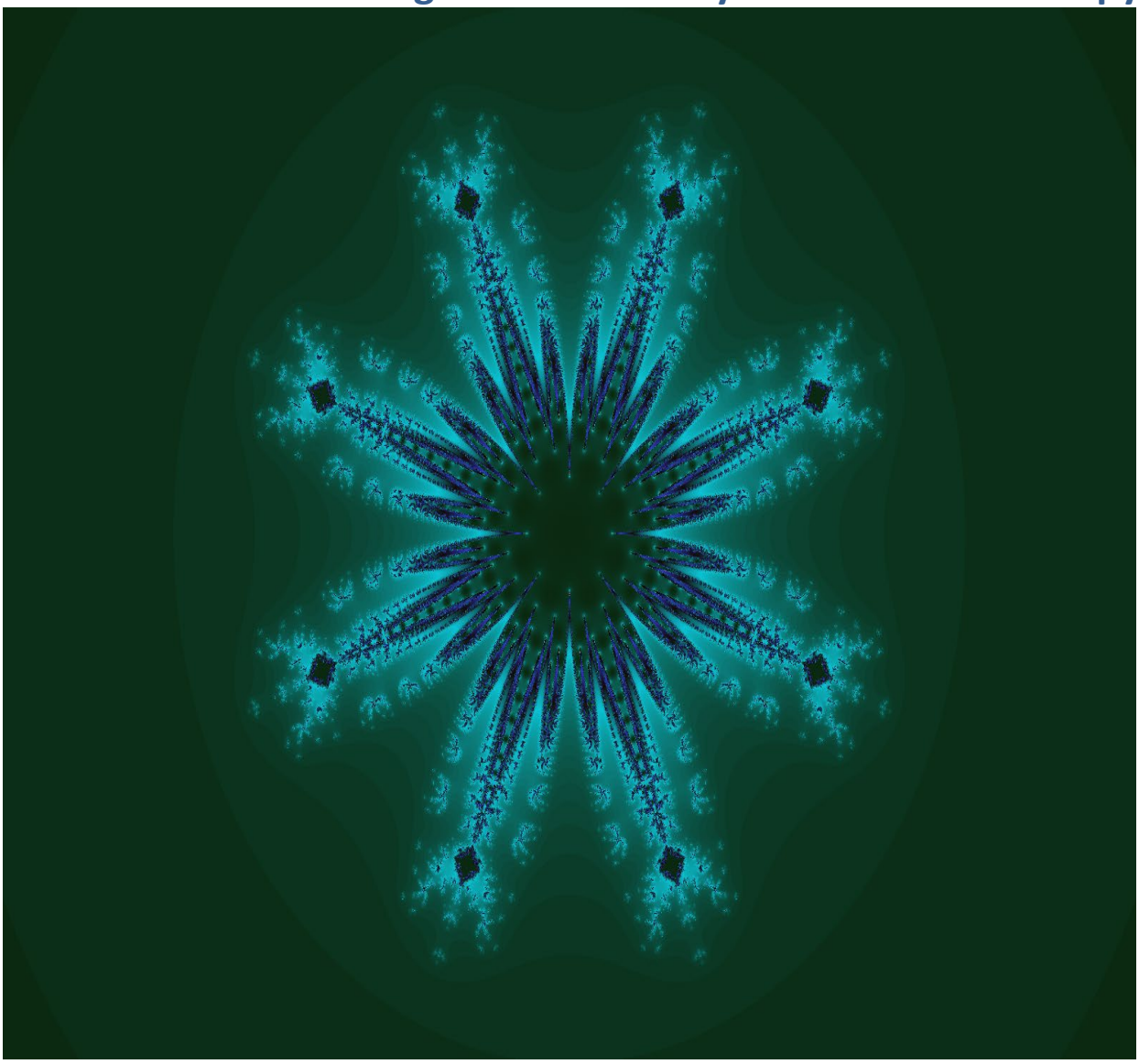
Consensus Committee on the Future of Medical Imaging and Radiation Therapy: White Paper From the Work Group Articulating Career Pathways in Radiation Therapy



American Society of Radiologic Technologists

Consensus Committee on the Future of Medical Imaging and Radiation Therapy: White Paper From the Work Group Articulating Career Pathways in Radiation Therapy

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Consensus Committee on the Future of Medical Imaging and Radiation Therapy: White Paper From the Work Group Articulating Career Pathways in Radiation Therapy and Medical Dosimetry

Background

To address the current workforce shortages and identify feasible solutions, including new career pathways in medical imaging and radiation therapy, the American Society of Radiologic Technologists (ASRT), the American Registry of Radiologic Technologists (ARRT) and the Joint Review Committee on Education in Radiologic Technology (JRCERT) hosted the Consensus Committee on the Future of Medical Imaging and Radiation Therapy, Feb. 19-20, 2024, at the ASRT office in Albuquerque, New Mexico.

Forty-five leaders from 18 organizations in medical imaging and radiation therapy participated in the meeting, including managers, educators, clinicians from each of the imaging and therapeutic disciplines, industry representatives and physicians.

Consensus Committee participants reviewed factors impacting workforce shortages, ranked the factors according to impact and then prioritized factors that the participating organizations have the most potential to change. The six goals that the Consensus Committee agreed to prioritize for action are to:

- Provide tools and suggestions to improve workplace satisfaction, employee engagement and recognition.
- Articulate career pathways.
- Create and strengthen the workforce pipeline in collaboration with education systems.
- Expand opportunities for education and training that will meet the emerging needs of students and the profession.
- Raise awareness, visibility and respect of the profession.
- Create a career ladder for advancement and mentorship.

These recommendations were published in a white paper from the 2024 Consensus Committee on the Future of Medical Imaging and Radiation Therapy.

Then, ASRT, ARRT and JRCERT created work groups with the sponsoring organizations to take action on the Consensus Committee recommendations. On Aug. 20, 2024, ASRT, ARRT and JRCERT hosted an orientation for work group leaders.

Work groups were asked to create committees of supporting organizational representatives who will develop a project plan to address the goal of the work group.

This white paper is a report from the work group with the goal of articulating career pathways by **defining the levels and roles for each step in the career pathway in radiation therapy and medical dosimetry at all education levels**—guided by the values of quality, safe patient care. ASRT and the American Association of Medical Dosimetrists (AAMD) co-lead this work group.

The Consensus Committee work group met from January 2025-January 2026. The work group included appointees from the AAMD, American Association of Physicists in Medicine (AAPM), American College of

Radiology (ACR), American Society for Radiation Oncology (ASTRO), ARRT, ASRT, JRCERT, Elekta, Medical Dosimetrist Certification Board (MDCB), Siemens Healthineers and Society for Radiation Oncology Administrators (SROA). The work group included two appointees from the grassroots advanced practice radiation therapy working group, which was formally integrated into ASRT's member and volunteer structure in late 2025.

The work group decided to focus on **evaluating and defining the advanced practice radiation therapy role in the United States** and **understanding the needs and perceptions of medical dosimetrists**. The work group did not focus on the radiation therapist aide or assistant role because of ASRT's general imaging assistant curriculum, general imaging assistant educational content and other support of that role.

As a first step, work group appointees created and accepted an action plan with three steps: 1) to send a brief survey that branches based on role, 2) to create a document that discusses roles based on survey and post publicly and 3) to communicate in a way that makes sense for each entity regarding this work group. The group acknowledged a lack of national data on perceptions and understanding. This plan was submitted to the original Consensus Committee hosting organizations.

Next, work group appointees created and deployed a survey to the radiation oncology community. Finally, appointees participated in facilitated discussion based on the survey in December 2025 and January 2026. The survey and facilitation notes are discussed in greater detail within this report.

The medical dosimetrist branch of the work group survey was written by AAMD and was given to AAMD for future use and publication; therefore, the results of that branch are not included here to be respectful of AAMD copyright. The AAMD is creating an interdisciplinary work group that will bring together diverse perspectives to explore emerging needs, evolving practice areas and opportunities to strengthen the core responsibilities that define the medical dosimetry profession. The recommendations of this work group will be published by the AAMD in the near future.

Consensus Committee Work Group Survey

Introduction

The purpose of this survey was to gather perspectives on the advanced practice radiation therapist (APRT) role from multiple professionals working across radiation therapy treatment and to understand workforce needs of medical dosimetrists. Survey participants included radiation therapists, medical dosimetrists, therapeutic medical physicists, radiation oncologists and those in administrative or management positions.

Methodology

Screener Question

The following question was asked to screen for those eligible to proceed with the survey:

Is your professional role or work experience within the United States of America?

Those who answered "Yes" (N = 933) received the remaining questions to the survey. Those who answered "No" (N = 61) were taken to the completion page to end the survey.

Sample

In July 2025, more than 33,939 email invitations to participate in the survey were sent by the ASRT, AAMD, AAPM and SROA, along with an email list of radiation oncologists purchased from the third-party vendor IQVIA.

Summary of Population, Sample and Margin of Error

Professional Role	Population (N)	Sample (n)	S / P (%)	Margin of Error ± (95% CI)
Radiation Therapist (ASRT)	23,666	325	1.4%	±5.4%
Medical Dosimetrist (AAMD)	4,259	245	5.8%	±6.1%
Therapeutic Medical Physicist (AAPM)	9,608	157	1.6%	±7.7%
Administrator or Manager (SROA)	450	83	18.4%	±9.7%
Radiation Oncologist (IQVIA Purchase)	5,564	72	1.3%	±11.5%
Other	.	51	.	±13.7%
Total	**33,939**	**933**	**2.7%**	**±3.2%**

Note: The SROA indicated between 400 and 500 as their population; therefore, the midpoint of 450 was used as the population estimate.

A total of 933 respondents answered "Yes" to the screener question and completed the survey, yielding an overall response rate of approximately 2.7% of the total population (N = 33,939). Although a sample size of 933 represents a subset of the population, it is sufficient to produce reliable and statistically meaningful aggregated results. The overall margin of error for the full sample is ±3.2 percentage points at the 95% confidence level. This means that if the survey were repeated with similar sample sizes, the results would be expected to fall within approximately three percentage points above or below the overall percentages reported here. Additionally, the aggregated findings may be generalized to the full population within this margin of error, assuming respondents are reasonably representative of the population.

Executive Summary for Questions Received by All Professions

Cross-tabulations of Questions Received by All Professions

Survey results in this section are presented in cross-tabulated tables by profession solely for ease of display. The intent of this survey and analysis is not to statistically compare the professional groups or draw conclusions about possible differences between them. Findings should be interpreted as patterns within each group, not as evidence of significant differences between groups.

APRT Positions at Current Practice

Respondents were asked if their practice currently has or plans to have APRT positions. The results indicated a generally low level of APRT adoption and highlighted notable uncertainty if APRTs were employed at their facility. These results varied by professional role. Of the total respondents:

- 10% indicated that their current practice currently includes APRT positions.
- 24% were unsure about their practice's APRT status.
- 66% indicated that their practice does not currently have or plan to have APRT positions.

Understanding of the APRT

Respondents were asked to rate their level of understanding of the APRT role in the United States. The responses by profession indicated varied levels of familiarity, with many indicating limited or no understanding of the role. Of the total respondents:

- 17% reported a thorough understanding of the APRT role.
- An additional 31% indicated a general understanding, bringing the cumulative percentage of those with at least a general understanding to 47%.
- 29% reported a limited understanding of the role.
- 24% indicated no understanding of the APRT role.

Overall, while nearly half of the respondents were at least somewhat familiar with the APRT role, just over half reported limited or no understanding.

Awareness of the APRT Role

Respondents were given the following definition of the APRT:

Within the United States in institutions that currently have APRTs, the role is holistically:

1. an experienced radiation therapist who has completed additional training and education in specific tasks, demonstrated clinical competence to their radiation oncologist-led team and meets the internationally recognized four pillars of advanced clinical practice (clinical, education, leadership and research),
2. within and at the highest level of the radiation therapist practice standards as part of a task-sharing radiation oncologist-led team,
3. compliant with state laws and institutional policies, and
4. a time- and cost-savings model.

An advanced practice radiation therapist cannot prescribe radiation nor provide final approval of a dosimetric plan for therapeutic application.
Note: The terms "approve" and "verify" are not interchangeable. Verification is a step prior to approval.

Respondents were then asked if the definition of the APRT role aligned with their current understanding, with the following responses to choose from:

- Option 1: Yes, this aligns with my understanding.
- Option 2: No, this does not align with my understanding.
- Option 3: I had not really heard of an APRT until reading this description.

The three response options allowed for the assessment of both prior awareness of the APRT role and agreement with the definition. Answering with Option 1 or 2 indicated that the respondent had heard of the APRT role before completing the survey, while selecting Option 3 indicated no prior awareness. Awareness varied by profession, ranging from 56% to 82%. Across all respondents:

- 64% were aware of the APRT role.
- 36% had not heard of the APRT role prior to the survey.

Agreement With the APRT Definition

Within the same question, respondents who indicated prior awareness (those who answered with Option 1 or 2) were also asked, explicitly, if the definition matched their understanding. Agreement rates were consistently high across professions, ranging from 83% to 99%. Overall:

- 94% reported that they agreed with the definition.
- 6% indicated that they disagreed with the definition.

Disagreement With the APRT Definition

Respondents who disagreed with the APRT definition were asked which specific aspects they disagreed with. Of the 6% who disagreed (N = 32):

- 44% did not agree with the concept of an experienced radiation therapist completing additional training across the four advanced practice pillars.
- 44% did not agree with the role being a time- and cost-savings model.
- 28% disagreed with the role being positioned at the highest level of radiation therapist practice standards.
- 25% did not agree or understand compliance with state laws or institutional policies as part of the role definition.
- 13% did not select any of these options, indicating perhaps other disagreement.

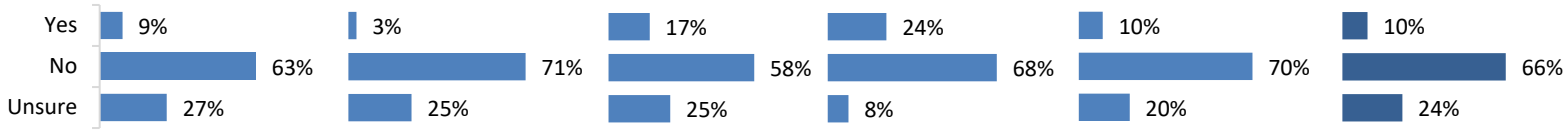
Results for Questions Received by All Professions Demographics: What Is Your Current Professional Role?

Profession	N	% of Total	% of Subtotal
Radiation Therapist	325	35%	37%
Medical Dosimetrist	245	26%	28%
Therapeutic Medical Physicist	157	17%	18%
Radiation Oncologist	72	8%	8%
Administrator or Manager	83	9%	9%
Subtotal (For Above Roles)	**882**	**95%**	**100%**
Other	51	5%	
Total	**933**	**100%**	

Note: The subtotal (N = 882) reflects the professions analyzed in the questions below. “Other” (N = 51) was excluded from the analysis due to the wide variation in professional roles.

Does Your Practice Currently Have or Plan to Have APRT Positions?

	Radiation Therapist	Medical Dosimetrist	Therapeutic Medical Physicist	Radiation Oncologist	Administrator or Manager	Total
Yes	9%	3%	17%	24%	10%	10%
No	63%	71%	58%	68%	70%	66%
Definitive Response	**72%**	**74%**	**75%**	**92%**	**80%**	**76%**
Unsure	**27%**	**25%**	**25%**	**8%**	**20%**	**24%**
Total	**323**	**244**	**157**	**72**	**83**	**879**



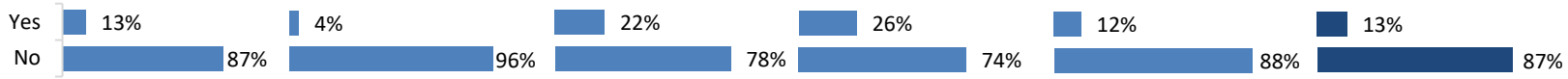
Note: Because of the question phrasing, “Unsure” may indicate:

1. Uncertainty if APRTs are currently employed
2. Uncertainty if APRTs are planned for in the future
3. Both 1 and 2

The table below reflects only those who answered “Yes” or “No” to the question, i.e., those who were sure of their practice’s APRT status.

Does Your Practice Currently Have or Plan to Have APRT Positions? (Only Yes or No)

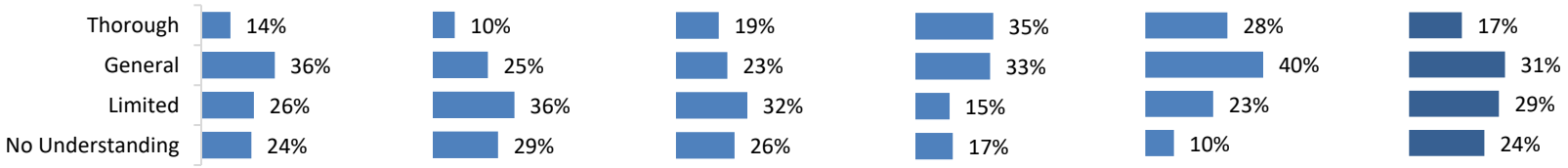
	Radiation Therapist	Medical Dosimetrist	Therapeutic Medical Physicist	Radiation Oncologist	Administrator or Manager	Total
Yes	13%	4%	22%	26%	12%	13%
No	87%	96%	78%	74%	88%	87%
Total	**235**	**182**	**118**	**66**	**66**	**667**



Understanding of the APRT

How Would You Describe Your Understanding of the Advanced Practice Radiation Therapy (APRT) Role in the United States?

	Radiation Therapist		Medical Dosimetrist		Therapeutic Medical Physicist		Radiation Oncologist		Administrator or Manager		Total	
Response	**%**	**Cumulative %**	**%**	**Cumulative %**	**%**	**Cumulative %**	**%**	**Cumulative %**	**%**	**Cumulative %**	**%**	**Cumulative %**
Thorough	14%	14%	10%	10%	19%	19%	35%	35%	28%	28%	17%	17%
General	36%	50%	25%	34%	23%	42%	33%	68%	40%	67%	31%	47%
Limited	26%	76%	36%	71%	32%	74%	15%	83%	23%	90%	29%	76%
No Understanding	24%	100%	29%	100%	26%	100%	17%	100%	10%	100%	24%	100%
Total	**324**		**244**		**157**		**72**		**83**		**880**	



Within the United

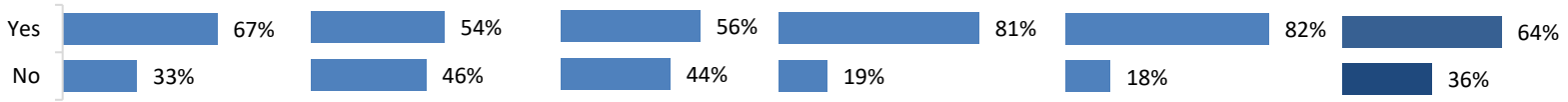
States in institutions that currently have APRTs, the role is holistically:

1. an experienced radiation therapist who has completed additional training and education in specific tasks, demonstrated clinical competence to their radiation oncologist-led team and meets the internationally recognized four pillars of advanced clinical practice (clinical, education, leadership and research),
2. within and at the highest level of the radiation therapist practice standards as part of a task-sharing radiation oncologist-led team,
3. compliant with state laws and institutional policies, and
4. a time- and cost-savings model.

An advanced practice radiation therapist cannot prescribe radiation nor provide final approval of a dosimetric plan for therapeutic application. Note: The terms "approve" and "verify" are not interchangeable. Verification is a step prior to approval.

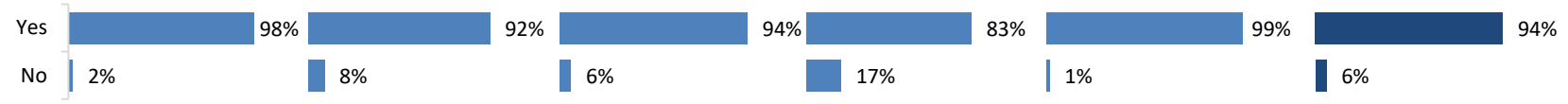
Prior to Reading the Description Above, Had You Heard of the APRT?[1]

	Radiation Therapist	Medical Dosimetrist	Therapeutic Medical Physicist	Radiation Oncologist	Administrator or Manager	Total
Yes	67%	54%	56%	81%	82%	64%
No	33%	46%	44%	19%	18%	36%
N	**323**	**244**	**157**	**72**	**83**	**879**



(If You Answered "Yes" to the Previous Question) Does This Description Align With Your Current Understanding of the APRT in the United States?[2]

	Radiation Therapist	Medical Dosimetrist	Therapeutic Medical Physicist	Radiation Oncologist	Administrator or Manager	Total
Yes	98%	92%	94%	83%	99%	94%
No	2%	8%	6%	17%	1%	6%
N	**218**	**131**	**88**	**58**	**68**	**563**



[1] This question was derived from respondents who had or hadn't heard of the APRT based upon the original question and response phrasing. See the Executive Summary for a description of this derivation.

[2] Percentages were calculated from respondents who were aware of the APRT.

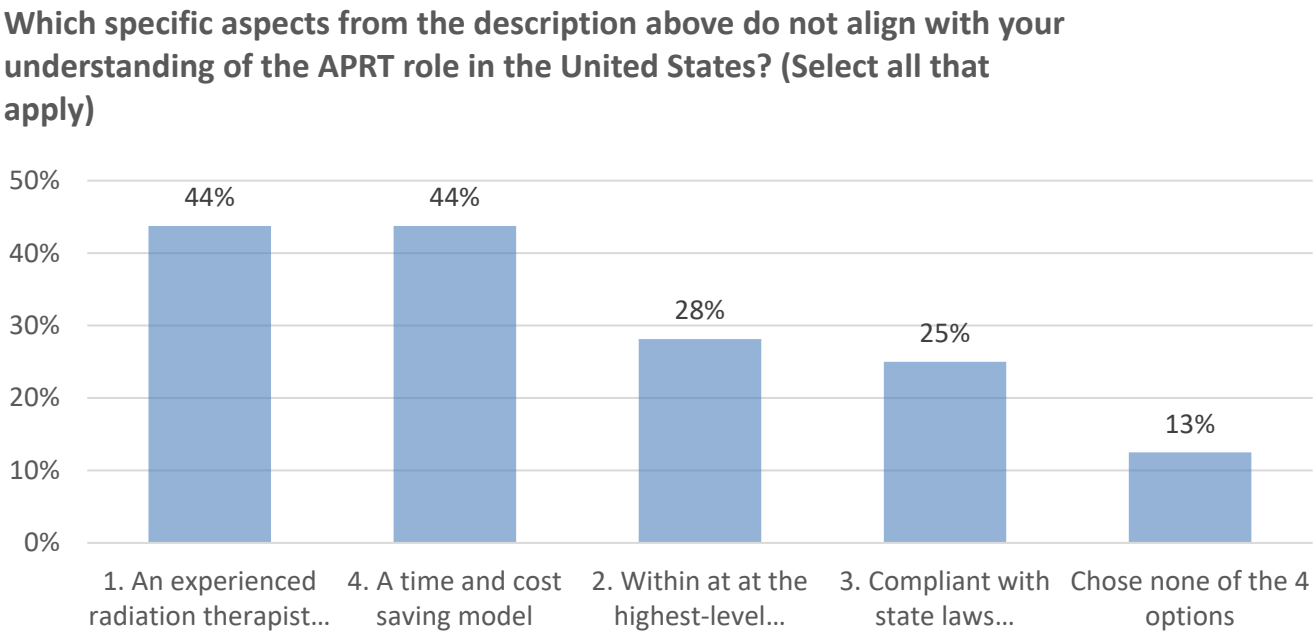
Within the United States in institutions that currently have APRTs, the role is holistically:

1. an experienced radiation therapist who has completed additional training and education in specific tasks, demonstrated clinical competence to their radiation oncologist-led team and meets the internationally recognized four pillars of advanced clinical practice (clinical, education, leadership and research),
2. within and at the highest level of the radiation therapist practice standards as part of a task-sharing radiation oncologist-led team,
3. compliant with state laws and institutional policies, and
4. a time- and cost-savings model.

An advanced practice radiation therapist cannot prescribe radiation nor provide final approval of a dosimetric plan for therapeutic application.
Note: The terms "approve" and "verify" are not interchangeable. Verification is a step prior to approval.

If You Answered "No" to the Previous Question, Which Specific Aspects From the Description Above *Do Not Align* With Your Understanding of the APRT Role in the United States? (Select All That Apply)

Response	N	% of Total (N = 32)
1. An experienced radiation therapist…	14	44%
4. A time- and cost-savings model	14	44%
2. Within and at the highest level…	9	28%
3. Compliant with state laws…	8	25%
Did not select any of the four options	4	13%



Verbatim Responses: Modified Integrative Coding Structure

Survey Questions

The following two open-ended questions were included in the 2025 Radiation Oncology Workforce Survey to capture perspectives on the role of advanced practice radiation therapists (APRTs) and identify gaps in the radiation treatment process:

- Please briefly state the current or anticipated role of the APRT at your practice. (N = 72)
- In your experience, what are the most significant gaps in care in the current radiation treatment patient process where the expertise of an advanced practice radiation therapist is or could be most beneficial? (N = 598)

Thematic Analysis

Responses were qualitatively examined using thematic analysis. The process included:

1. Thematic Analysis: Open-ended responses were analyzed using a modified integrative coding approach.
2. Familiarization: All responses were read in full to gain an overall understanding of the data and to identify preliminary patterns.
3. Coding: Responses were systematically coded to capture recurring ideas, concepts, and actions relevant to APRT implementation, practice and patient care. Coding was conducted iteratively, with codes refined as analysis progressed.
4. Theme Development: Related codes were grouped into broader themes that reflected perceived roles of APRTs, areas of contribution, and identified gaps in care. Themes were reviewed and refined to ensure internal coherence and clear distinction between themes.
5. To enhance rigor, themes were discussed among the research team, and discrepancies were resolved through consensus.

For Question 1, four themes were identified: Clinical care and coordination, Research, Education, Leadership and management. For Question 2, seven themes were identified: Clinical care and coordination, Research, Education, Leadership and management, No gaps in care, No desire for role, Not enough information. Validation: Coding counts and themes were cross-checked to ensure reliability and coherence in the analysis.

Thematic Summary

Themes for each question were summarized as frequency tables showing response counts by professional role. Tables were sorted in descending order by “Total” and alphabetically by profession.

What Is Your Current Professional Role? (Total Survey Sample)

Profession	N	% of Total
Administrator or Manager	83	9%
Medical Dosimetrist	245	26%
Radiation Oncologist	72	8%
Radiation Therapist	325	35%
Therapeutic Medical Physicist	157	17%
Other	51	5%
Total	**933**	**100%**

Frequency Tables of
Coded Responses by Question and Theme

Please Briefly State the Current or Anticipated Role of the APRT at Your Practice

N = 72 Total Verbatim Responses to This Question

Note: Individual comments often included multiple ideas. The totals reflect this rather than single respondents.

Theme 1: Clinical Care and Coordination

Current or Anticipated APRT Role at Your Practice	Administrator	Medical Dosimetrist	Radiation Oncologist	Radiation Therapist	Therapeutic Medical Physicist	Other	Total
To contour and deliver the pts adaptive treatment with support and guidance from the provider and physicist. Provide consistency by being at nearly all the treatments while physics and physician coverage fluctuates.	1	1	4	6	17	1	**30**
Collaborates with the inpatient team to assess and prepare patients before they are brought to the department (follows physician assessment later in workflow); identify patients who may require further interventions, such as pain management, and addresses those needs with radiation oncologist and care team before bringing patient to the department unnecessarily.	8	.	7	8	.	.	**23**
Helping patients during the day of simulation; facilitation of simulation to treatment process for inpatient cases; optimizing simulation and planning workflows with physics/dosimetry, providing detailed patient and family education, ensuring setup accuracy (e.g., bolus placement).	1	.	4	4	.	.	**9**
Serve as leads for specialized services: gyn, brachytherapy, SBRT.SRS	.	.	3	2	2	.	**7**
Post-simulation image registration	.	1	.	3	1	.	**5**
Custom bolus placement on verification appointments	3	.	.	1	.	.	**4**
Input on setup, immobilization, IGRT for complex cases	.	.	2	.	.	.	**2**
Aria and software specialist	.	.	.	1	.	.	**1**
Total by Profession	**13**	**2**	**20**	**25**	**20**	**1**	**81**

Theme 2: Research

Current or Anticipated APRT Role at Your Practice	Administrator	Medical Dosimetrist	Radiation Oncologist	Radiation Therapist	Therapeutic Medical Physicist	Other	Total
Research adjacent to adaptive radiation therapy	.	.	1	1	3	.	**5**
Supports research for physician practice (not hospital-supported as a technical position)	.	.	1	1	.	.	**2**
Research (General)	1						**1**
Workflow/time use improvement research and clinic efficiency efforts	.	.	1	.	.	.	**1**
Total by Profession	**1**	**0**	**2**	**1**	**3**	**0**	**7**

Theme 3: Education

Current or Anticipated APRT Role at Your Practice	Administrator	Medical Dosimetrist	Radiation Oncologist	Radiation Therapist	Therapeutic Medical Physicist	Other	Total
Provide clinical expertise to educate and communicate with patients and staff members, including residents and medical students	2	.	.	2	.	.	**4**
Educating new physicians and physicists on adaptive software	.	.	.	1	1	.	**2**
At our practice, the APRT serves as a clinical and technical bridge between the multidisciplinary team, patients, and families	.	.	1	.	.	.	**1**
Provide training and support for new staff	.	.	.	1	.	.	**1**
Total by Profession	**2**	**0**	**1**	**4**	**1**	**0**	**8**

Theme 4:
Leadership and Management

Current or Anticipated APRT Role at Your Practice	Administrator	Medical Dosimetrist	Radiation Oncologist	Radiation Therapist	Therapeutic Medical Physicist	Other	Total
Quality improvement	1	.	.	.	.	.	**1**
Chief therapist role	.	1	.	.	.	.	**1**
Streamlining communication to improve efficiency, safety, and patient experience throughout the radiation treatment process	.	.	1	.	.	.	**1**
Be a leader and assist in all areas within the organization; help with communication and SOPs, run huddles, and serve as mediator between modalities	.	.	.	1	.	.	**1**
Coordination with social work to ensure appropriate and timely transportation to minimize workflow disruptions and delays	.	.	.	1	.	.	**1**
Total by Profession	**1**	**1**	**1**	**2**	**0**	**0**	**5**

In Your Experience, What Are the Most Significant Gaps in Care in the Current Radiation Treatment Patient Process, Where the Expertise of an Advanced Practice Radiation Therapist Is or Could Be Most Beneficial?

N = 598 Total Verbatim Responses

Note: Individual comments could include multiple ideas. The totals reflect this rather than single respondents.

Theme 1: Clinical Care and Coordination

Gaps in Care Where APRT Expertise Is or Could Be Most Beneficial	Administrator	Medical Dosimetrist	Radiation Oncologist	Radiation Therapist	Therapeutic Medical Physicist	Other	Total
Contouring and delivering adaptive treatment; provide consistency across treatments while physician/physics coverage fluctuates	12	16	10	16	30	5	**89**
Helping patients during the day of simulation; facilitation of simulation to treatment process for inpatient cases; optimizing simulation and planning workflows with physics/dosimetry, providing detailed patient and family education, ensuring setup accuracy (e.g., bolus placement)	12	17	9	37	6	5	**86**
Input on setup, immobilization, gating, IGRT for complex cases	3	9	10	15	11	3	**51**
Collaborate with the inpatient team to assess and prepare patients before they are brought to the department; identify patients who may require interventions (e.g., pain management)	6	3	7	16	3	3	**38**
Serve as leads for specialized services (GYN, brachytherapy, SBRT/SRS, gating, proton)	1	3	4	10	10	2	**30**
Assisting with image fusion and post simulation image registration	5	7	.	5	3	.	**20**
Streamlining imaging and surface guidance protocols for specific sites	1	6	1	9	2	1	**20**
APRT fills gaps when physician availability is lacking	5	2	.	7	3	2	**19**
Physics quality assurance tasks	.	2	1	4	3	1	**11**
Medical physics assistant	2	.	1	1	4	.	**8**

Gaps in Care Where APRT Expertise Is or Could Be Most Beneficial	Administrator	Medical Dosimetrist	Radiation Oncologist	Radiation Therapist	Therapeutic Medical Physicist	Other	Total
Assisting with emergency treatment and triaging referrals	.	1	.	4	1	1	**7**
Daily skin evaluation	.	.	1	5	.	1	**7**
Assisting with custom bolus placement on verification appointments	1	.	2	1	.	.	**4**
Chart checking	1	.	.	2	.	.	**3**
Evaluate prescription vs plan as last line of defense	.	.	.	.	1	2	**3**
Assisting with physician tasks that involve indirect patient care	.	1	.	.	1	.	**2**
Participating in chart rounds	.	1	.	.	.	1	**2**
APRT at the machine for treatment port approval	.	.	.	1	.	1	**2**
Sending DICOM data to other institutions	.	1	.	.	.	.	**1**
Uploading protocol data	.	1	.	.	.	.	**1**
Filling missing or necessary documentation before planning phase	.	1	.	.	.	.	**1**
Weekly clinical visits assessing physical, mental, and emotional effects	.	.	.	.	.	1	**1**
Partnering with imaging and nuclear medicine areas	.	.	1	.	.	.	**1**
Clear distinction between radiopharmaceutical targeted and external beam therapies	.	.	.	.	1	.	**1**
Total by Profession	**49**	**71**	**47**	**133**	**79**	**29**	**408**

Theme 2: Research

Gaps in Care Where APRT Expertise Is or Could Be Most Beneficial	Administrator	Medical Dosimetrist	Radiation Oncologist	Radiation Therapist	Therapeutic Medical Physicist	Other	Total
Clinical research in the actual delivery of radiation treatments	.	.	1	6	.	.	**7**
Data-driven quality improvement projects	.	.	.	1	3	.	**4**
With minimal guidance participate in research projects	.	1	.	.	.	.	**1**
Mandatory research into new treatment techniques	.	1	.	.	.	.	**1**
Research related to clinical devices and device commissioning	.	.	.	.	1	.	**1**
Total by Profession	**0**	**2**	**1**	**7**	**4**	**0**	**14**

Theme 3: Education

Gaps in Care Where APRT Expertise Is or Could Be Most Beneficial	Administrator	Medical Dosimetrist	Radiation Oncologist	Radiation Therapist	Therapeutic Medical Physicist	Other	Total
Provide clinical expertise to educate and communicate with patients and staff members, including residents and medical students (e.g., side effects, simulation to treatment, after treatment resources)	7	16	16	57	10	12	**118**
Provide training and support on new technologies, including understanding physics behind new technologies	2	2	2	10	4	2	**22**
Training radiation therapy students and new radiation therapists in department	6	4	6	.	1	1	**18**
Having a visit prior to simulation for radiation teach; gaps in nutrition, activity, exercise during treatment	.	.	1	9	.	.	**10**
Train and audit RTT staff for reproducibility and accuracy	.	.	1	.	1	.	**2**
Participate in survivorship clinic	.	.	.	2	.	.	**2**
Total by Profession	**15**	**22**	**26**	**78**	**16**	**15**	**172**

Theme 4:
Leadership and Management

Gaps in Care Where APRT Expertise Is or Could Be Most Beneficial	Administrator	Medical Dosimetrist	Radiation Oncologist	Radiation Therapist	Therapeutic Medical Physicist	Other	Total
Streamlining communication to improve efficiency, safety, and patient experience throughout the radiation treatment process. Liaison between therapists, dosimetrists, and physics staff in clinical setting. Including time outs, general safety, and avoiding near misses. Plan to treatment understanding and bridge (physics, dosimetry, therapist)	2	10	6	47	7	3	**75**
Administrative care coordination needs—access to initial consult times; staffing of radiation therapists; managing physician schedules for office follow ups, weekly management visits; requesting outside images; coordinating pre-simulation procedures	1	7	8	14	2	.	**32**
Care coordination needs—addressing social determinants of health, such as transportation, navigation, food insecurity, palliative care referrals, financial assistance resources, and medication access	1	.	1	9	2	.	**13**
Rural and low-density suburban access to radiation oncology care, hub and spoke centers. Leading outreach clinics; adapting care plans to address logistical, cultural, and linguistic barriers; systems-level changes to improve equity to cancer care	1	1	.	9	1	1	**13**
Complete documentation for billing purposes	1	4	.	1	.	.	**6**
Contribute to decision making for new technology purchases	.	.	.	.	1	.	**1**
Radiation safety management	.	.	.	.	1	.	**1**
Total by Profession	**6**	**22**	**15**	**80**	**14**	**4**	**141**

Theme 5: No Gaps in Care

Gaps in Care Where APRT Expertise Is or Could Be Most Beneficial	Administrator	Medical Dosimetrist	Radiation Oncologist	Radiation Therapist	Therapeutic Medical Physicist	Other	Total
No gaps in care	4	24	12	4	4	2	50
Total by Profession	**4**	**24**	**12**	**4**	**4**	**2**	**50**

Theme 6: No Desire for Role

Gaps in Care Where APRT Expertise Is or Could Be Most Beneficial	Administrator	Medical Dosimetrist	Radiation Oncologist	Radiation Therapist	Therapeutic Medical Physicist	Other	Total
We need RTs in treatment roles. We have physicians, dosimetrists, and physicists.	1	8	4	4	7	1	**25**
All radiation therapists learn all of these things as they go through school, and then as they work. Examples lead therapist, chief radiation therapist.	2	3	.	7	2	.	**14**
The national shortage of radiation therapists is in the double digits at around 14%. No need for role.	2	2	3	1	2	1	**11**
Spend resources bolstering current radiation therapist education.	.	.	.	1	7	.	**8**
I don't see a benefit to this role. Much more useful to have a NP helping manage inpatients, ability to order Rx, additional imaging, manage pt side effects that saves the MD time.	2	.	2	1	1	.	**6**
Total by Profession	**7**	**13**	**9**	**14**	**19**	**2**	**64**

Theme 7: Not Enough Information

Gaps in Care Where APRT Expertise Is or Could Be Most Beneficial	Administrator	Medical Dosimetrist	Radiation Oncologist	Radiation Therapist	Therapeutic Medical Physicist	Other	Total
Unsure.	.	.	.	7	5	.	**12**
I haven't heard of the APRT, not sure.	.	9	.	.	.	.	**9**
I would just like to learn more about the role. I think this is an excellent opportunity for radiation therapists who are very limited in opportunities for advancement.	1	.	.	1	.	.	**2**
I have little knowledge of current clinical practice challenges.	1	.	.	.	.	1	**2**
Total by Profession	**2**	**9**	**0**	**8**	**5**	**1**	**25**

Executive Summary for Questions Received Only by Radiation Therapists

The majority of radiation therapist respondents hold a bachelor's degree (56%), followed by associate degrees (20%) and master's degrees (15%). Smaller percentages reported other education levels.

Most respondents hold staff therapist (51%) or senior/lead therapist (30%) positions, with fewer serving as chief therapists, instructors/faculty, program directors or in administrative roles.

Future Plans in the Profession

Respondents were asked about expected work plans, potential changes in work hours and recommending radiation therapy as a profession.

- Over the next year, most respondents expect to remain in their current position (74% of total respondents, with 80% of those providing a definitive response); this percentage decreases to 38% over the next five years.
- Interest in seeking a new position within radiation therapy rises over five years (31%). Fewer respondents expect to retire (3% next year and 9% in five years) or leave the profession (2% next year and 6% in five years).
- The majority do not expect to reduce work hours over the next five years (61% of total).
- Nearly all respondents (92%) would recommend radiation therapy as a profession to a family member or friend.

APRT Status

Radiation therapist respondents were first asked if they were an APRT. Subsequent questions were conditional based on their APRT status.

Questions for APRTs

Only 4% (n = 11) of respondents currently hold an APRT role; among these, 55% (n = 6) are willing to pursue formal certification and 73% (n = 8) report that the role reduced burnout or increased motivation to stay in the profession.

Questions for Non-APRTs

Among non-APRT respondents, 59% are extremely or very interested in pursuing an advanced practice role and 40% are interested in an advanced practice master's degree.

A large majority of non-APRT respondents (84%) agreed that pursuing an advanced practice role would likely reduce burnout and increase motivation.

Four Pillars of Advanced Practice

Respondents were asked about their current engagement in the four pillars of advanced clinical practice, as well as their interest in further developing skills in each area.

Clinical practice was the most frequently reported pillar, with 81% indicating that they are currently engaging in this practice, followed by education (29%), leadership and management (28%), and research (7%).

Interest in further skill development is highest for clinical practice (71% extremely or very interested), with moderate interest in education (51%), leadership and management (50%), and research (46%).

Consensus Committee Work Group Facilitated Discussion Notes

In December 2025 and January 2026, the appointees discussed the survey results, verbatims and modified integrative coding and considered three questions.

Question #1: Potential Goal of APRT in United States

Currently, the advanced practice radiation therapist role (APRT) is not formally established in the United States at the national level — though some institutions have created and defined APRT roles locally within various health systems.

Keeping in mind that the United States health system is structured differently than other countries' health systems, **what would be the goal of an APRT role in the United States? In other words, what is the "why" of the role in the United States?**

Based on the survey results, appointees discussed that potential goals could include:

- Provide continuity of patient care.
- Fill the gaps and bridge the gaps in between specific areas.
- Improve and enhance patient care.
- Support care coordination on the team.
- Optimize the team workflow and communication.
- Improve patient experience on the table and in the department.
- Is the patient comfortable, not in pain, ready to proceed? Phone calls in morning, prepared, glue that facilitates care, mitigating an issue before patient is on the table
- Troubleshoot at the machine.
- Coordinate advanced procedures.
- Improve efficiency and clinical care delivery.
- Demonstrate cost savings and improvement in care by quantifying efficiency, safety and cost savings.

Question #2: What Is the APRT Not in the United States?

In the survey that appointees created together, one question described the APRT within institutions as it currently exists within the United States, which includes an initial definition of what an APRT is not. The role is holistically:

1. an experienced radiation therapist who has completed additional training and education in specific tasks, demonstrated clinical competence to their radiation oncologist-led team and meets the internationally recognized four pillars of advanced clinical practice (clinical, education, leadership and research),
2. within and at the highest level of the radiation therapist practice standards as part of a task-sharing radiation oncologist-led team,
3. compliant with state laws and institutional policies, and
4. a time- and cost-savings model.

An advanced practice radiation therapist cannot prescribe radiation nor provide final approval of a dosimetric plan for therapeutic application. Note: The terms "approve" and "verify" are not interchangeable. Verification is a step prior to approval.

Keeping in mind the United States health system, what else is an APRT not?

Based on the survey results, appointees shared that within the United States, an APRT:

- Is not a role replacement
  - Supports the radiation oncologist
- Is not a nurse
- Is not a social worker
- Is not a dietician
- Is not removing the money from where the money is right now
- Is not a medical dosimetrist
- Is not an independent practitioner (no independent billing)
- Is part of a radiation oncologist-led team
- Is not limited to basic tasks
- Is not dependent on a single technology
- Is not tied to a specific technology, such as adaptive radiation therapy
- Is not focused on evaluation and management work
- Is not medical management
- Is not scope expansion without structure
- Cannot prescribe radiation nor provide final approval of a dosimetric plan for therapeutic application
- Is not required in a department or institution where there is not a need or gap

Question #3: What Could the APRT Be in the United States?

Currently, the APRT role is not formally established in the United States at the national level — though some institutions have created and defined APRT roles locally within various health systems.

Keeping in mind that the United States health system is not a single-payor system and is structured differently than the health systems in other high-income nations (as defined by the World Bank), **what might the APRT be in the United States?**

Based on the survey results, appointees shared that the APRT could potentially be:

- A structured advanced clinical role for experienced, trained, educated and competent radiation therapists that:
  - Operates within a radiation oncologist-led care model, supporting physician practice
  - Is formally structured/integrated, not ad hoc task expansion
  - Is needs-based and patient-centered, not mandated for all departments
  - Is compliant with state laws, licensure and institutional policies and procedures
  - Functions alongside, not duplicating, nurse practitioners and physician associates across broader clinical care
  - Works as part of a radiation oncologist-led team, sharing/shifting tasks or activities
  - Can be different based on setting
- A role focused on clinical complexity, coordination and decision-making, not volume-driven technical tasks

- A bridge role between radiation therapists, physicians, physicists, nursing and inpatient teams; designed to improve access, efficiency, safety and patient experience — without disrupting existing reimbursement or professional boundaries (a time/cost-savings model); created to address bottlenecks given the needs of the department; rooted in evidence-based practice (solves a problem)
- Rooted in master's education and internationally recognized four pillars of advanced practice, which are research, education, clinical practice and leadership; trained under radiation oncologist through a competency model with governance, accountability and education beyond entry-to-practice; education should be competency-based, but then refined at the institutional level based on gaps

The appointees noted that it is important to have physician buy-in for an apprentice model and physician mentorship. The group emphasized that the role should be part of a radiation oncologist-led team and that a definition should avoid being too granular because technologies evolve quickly.

Additionally, the group suggested an educational program structure to support working radiation therapists to complete further education, as opposed to leaving clinical practice.

Other Discussion Notes

The group noted that the APRT role would not bring value in all institutions.

Group members pointed to a few related research articles as a source of confusion and worry. The group agreed that peer-reviewed journals are not the official position, practice standards or curricula for an association or profession. The purpose of research is to further scientific inquiry so that professional leaders, such as those in the group, can make evidence-based decisions to improve the quality, efficiency and safety of person-centered care.

During the discussions, appointees noted that in the ASRT Practice Standards for Medical Imaging and Radiation Therapy, the Practice Standards for the radiation therapist still include items related to treatment planning.

The group discussed the inclusion of research in the APRT role. The current ASRT Practice Standards for the registered radiologist assistant were pulled for comparison:

> Scope of practice, specific criteria for radiologist assistant: "Assisting with data collection and review for clinical trials or other research"
>
> There is also an entire standard (#12) devoted to research, innovation and professional advocacy that says, "The medical imaging and radiation therapy professional participates in the acquisition and dissemination of knowledge, advocacy and the advancement of the profession." This standard includes general criteria such as "improves patient care and clinical outcomes through integration and dissemination of evidence-based research and practice" and "participates in data collection."

Group members noted that a research focus could be a way to justify the role in their own institutions with topics of research in care delivery, quality assurance, person-centered care, treatment delivery or proving the value of the role.

Conclusion

In summary, the Consensus Committee work group, with the goal of evaluating and defining the APRT, emphasized a need to demonstrate that this role is going to improve quality, efficiency and safety without reducing workforce within the United States. Appointees showed a listening and open stance throughout a year of discussion.

The American Association of Medical Dosimetrists, American Association of Physicists in Medicine, American College of Radiology, American Registry of Radiologic Technologists, American Society for Radiation Oncology, American Society of Radiologic Technologists, Joint Review Committee on Education in Radiologic Technology, Elekta, Medical Dosimetrist Certification Board, Siemens Healthineers, Society for Radiation Oncology Administrators and many other organizations in the radiation oncology landscape are in open dialogue and will continue to remain in conversation and communication about this topic and other topics, including ways to support the interprofessional workforce, advocacy for the profession and person-centered care.

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