practice in the medical imaging and radiation therapy profession or health care.
7. A delegate may serve concurrently on the board of any national medical imaging or radiation therapy certification or national accreditation agency.
8. A delegate shall have the time and availability for necessary travel to represent the ASRT.
9. A delegate shall attend the annual meeting of the House of Delegates and all meetings required of delegates.

B. Chapter delegates

1. Two delegates and two alternate delegates shall be elected annually by a plurality vote of the voting members of the ASRT.
2. Delegates shall be elected for a term of two years. The term shall begin at the close of the annual meeting of the House of Delegates in the year the delegate is elected.
3. A delegate shall be limited to two, two-year consecutive terms unless there is not a full slate of qualified candidates nominated.
4. The delegate nominees receiving the third and fourth highest number of votes on the ballot are the elected alternate delegates.
5. An alternate delegate shall serve a one-year term. The term shall begin at the close of the annual meeting of the House of Delegates in the year the alternate delegate is elected.
6. If an alternate is not elected, this position remains open until the next regular election.
7. A delegate shall be a voting member of the ASRT for two years immediately preceding nomination.
8. A delegate, excluding a military delegate, shall be a member of an affiliate or have served as a Military Chapter delegate for two years immediately preceding nomination.
9. A delegate, excluding a military delegate, shall have served as an officer, delegate or an elected or appointed ASRT position, or as an officer on the Board of Directors or as a committee member in an affiliate.
10. In clinical practice chapters where certification and/or post primary examination offered by an ASRT-recognized organization exists, the delegate shall show proof of current credential and documentation of current practice in the discipline or specialty being represented.
11. In the management and education chapters, the delegate shall show proof of documentation of current practice in the discipline or specialty being represented.
12. Military delegates shall be on active duty in the United States Armed Forces.

13. A delegate, excluding a military delegate, shall only be elected to represent a chapter of which the delegate is a member for the two years immediately preceding nomination.
14. A military delegate shall be a member of the Military Chapter at the time of nomination.
15. A delegate who met qualification requirements at the time of nomination shall be permitted to complete the term regardless of employment status changes. A military delegate who met qualification requirements at the time of nomination shall be permitted to complete the term in the event of retirement or honorable discharge from active duty.
16. A delegate may serve concurrently on the board of any national medical imaging or radiation therapy certification or national accreditation agency.
17. A delegate shall have the time and availability for necessary travel to represent the ASRT.
18. A delegate shall attend the annual meeting of the House of Delegates and all meetings required of delegates.

Section 4. Meetings

- A. The House of Delegates shall meet at least annually.
- B. Special meetings of the House of Delegates may be called at such time and place as designated by a majority vote of the Board of Directors, or by written request of 65 delegates. Members of the House of Delegates shall be notified 30 days in advance of such meetings, with a statement of the business to be transacted. No business other than that specified shall be transacted.

Section 5. Quorum

A quorum shall consist of at least 65 credentialed delegates.

Section 6. Voting

- A. Members may attend the annual meeting of the House of Delegates, but only credentialed delegates shall vote. There shall be no proxy voting.
- B. Main motions adopted by the House of Delegates shall remain in force until rescinded or amended unless they are subject to Article VII, Section 2, paragraph D.
- B. The House of Delegates shall present recommendations to the Board of Directors. The Board of Directors shall report to the House regarding recommendations no later than the next annual meeting of the House of Delegates.

Section 7. Absences and Vacancies

- A. Absence
 1. An absence exists when an elected/appointed delegate is unable to fulfill the duties of the position during the annual meeting of the House of Delegates. The delegate shall be considered absent for the purpose of that meeting only.

2. It is the responsibility of the delegate to notify the ASRT, the speaker of the House and the alternate delegate of the delegate's inability to attend the annual meeting of the House of Delegates as soon as possible. The alternate delegate shall be seated for that meeting only.
3. If the alternate delegate is unable to serve because of extenuating circumstances, the speaker of the House may seat a qualified delegate for the annual meeting of the House of Delegates for that meeting only.

B. Vacancies

1. Delegate vacancies shall be filled by the elected/appointed alternate delegate.

Section 8. Probation

- A. If an affiliate fails to seat two delegates or a chapter fails to seat four delegates at all business meetings of the House of Delegates, that affiliate or chapter enters into probationary status.

Section 9. Nominations and Elections of Speaker and Vice Speaker

- A. At the annual meeting of the House of Delegates, prior to the close of the last business meeting of the House, a speaker of the House and a vice speaker of the House, who are members of the House, shall be elected by the credentialed delegates.
- B. Nominations for speaker and vice speaker of the House of Delegates shall be accepted at the first business meeting of the House of Delegates. Nominations shall only be accepted at the second business meeting of the House of Delegates if there are no qualified candidates nominated at the first business meeting of the House of Delegates. An individual may not run for both speaker and vice speaker in the same year.
- C. The elections of speaker and vice speaker shall be by majority vote of the delegates voting. If the majority vote is not obtained on the first ballot, the top two vote candidates, or more in the case of a tie, shall have a runoff ballot.
- D. When there is only one candidate for speaker or vice speaker, the election may be by voice vote.
- E. The affiliate or chapter that the speaker or vice speaker represents shall be entitled to fill that delegate position.
 1. The elected/appointed alternate affiliate delegate shall fill the position. A new qualified alternate affiliate delegate may be elected/appointed by the affiliate.
 2. The elected alternate chapter delegate shall fill that position. A new qualified alternate delegate may be appointed by the chapter within 60 days following the close of the annual meeting of the House of Delegates.
 3. If an elected alternate chapter delegate does not exist for the vacated delegate seat, the delegate position remains vacant until the next regular election.

Section 10. Qualifications for Speaker and Vice Speaker

- A. General qualifications
 1. Shall practice in the medical imaging and radiation therapy profession or health care.
 2. Shall be a voting member of the ASRT and must have been a voting member for four years immediately preceding nomination.
 3. Shall be a voting member of an ASRT affiliate or serve on active duty in the United States Armed Forces.
 4. Shall have served as a delegate for a minimum of two years.
 5. Once elected, shall not serve concurrently on the board of any national medical imaging or radiation therapy certification or national accreditation agency, or as a delegate in the House of Delegates.
 6. Shall have the time and availability for necessary travel to represent the ASRT.

- B. A speaker or vice speaker who met qualification requirements at the time of nomination shall be permitted to complete the term regardless of employment status changes.

Section 11. Terms of Speaker and Vice Speaker

- A. The speaker and vice speaker shall be elected to serve for one year and may be re-elected for one additional, consecutive term.

- B. Terms that are not consecutive shall not be restricted.

- C. The term shall begin at the close of the annual meeting of the House of Delegates.

Section 12. Duties of Speaker and Vice Speaker

- A. Speaker
 1. Shall preside at all House meetings.
 2. May vote only if his or her vote will make a difference in the outcome of the question being considered.
 3. Shall be a member of the Board of Directors.
 4. For additional duties related to committees see Article IX.

- B. Vice Speaker
 1. Shall be a nonvoting member of the House.
 2. In the absence of the speaker, the vice speaker shall assume the duties of the speaker of the House, including the right to vote when the vote will make a difference.
 3. Shall be a member of the Board of Directors.

Section 13. Vacancy of Speaker and Vice Speaker

- A. A vacancy in the office of speaker of the House shall be filled by the vice speaker.

- B. A vacancy in the office of vice speaker of the House shall be filled by a special election of the House of Delegates.

- C. In the case of a concurrent vacancy in the office of speaker and vice speaker, the office of speaker shall be filled by appointment by a majority vote of the entire remaining membership of the Board of Directors.

ARTICLE VI Nominations and Elections

Section 1. Composition and Responsibilities of the Committee on Nominations

- A. The Board of Directors shall appoint a chairman and six members to the Committee on Nominations, none of whom may be members of the Board of Directors.

- B. It shall be the duty of the Committee on Nominations to review candidate information and present all qualified candidates for ASRT officer and chapter delegate positions.

Section 2. Nominations

- A. Nominations of officers and chapter delegates may be submitted by any ASRT voting member. Nominations shall be received in the ASRT office by the end of the first business day of October. Completed candidate information forms shall be received in the ASRT office by the end of the first business day of November.

- B. An individual may not run for a national office and chapter delegate position on the same ballot.

- C. An individual may not run for more than one chapter delegate position on the same ballot.

- D. An individual shall not hold an ASRT Board of Directors position and chapter delegate or affiliate delegate position simultaneously.

Section 3. Balloting

- A. Ballots prepared by the ASRT office shall be made available to the voting members at least 120 days prior to the beginning of the annual meeting of the House of Delegates.

- B. Ballots shall be cast no later than 90 days prior to the beginning of the annual meeting of the House of Delegates. Ballots postmarked after this date shall not be counted.

- C. Write-in votes are prohibited for all officer and chapter delegate positions.

Section 4. Election and Notification

- A. The vice president, president-elect, secretary and treasurer and chapter delegates shall be elected by a plurality vote of the voting members of the ASRT.

- B. A tie vote shall be decided by lot at a regular business meeting of the House of Delegates.

- C. Newly elected officers and chapter delegates shall be notified of election results at least 60 days prior to the beginning of the annual meeting of the House of Delegates.

- D. Election results shall be announced at a regular business meeting of the House of Delegates.

ARTICLE VII

Board of Directors

Section 1. Composition

The Board of Directors shall consist of the officers of the ASRT, and the speaker and vice speaker of the House of Delegates.

Section 2. Duties

The Board of Directors shall:

- A. Be vested with the responsibility of the management of the business of the corporation in concert with its strategic plan.
- B. Appoint external organization representatives.
- C. Act on main motions received from the Commission concerning matters of organizational operations and report the status to the House of Delegates.
- D. Temporarily suspend main motions adopted by the House of Delegates if found to be contrary to federal, state or local laws, ASRT Bylaws, or to be financially infeasible.
- E. Place affiliates and chapters on probationary or inactive status.
- F. Reinstate affiliates to active status when the requirements of these Bylaws, the ASRT Affiliate Charter Agreement and the House of Delegates Procedure Manual are met.
- G. Reinstate chapters to active status when the requirements of these Bylaws and the House of Delegates Procedure Manual are met.

Section 3. Meetings

- A. The Board of Directors shall meet at least annually at the annual meeting of the House of Delegates.
- B. The president or the chairman of the Board, or a majority of the members of the Board of Directors, upon written request to the chairman of the Board, may call a meeting, and the meeting shall occur, provided no less than a 15-day notice to all Board members is given.

Section 4. Quorum

A majority of the Board of Directors shall constitute a quorum for all meetings. Proxies are prohibited.

ARTICLE VIII
Censure, Reprimand and Removal

An ASRT member, delegate or Board member may be censured, reprimanded or removed for cause. Sufficient cause includes a violation of the Bylaws or any lawful rule or practice duly adopted by the ASRT, dereliction of duty, other conduct prejudicial to the interests of the ASRT, or conduct detrimental to the ASRT. Such action may occur following completion of the due process procedure.

- A. The Board of Directors must receive formal and specific charges in writing against the individual.
- B. If the Board of Directors deems the charges to be sufficient, the person charged shall be advised, in writing, of the charges.
- C. A statement of the charges shall be sent by certified or registered mail to the last recorded address of the person charged at least 20 days before final action is taken.
- D. The statement shall be accompanied by a notice of the time and place of the meeting of the Board of Directors at which the charges shall be considered.
- E. The person charged shall have the opportunity to address the charges and be represented by counsel to present any defense to such charges before action is taken.
- F. Censure or reprimand of an ASRT member or delegate shall be by majority vote of the entire membership of the Board of Directors.
- G. Censure or reprimand of a Board member shall be by majority vote of the entire remaining membership of the Board of Directors.
- H. Removal of an ASRT member or delegate shall be by three-fourths vote of the entire membership of the Board of Directors.
- I. Removal of a Board member shall be by three-fourths vote of the entire remaining membership of the Board of Directors.
- J. Affiliates have the power to remove affiliate delegates.

ARTICLE IX
Committees

- A. There shall be committees as deemed necessary appointed by the Board of Directors, president, president-elect or speaker of the House of Delegates.
- B. The appointing authority may appoint Board members as ex-officio members of all committees, except the Committee on Nominations.
- C. The Board shall appoint and provide charges to committees appointed by the Board.

- D. The president-elect shall appoint and provide charges to presidential committees for his or her presidential year.
- E. The speaker shall appoint and provide charges to House committees.
- F. A vacancy in any committee shall be filled by the appointing power.

ARTICLE X

Affiliate Organizations and Chapters

Section 1. Affiliate Organizations

- A. The ASRT has granted one affiliate charter in each state, the District of Columbia, Guam, Puerto Rico and the city of Philadelphia.
- B. Each affiliate shall renew its charter annually, and within 60 days after the close of its fiscal year, submit the following to the ASRT:
 - 1. Annual budget/financial statement.
 - 2. Affiliate bylaws in agreement with ASRT Bylaws.
 - 3. Articles of incorporation.
 - 4. Certificate of good standing or proof of active incorporation verifying corporate existence is valid dated no later than 90 days prior to application being submitted.
 - 5. Evidence of IRS recognition of tax-exempt status (e.g., determination letter issued to applicant or letter requesting ASRT include applicant in group exemption number).
 - 6. Verification that affiliate officers are ASRT members.
 - 7. Annual meeting information.
 - 8. Names and contact information for officers and board members.
 - 9. List of affiliate subordinates recognized by affiliate and attestation that these subordinates are in compliance with ASRT affiliate subordinate policies and procedures.
 - 10. Verification that the affiliate filed the appropriate tax returns with the IRS in the prior year.
- C. Any affiliate not in compliance with the ASRT Bylaws, the ASRT Affiliate Charter Agreement or the House of Delegates Procedure Manual shall be placed on probationary status.
- D. An affiliate on probationary status for more than two consecutive years shall be considered inactive.
- E. The ASRT Affiliate Charter Agreement may be terminated by the House of Delegates or by a vote of the members of the affiliate.
- F. The ASRT shall not be responsible for any debts, actions or statements made by, or on behalf of, any affiliate.

- G. The ASRT Board may reinstate an inactive affiliate when:
 - 1. The affiliate meets all requirements for an active affiliate, and
 - 2. The affiliate formally requests reinstatement.

Section 2. Chapters

- A. Recognized chapters are:
 - 1. Bone densitometry
 - 2. Cardiac interventional and vascular interventional technology
 - 3. Computed tomography
 - 4. Education
 - 5. Magnetic resonance
 - 6. Mammography
 - 7. Management
 - 8. Medical dosimetry
 - 9. Military
 - 10. Nuclear medicine
 - 11. Quality management
 - 12. Radiation therapy
 - 13. Radiography
 - 14. Registered radiologist assistant
 - 15. Sonography
- B. Chapters shall be governed by the ASRT Bylaws.
- C. Any chapter not in compliance with the ASRT Bylaws or the House of Delegates Procedure Manual shall be placed on probationary status.
- D. A chapter on probationary status for more than two consecutive years shall be considered inactive.

ARTICLE XI Commission and Main Motions

Section 1. Composition and Responsibilities of the Commission

- A. The Commission shall consist of a chairman and members appointed by the speaker of the House.
- B. Main motions shall be submitted to the Commission via the vice speaker of the House.
 - 1. Main motions submitted by individual delegates must be seconded by another delegate.
 - 2. Main motions submitted on behalf of chapters must be adopted by a majority of the chapter steering committee.
 - 3. Main motions submitted on behalf of affiliates must be adopted by the affiliate's board of directors.
 - 4. Main motions submitted on behalf of Board of Directors, Commission and committees must be adopted by a majority of the submitting group.
 - 5. Only motions submitted by individual delegates need to be seconded.

- C. The Commission shall distribute main motions as follows: Practice-related main motions shall be reported to the House of Delegates by the Commission; operational main motions shall be reported to the House of Delegates by the Board of Directors; and main motions containing Bylaw implications or Bylaw amendments shall be reported to the House of Delegates by the Committee on Bylaws.

Section 2. Deadline

Proposed main motions from any approved source other than the Board of Directors and the Commission shall be received by the vice speaker of the House by the first business day of February.

Section 3. Notification

Main motions received by the Commission and sent to the House of Delegates shall be sent to the delegates 45 days prior to the beginning of the annual meeting of the House of Delegates.

Section 4. Late Main Motions

- A. Late main motions received by the speaker of the House prior to the beginning of the first business meeting of the House of Delegates shall be read and require a two-thirds vote of the delegates to be debated.

- B. Late main motions received by the speaker of the House after the beginning of the first business meeting of the House of Delegates shall be read and require a three-fourths vote of the delegates to be debated.

ARTICLE XII Electronic Meetings and Communication

Section 1. Meetings

The Board of Directors, House of Delegates and all committees and subcommittees shall be authorized to meet by telephone conference or through other electronic communications media so long as all the members may simultaneously hear each other and participate during the meeting.

Section 2. Communication

All communication required in these bylaws, including meeting notices, may be sent electronically.

ARTICLE XIII Parliamentary Authority

The rules contained in the current edition of *Robert's Rules of Order Newly Revised*, shall govern the ASRT in all cases in which they are applicable unless they are inconsistent with these Bylaws, the Articles of Incorporation, or state or federal law.

ARTICLE XIV
Amendments

- A. Amendments to the Bylaws shall be received by the vice speaker.
 - 1. Committee on Bylaws may submit amendments in the final report of the committee.
 - 2. Amendments from all other sources shall be submitted by the first business day of February.
- B. Notice of Bylaw amendments shall be provided to the delegates at least 45 days prior to the beginning of the annual meeting of the House of Delegates.
- C. All main motions received by the first business day of February that require a Bylaw amendment shall be sent to the chairman of the Committee on Bylaws for proper structure to be included in the *Delegate Handbook* at the upcoming annual meeting of the House of Delegates.
- D. These Bylaws may be amended by two-thirds vote of the delegates voting at the annual meeting of the House of Delegates.

ARTICLE XV
Indemnification

Every officer, director, employee or delegate of the ASRT shall be indemnified by the ASRT against all expenses and liabilities, including attorney's fees, in connection with any threatened, pending or completed proceeding in which the above-named individual is involved by reason of being or having been an officer, director, employee or delegate of the ASRT if the above-named individual acted in good faith and within the scope of the above-named individual's authority and in a manner reasonably believed to be not opposed to the best interests of the ASRT. In no event shall indemnification be paid to or on behalf of any above-named individual going beyond or acting beyond the powers granted by authority of this organization or Bylaws. The foregoing right of indemnification shall be in addition to, and not exclusive of, all other rights to which such officer, director, employee or delegate may be entitled.

ARTICLE XVI
Dissolution

In the event of dissolution or final liquidation of the ASRT, all of its assets remaining after payment of its obligations shall have been made or provided for, shall be distributed to and among such corporations, foundations or other organizations organized and operated exclusively for scientific and educational purposes in radiologic technology, consistent with those of the ASRT, as designated by the Board of Directors.



ASRT Position Statements

Effective June 24, 2018

Contents

Collective Bargaining Units	34
Conjoint Evaluation of Educational Programs.....	34
Degree Requirements for Medical Imaging and Radiation Therapy Program Directors and Clinical Coordinators	34
Documentation of Digital Images to Maintain the Patient Dose Record	35
Entry Level of Education for Radiation Therapists.....	35
Federal Minimum Standards for Medical Imaging and Radiation Therapy	35
Level of Education for the Medical Imaging and Radiation Therapy Profession.....	35
Majority Representation on State Radiologic Technologist Licensure or Regulatory Boards and Committees	35
Opposition to Employment of Uncertified or Unlicensed Individuals.....	36
Opposition to Institutional Licensure of Radiologic Technologists	36
Opposition to Medical Imaging and Radiation Therapy Professionals Supervising and/or Training Unlicensed or Uncertified Individuals	36
Opposition to Use of Fluoroscopy for Positioning	36
Opposition to Use of Full-body Computed Tomography Screening.....	36
Opposition to Use of Medical Imaging and Radiation Therapy Equipment for Nonmedical Purposes.....	37
Professional Programmatic Peer Review	37
Public Health Statements	37
Radiographic Exposure Technique Guidelines.....	37
Staffing for Radiation Therapy Treatment Delivery	37
State Agency Recognition of Joint Review Committees	38
State Licensure Examinations by Certification Agencies Recognized by the ASRT	38
Three-Dimensional Modeling and Printing in Medical Imaging and Radiation Therapy ...	38

ASRT Position Statements

Introduction

ASRT position statements reflect the beliefs or standing of the American Society of Radiologic Technologists. In reviewing these position statements, radiologic technologists must take into account existing state statutes and institutional policy.

ASRT uses the term radiologic technologist throughout its official documents to describe personnel working in any discipline or specialty area of radiologic technology. Radiologic technology is the term that describes the medical disciplines and specialties that use radiation for diagnostic medical imaging, interventional procedures and radiation therapy, to include energies used for magnetic resonance and sonographic imaging. The five disciplines in radiologic technology are radiography, radiation therapy, magnetic resonance, sonography and nuclear medicine. Specialties in radiologic technology include cardiovascular-interventional, radiography, computed tomography, mammography, and other specialty areas.

Position Statements

Collective Bargaining Units

It is the position of the American Society of Radiologic Technologists that the Society not serve as a collective bargaining unit.

Amended, Resolution, 06-3.09, 2006
Amended, Main Motion, C-09.57, 2009

Conjoint Evaluation of Educational Programs

It is the position of the American Society of Radiologic Technologists that, in states where state agencies approve medical imaging and radiation therapy educational programs, evaluation of such programs be conducted jointly by the state agency and the applicable Joint Review Committee(s) or equivalent.

Amended, Main Motion, C-08.06, 2008
Amended, Main Motion, C-09.36, 2009
Amended, Main Motion, C-17.11, 2017

Degree Requirements for Medical Imaging and Radiation Therapy Program Directors and Clinical Coordinators

It is the position of the American Society of Radiologic Technologists that medical imaging and radiation therapy program directors hold a minimum of a master's degree and that clinical coordinators hold a minimum of a baccalaureate degree.

Adopted, Resolution, 98-2.02, 1998
Amended, Resolution, 06-2.03, 2006
Amended, Main Motion, C-09.37, 2009
Amended, Main Motion, C-14.13, 2014

Documentation of Digital Images to Maintain the Patient Dose Record

It is the position of the American Society of Radiologic Technologists that all digital radiographic images acquired upon the order of a licensed practitioner for use in diagnosis or guidance be submitted for interpretation, documented and/or archived as part of the patient's medical image and radiation dose record.

Adopted, Main Motion, C-16.17, 2016

Entry Level of Education for Radiation Therapists

It is the position of the American Society of Radiologic Technologists that the baccalaureate degree is the entry level for radiation therapists.

Adopted, Resolution, C-07.10, 2007
Amended, Main Motion, C-09.39, 2009

Federal Minimum Standards for Medical Imaging and Radiation Therapy

It is the position of the American Society of Radiologic Technologists that the U.S. Congress should enact federal minimum standards of education and certification for all individuals performing medical imaging or planning and/or delivering radiation therapy. Such standards should be, at the minimum, equivalent to those established for educational accreditation by the Joint Review Committees or equivalent and certification by certification agencies recognized by the ASRT.

Amended, Resolution, 95-2.08, 1995
Amended, Resolution, 06-2.06, 2006
Amended, Main Motion, C-09.44, 2009
Amended, Main Motion, C-16.20, 2016

Level of Education for the Medical Imaging and Radiation Therapy Profession

It is the position of the American Society of Radiologic Technologists that the baccalaureate degree is the professional level of medical imaging and radiation therapy education if it contains related upper division coursework.

Adopted, Resolution, 94-2.04, 1994
Amended, Resolution, 95-2.05, 1995
Amended, Resolution, 06-2.05, 2007
Amended, Main Motion, C-09.41, 2009
Amended, Main Motion, C-14.14, 2014

Majority Representation on State Radiologic Technologist Licensure or Regulatory Boards and Committees

It is the position of the American Society of Radiologic Technologists that the majority of members appointed or designated to serve on state radiologic technologist licensure or regulatory boards and committees be practicing registered medical imaging or radiation therapy professionals, as outlined by the ASRT Practice Standards, with expertise in the disciplines licensed or regulated by that entity.

Adopted, Resolution, C-07.05, 2007
Amended, Main Motion, C-09.46, 2009
Amended, Main Motion, C-16.21, 2016
Amended, Main Motion, C-17.14, 2017

Opposition to Employment of Uncertified or Unlicensed Individuals

The American Society of Radiologic Technologists opposes the employment or utilization of uncertified or unlicensed individuals to administer ionizing or nonionizing radiation for diagnostic or therapeutic procedures. This is a breach of responsibility of the health care industry in providing quality patient care.

Adopted, Resolution, 93-3.01, 1993
Amended, Resolution, 94-1.21, 1994
Amended, Resolution, 06-1.04, 2006
Amended, Main Motion, C-09.81, 2009

Opposition to Institutional Licensure of Radiologic Technologists

The American Society of Radiologic Technologists opposes institutional licensure of radiologic technologists.

Amended, Resolution, 06-1.03, 2006
Amended, Main Motion, C-09.45, 2009

Opposition to Medical Imaging and Radiation Therapy Professionals Supervising and/or Training Unlicensed or Uncertified Individuals

The American Society of Radiologic Technologists opposes any medical imaging or radiation therapy professional being required to supervise and/or train any individuals in the delivery of medical imaging or radiation therapy procedures unless those individuals being trained are educationally prepared as stated in the ASRT practice standards.

Adopted, Resolution, 02-3.01, 2002
Amended, Main Motion, C-08.15, 2008
Amended, Main Motion, C-09.49, 2009
Amended, Main Motion, C-16.22, 2016
Amended, Main Motion, C-17.16, 2017

Opposition to Use of Fluoroscopy for Positioning

The American Society of Radiologic Technologists opposes the use of fluoroscopy to ensure proper positioning for radiography prior to making an exposure. This is unethical, increases patient dose and should never be used in place of appropriate skills required of the competent radiologic technologist.

Adopted, Resolution, 06-3.14, 2006
Amended, Main Motion, C-09.55, 2009

Opposition to Use of Full-body Computed Tomography Screening

The American Society of Radiologic Technologists opposes the use of full-body computed tomography as a screening tool.

Adopted, Resolution, 02-3.08, 2002
Amended, Main Motion, C-08.42, 2008
Amended, Main Motion, C-09.80, 2009

Opposition to Use of Medical Imaging and Radiation Therapy Equipment for Nonmedical Purposes

The American Society of Radiologic Technologists opposes the use of all medical imaging and radiation therapy equipment to produce images on live humans for nonmedical entrepreneurial application or entertainment contrary to the tenets of ethical medical practice.

Adopted, Resolution, 05-3.01, 2005
Amended, Main Motion, C-08.41, 2008
Amended, Main Motion, C-09.75, 2009
Amended, Main Motion, C-15.01, 2015

Professional Programmatic Peer Review

The American Society of Radiologic Technologists supports professional programmatic peer review for all medical imaging and radiation therapy educational programs.

Adopted, Main Motion, C-11.34, 2011

Public Health Statements

It is the position of the American Society of Radiologic Technologists that the Society release position statements on public health issues to increase public awareness of the diverse contributions in health care by the members of the ASRT.

Adopted, Resolution, 92-1.07, 1992
Amended, Resolution, 94-1.23, 1994
Amended, Main Motion, C-09.34, 2009

Radiographic Exposure Technique Guidelines

It is the position of the American Society of Radiologic Technologists that all health care facilities develop, maintain and make available optimal exposure technique guidelines for all radiographic and fluoroscopic equipment.

Adopted, Resolution, 91-4.03, 1991
Amended, Resolution, C-07.31, 2007
Amended, Main Motion, C-09.73, 2009
Amended, Main Motion, C-13.18a, 2013

Staffing for Radiation Therapy Treatment Delivery

It is the position of the American Society of Radiologic Technologists that two registered radiation therapists per patient per treatment unit is the minimum standard for safe and efficient delivery of radiation therapy.

Adopted, Resolution, 98-3.04, 1998
Amended, Main Motion, C-08.44, 2008

State Agency Recognition of Joint Review Committees

It is the position of the American Society of Radiologic Technologists that state agencies accept accreditation of medical imaging and radiation therapy educational programs by Joint Review Committees or equivalent to meet state standards.

Adopted, Main Motion, C-09.03, 2009
Amended, Main Motion, C-14.11, 2014

State Licensure Examinations by Certification Agencies Recognized by the ASRT

It is the position of the American Society of Radiologic Technologists that state agencies should contract with certification agencies recognized by the ASRT to administer state licensure examinations.

Amended, Main Motion, C-08.14, 2008
Amended, Main Motion, C-09.48, 2009
Amended, Main Motion, C-16.23, 2016

Three-Dimensional Modeling and Printing in Medical Imaging and Radiation Therapy

It is the position of the American Society of Radiologic Technologists that it is within the scope of practice for medical imaging and radiation therapy professionals, as outlined by the ASRT Practice Standards, who are educationally prepared and clinically competent to postprocess, reconstruct and create or print three-dimensional models from medical imaging or radiation therapy data.

Adopted, Main Motion, C-16.25, 2016
Amended, Main Motion, C-17.18, 2017

A large, light gray decorative graphic is positioned in the upper right quadrant of the page. It consists of a thick, diagonal line that passes through a shaded, three-dimensional sphere, creating a sense of depth and movement.

The Practice Standards for Medical Imaging and Radiation Therapy

Advisory Opinion Statement
Medication Administration in Peripherally Inserted Central Catheter Lines
or Ports with a Power Injector

Medication Administration in Peripherally Inserted Central Catheter Lines or Ports with a Power Injector

After research of evidentiary documentation such as current literature, curricula, position statements, scopes of practice, laws and federal and state regulations and inquiries received by the American Society of Radiologic Technologists Governance Department, the American Society of Radiologic Technologists issued the opinions as contained herein.

Accountability and Responsibility of Medical Imaging and Radiation Therapy Professionals

The profession holds medical imaging and radiation therapy professionals responsible and accountable for rendering safe, effective clinical services to patients and for judgments exercised and actions taken in the course of providing those services.

Acts that are within the recognized scope of practice for a given license or certification may be performed only by those individuals who possess the education and skill proficiency to perform those acts in a safe and effective manner.

The medical imaging and radiation therapy professional's performance should be consistent with state and federal laws, established standards of practice, facility policies and procedures and be evidence-based.

Advisory Opinion

It is the opinion of the American Society of Radiologic Technologists that based upon current literature; curricula set forth by the ASRT, ASRT Practice Standards for Medical Imaging and Radiation Therapy and Society of Nuclear Medicine and Molecular Imaging; certification examination specifications by the American Registry of Radiologic Technologists and Nuclear Medicine Technology Certification Board; and where federal or state law and/or institutional policy permits:

1. It is within the scope of practice for medical imaging and radiation therapy professionals to access and use a Food and Drug Administration approved PICC line or port designated for use with power injectors, when manufacturer guidelines regarding infusion rate and pressure are followed and where federal or state law and/or institutional policy permits.

GRADE: Strong

Rationale

The ASRT's position is to determine the practice standards and scopes of practice for medical imaging and radiation therapy professionals. The practice standards' general stipulation emphasizes the importance of an individual being educationally prepared and clinically competent to practice in the profession of medical imaging and radiation therapy. With proper education and proven competence, the use of power injectors with PICC lines or ports provides quality patient services in a safe environment.

Definitions

Access: The process of inserting the designated needle through the access point of an existing vascular access device to deliver IV fluids or medication

The following definitions can be found in the Glossary to The Practice Standards for Medical Imaging and Radiation Therapy:

Educationally prepared
Clinically competent

Evidentiary Documentation

Current Literature

Not applicable.
(Quality of evidence: not applicable)

Curricula

The ASRT curricula for all practice areas were reviewed.
2013 Computed Tomography Curriculum

2015 Magnetic Resonance Imaging Curriculum

2017 Radiography Curriculum

2015 Radiologist Assistant Curriculum

Additional nationally recognized curricula were reviewed.

Society of Nuclear Medicine and Molecular Imaging – Technologist Section
2013 Nuclear Medicine Technology Competency-Based Curriculum Guide 5th
Edition

(Quality of evidence: High)

Certification Agency Content Specifications

The American Registry of Radiologic Technologists content specifications.
2017 Computed Tomography
2017 Vascular-Interventional Radiography

Nuclear Medicine Technology Certification Board (NMTCB)
2017 Components of Preparedness.

2016 Positron Emission Tomography (PET) Specialty Examination Content Outline

(Quality of evidence: High)

Scopes of Practice and Practice Standards Reference

ASRT Standards of Practice for Medical Imaging and Radiation Therapy.

Applies to all modality-specific scopes of practice except medical dosimetrist and limited x-ray machine operators.

Identifying, preparing and/or administering medications as prescribed by a licensed practitioner.

Clinical Performance Standards, Standard Four - Performance, General Criteria
7. Uses accessory equipment.

(Quality of evidence: High)

Federal and State Statute Reference(s)

Not Applicable.

(Quality of evidence: not applicable)

Other

(Quality of evidence: not applicable)

Determining Scope of Practice

Each medical imaging and radiation therapy professional must exercise professional and prudent judgment in determining whether the performance of a given act is within the scope of practice for which the medical imaging and radiation therapy professional is licensed, if applicable within the jurisdiction in which he/she is employed, educationally prepared and clinically competent to perform.

The ASRT issues advisory opinions as to what constitutes appropriate practice. As such, an opinion is not a regulation or statute and does not have the force and effect of law. It is issued as a guidepost to medical imaging and radiation therapy professionals who wish to engage in safe practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

Approved: June 19, 2011

Amended, Main Motion, C-13.21 and C13.23, 2013

Amended, Main Motion, C-16.12, 2016

Amended, Main Motion, C-17.08, 2017

Amended, Main Motion, C-18.08, 2018

ASRT House of Delegates

Links to external websites may change without notice.

A decorative graphic consisting of a thick, grey diagonal line that starts from the top left and extends towards the bottom right. A large, grey, 3D-rendered sphere is positioned where the line changes direction, appearing to be attached to it.

The Practice Standards for Medical Imaging and Radiation Therapy

Advisory Opinion Statement
Guidance for the Communication of Clinical and Imaging Observations
and Procedure Details by Radiologist Assistants to Supervising Radiologists

Guidance for the Communication of Clinical and Imaging Observations and Procedure Details by Radiologist Assistants to Supervising Radiologists

Communication of clinical and imaging observations and procedure details by the radiologist assistant to the supervising radiologist is an integral part of radiologist assistant practice. Without clear, consistent, appropriate and ascribed communication between members of the radiology team, there is a possibility of inadequate patient care, incomplete reports and diminished departmental productivity. Therefore, after reviewing literature, curriculum, position statements, scopes of practice, laws, federal and state regulations and inquiries received by the American Society of Radiologic Technologists Governance Department, the American Society of Radiologic Technologists is issuing the following advisory opinion statement.

Accountability and Responsibility of Medical Imaging and Radiation Therapy Professionals

The profession holds medical imaging and radiation therapy professionals responsible and accountable for rendering safe, effective clinical services to patients and for judgments exercised and actions taken in the course of providing those services.

Acts that are within the recognized scope of practice for a given license or certification may be performed only by those individuals who possess the education and clinical proficiency to perform those acts in a safe and effective manner.

The medical imaging and radiation therapy professional's performance should be consistent with state and federal laws, established standards of practice, facility policies and procedures and be evidence-based.

Advisory Opinion

It is the opinion of the American Society of Radiologic Technologists that based upon current literature, the curricula set forth by the ASRT, entry-level clinical activities by the ARRT, regulatory requirements and where federal or state law and/or institutional policy permits that:

Methods of Communication and Documentation

To create a safe and productive radiology environment, communication between the radiologist assistant and supervising radiologist must be free-flowing, consistent and relevant to the patient examination or procedure. This communication can take many forms, including verbal, written and electronic communication. These communications may be included and taken into consideration by the radiologist in creating a final report. However, initial clinical and imaging observations and procedure details communicated from the radiologist assistant to the radiologist are only intended for the radiologist's use and do not substitute for the final report created by the radiologist. These communications should be considered and documented as "initial clinical and imaging observations or procedure details."

The Role of the Radiologist Assistant in Creation of the Final Report

While assisting radiologists in the performance of imaging procedures or during the performance of procedures under radiologist supervision, the radiologist assistant must be able to communicate and document procedure notes, observations, patient responses and other types of information relevant to the radiologist's interpretation and creation of the final report.

Radiologist assistants do not independently "report findings" or "interpret" by dictation or by any other means; and to avoid any confusion, these terms should not be used to refer to the activities of the radiologist assistant. However, radiologist assistants may add to the patient record (following the policies and procedures of the facility) in a manner similar to any other dependent nonphysician practitioner. Radiologist assistants who are authorized to communicate initial observations to the supervising radiologist using a voice recognition dictation system or other electronic means must adhere to institutional protocols ensuring that initial observations can be viewed or accessed only by the supervising radiologist. Initial clinical or imaging observations or procedure details created by the radiologist assistant resulting from the radiologist assistant's involvement in the performance of the procedure that are included in the final report should be carefully reviewed by the supervising radiologist and should be incorporated at the supervising radiologist's discretion.

(GRADE: Strong)

Rationale

The ASRT's position is to determine the practice standards and scopes of practice for medical imaging and radiation therapy professionals. The practice standards' general stipulation emphasizes the importance of an individual being educationally prepared and clinically competent to practice in the profession of medical imaging and radiation therapy. With proper education and proven competence, the communication of clinical and imaging observations and procedure details by radiologist assistants to supervising radiologists provides quality patient services in a safe environment.

Definitions

The following definitions can be found in the Glossary to The Practice Standards for Medical Imaging and Radiation Therapy:

Educationally prepared

Clinically competent

Evidentiary Documentation:

Curriculum

The ASRT curricula for all practice areas were reviewed.

2015 ASRT Radiologist Assistant Curriculum

Communication of Findings and Validation of Clinical Practice

Description

Content introduces guidelines for communicating initial observations made by the radiologist assistant during imaging procedures and image assessments. The radiologist assistant's role focuses on the systematic analysis of clinical practice - the diagnosis and treatment, resources, evidence-based decision making, procedures and resulting outcomes, including the patient's quality of life.

Objectives

1. Communicate initial observations to the radiologist based on practice guidelines.
2. Identify the required legal components of a report of findings following diagnostic testing.
3. Establish and evaluate benchmarks as they apply to diagnostic imaging.
4. Explain the rationale for performing clinical audits.
5. Identify audit schemes applied to the clinical setting.
6. Identify measurement criteria and instruments employed during a clinical audit.
7. Describe how sensitivity and specificity measurements apply to diagnostic imaging.
8. Distinguish between positive and negative predictive values when evaluating the results of diagnostic imaging.
9. Discuss the importance of sampling and biases on the internal and external validity of audits of diagnostic accuracy.
10. Participate in specialty presentations (i.e., The Gut Club)

Content

I. Clinical Reporting

- A. Legal considerations and requirements
- B. Composing, recording and archiving a report of initial observations

II. Evaluation of Diagnostic Accuracy

- A. Benchmarks
- B. Sensitivity and specificity
- C. Predictive values
- D. Prior probability
- E. Bias

III. Clinical Audit

- A. Rationale
- B. Audit schemes
 1. External quality assessment
 2. Internal quality assessment
 3. Accreditation
 4. Clinical governance (i.e., credentialing)
- C. Audit categories
 1. Access
 2. Process
 3. Output
 4. Outcome
 5. Use of resources

D. Measurement criteria and instruments (i.e., ACR Appropriateness Criteria)
(Quality of evidence: High)

Certification Agency Entry-Level Clinical Activities

The American Registry of Radiologic Technologists,
2018 Registered Radiologist Assistant Entry-Level Clinical Activities.

The *ARRT Registered Radiologist Assistant Entry-Level Clinical Activities* states that radiologist assistants may “Review imaging procedures, make initial observations, and communicate observations **ONLY** (*emphasis added*) to the radiologist, record observations of imaging procedures following radiologist approval, and communicate the radiologist’s report to appropriate health care providers consistent with ACR Practice Parameter for Communication of Diagnostic Imaging Findings.”

(Quality of evidence: High)

ASRT Practice Standards for Medical Imaging and Radiation Therapy,
Radiologist Assistant Practice Standards (2018)

According to the *Radiologist Assistant Scope of Practice*:

Specific items.

6. Evaluating images for completeness and diagnostic quality and recommending additional images.
7. Obtaining images necessary for diagnosis and communicating initial observations to the supervising radiologist. The radiologist assistant does not provide image interpretation as defined by the American College of Radiology.
8. Providing follow-up patient evaluation.
9. Communicating the supervising radiologist’s report to the appropriate health care provider consistent with the American College of Radiology Practice Guidelines for Communication of Diagnostic Imaging Findings.

2018 Radiologist Assistant Clinical Performance Standards

Standard Seven – Outcomes Measurement

The radiologist assistant reviews and evaluates the outcome of the procedure.

Specific Criteria:

The radiologist assistant:

1. Performs follow-up patient evaluation and communicates findings to the supervising radiologist.

Standard Eight – Documentation

The radiologist assistant documents information about patient care, the procedure and the final outcome.

Specific Criteria:

The radiologist assistant:

3. Reports clinical and imaging observations and procedure details to the supervising radiologist.

Radiologist Assistant Quality Performance Standards

Standard Eight – Documentation

The radiologist assistant documents quality assurance activities and results.

General Criteria:

The radiologist assistant:

1. Maintains documentation of quality assurance activities, procedures and results.
2. Documents in a timely, accurate and comprehensive manner.

Specific Criteria

1. Documents and assists radiologist in quality reporting measures for the purpose of improved patient care.

(Quality of evidence: High)

Federal and State Statute Reference(s)

Not Applicable

(Quality of evidence: not applicable)

Other

(Quality of evidence: not applicable)

Determining Scope of Practice

Each medical imaging and radiation therapy professional must exercise professional and prudent judgment in determining whether the performance of a given act is within the scope of practice for which the medical imaging and radiation therapy professional is licensed and, if applicable within the jurisdiction in which he/she is employed, educationally prepared and clinically competent to perform.

The ASRT issues advisory opinions as to what constitutes appropriate practice. As such, an opinion is not a regulation or statute and does not have the force and effect of law. It is issued as a guidepost to medical imaging and radiation therapy professionals who wish to engage in safe practice. Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

Approved: June 19, 2011
Amended, Main Motion, C-13.21 & C13.23, 2013
Amended, Main Motion, C-16.11, 2016
Amended, Main Motion, C-18.07, 2018
ASRT House of Delegates

Links to external websites may change without notice.



The Practice Standards for Medical Imaging and Radiation Therapy

Advisory Opinion Statement Medication Administration by Medical Imaging and Radiation Therapy Professionals

Medication Administration by Medical Imaging and Radiation Therapy Professionals

After a study of evidentiary documentation such as current literature, curricula, position statements, scopes of practice, laws, federal and state regulations and inquiries received by the American Society of Radiologic Technologists Governance Department, the American Society of Radiologic Technologists issued the opinions contained herein.

Accountability and Responsibility of Medical Imaging and Radiation Therapy Professionals

The profession holds medical imaging and radiation therapy professionals responsible and accountable for rendering safe, effective clinical services to patients and for judgments exercised and actions taken in the course of providing those services.

Acts that are within the recognized scope of practice for a given license or certification may be performed only by those individuals who possess the education and skill proficiency to perform those acts in a safe and effective manner.

The medical imaging and radiation therapy professional's performance should be consistent with state and federal laws, established standards of practice, facility policies and procedures, and be evidence-based.

Advisory Opinion

It is the opinion of the American Society of Radiologic Technologists that based upon current literature; curricula set forth by the ASRT, Society of Nuclear Medicine and Molecular Imaging and the National Educational Curriculum for Sonography; certification examination specifications by the American Registry of Radiologic Technologists, Nuclear Medicine Technology Certification Board and Cardiovascular Credentialing International; recommendations by the American College of Radiology and Centers for Medicare & Medicaid Services; and where federal or state law and/or institutional policy permits:

1. It is within the scope of practice for medical imaging and radiation therapy professionals to perform the parenteral administration of contrast media and other medications.
2. The parenteral administration of contrast media and other medications by medical imaging and radiation therapy professionals shall be performed only when a licensed practitioner is immediately available to ensure proper diagnosis and treatment of adverse events.

GRADE: Strong

Rationale

The ASRT's position is to determine the practice standards and scopes of practice for medical imaging and radiation therapy professionals. The practice standards' general stipulation emphasizes the importance of an individual being educationally prepared and clinically competent to practice in the profession of medical imaging and radiation therapy. With proper education and proven competence, the parenteral administration of contrast media and other medications by medical imaging and radiation therapy professionals provides quality patient services in a safe environment

when a licensed practitioner is immediately available to ensure proper diagnoses and treatment of possible adverse events.

Definitions

Adverse event: Any undesirable experience associated with the use of a medical product in a patient.

The following definitions can be found in the Glossary to The Practice Standards for Medical Imaging and Radiation Therapy:

Clinically competent
 Educationally prepared
 Licensed practitioner
 Medication

Evidentiary Documentation

Current Literature

American College of Radiology. *ACR Accreditation Facility Toolkit. Policy and Procedure Checklist*. <http://www.acraccreditation.org/~media/ACRAccreditation/Documents/Site-Survey-Toolkit/Tool-Kit-for-Practice-Sites.pdf?la=en> 2016.

American College of Radiology. *ACR Manual on Contrast Media, Version 10.3*. <http://www.acr.org/quality-safety/resources/contrast-manual> 2017.

American College of Radiology. *ACR Practice Parameter for Performing and Interpreting Magnetic Resonance Imaging (MRI)*. <https://www.acr.org/-/media/ACR/Files/Practice-Parameters/mr-perf-interpret.pdf?la=en> 2017.

American College of Radiology. *ACR-SAR Practice Parameter for the Performance of Excretory Urography*. <https://www.acr.org/-/media/ACR/Files/Practice-Parameters/excretoryurog.pdf?la=en>. 2014.

American College of Radiology. *ACR-SPR Practice Parameter for the Use of Intravascular Contrast Media*. <https://www.acr.org/-/media/ACR/Files/Practice-Parameters/ivcm.pdf?la=en>. 2017.

American College of Radiology. *ACR-SPR Technical Standard for Diagnostic Procedures Using Radiopharmaceuticals*. <https://www.acr.org/-/media/ACR/Files/Practice-Parameters/radiopharm.pdf?la=en>. 2016.

Centers for Medicare & Medicaid Services. Chapter 15, Covered medical and other health services. *Medicare Benefit Policy Manual*. <https://www.cms.gov/manuals/downloads/bp102c15.pdf>. 2017.

(Quality of Evidence: High)

Curriculum

The ASRT curricula for all practice areas were reviewed.

2014 ASRT Cardiac-Interventional and Vascular-Interventional Curriculum

2013 ASRT Computed Tomography Curriculum

2013 ASRT Mammography Curriculum

2015 ASRT Magnetic Resonance Curriculum

2014 ASRT Radiation Therapy Professional Curriculum

2017 ASRT Radiography Curriculum

2015 ASRT Radiologist Assistant Curriculum

Additional nationally recognized curricula were reviewed.

Joint Review Committee on Education in Diagnostic Medical Sonography

2016 National Education Curriculum for Sonography

NEC Common Curricula

Society of Nuclear Medicine and Molecular Imaging – Technologist Section

2013 Nuclear Medicine Technology Competency-Based Curriculum Guide 5th

Edition

(Quality of evidence: High)

Certification Agency Content Specifications

The American Registry of Radiologic Technologists (ARRT) content specifications:

2017 Cardiac-Interventional Radiography

2017 Computed Tomography

2017 Magnetic Resonance Imaging

2017 Nuclear Medicine

2017 Radiation Therapy

2017 Radiography

2018 Registered Radiologist Assistant

2017 Vascular-Interventional Radiography

Cardiovascular Credentialing International (CCI)

2016 Examination Application and Overview, Registered Cardiovascular Invasive Specialist (RCIS) exam overview task list.

Nuclear Medicine Technology Certification Board (NMTCB)

2017 Components of Preparedness.

(Quality of evidence: High)

Scopes of Practice and Practice Standards Reference

ASRT Practice Standards for Medical Imaging and Radiation Therapy.

Applies to all modality-specific scopes of practice except medical dosimetrists and limited x-ray machine operators.

Identifying, preparing and/or administering medications as prescribed by a licensed practitioner.

(Quality of evidence: High)

Federal and State Statute Reference(s)

Not applicable.

(Quality of evidence: not applicable)

Other

Not applicable.

(Quality of evidence: not applicable)

Determining Scope of Practice

Each medical imaging and radiation therapy professional must exercise professional and prudent judgment in determining whether the performance of a given act is within the scope of practice for which the medical imaging and radiation therapy professional is licensed and, if applicable within the jurisdiction in which he/she is employed, educationally prepared and clinically competent to perform.

The ASRT issues advisory opinions as to what constitutes appropriate practice. As such, an opinion is not a regulation or statute and does not have the force and effect of law. It is issued as a guidepost to medical imaging and radiation therapy professionals who engage in safe practice. Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

Approved: July 1, 2012

Amended, Main Motion, C-13.21 and C13.23, 2013

Amended, Main Motion, C-16.13, 2016

Amended, Main Motion, C-17.09, 2017

Amended, Main Motion, C-18.11, 2018

ASRT House of Delegates

Links to external websites may change without notice.

A decorative graphic consisting of a thick, grey diagonal line that passes through a grey sphere, extending from the top left towards the bottom right.

The Practice Standards for Medical Imaging and Radiation Therapy

Advisory Opinion Statement Medication Administration Through Existing Vascular Access

Medication Administration Through Existing Vascular Access

After a study of evidentiary documentation such as current literature, curricula, position statements, scopes of practice, laws, federal and state regulations and inquiries received by the American Society of Radiologic Technologists Governance Department, the American Society of Radiologic Technologists issued the opinions contained herein.

Accountability and Responsibility of Medical Imaging and Radiation Therapy Professionals

The profession holds medical imaging and radiation therapy professionals responsible and accountable for rendering safe, effective clinical services to patients and for judgments exercised and actions taken in the course of providing those services.

Acts that are within the recognized scope of practice for a given license or certification may be performed only by those individuals who possess the education and skill proficiency to perform those acts in a safe and effective manner.

The medical imaging and radiation therapy professional's performance should be consistent with state and federal laws, established standards of practice, facility policies and procedures, and be evidence-based.

Advisory Opinion

It is the opinion of the American Society of Radiologic Technologists that based upon current literature; the curricula set forth by the ASRT, Society of Nuclear Medicine and Molecular Imaging and the National Educational Curriculum for Sonography; certification examination specifications by the American Registry of Radiologic Technologists, Nuclear Medicine Technology Certification Board and Cardiovascular Credentialing International; recommendations by the American College of Radiology; and where federal or state law and/or institutional policy permits that it is within the scope of practice for medical imaging and radiation therapy professionals to access and administer medications through existing vascular access.

GRADE: Strong

Rationale

The ASRT's position is to determine the practice standards and scopes of practice for medical imaging and radiation therapy professionals. The practice standards' general stipulation emphasizes the importance of an individual being educationally prepared and clinically competent to practice in the profession of medical imaging and radiation therapy. With proper education and proven competence, accessing and administering medications through existing vascular access provides quality patient services in a safe environment.

Definitions

Access: The process of inserting the designated needle through the access point of an existing vascular access device to deliver IV fluids or medication.

Existing vascular access: Peripheral or central vascular implanted devices or external access lines that include, but are not limited to, peripherally inserted central catheter lines, intravenous lines, central lines and ports.

The following definitions can be found in the Glossary to The Practice Standards for Medical Imaging and Radiation Therapy:

Clinically competent
 Educationally prepared
 Medication

Evidentiary Documentation

Current Literature

American College of Radiology. *ACR Manual on Contrast Media, Version 10.3*.
<http://www.acr.org/quality-safety/resources/contrast-manual> 2017.

American College of Radiology. *ACR Practice Parameter for Performing and Interpreting Diagnostic Computed Tomography (CT)*. <https://www.acr.org/-/media/ACR/Files/Practice-Parameters/ct-perf-interpret.pdf?la=en> 2017.

American College of Radiology. *ACR Practice Parameter for Performing and Interpreting Magnetic Resonance Imaging (MRI)*. <https://www.acr.org/-/media/ACR/Files/Practice-Parameters/mr-perf-interpret.pdf?la=en> 2017.

American College of Radiology. *ACR-SPR Practice Parameter for the Use of Intravascular Contrast Media*. <https://www.acr.org/-/media/ACR/Files/Practice-Parameters/ivcm.pdf?la=en> 2017.

Rockwell D. A competency for central line use in radiology. *Journal of Radiology Nursing*. 2008; 27 (2): 84.

(Quality of Evidence: High)

Curriculum

The ASRT curricula for all practice areas were reviewed.

2014 ASRT Cardiac-Interventional and Vascular-Interventional Curriculum

2013 ASRT Computed Tomography Curriculum

2015 ASRT Magnetic Resonance Imaging Curriculum

2013 ASRT Mammography Curriculum

2014 ASRT Radiation Therapy Professional Curriculum

2017 ASRT Radiography Curriculum

2015 ASRT Radiologist Assistant Curriculum

Additional nationally recognized curricula were reviewed.

Joint Review Committee on Education in Diagnostic Medical Sonography
2016 National Education Curriculum for Sonography
NEC Common Curricula

Society of Nuclear Medicine and Molecular Imaging – Technologist Section
2013 Nuclear Medicine Technology Competency-Based Curriculum Guide 5th
Edition

(Quality of evidence: High)

Certification Agency Content Specifications

The American Registry of Radiologic Technologists (ARRT) content specifications:

2017 Computed Tomography

2017 Magnetic Resonance Imaging

2017 Nuclear Medicine

2017 Radiography

2018 Registered Radiologist Assistant

2017 Vascular-Interventional Radiography

Cardiovascular Credentialing International (CCI):

2016 Registered Cardiovascular Invasive Specialist (RCIS) exam overview task list.

Nuclear Medicine Technology Certification Board (NMTCB)

2017 Components of Preparedness.

(Quality of evidence: High)

Scopes of Practice and Practice Standards Reference

ASRT Practice Standards for Medical Imaging and Radiation Therapy.

Applies to all modality-specific scopes of practice except medical dosimetrists and limited x-ray machine operators.

Performing venipuncture as prescribed by a licensed practitioner.

Starting, maintaining and/or removing intravenous access as prescribed by a licensed practitioner.

Identifying, preparing and/or administering medications as prescribed by a licensed practitioner.

(Quality of evidence: High)

Federal and State Statute Reference(s)

Not applicable.

(Quality of evidence: not applicable)

Other

Not applicable.

(Quality of evidence: not applicable)

Determining Scope of Practice

Each medical imaging and radiation therapy professional must exercise professional and prudent judgment in determining whether the performance of a given act is within the scope of practice for which the medical imaging and radiation therapy professional is licensed, if applicable within the jurisdiction in which he/she is employed, educationally prepared and clinically competent to perform.

The ASRT issues advisory opinions as to what constitutes appropriate practice. As such, an opinion is not a regulation or statute and does not have the force and effect of law. It is issued as a guidepost to medical imaging and radiation therapy professionals who engage in safe practice. Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

Approved: July 1, 2012

Amended, Main Motion, C-13.21 and C13.23, 2013

Amended, Main Motion, C-16.14, 2016

Amended, Main Motion, C-17.10, 2017

Amended, Main Motion, C-18.12, 2018

ASRT House of Delegates

Links to external websites may change without notice.

A large, light gray decorative graphic is positioned in the upper right quadrant of the page. It consists of a thick, diagonal line that passes through a shaded, three-dimensional sphere, creating a sense of depth and movement.

The Practice Standards for Medical Imaging and Radiation Therapy

Advisory Opinion Statement
Placement of Personal Radiation Monitoring Devices

Placement of Personal Radiation Monitoring Devices

After research of evidentiary documentation such as current literature, curricula, position statements, scopes of practice, laws, federal and state regulations and inquiries received by the American Society of Radiologic Technologists Governance Department, the American Society of Radiologic Technologists issued opinions contained herein.

Accountability and Responsibility of Medical Imaging and Radiation Therapy Professionals

The profession holds medical imaging and radiation therapy professionals responsible and accountable for rendering safe, effective clinical services to patients and for judgments exercised and actions taken in the course of providing those services.

Acts that are within the recognized scope of practice for a given license or certification may be performed only by those individuals who possess the education and skill proficiency to perform those acts in a safe and effective manner.

The medical imaging and radiation therapy professional's performance should be consistent with state and federal laws, established standards of practice, facility policies and procedures, and be evidence-based.

Advisory Opinion

It is the opinion of the American Society of Radiologic Technologists that based upon current literature; the curricula set forth by the ASRT and Society of Nuclear Medicine and Molecular Imaging; certification specifications by the American Registry of Radiologic Technologists and Nuclear Medicine Technology Certification Board; regulatory requirements; American Association of Physicists in Medicine recommendations; and where federal or state law and/or institutional policy permits that:

1. Radiation workers wear a personal radiation monitoring device outside of protective apparel with the label facing the radiation source at the level of the thyroid to approximate the maximum dose to the head and neck.
2. In specific cases, a whole-body monitor may be indicated. This monitor should be worn at the waist under a protective lead apron.
3. In some cases, a ring monitor may be indicated. This monitor should be worn on the dominant hand with the label facing the radiation source.

GRADE: Strong

Rationale

The ASRT's position is to determine the practice standards and scopes of practice for medical imaging and radiation therapy professionals. The practice standards' general stipulation emphasizes the importance of an individual being educationally prepared and clinically competent to practice in the profession of medical imaging and radiation therapy. With proper education and proven competence, the determination of proper use of personal monitoring devices ensures a safe environment in which to provide quality patient services.

Definitions

The following definitions can be found in the Glossary to The Practice Standards for Medical Imaging and Radiation Therapy:

Personal radiation monitoring device

Evidentiary Documentation

Current Literature

Bushong S. Occupational radiation dose management. In: *Radiologic Science for Technologists: Physics, Biology, and Protection* 11th Ed. Elsevier. 2017.

Statkiewicz-Sherer M, Visconti P, Ritenour, E. Radiation monitoring. In: *Radiation Protection in Medical Radiography*. Elsevier. 2018.

U.S. Department of Labor. Occupational Safety and Health Standards web page. Occupational Safety & Health Administration Web site.

www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10098.

Standard Number: 1910.1096(d)(3)(i).

(Quality of Evidence: High)

Curriculum

The ASRT curricula for all practice areas were reviewed.

2014 ASRT Bone Densitometry Curriculum

2015 ASRT Limited X-ray Machine Operator curriculum

2004 ASRT Positron Emission Tomography (PET)- Computed Tomography (CT) curriculum

2014 ASRT Radiation Therapy curriculum

2017 ASRT Radiography Curriculum

2015-ASRT Radiologist Assistant curriculum

Additional nationally recognized curricula were reviewed.

Society of Nuclear Medicine and Molecular Imaging – Technologist Section
2013 Nuclear Medicine Technology Competency-Based Curriculum Guide 5th
Edition

(Quality of Evidence: High)

Certification Agency Content Specifications

The American Registry of Radiologic Technologists (ARRT) content specifications:

2017 Nuclear Medicine

2017 Radiation Therapy

2017 Radiography

2018 Registered Radiologist Assistant

2017 Cardiac-Interventional Radiography

2017 Vascular-Interventional Radiography

2018 Limited Scope of Practice in Radiography

Nuclear Medicine Technology Certification Board (NMTCB)
2017 Components of Preparedness.

(Quality of Evidence: High)

Federal and State Statute Reference(s)

10 CFR Part 19.12 Instruction to Workers

10 CFR Part 20.1208 Dose Equivalent to an Embryo/Fetus

10 CFR Part 20.1502 Conditions Requiring Individual Monitoring of External and Internal Occupational Dose

NRC Regulatory Guide 8.34 Monitoring Criteria and Methods to Calculate Occupational Radiation Doses

NRC Regulatory Guide 8.36 Radiation Dose to the Embryo/Fetus

NRC Regulatory Guide 8.7 Instructions for Recording and Reporting Occupational Radiation Exposure Data

(Quality of Evidence: High)

Other

American Association of Physicists in Medicine (AAPM) Report 58 Appendix A: Radiation Safety and Quality Assurance Program

(Quality of Evidence: High)

Determining Scope of Practice

Each medical imaging and radiation therapy professional must exercise professional and prudent judgment in determining whether the performance of a given act is within the scope of practice for which the medical imaging and radiation therapy professional is licensed, if applicable within the jurisdiction in which he/she is employed, educationally prepared and clinically competent to perform.

The ASRT issues advisory opinions as to what constitutes appropriate practice. As such, an opinion is not a regulation or statute and does not have the force and effect of law. It is issued as a guidepost to medical imaging and radiation therapy professionals who engage in safe practice. Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

Approved: July 1, 2012

Amended, Main Motion, C-13.21 & C13.23, 2013

Amended, Main Motion, C-16.15, 2016

Amended, Main Motion, C-18.09, 2018

ASRT House of Delegates

Links to external websites may change without notice.

A decorative graphic consisting of a thick, grey diagonal line that starts from the top left and extends towards the bottom right. A large, grey, three-dimensional sphere is positioned where the line changes direction, appearing to be attached to it.

The Practice Standards for Medical Imaging and Radiation Therapy

Advisory Opinion Statement

Use of Post-Exposure Shuttering, Cropping and Electronic Masking in Radiography

Use of Post-exposure Shuttering, Cropping and Electronic Masking in Radiography

After researching evidentiary documentation such as current literature, curriculum, position statements, scopes of practice, laws, federal and state regulations, and inquiries received by the American Society of Radiologic Technologists Governance Department, the American Society of Radiologic Technologists has issued the following opinions.

Accountability and Responsibility of Medical Imaging and Radiation Therapy Professionals

The profession holds medical imaging and radiation therapy professionals responsible and accountable for rendering safe, effective clinical services to patients and for judgments exercised and actions taken in the course of providing those services.

Acts that are within the recognized scope of practice for a given license or certification may be performed only by those individuals who possess the education and skill proficiency to perform those acts in a safe and effective manner.

The medical imaging and radiation therapy professional's performance should be consistent with state and federal laws, established standards of practice, facility policies and procedures, and should be evidence-based.

Advisory Opinion

It is the opinion of the American Society of Radiologic Technologists that based upon current literature, curricula set forth by the ASRT, certification examination specifications by the American Registry of Radiologic Technologists, and recommendations by the American College of Radiology that:

1. It is within the scope of practice of a radiologic technologist to determine and apply appropriate pre-exposure collimation to individual projections of exams to comply with the principle of as low as reasonably achievable (ALARA). Post-exposure shuttering, cropping, electronic collimation or electronic masking to eliminate the visibility of large regions of brightness are acceptable, where automatic processing fails to do so.
2. It is outside of the scope of practice of a radiologic technologist to use post-exposure shuttering, cropping, electronic collimation or electronic masking to eliminate any anatomical information. This information is a part of the patient's permanent medical record, and should therefore be presented to the licensed practitioner to determine whether the exposed anatomy obtained on any image is significant or of diagnostic value.
3. It is outside the scope of practice of a radiologic technologist to use post-exposure shuttering, cropping, electronic collimation or electronic masking to duplicate and use any acquired image for more than one prescribed view or projection on any exam. Facilities acquiring digital images are legally required to retain information in the Digital Imaging and Communications in Medicine (DICOM) information of each image that identifies the selected view or projection at the time of image acquisition. Using the same acquired image to represent two different prescribed views or projections is a falsification of the information in the patient medical record and imaging study made available to the licensed practitioner.

GRADE: Strong

Rationale

The ASRT determines the Practice Standards and scopes of practice for medical imaging and radiation therapy professionals. The practice standards' general stipulation emphasizes the importance of an individual being educationally prepared and clinically competent to practice in the profession of medical imaging and radiation therapy.

Definitions

Cropping: the process of selecting and removing a portion of the image.

Electronic masking: electronic collimation or cropping of the digital radiographic image that occurs during postprocessing of the acquired image and does not alter the size of the irradiated field.

Processing: manipulation of the raw data just after acquisition.

Shuttering: a post processing technique that may be used to eliminate ambient light around an image for the sole purpose of improving the quality of the displayed image. It should not be used as a substitute for insufficient collimation of the irradiated field.

Evidentiary Documentation:

Current Literature

Borner, Wiersma-Deijl, and Holsscher. Electronic collimation and radiation protection in paediatric digital radiography revival of the silver lining. *Insights Imaging*. Oct 2013 4(5):723-727)

Herrmann et al. Best Practices in Digital Radiography. **ASRT white paper**.

http://www.asrt.org/docs/default-source/whitepapers/asrt14_bstpracdigradwhp_319ffdd00c826490b755ff0000d82291.pdf?sfvrsn=0 2012.

Fauber, Terri L. Radiographic Imaging and Exposure 5th Ed. Elsevier. 2016.

Lo and Puchalski. Digital Image Processing. *Veterinary Radiology and Ultrasound*. 2008.

Chalazonitis et al. How to Optimize Radiological Images Captured from Digital Cameras, Using the Adobe Photoshop 6.0 Program. *Journal of Digital Imaging*. June 2003 16(2) 216-229. Pub online 11 Sept 2003.

American College of Radiology. *ACR-AAPM-SIIM- Practice Parameter for Digital Radiography*. <https://www.acr.org/-/media/ACR/Files/Practice-Parameters/rad-digital.pdf> 2017.

Carroll, Quinn B. Radiography in the Digital Age. Charles C Thomas, 2nd Ed., 2014.

- Seeram, Euclid. *Digital Radiography: An Introduction*. Delmar, Cengage Learning, 2011.
- Carter, Christi, and Beth Vealé. *Digital radiography and PACS*. Elsevier Health Sciences, 2nd Ed., 2014.
- Willis, C. E. (2009). Optimizing digital radiography of children. *European Journal of Radiology*, 72(2), 266–273. doi:http://dx.doi.org/10.1016/j.ejrad.2009.03.003
- Uffmann, M., & Schaefer-Prokop, C. (2009). Digital radiography: the balance between image quality and required radiation dose. *European Journal of Radiology*, 72(2), 202–8. doi:10.1016/j.ejrad.2009.05.060
- Russell, Jordan, et al. "Adult fingers visualized on neonatal intensive care unit chest radiographs: what you don't see." *Canadian Association of Radiologists Journal* 64.3 (2013): 236-239.
- Don, Steven, et al. "Image Gently campaign back to basics initiative: ten steps to help manage radiation dose in pediatric digital radiography." *American Journal of Roentgenology* 200.5 (2013): W431-W436.
- Zetterberg, L. G., and A. Espeland. "Lumbar spine radiography—poor collimation practices after implementation of digital technology." (2014)
- Fauber, Terri L., and Melanie C. Dempsey. "X-ray Field Size and Patient Dosimetry." *Radiologic Technology* 85.2 (2013): 155-161.
- Goske, Marilyn J., et al. "Image Gently: challenges for radiologic technologists when performing digital radiography in children." *Pediatric Radiology* 41.5 (2011): 611-619. (Quality of Evidence: High)

Curriculum

Not applicable

(Quality of Evidence: Not Applicable)

ASRT Practice Standards for Medical Imaging and Radiation Therapy, all practice standards documents.

Scope of Practice:

Applying principles of ALARA to minimize exposure to patient, self and others

ASRT Practice Standards for Medical Imaging and Radiation Therapy, Radiography and Limited X-ray Machine Operator Practice Standards (2017)

Clinical Performance Standard Two-Analysis/Determination

Optimizing technical factors in accordance with the principles of ALARA.

Verifies that exposure indicator data for digital radiographic systems has not been altered or modified and is included in the Digital Imaging Communications in Medicine (DICOM) header and on images exported to media.

Analyzes digital images to determine the use of appropriate imaging parameters.

Clinical Performance Standard Four-Performance

Positions patient for anatomic area of interest, respecting patient ability and comfort.

Employs proper radiation safety practices.

Optimizes technical factors according to equipment specifications to meet the ALARA principle.

Uses pre-exposure collimation and proper field-of-view selection.

Selects the best position for the demonstration of anatomy (*Radiography only*).

Clinical Performance Standard Five-Evaluation

Evaluates images for positioning to demonstrate the anatomy of interest (*Radiography only*).

Evaluates images for optimal technical exposure factors (*Radiography only*).

Reviews images to determine if additional images will enhance the diagnostic value of the procedure (*Radiography only*).

Evaluates images for overall image quality of a specific area of anatomical interest based on limited education, training and licensure/certification within his or her scope of practice (*Limited X-ray Machine Operator only*).

Recognizes the need to adjust patient position or technical exposure factors to improve the quality of the procedure (*Limited X-ray Machine Operator only*).

Clinical Performance Standard Six-Implementation

Performs additional images that will produce the expected outcomes based upon patient condition and procedural variances (*Radiography only*).

Performs additional images that will produce the expected outcome based on patient's condition and procedural variance under the direction of a licensed practitioner or radiographer (*Limited X-ray Machine Operator only*).

Professional Performance Standard Five – Ethics

Adheres to the established practice standards of the profession.

(Quality of Evidence: High)

Federal and State Statute Reference(s)

Not applicable

(Quality of Evidence: Not applicable)

Determining Scope of Practice

Each medical imaging and radiation therapy professional must exercise professional and prudent judgment when determining whether the performance of a given act is within the scope of practice for which the medical imaging and radiation therapy professional is licensed, if applicable within the jurisdiction in which he/she is employed, educationally prepared and clinically competent to perform.

The ASRT issues advisory opinions as to what constitutes appropriate practice. As such, an opinion is not a regulation or statute and does not have the force and effect of law. It is issued as a guidepost to medical imaging and radiation therapy professionals who engage in safe practice.

Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

Approved: June 28, 2015

Adopted, Main Motion, C-15.23, 2015

Amended, Main Motion, C-18.10, 2018

ASRT House of Delegates

Links to external websites may change without notice.

A large, light gray decorative graphic is positioned in the upper right quadrant of the page. It consists of a thick, diagonal line that starts from the top left and extends towards the bottom right. A large, light gray sphere is centered on this line, with the line passing through it. The sphere has a subtle gradient and a highlight on its top surface, giving it a three-dimensional appearance.

The Practice Standards for Medical Imaging and Radiation Therapy

Glossary

Action plan – A program or method that explains the actions or steps to be taken.

Advanced-practice radiographer – A registered technologist who has gained additional knowledge and skills through the successful completion of an organized program or radiologic technology education that prepares radiologic technologists for advanced practice roles and has been recognized by the national certification organization to engage in the practice of advanced-practice radiologic technology.

Anatomic (anatomical) landmarks – Bones or other identifiable points that are visible or palpable and indicate the position of internal anatomy.

Archive (archival) –The storage of data in either hard (film) or soft (digital) form.

Artifact – Extraneous information on the image that interferes with or distracts from image quality.

As low as reasonably achievable (ALARA) – Acronym for “as low as (is) reasonably achievable,” which means making every reasonable effort to maintain exposures to radiation as far below the dose limits as practical, consistent with the purpose for which the licensed activity is undertaken, while taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety and other societal and socioeconomic considerations, and in relation to the use of nuclear energy and licensed materials in the public interest. The ASRT recognizes the concept of ALARA to include energies used for magnetic resonance and sonographic imaging.

Assessment – The process by which a patient’s condition is appraised or evaluated.

Authorized User - A physician, dentist or podiatrist who meets the requirements as defined by the United States Nuclear Regulatory Commission.

Beam modification devices – Devices that change the shape of the treatment field or distribution of the radiation at (tissue) depth.

Brachytherapy – A type of radiation therapy in which radioactive material sealed in needles, seeds, wires or catheters is placed directly into or near a tumor. Also called implant radiation therapy, internal radiation therapy and radiation brachytherapy.

Change Management – Systematic approach to preparing for, implementing, and sustaining a change in process.

Clinical – Pertaining to or founded on actual observations and treatments of patients.

Clinically competent – The ability to perform a clinical procedure in a manner that satisfies the demands of a situation, as assessed and documented by a qualified individual.

Contrast media – A substance administered during a medical imaging procedure for the purpose of enhancing the contrast between an internal structure or fluid and the surrounding tissue.

Custom blocks – Devices designed to shape the radiation field.

Digital Imaging Communications in Medicine (DICOM) – The Digital Imaging and Communications in Medicine (DICOM) standards are a complex set of instructions to exchange and present medical image information.

Dose distribution – Spatial representation of the magnitude of the dose produced by a source of radiation. It describes the variation of dose with position within an irradiated volume.

Dosimetric calculations – Computation of treatment unit settings, monitor units, treatment times and radiation doses to anatomical areas of interest.

Educationally prepared – The successful completion of didactic and clinical education necessary to properly perform a procedure in accordance with accepted practice standards.

Examination preparation – The act of helping to ready a patient for an imaging or therapeutic procedure.

Fiducial markers – Fixed reference points against which other objects can be measured. They may be placed internally, at skin surface or fixed externally to the patient.

Hybrid imaging – The combination of imaging technologies that allows information from different modalities to be presented as a single set of images.

Image guided radiation therapy – A process of using various imaging techniques to localize the target and critical tissues and, if needed, reposition the patient just before or during the delivery of radiotherapy.

Immobilization device – Device that assists in maintaining or reproducing the position while restricting patient movement.

Initial observation – Assessment of technical image quality with pathophysiology correlation communicated to a radiologist.

Interpretation – The process of examining and analyzing all images within a given procedure and integration of the imaging data with appropriate clinical data in order to render an impression or conclusion set forth in a formal written report composed and signed by a licensed practitioner.

Interventional procedures – Invasive medical imaging guidance methods used to diagnose and/or treat certain conditions.

Least Significant Change – The least amount of bone mineral densitometry change that can be considered statistically significant.

Licensed practitioner – A medical or osteopathic physician, chiropractor, podiatrist, or dentist, with education and specialist training in the medical or dental use of radiation who is deemed competent to independently perform or supervise medical imaging or radiation therapy procedures by the respective state licensure board.

Medical physicist – An individual who is competent to practice independently in the safe use of x-rays, gamma rays, electron and other charged particle beams, neutrons, radionuclides, sealed radionuclide sources, ultrasonic radiation, radiofrequency radiation and magnetic fields for both diagnostic and therapeutic purposes. An individual will be considered competent to practice in the field of Medical Physics if he or she is certified by the appropriate recognized certification organization.

Medication – Any chemical substance intended for use in the medical diagnosis, cure, treatment or prevention of disease.

Minimal sedation (anxiolysis) – A drug-induced state during which patients respond normally to verbal commands. Although cognitive function and coordination may be impaired, ventilatory and cardiovascular functions are unaffected.

Moderate sedation – A drug-induced depression of consciousness during which patients respond purposefully to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained.

Molecular imaging – A biomedical discipline enabling the visualization, characterization, and quantification of biologic processes taking place at the cellular and subcellular levels within intact living subjects.

Monitor units (MU) – Unit of output measure used for linear accelerators. Accelerators are calibrated so that 1MU delivers 1cGy for a standard, reference field size at a standard reference depth at a standard source to calibration point.

Non interpretive fluoroscopic procedures– Use of fluoroscopic imaging under the direction of a licensed practitioner for purposes other than interpretation.

Normal tissue tolerance – Radiation tolerance levels of healthy organs near or within the radiation treatment fields.

Panning – Movement of the imaging equipment during image acquisition to maintain visualization of an anatomic region of interest.

Personal radiation monitoring devices – Devices designed to be worn or carried by an individual for the purpose of measuring the dose of radiation received.

Physics survey – Performing equipment testing, evaluating the testing results and completing a formal written report of same. The written survey report, validated by a medical physicist, contains sufficient information to document that each test was conducted according to local, state or federal requirements and includes an assessment of corrective actions and recommendations for improvements.

Postprocessing – Computerized processing of data sets after acquisition to create a diagnostic image.

Protocol – The plan for carrying out a procedure, scientific study or a patient's treatment regimen.

Quality assurance – Activities and programs designed to achieve a desired degree or grade of care in a defined medical, nursing or health care setting or program.

Quality control (QC) – The routine performance of techniques used in monitoring or testing and maintenance of components of medical imaging and radiation therapy equipment. This includes the interpretation of data regarding equipment function and confirmation that corrective actions are/were taken.

Radiation oncologist – A physician who specializes in using radiation to treat cancer.

Radiation protection – Prophylaxis against injury from ionizing radiation. The only effective preventive measures are shielding the operator, handlers and patients from the radiation source; maintaining appropriate distance from the source; and limiting the time and amount of exposure.

Radioactive material – A substance composed of unstable atoms that decay with the spontaneous emission of radioactivity. Includes radiopharmaceuticals, unsealed sources (open, frequently in liquid or gaseous form) and sealed sources (permanently encapsulated, frequently in solid form).

Radiobiology – The study of the effects of radiation on living organisms.

Radiography – The process of obtaining an image for diagnostic examination using x-rays.

Sentinel event – An unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof. Serious injury specifically includes loss of limb or function. The phrase “or the risk thereof” includes any process variation for which a recurrence would carry a significant chance of a serious adverse outcome.

Setup – Arrangement of treatment parameters used in preparation for delivering radiation therapy; includes patient positioning data, field alignment information and equipment configurations.

Simulation – A process using imaging technologies to plan radiation therapy so that the target area is precisely located and marked; the mockup procedure of a patient treatment with medical imaging documentation of the treatment portals.

Static – Any medical image that is fixed or frozen in time.

Supervising radiologist – A board-certified radiologist who oversees duties of the radiologist assistant and has appropriate clinical privileges for the procedure performed by the RA.

Timeout – Preprocedural pause to conduct a final assessment that the correct patient, site and procedure are identified.

Tolerance levels (doses) – The maximum radiation dose that may be delivered to a given biological tissue at a specified dose rate and throughout a specified volume without producing an unacceptable change in the tissue.

Treatment calculations – See Dosimetric calculations.

Treatment field (portal) – Volume [of tissue] exposed to radiation from a single radiation beam.

Treatment planning – The process by which dose delivery is optimized for a given patient and clinical situation. It encompasses procedures involved in planning a course of radiation treatment, including simulation through completion of the treatment summary.

Treatment record – Documents the delivery of treatments, recording of fractional and cumulative doses, machine settings, verification imaging, and the ordering and implementation of prescribed changes.

T-score – Number of standard deviations the individual's bone mineral density is from the average bone mineral density for gender-matched young normal peak bone mass.

Vascular access device – Apparatus inserted into the peripheral or central vasculature for diagnostic or therapeutic purposes.

Vascular closure device – Active or passive medical devices used to achieve hemostasis after a cardiovascular or endovascular procedure that requires catheterization.

Venipuncture – The transcutaneous puncture of a vein by a sharp rigid stylet or cannula carrying a flexible plastic catheter or by a steel needle attached to a syringe or catheter.

Verification images – Images produced to confirm accurate treatment positioning and accurate treatment portals.

Z-score – Number of standard deviations the individual's bone mineral density is from the average bone mineral density for and gender-matched reference group.

A large, light gray decorative graphic is positioned in the upper right quadrant of the page. It consists of a thick, diagonal line that passes through a large, light gray sphere, creating a sense of depth and movement.

The Practice Standards for Medical Imaging and Radiation Therapy

Magnetic Resonance Practice Standards

Preface to Practice Standards

A profession's practice standards serve as a guide for appropriate practice. The practice standards define the practice and establish general criteria to determine compliance. Practice standards are authoritative statements established by the profession for evaluating the quality of practice, service and education provided by individuals who practice in medical imaging and radiation therapy.

Practice Standards can be used by individual facilities to develop job descriptions and practice parameters. Those outside the imaging, therapeutic and radiation science community can use the standards as an overview of the role and responsibilities of the individual as defined by the profession.

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

Format

The Practice Standards are divided into six sections: introduction, scope of practice, clinical performance, quality performance, professional performance and advisory opinion statements.

Introduction. The introduction provides definitions for the practice and the minimum qualifications for the education and certification of individuals in addition to an overview of the specific practice.

Scope of Practice. The scope of practice delineates the parameters of the specific practice.

Clinical Performance Standards. The clinical performance standards define the activities of the individual responsible for the care of patients and delivery of diagnostic or therapeutic procedures. The section incorporates patient assessment and management with procedural analysis, performance and evaluation.

Quality Performance Standards. The quality performance standards define the activities of the individual in the technical areas of performance, such as equipment and material assessment safety standards and total quality management.

Professional Performance Standards. The professional performance standards define the activities of the individual in the areas of education, interpersonal relationships, self-assessment and ethical behavior.

Advisory Opinion Statements. The advisory opinions are interpretations of the standards intended for clarification and guidance of specific practice issues.

Each performance standards section is subdivided into individual standards. The standards are numbered and followed by a term or set of terms that identify the standards, such as “assessment” or “analysis/determination.” The next statement is the expected performance of the individual when performing the procedure or treatment. A rationale statement follows and explains why an individual should adhere to the particular standard of performance.

Criteria. Criteria are used to evaluate an individual’s performance. Each set is divided into two parts: the general criteria and the specific criteria. Both should be used when evaluating performance.

General Criteria. General criteria are written in a style that applies to imaging and radiation science individuals. These criteria are the same in all of the practice standards, with the exception of limited x-ray machine operators and medical dosimetry, and should be used for the appropriate area of practice.

Specific Criteria. Specific criteria meet the needs of the individuals in the various areas of professional performance. While many areas of performance within imaging and radiation sciences are similar, others are not. The specific criteria were drafted with these differences in mind.

Introduction to Magnetic Resonance Practice Standards

Definition

The practice of magnetic resonance is performed by a segment of health care professionals responsible for the use of radiofrequencies (RFs) within a magnetic field on humans and animals for diagnostic, therapeutic or research purposes. A magnetic resonance technologist performs magnetic resonance procedures at the request of and for interpretation by a licensed practitioner.

The complex nature of disease processes involves multiple imaging modalities. Although an interdisciplinary team of clinicians, magnetic resonance technologists and support staff plays a critical role in the delivery of health services, it is the magnetic resonance technologist who performs the magnetic resonance examination that creates the images needed for diagnosis.

Magnetic resonance integrates scientific knowledge, technical competence and patient interaction skills to provide safe and accurate procedures with the highest regard to all aspects of patient care. A magnetic resonance technologist recognizes patient conditions essential for the successful completion of the procedure.

Magnetic resonance technologists must demonstrate an understanding of human anatomy, human physiology, pathology, pharmacology and medical terminology. They must maintain a high degree of accuracy in positioning and magnetic resonance technique. Magnetic resonance technologists must possess, use and maintain knowledge about magnetic protection and safety. Magnetic resonance technologists independently perform or assist the licensed practitioner in the completion of magnetic resonance procedures. Magnetic resonance technologists prepare, administer and document activities related to medications in accordance with state and federal regulations or lawful institutional policy.

The magnetic resonance technologist is the primary liaison between patients, licensed practitioners, and other members of the support team. Magnetic resonance technologists must remain sensitive to the needs of the patient through good communication, patient assessment, patient monitoring and patient care skills. As members of the health care team, magnetic resonance technologists participate in quality improvement processes and continually assess their professional performance.

Magnetic resonance technologists think critically and use independent, professional and ethical judgment in all aspects of their work. They engage in continuing education to include their area of practice to enhance patient care, public education, knowledge and technical competence.

Education and Certification

Only medical imaging and radiation therapy professionals who have completed the appropriate education and obtained certification(s) as outlined in these standards should perform magnetic resonance procedures.

Magnetic resonance technologists prepare for their role on the interdisciplinary team through one of the following:

- Successfully completing a program in magnetic resonance technology that is programmatically accredited or part of an institution that is regionally accredited, and by attaining certification in magnetic resonance from the American Registry of Radiologic Technologists.

Or

- Possessing appropriate primary certification from the American Registry of Radiologic Technologists or Nuclear Medicine Technology Certification Board, documentation of structured education and clinical experience at the time of application and by attaining certification in magnetic resonance from the American Registry of Radiologic Technologists.

Those passing the magnetic resonance examination use the credentials R.T.(MR).

Medical imaging and radiation therapy professionals performing multiple modality hybrid imaging should be registered by certification agencies recognized by the ASRT and be educationally prepared and clinically competent in the specific modality(ies) they are responsible to perform. Medical imaging and radiation therapy professionals performing diagnostic procedures in more than one imaging modality will adhere to the individual practice standard for each.

To maintain ARRT certification, magnetic resonance technologists must complete appropriate continuing education requirements to sustain a level of expertise and awareness of changes and advances in practice.

Overview

Magnetic resonance technologists are part of the interdisciplinary team that plays a critical role in the delivery of health services as new modalities emerge and the need for imaging procedures increases.

A comprehensive procedure list for the magnetic resonance technologist is impractical because clinical activities vary by the practice needs and expertise of the magnetic resonance technologist. As magnetic resonance technologists gain more experience, knowledge and clinical competence, the clinical activities for the magnetic resonance technologist may evolve.

State statute, regulation or lawful community custom may dictate practice parameters. *Wherever there is a conflict between these standards and state or local statutes or regulations, the state or local statutes or regulations supersede these standards.* A magnetic resonance technologist should, within the boundaries of all applicable legal requirements and restrictions, exercise individual thought, judgment and discretion in the performance of the procedure.

Magnetic Resonance Technologist Scope of Practice

The scope of practice of the medical imaging and radiation therapy professional includes:

- Providing optimal patient care.
- Receiving, relaying and documenting verbal, written and electronic orders in the patient's medical record.
- Corroborating a patient's clinical history with procedure and ensuring information is documented and available for use by a licensed practitioner.
- Verifying informed consent for applicable procedures.
- Assuming responsibility for patient needs during procedures.
- Preparing patients for procedures.
- Applying principles of ALARA to minimize exposure to patient, self and others.
- Performing venipuncture as prescribed by a licensed practitioner.
- Starting, maintaining and/or removing intravenous access as prescribed by a licensed practitioner.
- Identifying, preparing and/or administering medications as prescribed by a licensed practitioner.
- Evaluating images for technical quality and ensuring proper identification is recorded.
- Identifying and responding to emergency situations.
- Providing education.
- Educating and monitoring students and other health care providers.
- Performing ongoing quality assurance activities.
- Applying the principles of patient safety during all aspects of patient care.

The scope of practice of the magnetic resonance technologist also includes:

1. Performing procedures or examinations under the order of a licensed practitioner for diagnostic interpretation or therapeutic intervention.
2. Applying principles of magnetic resonance safety to minimize risk to patient, self and others.
3. Selecting appropriate pulse sequences with consideration given to established protocols and

other factors influencing data acquisition parameters.

4. Assisting the licensed practitioner with interventional procedures.
5. Postprocessing data for interpretation.
6. Verifying archival storage of data as appropriate.

Magnetic Resonance Clinical Performance Standards

Standard One – Assessment

The magnetic resonance technologist collects pertinent data about the patient and the procedure.

Rationale

Information about the patient's health status is essential in providing appropriate imaging and therapeutic services.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Obtains relevant information from all available resources and the release of information as needed.
2. Verifies patient identification and the procedure requested or prescribed.
3. Verifies that the patient has consented to the procedure.
4. Reviews all available patient medical record information to verify the appropriateness of the procedure requested or prescribed.
5. Verifies the patient's pregnancy status.
6. Assesses factors that may negatively affect the procedure, such as medications, patient history, insufficient patient preparation or artifact producing objects.
7. Recognizes signs and symptoms of an emergency.

Specific Criteria

The magnetic resonance technologist:

1. Screens patient and others for potential MRI contraindications either within their body or on their person prior to entering the magnet room.
2. Locates and reviews previous examinations for comparison.
3. Identifies and removes items that may affect patient's safety, damage the equipment or affect the image quality.
4. Assesses patient for factors that may contribute to anxiety or claustrophobia.

Magnetic Resonance Clinical Performance Standards

Standard Two – Analysis/Determination

The magnetic resonance technologist analyzes the information obtained during the assessment phase and develops an action plan for completing the procedure.

Rationale

Determining the most appropriate action plan enhances patient safety and comfort, optimizes diagnostic and therapeutic quality and improves efficiency.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Selects the most appropriate and efficient action plan after reviewing all pertinent data and assessing the patient's abilities and condition.
2. Employs professional judgment to adapt imaging and therapeutic procedures to improve diagnostic quality and therapeutic outcomes.
3. Consults appropriate medical personnel to determine a modified action plan.
4. Determines the need for and selects supplies, accessory equipment, shielding, positioning and immobilization devices.
5. Determines the course of action for an emergent situation.
6. Determines that all procedural requirements are in place to achieve a quality diagnostic or therapeutic procedure.

Specific Criteria

The magnetic resonance technologist:

1. Selects appropriate imaging coil.
2. Reviews the patient's medical record and licensed practitioner's request to determine optimal imaging parameters for clinical indications.
3. Determines the appropriate type and dose of contrast media to be administered based on established protocols.
4. Determines patient compliance with pre-examination preparation instructions.

Magnetic Resonance Clinical Performance Standards

Standard Three – Education

The magnetic resonance technologist provides information about the procedure and related health issues according to protocol.

Rationale

Communication and education are necessary to establish a positive relationship.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Provides an accurate explanations and instructions at an appropriate time and at a level the patient and their care providers can understand. Addresses questions and concerns regarding the procedure.
2. Refers questions about diagnosis, treatment or prognosis to a licensed practitioner.
3. Provides patient education.
4. Explains effects and potential side effects of medications.

Specific Criteria

None added.

Magnetic Resonance Clinical Performance Standards

Standard Four – Performance

The magnetic resonance technologist performs the action plan.

Rationale

Quality patient services are provided through the safe and accurate performance of a deliberate plan of action.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Performs procedural timeout.
2. Implements an action plan.
3. Explains to the patient each step of the action plan as it occurs and elicits the cooperation of the patient.
4. Uses an integrated team approach.
5. Modifies the action plan according to changes in the clinical situation.
6. Administers first aid or provides life support.
7. Uses accessory equipment.
8. Assesses and monitors the patient's physical, emotional and mental status.
9. Applies principles of sterile technique.
10. Positions patient for anatomic area of interest, respecting patient ability and comfort.
11. Immobilizes patient for procedure.
12. Monitors the patient for reactions to medications.

Specific Criteria

The magnetic resonance technologist:

1. Provides hearing protection to patient and others.
2. Positions imaging coil.

3. Monitors the patient's specific absorption rate and other factors related to patient heating.
4. Identifies appropriate cardiac or respiratory triggers.
5. Uses appropriate positioning and/or insulation materials to protect the patient from excessive heating and/or burns.
6. Ensures that pregnant individuals are not in the MR scanner bore or scan room during actual data acquisition or scanning, unless medically necessary.

Magnetic Resonance Clinical Performance Standards

Standard Five – Evaluation

The magnetic resonance technologist determines whether the goals of the action plan have been achieved.

Rationale

Careful examination of the procedure is important to determine that expected outcomes have been met.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Evaluates the patient and the procedure to identify variances that might affect the expected outcome.
2. Completes the evaluation process in a timely, accurate and comprehensive manner.
3. Measures the procedure against established policies, protocols and benchmarks.
4. Identifies exceptions to the expected outcome.
5. Develops a revised action plan to achieve the intended outcome.
6. Communicates the revised action plan to appropriate team members.

Specific Criteria

None added.

Magnetic Resonance Clinical Performance Standards

Standard Six – Implementation

The magnetic resonance technologist implements the revised action plan.

Rationale

It may be necessary to make changes to the action plan to achieve the expected outcome.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Bases the revised plan on the patient's condition and the most appropriate means of achieving the expected outcome.
2. Takes action based on patient and procedural variances.
3. Measures and evaluates the results of the revised action plan.
4. Notifies the appropriate health care provider when immediate clinical response is necessary, based on procedural findings and patient condition.

Specific Criteria

The magnetic resonance technologist:

1. Adjusts imaging parameters, patient procedure or computer-generated information to improve the outcome.

Magnetic Resonance Clinical Performance Standards

Standard Seven – Outcomes Measurement

The magnetic resonance technologist reviews and evaluates the outcome of the procedure.

Rationale

To evaluate the quality of care, the magnetic resonance technologist compares the actual outcome with the expected outcome.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Reviews all diagnostic or therapeutic data for completeness and accuracy.
2. Uses evidence-based practice to determine whether the actual outcome is within established criteria.
3. Evaluates the process and recognizes opportunities for future changes.
4. Assesses the patient's physical, emotional and mental status prior to discharge.

Specific Criteria

None added.

Magnetic Resonance Clinical Performance Standards

Standard Eight – Documentation

The magnetic resonance technologist documents information about patient care, the procedure and the final outcome.

Rationale

Clear and precise documentation is essential for continuity of care, accuracy of care and quality assurance.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Documents diagnostic, treatment and patient data in the medical record in a timely, accurate and comprehensive manner.
2. Documents unintended outcomes or exceptions from the established criteria.
3. Provides pertinent information to authorized individual(s) involved in the patient's care.
4. Records information used for billing and coding procedures.
5. Archives images or data.
6. Verifies patient consent is documented.
7. Documents procedural timeout.

Specific Criteria

None added.

Magnetic Resonance Quality Performance Standards

Standard One – Assessment

The magnetic resonance technologist collects pertinent information regarding equipment, procedures and the work environment.

Rationale

The planning and provision of safe and effective medical services relies on the collection of pertinent information about equipment, procedures and the work environment.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Determines that services are performed in a safe environment, minimizing potential hazards.
2. Confirms that equipment performance, maintenance and operation comply with the manufacturer's specifications.
3. Verifies that protocol and procedure manuals include recommended criteria and are reviewed and revised.

Specific Criteria

The magnetic resonance technologist:

1. Maintains controlled access to the magnet room.

Magnetic Resonance Quality Performance Standards

Standard Two – Analysis/Determination

The magnetic resonance technologist analyzes information collected during the assessment phase to determine the need for changes to equipment, procedures or the work environment.

Rationale

Determination of acceptable performance is necessary to provide safe and effective services.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Evaluates services, procedures and the environment to determine if they meet or exceed established guidelines, and revises the action plan.
2. Monitors equipment to meet or exceed established standards and revises the action plan.
3. Assesses and maintains the integrity of medical supplies.

Specific Criteria

None added.

Magnetic Resonance Quality Performance Standards

Standard Three – Education

The magnetic resonance technologist informs the patient, public and other health care providers about procedures, equipment and facilities.

Rationale

Open communication promotes safe practices.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Elicits confidence and cooperation from the patient, the public and other health care providers by providing timely communication and effective instruction.
2. Presents explanations and instructions at the learner's level of understanding.
3. Educates the patient, public and other health care providers about procedures and the associated biological effects.
4. Provides information to patients, health care providers, students and the public concerning the role and responsibilities of individuals in the profession.

Specific Criteria

The magnetic resonance technologist:

1. Provides MR safety education to patient, health care providers and others.

Magnetic Resonance Quality Performance Standards

Standard Four – Performance

The magnetic resonance technologist performs quality assurance activities.

Rationale

Quality assurance activities provide valid and reliable information regarding the performance of equipment, materials and processes.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Maintains current information on equipment, materials and processes.
2. Performs ongoing quality assurance activities.
3. Performs quality control testing of equipment.
4. Participates in safety and risk management activities.
5. When appropriate, wears one or more personal radiation monitoring devices at the location indicated on the personal radiation monitoring device or as indicated by the radiation safety officer or designee.

Specific Criteria

The magnetic resonance technologist:

1. Monitors image production to determine technical acceptability.
2. Consults with medical physicist and/or engineer in performing and documenting the quality assurance tests.

Magnetic Resonance Quality Performance Standards

Standard Five – Evaluation

The magnetic resonance technologist evaluates quality assurance results and establishes an appropriate action plan.

Rationale

Equipment, materials and processes depend on ongoing quality assurance activities that evaluate performance based on established guidelines.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Validates quality assurance testing conditions and results.
2. Evaluates quality assurance results.
3. Formulates an action plan.

Specific Criteria

None added.

Magnetic Resonance Quality Performance Standards

Standard Six – Implementation

The magnetic resonance technologist implements the quality assurance action plan for equipment, materials and processes.

Rationale

Implementation of a quality assurance action plan promotes safe and effective services.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Obtains assistance to support the quality assurance action plan.
2. Implements the quality assurance action plan.

Specific Criteria

None added.

Magnetic Resonance Quality Performance Standards

Standard Seven – Outcomes Measurement

The magnetic resonance technologist assesses the outcome of the quality management action plan for equipment, materials and processes.

Rationale

Outcomes assessment is an integral part of the ongoing quality management action plan to enhance diagnostic and therapeutic services.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Reviews the implementation process for accuracy and validity.
2. Determines that actual outcomes are within established criteria.
3. Develops and implements a revised action plan.

Specific Criteria

None added.

Magnetic Resonance Quality Performance Standards

Standard Eight – Documentation

The magnetic resonance technologist documents quality assurance activities and results.

Rationale

Documentation provides evidence of quality assurance activities designed to enhance safety.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Maintains documentation of quality assurance activities, procedures and results.
2. Documents in a timely, accurate and comprehensive manner.

Specific Criteria

None added.

Magnetic Resonance Professional Performance Standards

Standard One – Quality

The magnetic resonance technologist strives to provide optimal patient care.

Rationale

Patients expect and deserve optimal care during diagnosis and treatment.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Collaborates with others to elevate the quality of care.
2. Participates in ongoing quality assurance programs.
3. Adheres to standards, policies and established guidelines.
4. Applies professional judgment and discretion while performing the diagnostic study or treatment.
5. Anticipates, considers and responds to the needs of a diverse patient population.

Specific Criteria

The magnetic resonance technologist:

1. Advocates the need for a minimum of one registered magnetic resonance technologist and one trained MR safety personnel as the standard for safe and efficient delivery of MR procedures.

Magnetic Resonance Professional Performance Standards

Standard Two – Self-Assessment

The magnetic resonance technologist evaluates personal performance.

Rationale

Self-assessment is necessary for personal growth and professional development.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Assesses personal work ethics, behaviors and attitudes.
2. Evaluates performance and recognizes opportunities for educational growth and improvement.
3. Recognizes and applies personal and professional strengths.
4. Participates in professional societies and organizations.

Specific Criteria

None added.

Magnetic Resonance Professional Performance Standards

Standard Three – Education

The magnetic resonance technologist acquires and maintains current knowledge in practice.

Rationale

Advancements in the profession and optimal patient care require additional knowledge and skills through education.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Maintains credentials and certification related to practice.
2. Advocates for and participates in continuing education related to area of practice, to maintain and enhance clinical competency.
3. Advocates for and participates in vendor specific applications training to maintain clinical competency.

Specific Criteria

None added.

Magnetic Resonance Professional Performance Standards

Standard Four – Collaboration and Collegiality

The magnetic resonance technologist promotes a positive and collaborative practice atmosphere with other members of the health care team.

Rationale

To provide quality patient care, all members of the health care team must communicate effectively and work together efficiently.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Shares knowledge and expertise with others.
2. Develops and maintains collaborative partnerships to enhance quality and efficiency.
3. Promotes understanding of the profession.

Specific Criteria

None added.

Magnetic Resonance Professional Performance Standards

Standard Five – Ethics

The magnetic resonance technologist adheres to the profession's accepted ethical standards.

Rationale

Decisions made and actions taken on behalf of the patient are based on a sound ethical foundation.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Provides health care services with consideration for a diverse patient population.
2. Acts as a patient advocate.
3. Accepts accountability for decisions made and actions taken.
4. Delivers patient care and service free from bias or discrimination.
5. Respects the patient's right to privacy and confidentiality.
6. Adheres to the established practice standards of the profession.
7. Adheres to the established ethical standards of recognized certifying agencies.

Specific Criteria

None added.

Magnetic Resonance Professional Performance Standards

Standard Six – Research and Innovation

The magnetic resonance technologist participates in the acquisition and dissemination of knowledge and the advancement of the profession.

Rationale

Scholarly activities such as research, scientific investigation, presentation and publication advance the profession.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The magnetic resonance technologist:

1. Reads and evaluates research relevant to the profession.
2. Participates in data collection.
3. Investigates innovative methods for application in practice.
4. Shares information through publication, presentation and collaboration.
5. Adopts new best practices.
6. Pursues lifelong learning.

Specific Criteria

None added.

Magnetic Resonance Advisory Opinion Statements

Administering Medication in Peripherally Inserted Central Catheter Lines or Ports with a Power Injector.

Medication Administration by Medical Imaging and Radiation Therapy Professionals.

Medication Administration Through Existing Vascular Access.

A large, light gray decorative graphic is positioned in the upper right quadrant of the page. It consists of a thick, diagonal line that passes through a shaded, three-dimensional sphere, creating a sense of depth and movement.

The Practice Standards for Medical Imaging and Radiation Therapy

Medical Dosimetry Practice Standards

Preface to Practice Standards

A profession's practice standards serve as a guide for appropriate practice. The practice standards define the practice and establish general criteria to determine compliance. Practice standards are authoritative statements established by the profession for evaluating the quality of practice, service and education provided by individuals who practice in medical imaging and radiation therapy.

Practice Standards can be used by individual facilities to develop job descriptions and practice parameters. Those outside the imaging, therapeutic and radiation science community can use the standards as an overview of the role and responsibilities of the individual as defined by the profession.

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

Format

The Practice Standards are divided into six sections: introduction, scope of practice, clinical performance, quality performance, professional performance and advisory opinion statements.

Introduction. The introduction provides definitions for the practice and the minimum qualifications for the education and certification of individuals in addition to an overview of the specific practice.

Scope of Practice. The scope of practice delineates the parameters of the specific practice.

Clinical Performance Standards. The clinical performance standards define the activities of the individual responsible for the care of patients and delivery of diagnostic or therapeutic procedures. The section incorporates patient assessment and management with procedural analysis, performance and evaluation.

Quality Performance Standards. The quality performance standards define the activities of the individual in the technical areas of performance, such as equipment and material assessment safety standards and total quality management.

Professional Performance Standards. The professional performance standards define the activities of the individual in the areas of education, interpersonal relationships, self-assessment and ethical behavior.

Advisory Opinion Statements. The advisory opinions are interpretations of the standards intended for clarification and guidance of specific practice issues.

Each performance standards section is subdivided into individual standards. The standards are numbered and followed by a term or set of terms that identify the standards, such as “assessment” or “analysis/determination.” The next statement is the expected performance of the individual when performing the procedure or treatment. A rationale statement follows and explains why an individual should adhere to the particular standard of performance.

Criteria. Criteria are used to evaluate an individual’s performance. Each set is divided into two parts: the general criteria and the specific criteria. Both should be used when evaluating performance.

General Criteria. General criteria are written in a style that applies to imaging and radiation science individuals. These criteria are the same in all of the practice standards, with the exception of limited x-ray machine operators and medical dosimetry, and should be used for the appropriate area of practice.

Specific Criteria. Specific criteria meet the needs of the individuals in the various areas of professional performance. While many areas of performance within imaging and radiation sciences are similar, others are not. The specific criteria were drafted with these differences in mind.

Introduction to Medical Dosimetry Practice Standards

Definition

The practice of medical dosimetry is performed by health care professionals responsible for designing a treatment plan for use in the administration of ionizing radiation for the purpose of treating diseases, primarily cancer.

The complex nature of cancer frequently requires the use of multiple treatment specialties. Radiation oncology is one such specialty. It requires an interdisciplinary team of radiation therapists, medical physicists, radiation oncologists, medical dosimetrists and nurses. It is typically the medical dosimetrist who generates an optimal treatment plan and ensures the appropriate transfer of data that the radiation therapist will use to treat the patient. The medical dosimetrist maintains a commitment to a high degree of accuracy, thoroughness and safety.

Medical dosimetrists must demonstrate an understanding of anatomy, physiology, pathology and medical terminology. In addition, extensive knowledge of characteristics and clinical relevance of radiation oncology treatment machine and equipment, radiobiology, radiation physics, radiation safety and psychosocial aspects of cancer is required.

Medical dosimetrists must maintain a high degree of accuracy in treatment planning optimization, treatment techniques and positioning. Medical dosimetrists assist the radiation oncologist in localizing the treatment area, generate a treatment plan and actively communicate with the radiation oncology team to enable and ensure the appropriate transfer of information.

Medical dosimetrists are the primary liaison between the radiation therapist, medical physicist and radiation oncologist. Medical dosimetrists must remain sensitive to the physical and emotional needs of the patient through good communication and patient assessment. Radiation therapy often involves daily treatments extending over several weeks using highly sophisticated equipment. It requires thorough initial planning as well as constant patient care and monitoring. As members of the health care team, medical dosimetrists participate in quality improvement processes and continually assess their professional performance.

Medical dosimetrists think critically and use independent, professional and ethical judgment in all aspects of their work. They engage in continuing education in their area of practice in order to enhance treatment planning skills, radiation safety, public education, knowledge and technical competence.

Education and Certification

Only medical imaging and radiation therapy professionals who have completed the appropriate education and obtained certification as outlined in these standards should perform medical dosimetry procedures.

Medical dosimetrists prepare for their roles on the interdisciplinary team by meeting the examination eligibility criteria established by the Medical Dosimetrist Certification Board.

Those passing this examination use the credential Certified Medical Dosimetrist, or CMD. To maintain CMD certification, medical dosimetrists must complete appropriate continuing education requirements to sustain a level of expertise and awareness of changes and advances in practice.

Overview

Medical dosimetrists are part of the interdisciplinary team that plays a critical role in the delivery of health services as new modalities emerge and the need for radiation therapy treatment procedures and treatment planning increases.

A comprehensive procedure list for the medical dosimetrist is impractical because clinical activities vary by practice needs and expertise of the medical dosimetrist. As medical dosimetrists gain more experience, knowledge and clinical competence, the clinical activities for the medical dosimetrist may evolve.

State statute, regulation or lawful community custom may dictate practice parameters. *Wherever there is a conflict between these standards and state or local statutes or regulations, the state or local statutes or regulations supersede these standards.* A medical dosimetrist should, within the boundaries of all applicable legal requirements and restrictions, exercise individual thought, judgment and discretion in the performance of the procedure.

Medical Dosimetrist Scope of Practice

The scope of practice of the medical imaging and radiation therapy professional includes:

- Providing optimal patient care.
- Receiving, relaying and documenting verbal, written and electronic orders in the patient's medical record.
- Corroborating a patient's clinical history with procedure and ensuring information is documented and available for use by a licensed practitioner.
- Verifying informed consent for applicable procedures.
- Assuming responsibility for patient needs during procedures.
- Preparing patients for procedures.
- Applying principles of ALARA to minimize exposure to patient, self and others.
- Evaluating images for technical quality and ensuring proper identification is recorded.
- Identifying and responding to emergency situations.
- Providing education.
- Educating and monitoring students and other health care providers.
- Performing ongoing quality assurance activities.
- Applying the principles of patient safety during all aspects of patient care.

The scope of practice of the medical dosimetrist also includes:

1. Preparing radiation therapy treatment plans as prescribed by a radiation oncologist.
2. Obtaining and incorporating patient data from medical imaging procedures or manual methods to be used in simulation, treatment planning, treatment delivery and quality assurance.
3. Participating in simulation as prescribed by a radiation oncologist.
4. Performing or assisting with the fabrication of patient immobilization and other treatment devices.
5. Preparing the patient for general or special treatment procedures.
6. Developing treatment strategies leading to optimal treatment plans under the direction of a

radiation oncologist.

7. Performing dosimetric calculations.
8. Evaluating treatment plans for accuracy.
9. Transferring and documenting treatment planning data according to departmental policy.
10. Monitoring, under the direction of a radiation oncologist, doses to normal tissues within the irradiated volume to ensure tolerance levels are not exceeded.
11. Participating in brachytherapy treatment planning and delivery.

Medical Dosimetrist Clinical Performance Standards

Standard One – Assessment

The medical dosimetrist collects pertinent data about the patient and the procedure.

Rationale

Information about the patient's health status is essential in providing appropriate imaging and therapeutic services.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Obtains relevant information from all available resources and the release of information as needed.
2. Verifies patient identification and the procedure requested or prescribed.
3. Verifies that the patient has consented to the procedure.
4. Reviews all available patient medical record information to verify the appropriateness of the procedure requested or prescribed.
5. Verifies the patient's pregnancy status.
6. Assesses factors that may negatively affect the procedure, such as medications, patient history, insufficient patient preparation or artifact producing objects.
7. Recognizes signs and symptoms of an emergency.

Specific Criteria

The medical dosimetrist:

1. Reviews patient history for previous therapeutic treatments.
2. Assesses the patient's need for information and reassurance.

Medical Dosimetrist Clinical Performance Standards

Standard Two – Analysis/Determination

The medical dosimetrist analyzes the information obtained during the assessment phase and develops an action plan for completing the procedure.

Rationale

Determining the most appropriate action plan enhances patient safety and comfort, optimizes diagnostic and therapeutic quality and improves efficiency.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Selects the most appropriate and efficient action plan after reviewing all pertinent data and assessing the patient's abilities and condition.
2. Employs professional judgment to adapt imaging and therapeutic procedures to improve diagnostic quality and therapeutic outcomes.
3. Consults appropriate medical personnel to determine a modified action plan.
4. Determines the need for and selects supplies, accessory equipment, shielding, positioning and immobilization devices.
5. Determines the course of action for an emergent situation.
6. Determines that all procedural requirements are in place to achieve a quality diagnostic or therapeutic procedure.

Specific Criteria

The medical dosimetrist:

1. Gathers and analyzes pertinent data relevant to the treatment planning and delivery process.
2. Recommends the appropriate immobilization devices and positioning aids for simulation and treatment.
3. Participates in reviewing patient treatment parameters and dose records to ensure treatment does not exceed the prescribed dose or normal tissue tolerances.
4. Recommends when to hold treatment until a radiation oncologist is notified.

Medical Dosimetrist Clinical Performance Standards

Standard Three – Education

The medical dosimetrist provides information about the procedure and related health issues according to protocol.

Rationale

Communication and education are necessary to establish a positive relationship.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Provides an accurate explanation and instructions at an appropriate time and at a level the patient and their care providers can understand. Addresses questions and concerns regarding the procedure.
2. Refers questions about diagnosis, treatment or prognosis to a licensed practitioner.
3. Provides patient education.

Specific Criteria

The medical dosimetrist:

1. Explains the role and function of the medical dosimetrist in the overall treatment course.
2. Reviews the treatment plan with the patient as requested by a radiation oncologist.

Medical Dosimetrist Clinical Performance Standards

Standard Four – Performance

The medical dosimetrist performs the action plan.

Rationale

Quality patient services are provided through the safe and accurate performance of a deliberate plan of action.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Performs procedural timeout.
2. Implements an action plan.
3. Explains to the patient each step of the action plan as it occurs and elicits the cooperation of the patient.
4. Uses an integrated team approach.
5. Modifies the action plan according to changes in the clinical situation.
6. Uses accessory equipment.
7. Assesses and monitors the patient's physical, emotional and mental status.
8. Positions patient for anatomic area of interest, respecting patient ability and comfort.
9. Immobilizes patient for procedure.

Specific Criteria

The medical dosimetrist:

1. Collaborates with the radiation therapist and medical physicist to fabricate individualized immobilization, custom blocks and other beam-modifying devices.
2. Consults with the radiation oncologist regarding an optimal treatment plan for the patient.
3. Collaborates with the radiation therapist, medical physicist and radiation oncologist regarding the simulation process and procedures.

4. Prepares and positions the patient for simulation and treatment using appropriate positioning aids and immobilization devices.
5. Reviews simulation images with the radiation therapist, medical physicist and radiation oncologist.
6. Develops a treatment plan as directed and prescribed by the radiation oncologist.
7. Adheres to established best practice protocols, guidelines and radiation oncologist directives.
8. Calculates treatment unit parameters and doses to treatment volumes and points of interest.
9. Reviews treatment planning data for accuracy and appropriateness prior to input into the patient's treatment record and initial treatment.
10. Develops a manual or computer generated brachytherapy treatment plan as prescribed by a radiation oncologist.
11. Prepares or assists in preparing brachytherapy sources and equipment.
12. Ensures an independent machine-setting check is completed before treatment is delivered.

Medical Dosimetrist Clinical Performance Standards

Standard Five – Evaluation

The medical dosimetrist determines whether the goals of the action plan have been achieved.

Rationale

Careful examination of the procedure is important to determine that expected outcomes have been met.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Evaluates the patient and the procedure to identify variances that might affect the expected outcome.
2. Completes the evaluation process in a timely, accurate and comprehensive manner.
3. Measures the procedure against established policies, protocols and benchmarks.
4. Identifies exceptions to the expected outcome.
5. Develops a revised action plan to achieve the intended outcome.
6. Communicates the revised action plan to appropriate team members.

Specific Criteria

None Added.

Medical Dosimetrist Clinical Performance Standards

Standard Six – Implementation

The medical dosimetrist implements the revised action plan.

Rationale

It may be necessary to make changes to the action plan to achieve the expected outcome.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Bases the revised plan on the patient's condition and the most appropriate means of achieving the expected outcome.
2. Takes action based on patient and procedural variances.
3. Measures and evaluates the results of the revised action plan.
4. Notifies the appropriate health care provider when immediate clinical response is necessary, based on procedural findings and patient condition.

Specific Criteria

The medical dosimetrist:

1. Reviews and implements treatment field changes indicated on simulation or portal images as directed by a radiation oncologist.
2. Develops additional treatment plans to achieve an optimal dose distribution.
3. Adapts procedures to equipment limitations and patient needs.
4. Ensures accuracy in the transfer and documentation of treatment parameters, according to departmental policies.

Medical Dosimetrist Clinical Performance Standards

Standard Seven – Outcomes Measurement

The medical dosimetrist reviews and evaluates the outcome of the procedure.

Rationale

To evaluate the quality of care, the medical dosimetrist compares the actual outcome with the expected outcome.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Reviews all diagnostic or therapeutic data for completeness and accuracy.
2. Uses evidence-based practice to determine whether the actual outcome is within established criteria.
3. Evaluates the process and recognizes opportunities for future changes.

Specific Criteria

None Added.

Medical Dosimetrist Clinical Performance Standards

Standard Eight – Documentation

The medical dosimetrist documents information about patient care, the procedure and the final outcome.

Rationale

Clear and precise documentation is essential for continuity of care, accuracy of care and quality assurance.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Documents diagnostic, treatment and patient data in the medical record in a timely, accurate and comprehensive manner.
2. Documents unintended outcomes or exceptions from the established criteria.
3. Provides pertinent information to authorized individual(s) involved in the patient's care.
4. Records information used for billing and coding procedures.
5. Archives images or data.
6. Verifies patient consent is documented.
7. Documents procedural timeout.

Specific Criteria

The Medical Dosimetrist:

1. Reports variances from the standard or planned treatment.

Medical Dosimetrist Quality Performance Standards

Standard One – Assessment

The medical dosimetrist collects pertinent information regarding equipment, procedures and the work environment.

Rationale

The planning and provision of safe and effective medical services relies on the collection of pertinent information about equipment, procedures and the work environment.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Determines that services are performed in a safe environment, minimizing potential hazards.
2. Confirms that equipment performance, maintenance and operation comply with the manufacturer's specifications.
3. Verifies that protocol and procedure manuals include recommended criteria and are reviewed and revised.

Specific Criteria

The medical dosimetrist:

1. Assesses the environment for any potential radiation hazards.
2. Participates in radiation protection, patient safety, risk management and quality management activities according to departmental policies.

Medical Dosimetrist Quality Performance Standards

Standard Two – Analysis/Determination

The medical dosimetrist analyzes information collected during the assessment phase to determine the need for changes to equipment, procedures or the work environment.

Rationale

Determination of acceptable performance is necessary to provide safe and effective services.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Evaluates services, procedures and the environment to determine if they meet or exceed established guidelines, and revises the action plan.
2. Monitors equipment to meet or exceed established standards and revises the action plan.
3. Assesses and maintains the integrity of medical supplies.

Specific Criteria

The medical dosimetrist:

1. Verifies the treatment summary and the mathematical accuracy of the prescription.
2. Reviews the treatment record and verifies calculations before and/or after treatment delivery.

Medical Dosimetrist Quality Performance Standards

Standard Three – Education

The medical dosimetrist informs the patient, public and other health care providers about procedures, equipment and facilities.

Rationale

Open communication promotes safe practices.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Elicits confidence and cooperation from the patient, the public and other health care providers by providing timely communication and effective instruction.
2. Presents explanations and instructions at the learner's level of understanding.
3. Educates the patient, public and other health care providers about procedures and the associated biological effects.
4. Provides information to patients, health care providers, students and the public concerning the role and responsibilities of individuals in the profession.

Specific Criteria

The medical dosimetrist:

1. Addresses concerns from the patient and significant others about appropriate and essential uses of radiation in treatment of diseases.
2. Assists in developing and producing educational materials for patients and the public regarding radiation therapy treatments.

Medical Dosimetrist Quality Performance Standards

Standard Four – Performance

The medical dosimetrist performs quality assurance activities.

Rationale

Quality assurance activities provide valid and reliable information regarding the performance of equipment, materials and processes.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Maintains current information on equipment, materials and processes.
2. Performs ongoing quality assurance activities.
3. Performs quality control testing of equipment.
4. Participates in safety and risk management activities.
5. When appropriate, wears one or more personal radiation monitoring devices at the location indicated on the personal radiation monitoring device or as indicated by the radiation safety officer or designee.

Specific Criteria

The medical dosimetrist:

1. Adheres to radiation safety rules and standards.
2. Makes the recommendation to discontinue patient treatment until equipment is operating properly.
3. Demonstrates safe handling, storing and disposal of brachytherapy sources.

Medical Dosimetrist Quality Performance Standards

Standard Five – Evaluation

The medical dosimetrist evaluates quality assurance results and establishes an appropriate action plan.

Rationale

Equipment, materials and processes depend on ongoing quality assurance activities that evaluate performance based on established guidelines.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Validates quality assurance testing conditions and results.
2. Evaluates quality assurance results.
3. Formulates an action plan.

Specific Criteria

The medical dosimetrist:

1. Reviews treatment calculations and ensures the validity of the treatment plan.
2. Ensures treatment parameters have been transferred correctly to the oncology information system.
3. Acquires data necessary to perform accurate patient protocol plans and participates in implementation of the plan.
4. Reviews treatment variances and assists in determining possible causes and solutions.

Medical Dosimetrist Quality Performance Standards

Standard Six – Implementation

The medical dosimetrist implements the quality assurance action plan for equipment, materials and processes.

Rationale

Implementation of a quality assurance action plan promotes safe and effective services.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Obtains assistance to support the quality assurance action plan.
2. Implements the quality assurance action plan.

Specific Criteria

The medical dosimetrist:

1. Assists in supporting the quality assurance action plan.

Medical Dosimetrist Quality Performance Standards

Standard Seven – Outcomes Measurement

The medical dosimetrist assesses the outcome of the quality management action plan for equipment, materials and processes.

Rationale

Outcomes assessment is an integral part of the ongoing quality management action plan to enhance diagnostic and therapeutic services.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Reviews the implementation process for accuracy and validity.
2. Determines that actual outcomes are within established criteria.
3. Develops and implements a revised action plan.

Specific Criteria

None Added.

Medical Dosimetrist Quality Performance Standards

Standard Eight – Documentation

The medical dosimetrist documents quality assurance activities and results.

Rationale

Documentation provides evidence of quality assurance activities designed to enhance safety.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Maintains documentation of quality assurance activities, procedures and results.
2. Documents in a timely, accurate and comprehensive manner.

Specific Criteria

The medical dosimetrist:

1. Reports any treatment variances in accordance with departmental, institutional and national quality assurance guidelines.

Medical Dosimetrist Professional Performance Standards

Standard One – Quality

The medical dosimetrist strives to provide optimal patient care.

Rationale

Patients expect and deserve optimal care during diagnosis and treatment.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Collaborates with others to elevate the quality of care.
2. Participates in ongoing quality assurance programs.
3. Adheres to standards, policies and established guidelines.
4. Anticipates, considers and responds to the needs of a diverse patient population.

Specific Criteria

The medical dosimetrist:

1. Applies professional judgment and discretion while performing virtual or computer-aided simulations and treatment planning.

Medical Dosimetrist Professional Performance Standards

Standard Two – Self-Assessment

The medical dosimetrist evaluates personal performance.

Rationale

Self-assessment is necessary for personal growth and professional development.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Assesses personal work ethics, behaviors and attitudes.
2. Evaluates performance and recognizes opportunities for educational growth and improvement.
3. Recognizes and applies personal and professional strengths.
4. Participates in professional societies and organizations.

Specific Criteria

None Added.

Medical Dosimetrist Professional Performance Standards

Standard Three – Education

The medical dosimetrist acquires and maintains current knowledge in practice.

Rationale

Advancements in the profession and optimal patient care require additional knowledge and skills through education.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Maintains credentials and certification related to practice.
2. Advocates for and participates in continuing education related to area of practice, to maintain and enhance clinical competency.
3. Advocates for and participates in vendor specific applications training to maintain clinical competency.

Specific Criteria

None Added.

Medical Dosimetrist Professional Performance Standards

Standard Four – Collaboration and Collegiality

The medical dosimetrist promotes a positive and collaborative practice atmosphere with other members of the health care team.

Rationale

To provide quality patient care, all members of the health care team must communicate effectively and work together efficiently.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Shares knowledge and expertise with others.
2. Develops and maintains collaborative partnerships to enhance quality and efficiency.
3. Promotes understanding of the profession.

Specific Criteria

None Added.

Medical Dosimetrist Professional Performance Standards

Standard Five – Ethics

The medical dosimetrist adheres to the profession's accepted ethical standards.

Rationale

Decisions made and actions taken on behalf of the patient are based on a sound ethical foundation.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Provides health care services with consideration for a diverse patient population.
2. Acts as a patient advocate.
3. Accepts accountability for decisions made and actions taken.
4. Delivers patient care and service free from bias or discrimination.
5. Respects the patient's right to privacy and confidentiality.
6. Adheres to the established practice standards of the profession.
7. Adheres to the established ethical standards of recognized certifying agencies.

Specific Criteria

None Added.

Medical Dosimetrist Professional Performance Standards

Standard Six – Research and Innovation

The medical dosimetrist participates in the acquisition and dissemination of knowledge and the advancement of the profession.

Rationale

Scholarly activities such as research, scientific investigation, presentation and publication advance the profession.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The medical dosimetrist:

1. Reads and evaluates research relevant to the profession.
2. Participates in data collection.
3. Investigates innovative methods for application in practice.
4. Shares information through publication, presentation and collaboration.
5. Adopts new best practices.
6. Pursues lifelong learning.

Specific Criteria

None Added.

Medical Dosimetrist Advisory Opinion Statements

Placement of Personal Radiation Monitoring Devices.

A large, light gray decorative graphic is positioned in the upper right quadrant of the page. It consists of a thick, diagonal line that starts from the top left and extends towards the bottom right. A large, light gray sphere is centered on this line, with the line passing through it, creating a sense of depth and movement.

The Practice Standards for Medical Imaging and Radiation Therapy

Radiologist Assistant Practice Standards

Preface to Practice Standards

A profession's practice standards serve as a guide for appropriate practice. The practice standards define the practice and establish general criteria to determine compliance. Practice standards are authoritative statements established by the profession for evaluating the quality of practice, service and education provided by individuals who practice in medical imaging and radiation therapy.

Practice Standards can be used by individual facilities to develop job descriptions and practice parameters. Those outside the imaging, therapeutic and radiation science community can use the standards as an overview of the role and responsibilities of the individual as defined by the profession.

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

Format

The Practice Standards are divided into six sections: introduction, scope of practice, clinical performance, quality performance, professional performance and advisory opinion statements.

Introduction. The introduction provides definitions for the practice and the minimum qualifications for the education and certification of individuals in addition to an overview of the specific practice.

Scope of Practice. The scope of practice delineates the parameters of the specific practice.

Clinical Performance Standards. The clinical performance standards define the activities of the individual responsible for the care of patients and delivery of diagnostic or therapeutic procedures. The section incorporates patient assessment and management with procedural analysis, performance and evaluation.

Quality Performance Standards. The quality performance standards define the activities of the individual in the technical areas of performance, such as equipment and material assessment safety standards and total quality management.

Professional Performance Standards. The professional performance standards define the activities of the individual in the areas of education, interpersonal relationships, self-assessment and ethical behavior.

Advisory Opinion Statements. The advisory opinions are interpretations of the standards intended for clarification and guidance of specific practice issues.

Each performance standards section is subdivided into individual standards. The standards are numbered and followed by a term or set of terms that identify the standards, such as “assessment” or “analysis/determination.” The next statement is the expected performance of the individual when performing the procedure or treatment. A rationale statement follows and explains why an individual should adhere to the particular standard of performance.

Criteria. Criteria are used to evaluate an individual’s performance. Each set is divided into two parts: the general criteria and the specific criteria. Both should be used when evaluating performance.

General Criteria. General criteria are written in a style that applies to imaging and radiation science individuals. These criteria are the same in all of the practice standards, with the exception of limited x-ray machine operators and medical dosimetry, and should be used for the appropriate area of practice.

Specific Criteria. Specific criteria meet the needs of the individuals in the various areas of professional performance. While many areas of performance within imaging and radiation sciences are similar, others are not. The specific criteria were drafted with these differences in mind.

Introduction to Radiologist Assistant Practice Standards

Definition

A radiologist assistant is an advanced-practice radiographer who practices under the supervision of a radiologist and enhances patient care in radiology services. As a member of the radiologist-directed team, the radiologist assistant performs invasive and noninvasive procedures.

Radiologist assistants act as liaisons between patients, radiographers, radiologists and other members of the health care team. Radiologist assistants remain sensitive to the physical, cultural and emotional needs of patients through good communication, comprehensive patient assessment, continuous patient monitoring and advanced patient care skills. Radiologist assistants use independent, professional, ethical judgment and critical thinking to safely perform invasive and noninvasive imaging procedures. Radiologist assistants commit to continued professional development to enhance patient care, public education, knowledge and technical competence.

Education and Certification

Only radiographers who have completed the appropriate education and obtained certification(s) as outlined in these standards should perform radiologist assistant procedures.

Radiologist assistants prepare for their roles as mid-level providers in medical imaging by attaining primary certification in radiography from the American Registry of Radiologic Technologists, successfully completing a recognized radiologist assistant education program, and by attaining postprimary certification of Registered Radiologist Assistant from the ARRT.

Those passing the registered radiologist assistant examination use the credentials R.R.A.

Medical imaging and radiation therapy professionals performing multiple modality hybrid imaging should be registered by certification agencies recognized by the ASRT and be educationally prepared and clinically competent in the specific modality(ies) they are responsible to perform. Medical imaging and radiation therapy professionals performing diagnostic procedures in more than one imaging modality will adhere to the individual practice standard for each.

To sustain a level of expertise and awareness of changes and advances in practice and to maintain certification, the R.R.A. must complete appropriate continuing education requirements, as defined by the ARRT.

Overview

Radiologist assistants are part of the interdisciplinary team that plays a critical role in the delivery of health services as new modalities emerge and the need for imaging procedures increases.

A comprehensive procedure list for the radiologist assistant is impractical because clinical activities vary by practice needs and expertise of the radiologist assistant. As radiologist assistants gain more experience, knowledge and clinical competence, the clinical activities for the radiologist assistant may evolve. The clinical activities are delegated by the supervising radiologist in accordance with state statute or regulations and lawful institutional policies.

State statute, regulation or lawful community custom may dictate practice parameters. *Wherever there is a conflict between these standards and state or local statutes or regulations, the state or local statutes or regulations supersede these standards.* A radiologist assistant should, within the boundaries of all applicable legal requirements and restrictions, exercise individual thought, judgment and discretion in the performance of the procedure.

In addition, because a radiologist assistant holds radiographer credentials, specific criteria for radiographers are incorporated into these standards by reference. Both the Radiologist Assistant and Radiography sections of the Practice Standards for Medical Imaging and Radiation Therapy should be consulted when seeking practice information for the radiologist assistant practice.

Radiologist Assistant Scope of Practice

The scope of practice of the medical imaging and radiation therapy professional includes:

- Providing optimal patient care.
- Receiving, relaying and documenting verbal, written and electronic orders in the patient's medical record.
- Corroborating a patient's clinical history with procedure and ensuring information is documented and available for use by a licensed practitioner.
- Verifying informed consent for applicable procedures.
- Assuming responsibility for patient needs during procedures.
- Preparing patients for procedures.
- Applying principles of ALARA to minimize exposure to patient, self and others.
- Performing venipuncture as prescribed by a licensed practitioner.
- Starting, maintaining and/or removing intravenous access as prescribed by a licensed practitioner.
- Identifying, preparing and/or administering medications as prescribed by a licensed practitioner.
- Evaluating images for technical quality, ensuring proper identification is recorded.
- Identifying and responding to emergency situations.
- Providing education.
- Educating and monitoring students and other health care providers.
- Performing ongoing quality assurance activities.
- Applying the principles of patient safety during all aspects of patient care.

The scope of practice for the radiologist assistant also includes:

1. Performing or assisting with invasive and noninvasive imaging procedures as delegated by the radiologist who is licensed to practice and has privileges for the procedure being performed by the radiologist assistant.
2. Completing patient history and physical.

3. Participating in or obtaining informed consent.
4. Reviewing variances identified through preprocedural evaluation that may influence the expected outcome with the supervising radiologist prior to the procedure.
5. Assessing, monitoring and managing patient status, including patients under minimal and moderate sedation.
6. Evaluating images for completeness and diagnostic quality and recommending additional images.
7. Obtaining images necessary for diagnosis and communicating initial observations to the supervising radiologist. The radiologist assistant does not provide image interpretation as defined by the American College of Radiology.
8. Providing follow-up patient evaluation.
9. Communicating the supervising radiologist's report to the appropriate health care provider consistent with the American College of Radiology Practice Guidelines for Communication of Diagnostic Imaging Findings.
10. Emphasizing patient safety and verifying procedure appropriateness by analyzing and incorporating evidenced-based practices for optimal patient care.
11. Participating in quality improvement activities within the radiology practice.
12. Assisting with data collection and review for clinical trials or other research.

Radiologist assistants maintain their radiographer credentials; therefore, scopes of practice for radiographers are incorporated into these standards by reference. Both the Radiologist Assistant and Radiography sections of the Practice Standards for Medical Imaging and Radiation Therapy should be consulted when seeking practice information for the radiologist assistant practice.

Radiologist Assistant Clinical Performance Standards

Standard One – Assessment

The radiologist assistant collects pertinent data about the patient and the procedure.

Rationale

Information about the patient's health status is essential in providing appropriate imaging and therapeutic services.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Obtains relevant information from all available resources and the release of information as needed.
2. Verifies patient identification and the procedure requested or prescribed.
3. Verifies that the patient has consented to the procedure.
4. Reviews all available patient medical record information to verify the appropriateness of the procedure requested or prescribed.
5. Verifies the patient's pregnancy status.
6. Assesses factors that may negatively affect the procedure, such as medications, patient history, insufficient patient preparation or artifact producing objects.
7. Recognizes signs and symptoms of an emergency.

Specific Criteria

The radiologist assistant:

1. Interviews patient to obtain, verify and update medical history.
2. Performs and documents a radiology-focused physical examination, analyzes data and reports findings to the supervising radiologist.
3. Observes and assesses a patient who has received minimal and moderate sedation.
4. Assesses the patient's level of anxiety and pain and informs the supervising radiologist.

Radiologist Assistant Clinical Performance Standards

Standard Two – Analysis/Determination

The radiologist assistant analyzes the information obtained during the assessment phase and develops an action plan for completing the procedure.

Rationale

Determining the most appropriate action plan enhances patient safety and comfort, optimizes diagnostic and therapeutic quality and improves efficiency.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Selects the most appropriate and efficient action plan after reviewing all pertinent data and assessing the patient's abilities and condition.
2. Employs professional judgment to adapt imaging and therapeutic procedures to improve diagnostic quality and therapeutic outcomes.
3. Consults appropriate medical personnel to determine a modified action plan.
4. Determines the need for and selects supplies, accessory equipment, shielding, positioning and immobilization devices.
5. Determines the course of action for an emergent situation.
6. Determines that all procedural requirements are in place to achieve a quality diagnostic or therapeutic procedure.

Specific Criteria

The radiologist assistant:

1. Reviews the patient's medical record and the licensed practitioner's request to determine optimal imaging procedure for clinical indications.

Radiologist Assistant Clinical Performance Standards

Standard Three – Education

The radiologist assistant provides information about the procedure and related health issues according to protocol.

Rationale

Communication and education are necessary to establish a positive relationship.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Provides an accurate explanation and instructions at an appropriate time and at a level the patient and their care providers can understand. Addresses questions and concerns regarding the procedure.
2. Refers questions about diagnosis, treatment or prognosis to a licensed practitioner.
3. Provides patient education.
4. Explains effects and potential side effects of medications.

Specific Criteria

The radiologist assistant:

1. Provides pre and postcare instructions to the patient under the supervision of a radiologist.
2. Provides information regarding risks and benefits of radiation.

Radiologist Assistant Clinical Performance Standards

Standard Four – Performance

The radiologist assistant performs the action plan.

Rationale

Quality patient services are provided through the safe and accurate performance of a deliberate plan of action.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Performs procedural timeout.
2. Implements an action plan.
3. Explains to the patient each step of the action plan as it occurs and elicits the cooperation of the patient.
4. Uses an integrated team approach.
5. Modifies the action plan according to changes in the clinical situation.
6. Administers first aid or provides life support.
7. Uses accessory equipment.
8. Assesses and monitors the patient's physical, emotional and mental status.
9. Applies principles of sterile technique.
10. Positions patient for anatomic area of interest, respecting patient ability and comfort.
11. Immobilizes patient for procedure.
12. Monitors the patient for reactions to medications.

Specific Criteria

The radiologist assistant:

1. Administers minimal and moderate sedation as prescribed by the supervising radiologist.
2. Recognizes and responds to medical emergencies, activates emergency response systems and

provides advanced life support intervention.

3. Performs invasive and noninvasive procedures as delegated by the radiologist.
4. Administers medications as approved by the supervising radiologist.
5. Monitors patient's physical condition during the procedure and responds to changes in patient vital signs, hemodynamics and level of consciousness.
6. Collects and documents tissue samples.

Radiologist Assistant Clinical Performance Standards

Standard Five – Evaluation

The radiologist assistant determines whether the goals of the action plan have been achieved.

Rationale

Careful examination of the procedure is important to determine that expected outcomes have been met.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Evaluates the patient and the procedure to identify variances that might affect the expected outcome.
2. Completes the evaluation process in a timely, accurate and comprehensive manner.
3. Measures the procedure against established policies, protocols and benchmarks.
4. Identifies exceptions to the expected outcome.
5. Develops a revised action plan to achieve the intended outcome.
6. Communicates the revised action plan to appropriate team members.

Specific Criteria

None added.

Radiologist Assistant Clinical Performance Standards

Standard Six – Implementation

The radiologist assistant implements the revised action plan.

Rationale

It may be necessary to make changes to the action plan to achieve the expected outcome.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Bases the revised plan on the patient's condition and the most appropriate means of achieving the expected outcome.
2. Takes action based on patient and procedural variances.
3. Measures and evaluates the results of the revised action plan.
4. Notifies the appropriate health care provider when immediate clinical response is necessary, based on procedural findings and patient condition.

Specific Criteria

None Added.

Radiologist Assistant Clinical Performance Standards

Standard Seven – Outcomes Measurement

The radiologist assistant reviews and evaluates the outcome of the procedure.

Rationale

To evaluate the quality of care, the radiologist assistant compares the actual outcome with the expected outcome.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Reviews all diagnostic or therapeutic data for completeness and accuracy.
2. Uses evidence-based practice to determine whether the actual outcome is within established criteria.
3. Evaluates the process and recognizes opportunities for future changes.
4. Assesses the patient's physical, emotional and mental status prior to discharge.

Specific Criteria

The radiologist assistant:

1. Performs follow-up patient evaluation and communicates findings to the supervising radiologist.

Radiologist Assistant Clinical Performance Standards

Standard Eight – Documentation

The radiologist assistant documents information about patient care, the procedure and the final outcome.

Rationale

Clear and precise documentation is essential for continuity of care, accuracy of care and quality assurance.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Documents diagnostic, treatment and patient data in the medical record in a timely, accurate and comprehensive manner.
2. Documents unintended outcomes or exceptions from the established criteria.
3. Provides pertinent information to authorized individual(s) involved in the patient's care.
4. Records information used for billing and coding procedures.
5. Archives images or data.
6. Verifies patient consent is documented.
7. Documents procedural timeout.

Specific Criteria

The radiologist assistant:

1. Documents use of minimal and moderate sedation.
2. Documents administration of medications.
3. Reports clinical and imaging observations and procedure details to the supervising radiologist.
4. Communicates and documents radiologist's order to other health care providers.

Radiologist Assistant Quality Performance Standards

Standard One – Assessment

The radiologist assistant collects pertinent information regarding equipment, procedures and the work environment.

Rationale

The planning and provision of safe and effective medical services relies on the collection of pertinent information about equipment, procedures and the work environment.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Determines that services are performed in a safe environment, minimizing potential hazards.
2. Confirms that equipment performance, maintenance and operation comply with the manufacturer's specifications.
3. Verifies that protocol and procedure manuals include recommended criteria and are reviewed and revised.

Specific Criteria

None added.

Radiologist Assistant Quality Performance Standards

Standard Two – Analysis/Determination

The radiologist assistant analyzes information collected during the assessment phase to determine the need for changes to equipment, procedures or the work environment.

Rationale

Determination of acceptable performance is necessary to provide safe and effective services.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Evaluates services, procedures and the environment to determine if they meet or exceed established guidelines, and revises the action plan.
2. Monitors equipment to meet or exceed established standards and revises the action plan.
3. Assesses and maintains the integrity of medical supplies.

Specific Criteria

None added.

Radiologist Assistant Quality Performance Standards

Standard Three – Education

The radiologist assistant informs the patient, public and other health care providers about procedures, equipment and facilities.

Rationale

Open communication promotes safe practices.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Elicits confidence and cooperation from the patient, the public and other health care providers by providing timely communication and effective instruction.
2. Presents explanations and instructions at the learner's level of understanding.
3. Educates the patient, public and other health care providers about procedures and the associated biological effects.
4. Provides information to patients, health care providers, students and the public concerning the role and responsibilities of individuals in the profession.

Specific Criteria

None added.

Radiologist Assistant Quality Performance Standards

Standard Four – Performance

The radiologist assistant performs quality assurance activities.

Rationale

Quality assurance activities provide valid and reliable information regarding the performance of equipment, materials and processes.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Maintains current information on equipment, materials and processes.
2. Performs ongoing quality assurance activities.
3. Performs quality control testing of equipment.
4. Participates in safety and risk management activities.
5. When appropriate, wears one or more personal radiation monitoring devices at the location indicated on the personal radiation monitoring device or as indicated by the radiation safety officer or designee.

Specific Criteria

The radiologist assistant:

1. Participates in quality reporting measures for the purpose of improved patient care.

Radiologist Assistant Quality Performance Standards

Standard Five – Evaluation

The radiologist assistant evaluates quality assurance results and establishes an appropriate action plan.

Rationale

Equipment, materials and processes depend on ongoing quality assurance activities that evaluate performance based on established guidelines.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Validates quality assurance testing conditions and results.
2. Evaluates quality assurance results.
3. Formulates an action plan.

Specific Criteria

The radiologist assistant:

1. Evaluates radiation safety, patient safety, risk management and quality management activities.

Radiologist Assistant Quality Performance Standards

Standard Six – Implementation

The radiologist assistant implements the quality assurance action plan for equipment, materials and processes.

Rationale

Implementation of a quality assurance action plan promotes safe and effective services.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Obtains assistance to support the quality assurance action plan.
2. Implements the quality assurance action plan.

Specific Criteria

The radiologist assistant:

1. Implements radiation safety, patient safety, risk management and quality management decisions.

Radiologist Assistant Quality Performance Standards

Standard Seven – Outcomes Measurement

The radiologist assistant assesses the outcome of the quality management action plan for equipment, materials and processes.

Rationale

Outcomes assessment is an integral part of the ongoing quality management action plan to enhance diagnostic and therapeutic services.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Reviews the implementation process for accuracy and validity.
2. Determines that actual outcomes are within established criteria.
3. Develops and implements a revised action plan.

Specific Criteria

None added.

Radiologist Assistant Quality Performance Standards

Standard Eight – Documentation

The radiologist assistant documents quality assurance activities and results.

Rationale

Documentation provides evidence of quality assurance activities designed to enhance safety.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Maintains documentation of quality assurance activities, procedures and results.
2. Documents in a timely, accurate and comprehensive manner.

Specific Criteria

The radiologist assistant:

1. Documents and assists radiologist in quality reporting measures for the purpose of improved patient care.

Radiologist Assistant Professional Performance Standards

Standard One – Quality

The radiologist assistant strives to provide optimal patient care.

Rationale

Patients expect and deserve optimal care during diagnosis and treatment.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Collaborates with others to elevate the quality of care.
2. Participates in ongoing quality assurance programs.
3. Adheres to standards, policies and established guidelines.
4. Applies professional judgment and discretion while performing the diagnostic study or treatment.
5. Anticipates, considers and responds to the needs of a diverse patient population.

Specific Criteria

None added.

Radiologist Assistant Professional Performance Standards

Standard Two – Self Assessment

The radiologist assistant evaluates personal performance.

Rationale

Self-assessment is necessary for personal growth and professional development.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Assesses personal work ethics, behaviors and attitudes.
2. Evaluates performance and recognizes opportunities for educational growth and improvement.
3. Recognizes and applies personal and professional strengths.
4. Participates in professional societies and organizations.

Specific Criteria

None added.

Radiologist Assistant Professional Performance Standards

Standard Three – Education

The radiologist assistant acquires and maintains current knowledge in practice.

Rationale

Advancements in the profession and optimal patient care require additional knowledge and skills through education.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Maintains credentials and certification related to practice.
2. Advocates for and participates in continuing education related to area of practice, to maintain and enhance clinical competency.
3. Advocates for and participates in vendor specific applications training to maintain clinical competency.

Specific Criteria

None added.

Radiologist Assistant Professional Performance Standards

Standard Four – Collaboration and Collegiality

The radiologist assistant promotes a positive and collaborative practice atmosphere with other members of the health care team.

Rationale

To provide quality patient care, all members of the health care team must communicate effectively and work together efficiently.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Shares knowledge and expertise with others.
2. Develops and maintains collaborative partnerships to enhance quality and efficiency.
3. Promotes understanding of the profession.

Specific Criteria

The radiologist assistant:

1. Promotes understanding of procedures through in-service for other health care providers.

Radiologist Assistant Professional Performance Standards

Standard Five – Ethics

The radiologist assistant adheres to the profession's accepted ethical standards.

Rationale

Decisions made and actions taken on behalf of the patient are based on a sound ethical foundation.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Provides health care services with consideration for a diverse patient population.
2. Acts as a patient advocate.
3. Accepts accountability for decisions made and actions taken.
4. Delivers patient care and service free from bias or discrimination.
5. Respects the patient's right to privacy and confidentiality.
6. Adheres to the established practice standards of the profession.
7. Adheres to the established ethical standards of recognized certifying agencies.

Specific Criteria

None added.

Radiologist Assistant Professional Performance Standards

Standard Six – Research and Innovation

The radiologist assistant participates in the acquisition and dissemination of knowledge and the advancement of the profession.

Rationale

Scholarly activities such as research, scientific investigation, presentation and publication advance the profession.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs, and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiologist assistant:

1. Reads and evaluates research relevant to the profession.
2. Participates in data collection.
3. Investigates innovative methods for application in practice.
4. Shares information through publication, presentation and collaboration.
5. Adopts new best practices.
6. Pursues lifelong learning.

Specific Criteria

None added.

Radiologist Assistant Advisory Opinion Statements

Guidance for the Communication of Clinical and Imaging Observations and Procedure Details by Radiologist Assistants to Supervising Radiologists.

Administering Medication in Peripherally Inserted Central Catheter Lines or Ports with a Power Injector.

Medication Administration by Medical Imaging and Radiation Therapy Professionals.

Medication Administration Through Existing Vascular Access.

Placement of Personal Radiation Monitoring Devices.