

# ASTRO news

SPRING 2014

## PATIENT PERCEPTIONS

HOW PATIENTS AND CAREGIVERS  
VIEW RADIATION THERAPY





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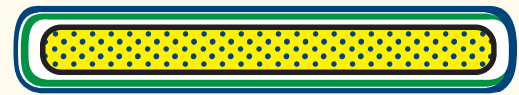




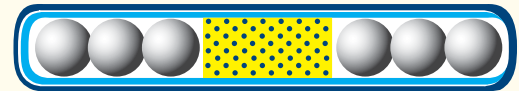
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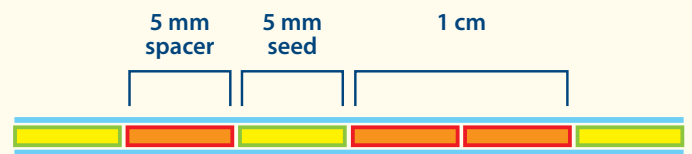
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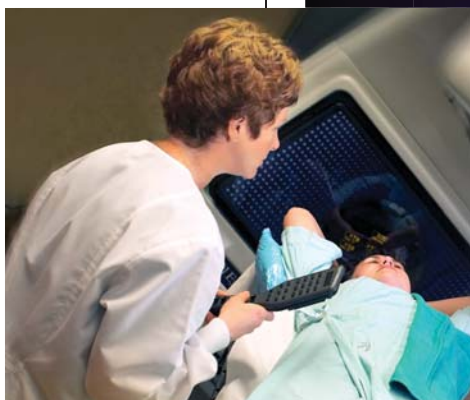
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## ON THE COVER

As part of ASTRO's recent public awareness research, participants were asked to share images they associate with radiation therapy. One of the most mentioned categories was fire, with participants describing feelings of being on fire or being burned from the radiation treatment. For more information, see the story on page 12.



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## 14 Public perceptions about radiation oncology

This past summer, ASTRO conducted public awareness research to update the information the Society has on how radiation therapy is viewed, where patients and caregivers get their information and the general perceptions about radiation oncology.

## 22 Resources for radiation therapy

ASTRO provides resources for patients, caregivers and ASTRO members to ensure people are informed about radiation therapy as a safe and effective treatment option. The Society is also in the process of updating and expanding these resources to make certain the most up-to-date information is available.





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# ASTRO news

AMERICAN SOCIETY FOR RADIATION ONCOLOGY

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## PATIENT, BE THY OWN ADVOCATE

**IT IS NOT EASY BEING A CANCER PATIENT** in the current health care delivery climate where an oncologist is often asked to do more without the infrastructure to support it. As a physician, as well as a patient, I can appreciate the barriers encountered by both in trying to optimize cancer care. How can ASTRO help us all to best navigate this complex process?

Last summer was my first personal experience with cancer. I noticed a pinpoint area of eczema between my eye and nose that in the past had transiently occurred, but seemed to now be resistant to my SPF cream and anti-aging moisturizing potions. If I simply played out my role as a patient, I would have listened to my physicians and continued to use the steroid cream that was prescribed, but as a cancer doc who enjoyed too many summer weekends on the beach, I knew better, questioned the diagnosis and actively sought out a biopsy. Sure enough, it was a skin cancer. Unlike many similar patients, I was already aware of my treatment options and called upon my colleagues in the area to determine the best physician to

perform the procedure. Although my biggest fear was appearing as though I had some horrible unilateral Hollywood face lift, cateye and all, I am happy to report that I still look like me. As a patient and a physician, I knew how to make the medical culture more responsive to my needs—I was my own cancer care advocate.

In the advent of the Affordable Care Act, we all will be witness to dramatic changes in how health care in the United States is attained and delivered. Embedded in this legislation is the need for patients to take a more active role in their medical management. Although it is always more comfortable for a patient to ask their physician to just tell them what to do, patients must learn to “be their own advocate” and now share in the decision-making process. They need to fully understand their disease process, and the outcomes and morbidities associated with all of its treatment options, before making an informed decision.

Let's examine the shared decision-making process in the case of an early stage breast cancer. Mortality rates are the same whether a patient chooses mastectomy, breast conserving surgery followed by breast radiation or observation in select cases. As such, a multidisciplinary discussion is paramount. The patient must understand all of the different options and the pros and cons of each treatment before deciding upon an approach that is right for them. Yet, what happens if the patient is presented with a biased physician opinion and

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Although it is always more comfortable for a patient to ask their physician to just tell them what to do, patients must learn to “be their own advocate” and now share in the decision-making process.

all of the options are not adequately presented? As a physician, we must be willing to improve this conversation with our patients, fully discussing all of the cancer management approaches and their unique risks and benefits in simple terms, and invite our patients to participate in shared decision-making. Patients, on the other hand, must do a better job of being their own advocate, asking their cancer physicians difficult, yet necessary questions, so that they can make the best individual treatment choices. Yet, who teaches our patients these skills?

This process will certainly involve more work on the part of our patients, so we as physicians need to provide them with the tools to more easily accomplish this. In order to do this, it is important to understand where patients and caregivers currently get their cancer care information and how they view

**As a physician, we must be willing to improve this conversation with our patients, fully discussing all of the cancer management approaches and their unique risks and benefits in simple terms, and invite our patients to participate in shared decision-making.**

radiation therapy as a treatment option.

In this issue of *ASTROnews*, we share the results of a public awareness survey conducted this past summer (see “Public perceptions about radiation oncology,” page 14). This research, last completed in 2007, allows us the opportunity to obtain pure, honest feedback about what patients and caregivers think about radiation oncology and how their care may be improved. I encourage you to read through the results and think about how you can use the information with your own patients.

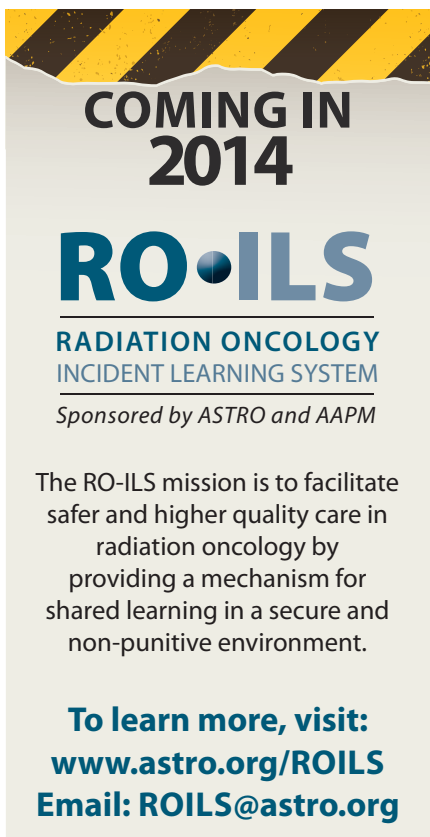
From my perspective, the survey findings underscore the importance of providing our patients with a more thorough discussion of what radiation therapy actually is, as well as what to expect from these treatments in both the short- and long-term. We, and our cancer care delivery team, also need to supply our patients, as well as their families, with resources to remind them of our discussion and support to make their treatment experience the best it can be. At my institution, comprehensive cancer care support services are available to meet the needs of our diverse patients, including cancer support groups, support activities such as yoga and healthy cooking classes, complementary and alternative medicine therapies and lay navigators to guide patients through treatment and survivorship. However, we fall short in providing our patients with specific resources on radiation oncology.

ASTRO provides these much-needed resources for members and patients that relay valuable information

on what radiation is, what a patient can expect from treatment and potential side effects. Patient brochures and a video are available on the ASTRO website. In addition, ASTRO has a patient website, RTAnswers.org, which details this information and also provides patients with a dictionary of terms they are likely to hear in their course of radiation treatment. The results from the public awareness research will help update and expand these resources that we can take advantage of during our communications with patients, other health care professionals and community members. Learn more about these resources in the “Resources for radiation therapy” story on page 22.

Lastly, I would like to thank ASTRO for entrusting me with this important volunteer work. I look forward to interacting with the many talented *ASTROnews* staff and Editorial Board members in delivering a new perspective on the challenges and opportunities for radiation oncology. A special thanks also needs to be given to Dr. Thomas Eichler for his three years of superb senior editorial service. I have large shoes to fill; however, he has promised to lend a pair to me when I most need them. Tom, as a reminder, Jimmy Choo, size 8 and red.

*Dr. Kachnic is chair of the department of radiation oncology at Boston Medical Center and professor of radiation oncology at Boston University School of Medicine. She welcomes comments on her editorial, as well as suggestions for future ASTROnews topics, at [astronews@astro.org](mailto:astronews@astro.org).*



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**OVER THE PAST FEW YEARS**, there has been and continues to be a growing emphasis on quality and safety in the delivery of radiation oncology care. We, as members of ASTRO, currently participate in various quality improvement initiatives, such as clinical practice guidelines, quality assurance white papers, quality measures development, the Radiation Oncology Incident Learning System (RO-ILS) and education programs. I know we all recognize how important it is to continue to advance the quality of care we provide our patients.

ASTRO is taking the opportunity to incorporate our quality improvement efforts into an independent practice accreditation program that, I believe, will greatly and positively impact the quality and safety of radiation oncology care. In addition, it addresses the increase in quality requirements of the insurance payers.

## RECOGNIZING QUALITY AND SAFETY IN RADIATION ONCOLOGY PATIENT CARE

ASTRO's Accreditation Program for Excellence (APEX) is designed to recognize high-quality facilities by objectively evaluating a practice's performance in areas that affect patient care and safety. The implementation of APEX demonstrates ASTRO's continued dedication to promote the highest standards in radiation oncology. APEX has been created around the values of patient-centered care, efficiency, transparency and objectivity—all ideals I believe are vital to ensuring our patients receive high-quality and safe radiation oncology care.

APEX is thematically organized around five pillars: 1) patient-centered care, 2) the process of care, 3) the radiation oncology team, 4) safety and 5) quality management and assurance. These pillars provide a framework for the standards used to evaluate a practice and highlight various aspects of quality radiation oncology care. The program's evidence-based standards were developed by an interdisciplinary radiation oncology team and were vetted through a public comment process. These standards identify systematic quality and safety approaches that build on the regulatory framework to add value for practitioners and health care purchasers. ASTRO's Board of

Directors approved the standards, which were released in January.

Radiation oncology practices based in the United States may apply for ASTRO accreditation. All practice types including freestanding, single- or multi-site organizations or those that are part of a hospital facility are encouraged to apply. APEX uses transparent processes and objective scoring that will yield reproducible results. ASTRO's program includes a self-assessment and peer reviewers with on-site survey visits as part of the evaluation process. Facilities that receive practice accreditation through APEX will have the systems, personnel, policies and procedures in place to provide safe, high-quality patient care. APEX accreditation is granted for a four-year cycle, which gives practices more time to demonstrate process improvements.

It is our hope that with the establishment of APEX, ASTRO will be regarded as the national leader for accrediting radiation oncology practices. Once fully operational, accreditation of a radiation oncology practice will not only ensure quality care to our payers, but, most importantly, it will give additional comfort to our patients who

*Continued on Page 31*

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**The implementation of APEX demonstrates ASTRO's continued dedication to promote the highest standards in radiation oncology.**

## REMEMBERING ASTRO FOUNDER VICTOR A. MARCIAL, MD, FASTRO



**VICTOR A. MARCIAL, MD, FASTRO, A** FOUNDED MEMBER OF ASTRO and a 2002 ASTRO Gold Medalist, passed away December 7, 2013. He was 89.

Born in Puerto Rico, Dr. Marcial obtained a BS in Medicine from the University of Missouri in 1947. He received his MD from Harvard Medical School in 1949. Dr. Marcial completed an internship in 1950 at the Bayamon District Hospital in San Juan, Puerto Rico. From there, he trained in radiation oncology with Juan del Regato, MD, at the Penrose Cancer Hospital in Colorado Springs, Colo. until 1953. From July 1953 through August 1954, he served as a Fellow of the American Cancer Society at the Foundation Curie in Paris, the Christie Hospital in Manchester, United Kingdom, the Radiumhemmet in Stockholm, the Radium Station of Copenhagen in Denmark and the Royal Marsden Hospital in London. Dr. Marcial

conducted six months of his residency at Washington University in St. Louis and another six months at the Tumor Institute in Seattle. After completing his residency, he became the chief of the department of radiation therapy at the I. Gonzalez Martinez Oncologic Hospital in San Juan, Puerto Rico.

In 1958, Dr. Marcial became director of the radiation oncology division of the Puerto Rico Nuclear Center, a role he held until 1978. He then became associate director for medical programs at the Puerto Rico Nuclear Center and acting chair of the department of radiological sciences at the University of Puerto Rico School of Medicine. Following that position, Dr. Marcial was named associate director for clinical research at the University of Puerto Rico School of Medicine and the Puerto Rico Comprehensive Cancer Center, and was eventually named professor and chair of the radiation therapy division of the University of Puerto Rico School of Medicine and University Hospital.

Dr. Marcial was instrumental in the founding of ASTRO and was part of a group committed to creating a “stand-alone” organization to represent the interests of U.S. and Canadian radiotherapists. In October 1958, during a meeting of the steering committee of the American Club of Therapeutic Radiologists (now ASTRO) in Washington, Dr. Marcial was approved as one of the Club’s 79 founding members.

“When I met Victor, we quickly became good friends. I remember interacting with him during the meetings that led to the creation of ASTRO and the start of ASTRO’s


Annual Meetings,” said Herman D. Suit, MD, FASTRO. “He had an excellent sense of humor and will be greatly missed.”

Dr. Marcial made significant contributions to radiation oncology and the multidisciplinary patient care program in Puerto Rico. He played a vital role in establishing the value of the Pap smear in the early diagnosis of carcinoma of the uterine cervix. Dr. Marcial also initiated the Islandwide Cervical Cancer Control Program, which resulted in a 90 percent reduction in the mortality of cervical cancer.

During his time on the National Board of the American Cancer Society (ACS), Dr. Marcial aided in the acceptance of lumpectomy and radiation therapy as a viable alternative to modified radical mastectomy for breast cancer.

“Dr. Marcial was a legend in his contributions to the management of gynecologic cancer not only through the Radiation Therapy Oncology Group but also through the Gynecologic Oncology Group,” said Luther W. Brady Jr., MD, FASTRO. “His contributions laid the foundation for appropriate and proper management of these malignancies.”

He received many awards during his career, including the ASTRO Gold Medal in 2002, ASTRO Fellow in 2006 and honorary life membership of the National Board of Directors of ACS.

He is survived by his wife, María Ivelisse Martínez Colón, and his children, Luisa Vanessa Marcial, MD, Chiara Ivelisse, Víctor Manuel, Víctor Adolfo, Ivonne, Ivette, Juan Carlos and María Eugenia. Dr. Marcial will be deeply missed by all. 



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# SOCIETY NEWS


## ASTRO helps in development of educational series on disparities in cancer care



ASTRO IS ONE OF 13 ORGANIZATIONS that assisted with the multidisciplinary planning of a new educational series addressing disparities in cancer care. The effort was led by the American Society of Clinical Oncology (ASCO) and the LIVESTRONG Foundation, and was funded through ASCO's Conquer Cancer Foundation by a grant from the LIVESTRONG Foundation.

The educational initiative includes a three-part series of eLearning courses, available online on ASCO University. The courses focus on increasing awareness of a variety of disparities, on providing resources to health care professionals to help support efforts to reduce barriers that create disparities and on promoting improved communication and interaction between caregivers and patients to improve cancer care in disparate populations.

The courses are available for CME credit, Continuing Nursing Credit and Pharmacy Education Credit. There is no cost for ASTRO members. More information is available at [www.university.asco.org/disparities](http://www.university.asco.org/disparities).

In addition to the eLearning courses, a series of patient education videos is in development. These videos will explain common barriers to receiving quality cancer care and provide information on navigating these challenges. The videos will be available on ASCO's patient website, [www.cancer.net](http://www.cancer.net). 

## ASTROnews Editorial Board EXPANDS

To ensure *ASTROnews* is meeting members' communications needs and providing relevant insight into current issues facing the specialty, the *ASTROnews* Editorial Board has been expanded to include seven new members, in addition to three current members that will continue their service.

The new members are:

- Benjamin Falit, MD, JD
- Amato J Giaccia, PhD
- Geoffrey S. Ibbott, MD, FASTRO
- Simon N. Powell, MD, PhD
- George Rodrigues, MD, PhD
- Alexander Spektor, MD, PhD
- Paul E. Wallner, DO, FASTRO.

In addition, the Editorial Board has three returning members:

- H. Joseph Barthold, MD
- Tomas Dvorak, MD
- Dirk Rades, MD.

The Editorial Board will continue to provide ASTRO members important information as it relates to ASTRO and the specialty through the publication of *ASTROnews*. The Editorial Board is also interested in story ideas and topics for future issues.

Please send any comments or suggestions to [astronews@astro.org](mailto:astronews@astro.org). 



## ASTRO accepting nominations for 2014 recognition awards

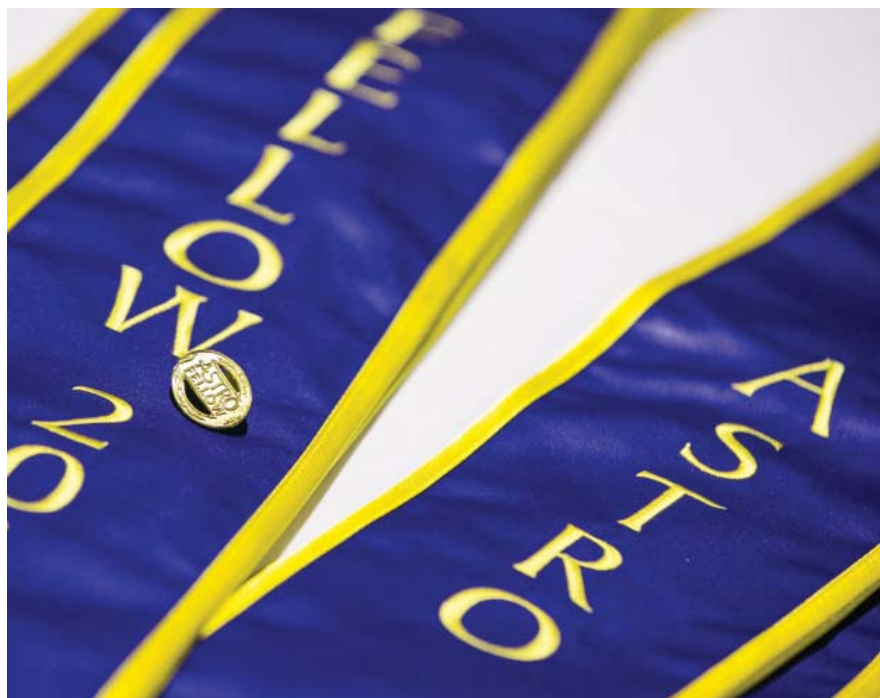
ASTRO HAS OPENED NOMINATIONS for its annual recognition awards. Presented at the Awards Ceremony at the Annual Meeting, these three categories of awards honor individuals who have made substantial contributions to the field of radiation oncology, as well as leaders in other oncology disciplines.

### Gold Medal

The Society's highest distinction is the Gold Medal. This award honors members who have made outstanding contributions to the field of radiation oncology, including research, clinical care, teaching and service. Gold Medal Award recipients may be selected from any of the scientific disciplines represented by ASTRO's members. The nomination submission deadline for the Gold Medal Award is April 30, 2014.

### ASTRO Fellow

The ASTRO Fellows designation is granted based on length of ASTRO membership and commendable service to ASTRO and to the field of radiation oncology. To be considered, nominees must have at least 15 years of active ASTRO membership and significant




service to ASTRO. Other factors considered for Fellows designations include leadership and service, research, patient care and education. The nomination submission deadline for the Fellows program is May 9, 2014.

### Honorary Member

Honorary Membership in ASTRO is the highest recognition the Society

confers on notable cancer researchers and leaders in disciplines other than radiation oncology, radiation physics or radiobiology. The nomination submission deadline for Honorary Membership is April 30, 2014.

For more information on ASTRO's recognition awards, visit [www.astro.org/Recognition-Awards](http://www.astro.org/Recognition-Awards). 

## In Memoriam

ASTRO has learned that the following members have passed away.

Our thoughts go out to their family and friends.

Victor A. Marcial, MD, FASTRO

Juan A. Santos-Miranda, MD, PhD

The Radiation Oncology Institute (ROI) graciously accepts gifts in memory of or in tribute to individuals. For more information, call 1-800-962-7876 or visit [www.roinstitute.org](http://www.roinstitute.org).


# SOCIETY NEWS

## Three companies elected to Corporate Advisory Council

ASTRO's Corporate Membership has elected the following companies to serve on the Corporate Advisory Council: CIVCO Medical Solutions, D3 Radiation Oncology Solutions (re-elected) and Vantage Oncology.

Through a synergistic relationship between ASTRO and its corporate members, the Council focuses on issues and initiatives of mutual concern in radiation oncology to increase awareness of radiation therapy and to advance the science and practice of cancer treatment and patient care. Together with ASTRO leadership, the Council convenes several times a year via conference call and holds an in-person meeting at the ASTRO Annual Meeting. Past discussion topics have included CPT codes, the Sunshine Act, public awareness survey results and the National Radiation Oncology Registry.

The Council is a smaller, representative group of the corporate membership-at-large, with an appropriate proportional mix from the corporate membership base. Seats on the Council are held by high-level decision makers within the corporation and are equally balanced between large and small corporations to represent a broad cross-section of the industry.

Council seats are held for three-year terms, and all corporate members can nominate their company to serve on the Council. Nominations are accepted every fall with elections conducted during the winter. For more information about the Council and/or Corporate Membership, please contact Derek Bullington at 703-839-7344 or [derekb@astro.org](mailto:derekb@astro.org). 

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|  | CIVCO Medical Solutions         | Nat Geissel         |
|  | D3 Radiation Oncology Solutions | Ron Lalonde, PhD    |
|  | Vantage Oncology                | Michael Fiore       |



CORPORATE ADVISORY COUNCIL MEMBERS MET IN ATLANTA DURING ASTRO'S 55TH ANNUAL MEETING.

**Front Row (from left):** Deborah Kuban, MD, FASTRO; Kolleen Kennedy, Varian Medical Systems; Greg Spurlock, Alliance Oncology; Jeffrey Carlin, Bogardus Medical Systems; Laura Thevenot; Benedick Fraass, PhD, FASTRO. **Back Row (from left):** Ron DiGiaimo, Revenue Cycle; Donald Goer, PhD, IntraOp Medical; Daniel Coppens, Qfix; Timothy Williams, MD, FASTRO; Mark Bruseski, Brainlab; Bruce Haffty, MD, FASTRO; Raymond Riddle, Standard Imaging



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# Public perceptions about radiation oncology

## RESEARCH SHOWS HOW PATIENTS AND CAREGIVERS VIEW RADIATION THERAPY

BY BRITTANY ASHCROFT, COMMUNICATIONS MANAGER, BRITTANYA@ASTRO.ORG

*A decade ago, in 2003, ASTRO conducted its first cancer patient/survivor research to serve as the basis for our public awareness activities, including patient brochures, a patient website (RTAnswers.org) and collaborations with cancer patient support groups.*

*In 2007, the research was updated and questions were expanded to obtain more detailed information about how patients and other health care professionals viewed radiation oncology and if cancer survivors were presented with radiation therapy as a treatment option.*

*This past summer, ASTRO once again conducted public awareness research to update the information on how radiation therapy is viewed, where patients and caregivers get information about cancer care and the general perceptions about radiation oncology. The findings will be used to further inform ASTRO's patient advocacy and outreach efforts. The three research efforts were conducted by Public Opinion Strategies, a leading public opinion research firm in Alexandria, Va.*

### METHODOLOGY

ASTRO formed a small task group to work with the research firm to ensure key questions were included. The task group included ASTRO President Bruce Haffty, MD, FASTRO, Francine Halberg, MD, FASTRO, Louis Harrison, MD, FASTRO, and Thomas Eichler, MD, FASTRO.

Public Opinion Strategies, on behalf of ASTRO, organized a QualBoard, or online bulletin board, with 18 cancer patients and caregivers participating. This format allowed respondents to answer questions posted by the moderator while reading and responding to other participants' posts. Participation occurred at different times during the day, and all participated for a minimum of one hour per day over a three-day period. The 18 respondents were selected to represent a cross-section of cancer patients from various parts of the country and different types of cancer. Twelve of the respondents received radiation therapy, and six were caregivers for someone who was treated with radiation therapy.

In addition to the QualBoard, Public Opinion Strategies conducted a national Internet survey of 803 adults.

Respondents were selected from an online panel of more than 6.5 million adults. Each respondent was screened to ensure data quality. Quotas were set for gender, age, region, ethnicity and education level to provide a representative sample of adults. The survey questions were developed based on responses from the QualBoard and previous ASTRO surveys.

### KEY FINDINGS

Public Opinion Strategies established eight key findings from the results of the QualBoard and Internet survey.

#### **KEY FINDING #1: Cancer is touching many lives, and Americans are taking a more active role with the disease.**

Four in 10 Americans have themselves or someone in their





Respondents were asked to describe or submit an image that shows what they “see” when radiation therapy is used to treat cancer. The majority of images fell into one of four categories: lasers/beams, bombs/attacks/bursts, lightning or fire.

immediate household who has been diagnosed with and treated for cancer (41 percent). Of that 41 percent, 13 percent were treated themselves and 31 percent had a household member treated for cancer. The number increased to nearly six out of 10 when asked if an immediate family member outside of their household had ever been diagnosed with and treated for cancer, with 59 percent responding yes. Of the 41 percent of people with a cancer patient in their household, 70 percent acted as the primary caregiver, providing emotional, financial or other critical support.

#### **KEY FINDING #2: The basic views toward radiation therapy remain largely unchanged.**

Respondents were asked to rate how they felt about the terms cancer surgery, radiation therapy, chemotherapy and brachytherapy, on a scale from one to 100, where one is a “cold and unfavorable feeling” and 100 is a “warm and favor-

able feeling.” The following ratings are mean scores. Radiation therapy’s rating stayed fairly consistent with a rating of 49 in 2013, 53 in 2007 and 51 in 2003. Cancer surgery was consistent as well, with ratings of 55 in 2013, 57 in 2007 and 56 in 2003, while chemotherapy decreased slightly with a rating of 47 in 2013 compared to 54 in 2007 and 52 in 2003. Brachytherapy was rated at 40 in 2013 and was not rated in 2007 or 2003.

Respondents who gave a higher/more favorable rating (80-100, 18 percent of participants) said that radiation therapy is an effective treatment that helps to eliminate or slow the growth of cancer with limited side effects, particularly when compared to chemotherapy. Those who gave a moderate/mixed rating (50-79, 42 percent of respondents) were divided on several issues related to radiation therapy, including its ability to treat cancer/success rate, side effects and their own personal or family member experiences.

*Continued on Page 16*

... 91 percent of respondents who had cancer themselves considered radiation therapy a part of their treatment, not a “last resort”...

**KEY FINDING #3: Respondents tell us there has not been any significant change in the amount of information they have heard recently about radiation therapy.**

Respondents were asked how much they have seen, read or heard about radiation therapy in the past two to three months. In both the 2007 and 2013 survey, 23 percent of respondents noted they had heard “a lot/some” information about radiation therapy. Those who had seen, heard or read information about radiation therapy were asked if it gave them a more or less favorable impression of radiation therapy. In 2013, 42 percent responded more favorably (up from 33 percent in 2007), 11 percent said less favorable (improved from 22 percent in 2007) and 29 percent said it made no difference (down from 44 percent in 2007).

Additionally, responses showed that there are a number of different outlets from which people receive the information. Twenty-three percent received information from friends, neighbors or family (up from 17 percent in 2007),

21 percent from the Internet or a website (up from 4 percent in 2007), 19 percent from television (up from 13 percent in 2007) and 11 percent from a doctor or medical professional (up from 5 percent in 2007). Other sources of information included newspaper, magazine, personal experience and radio. Recall of information from the Internet has greatly increased since 2007, moving from the bottom of the list of information sources to one of the most used.

**KEY FINDING #4: There is slightly broader acceptance of radiation therapy as part of the cancer fighting regimen. There is greater recognition today of the role radiation therapy plays in treating cancer, with eight in 10 (79 percent) saying that it is “part of the entire treatment approach,” and just 14 percent viewing it as the “last resort.”**

Respondents with an opinion about radiation therapy were given two viewpoints and asked to select which one was closer to the way they felt about radiation therapy. In 2013, 79 percent agreed with the statement: “Doctors use radiation therapy when it is appropriate as part of an entire treatment approach, and it can be used at the same time as other kinds of treatment or by itself.” In 2007, 67 percent selected this response, and in 2003, 70 percent selected this response.

Comparatively, in 2013, 14 percent chose the second response: “Doctors use radiation therapy only as a last resort when other forms of cancer treatment have not been successful.” In 2007, 27 percent selected this response, and in 2003, 23 percent chose this response. ASTRO is making progress in dispelling the notion that radiation therapy is only used as a treatment of last resort.

In addition, 91 percent of respondents who had cancer themselves considered radiation therapy a part of their treatment, not a “last resort,” while 76 percent of those with a cancer patient in their household agreed, as did 78 percent of caregivers. Twelve percent ranked radiation therapy as a “treatment of last resort,” compared to 31 percent for chemotherapy and 14 percent for surgery. Forty-three percent responded that they had not developed an opinion about the question.

Concerns about radiation therapy included general side effects, success rate/effectiveness, damage to healthy tissue, cost, pain and burned skin. Side effects respondents associated with radiation therapy included hair loss, nausea/vomiting, fatigue/exhaustion/tiredness and burns/scars.

**Louis Harrison, MD, FASTRO**

**What are the takeaways that best summarize for you the findings from the research?**

The relatively low public awareness of what a radiation oncologist is and what we do. This is a major obstacle to our success. It hurts our ability to attract patients directly and from primary care physicians.



**How will the results influence how you provide information to your patients?**

It underscores the importance of establishing a strong doctor-patient relationship and making sure patients understand what we are doing for them. They need to understand the technical skills required to deliver radiation therapy well, to optimize cure and reduce complications.

**Why is this research important to radiation oncology and ASTRO members?**

Only through understanding and measuring our impact can we better strategize about our mission to improve our standing in the eyes of the medical community and our patients.

**KEY FINDING #5: Buttressing QualBoard findings, there is a large swath of America that does not know what a radiation oncologist is or does.**

Respondents were asked to rate their favorability about various medical professionals (oncologists, cancer surgeons, radiologists, medical oncologists and radiation oncologists) on a scale of one to 100 or to mark “never heard of.” Radiation oncologists rated a mean score of 63, slightly more than the 50 neutral rating, with 35 percent of respondents marking they had never heard of a radiation oncologist. The more neutral rating for radiation oncologists can be explained by a lack of knowledge of respondents regarding the specialty and an inability to form a strong opinion as a result.

The results from the survey reinforced findings from the QualBoard about radiation oncologists. Respondents often blurred the lines between radiation oncologists and other members of the treatment team. Many used the term “radiologist” to include everyone in the radiation treatment process. While respondents answered positively regarding their treatment, it is generally in the context of a team environment and not specifically related to their radiation oncologist.

**KEY FINDING #6: To most patients and caregivers interviewed, the term “cancer care team” is a broad concept, encompassing people at all points of the spectrum from oncologists and surgeons to family members and support groups, to the receptionists and technicians.**

QualBoard participants, both patients and caregivers, said that “medical professionals attend to the physical needs of patients, but family, friends and therapy groups are critical in ensuring patients receive the support, comfort and reassurance during the treatment process.” These same participants were asked for suggestions on improving the cancer care team. Responses included allowing more time for discussions

**Bruce Haffty, MD, FASTRO, ASTRO President**

**What are the takeaways that best summarize for you the findings from the research?**

Patients perceive the side effects of radiation as significant, referring to “burned skin.” There is a perception that the radiation oncologist may underplay the side effects, and patients want to have more attention paid to discussion of the side effects of treatment. Overall, radiation has a favorable profile and is not felt to be the treatment of last resort.



**How will the results influence how you provide information to your patients?**

I will likely take more time in discussing the details of the side effects of therapy and emphasize the positive risk-benefit ratio of treatment.

**Why is this research important to radiation oncology and ASTRO members?**

ASTRO and our membership need to better understand how the public perceives our specialty so we are better able to communicate to our patients, referring physicians and the public the value of what we do. In an environment of increased emphasis on value and cost-benefit ratio, it is important that we are able to demonstrate and communicate the value of our treatment modalities.

**INTERNET SURVEY PARTICIPANT DEMOGRAPHICS**

| AGE   |     | GENDER |     | CANCER                           | DISEASE SITE* |     | TREATMENT**         |     |
|-------|-----|--------|-----|----------------------------------|---------------|-----|---------------------|-----|
| 18-24 | 9%  | Male   | 48% | Total Yes, Self and/or HH Member | Breast        | 26% | Surgery             | 68% |
| 25-34 | 19% | Female | 52% | Yes-Self                         | Skin          | 19% | Chemo               | 46% |
| 35-44 | 19% |        |     | Yes- Household Member            | Lung          | 12% | Radiation           | 43% |
| 45-54 | 13% |        |     | Yes-Family Member Outside HH     | Prostate      | 11% | Active Surveillance | 5%  |
| 55-64 | 23% |        |     |                                  | Colon         | 9%  | Other               | 9%  |
| 65+   | 17% |        |     |                                  | Other         | 51% |                     |     |

\* Yes, Self and/or HH Member

\*\*Yes, Self and/or HH Member, include all treatments received

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## A majority of cancer patients and caregivers look to their primary care physician for advice in the decision-making process.

### Francine Halberg, MD, FASTRO

#### What are the takeaways that best summarize for you the findings from the research?

We need to increase our outreach efforts, both as individuals and as an organization, to physicians in other specialties about the role and benefits of radiation therapy for their cancer patients. In addition, we need to keep increasing the availability of high-quality information about radiation oncology.



#### How will the results influence how you provide information to your patients?

I have incorporated the “messages” that this research has produced into patient consultations. This has made it easier for patients to feel good about their treatment and their team, which can also be healing.

#### Why is this research important to radiation oncology and ASTRO members?

We need to continue to work on communication strategies to improve awareness and understanding of radiation therapy. Data from the public awareness research will make us more effective in helping our patients, as well as colleagues in other specialties, during the difficult treatment decision-making process.

between the patient and medical team to foster stronger channels of communication and to improve the treatment process.

#### **KEY FINDING #7: Our world has changed since the last survey in 2007 in a way that has direct repercussions for how people gather information and have become more engaged in their own treatment.**

In 2013, 62 percent of respondents obtained additional information about the cancer treatment they were to undergo

via the Internet, compared to 33 percent in 2007 and 2003. Additionally, 44 percent received information from friends and family, compared to 18 percent in 2007 and 23 percent in 2003. Specifically, 61 percent of those who received radiation therapy obtained additional information via the Internet, and 53 percent from friends and family. Forty-three percent also received additional information from materials in their oncologist’s office.

Respondents showed that their oncologist and primary care doctor played a prominent role in the decision about what course of treatment to choose. In 2013, 68 percent consulted their oncologist, compared to 50 percent in 2007 and 56 percent in 2003. Forty-one percent consulted their primary care doctor in 2013, consistent with 41 percent in 2007 and down slightly from 45 percent in 2003.

#### **KEY FINDING #8: Primary care doctors do have a role in the treatment decision-making scenario.**

A majority of cancer patients and caregivers look to their primary care physician for advice in the decision-making process. Fifty-seven percent discussed their treatment with their primary care physician, and 96 percent rated that their primary care physician’s advice was very important to their decision.

Among those respondents who received radiation therapy, 53 percent discussed treatment options with their primary care physician. That number increases to 62 percent among those treated with chemotherapy.

#### **MOVING FORWARD**

ASTRO is currently examining various ways to incorporate these research results to provide better information to cancer patients and caregivers. The patient brochures available for

#### TOP WORDS ASSOCIATED WITH TREATMENT

| RADIATION | CHEMOTHERAPY | SURGERY |
|-----------|--------------|---------|
| Hopeful   | Uneasy       | Scared  |
| Safe      | Anxious      | Hopeful |
| Accepting | Uncertain    | Uneasy  |
| Confident | Scared       | Panicky |

## CRITICAL COMMUNICATION

QualBoard respondents participated in a two-part exercise. During one exercise, respondents read 13 statements and selected two to three that they felt were the most important to communicate to patients diagnosed with cancer and considering radiation therapy. The statements in this exercise were excerpts from longer statements in another exercise. The statements and participants' comments appear below in the order respondents ranked each statement (*see below*).

In another exercise, respondents read a series of 13 statements about radiation therapy and rate the statement on a scale of one to 10, where one means the statement makes them feel less comfortable with radiation therapy, and 10 means the statement makes them feel more comfortable with radiation therapy. The statements, rankings and responses to this exercise are available on *ASTRONews* online at [www.astro.org/astronews](http://www.astro.org/astronews).

| Message Summary  | Sample Comments from Respondents   |
|--|--|
| <b>The goal of radiation therapy is to selectively deliver enough radiation directly into the cancerous area so that the cancer cells are killed, while preventing damage to healthy tissue.</b>           | <p>"It is really important to tell the patient that the radiation will not be whole body, but only sent to specific areas that hold the cancer. I think too many people think of the chest X-ray, which is not very narrow beam delivery. So this would alleviate any fear that other areas of the body would be overexposed to the radiation."</p> <p>"I think they would like to know that the cancerous area is specifically targeted and the healthy tissue is not affected."</p>  |
| <b>Radiation therapy kills cancer cells by damaging their DNA and destroying their ability to grow and reproduce.</b>  | <p>"[It] is very important as it explains that the radiation attacks the bad cells and prevents them from reproducing, but does not damage the good ones. [It] gives the patient a bit of comfort in knowing there will not be any widespread damage from treatment."</p> <p>"It's a great scientific explanation and lets people know that there is a different action on cancer cells and healthy cells."</p>  |
| <b>Each external beam radiation treatment is painless and takes only a few minutes.</b>  | <p>"It describes precisely what and how it is going to happen and provides a communication element between patient and doctor to keep side effects at a minimum."</p> <p>"A lot of people have concerns regarding pain and the effects of radiation treatment. I believe that this statement speaks to those issues and helps to calm some fears."</p>   |
| <b>One of the most important advances during the last 10 to 15 years has been the development of sophisticated new technologies which allow highly precise targeting of radiation therapy.</b>             | <p>"By targeting these beams to within minute accuracy there can be destruction of the tumor and leave the normal healthy tissue 'relatively unscathed.'"</p> <p>"I think it's important for people to know that radiation has advanced and the trained professionals have the ability to use the technology to pinpoint the cancer cells they want to destroy as well as work toward preserving other 'good' cells."</p>  |
| <b>Radiation therapy is a crucial part of cancer therapy.</b>  | <p>"I think [this statement] emphasizes the need for a holistic approach; you need to treat the cancer with multiple, effective treatments in order to get optimum results."</p> <p>"The term 'life-saving' gives the patient some comfort and hope for the future."</p>   |
| <b>Radiation oncologists are the cancer specialists who evaluate and treat patients with radiation therapy.</b>  | <p>"[This statement] is important because it gives the best overall description of what the [radiation oncologist] will do/be doing."</p>  |
| <b>Patients can take comfort in knowing that the radiation therapists are right outside the treatment room and that their doctors can see and hear them at all times during their course of treatment.</b> | <p>"It provides patients with peace and comfort knowing someone is right there administering and monitoring the entire treatment. The machines can be quite intimidating. Further, the statement advises how the doctor monitors the progress of treatment, which is also comforting to know."</p> <p>"Yes, I want to know that there are people looking in to make sure the treatment is going as planned. Sometimes in the radiation treatment room, you feel so alone. It was nice to hear a voice every so often..."</p> |

*Continued on Page 20*

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## SHARED EXPERIENCES

***During the QualBoard, participants were asked to write a short email to a friend or family member who had been diagnosed with cancer and share their radiation therapy experiences. Here are some of their responses.***

"I'm sorry to hear about your diagnosis, and I hope you have found the problem early in the process. I have unfortunately experienced cancer many times through my friends and relatives and know the only way to beat it is to treat it early, be informed, get answers then get more answers and be aggressive. I've experienced both sides, and if it were me, I'd be doing a lot of research, take 'advice' from friends and family with a grain of salt, don't believe everything the doctor tells you and fight like hell." —*Caregiver, Colon and Breast Cancer, Female*

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"Here are a few suggestions from a survivor myself. Please follow your doctors' suggestions. I'm not saying do so blindly but with an informed state of mind. Ask any and every question that you feel you need answered. If your doctor is not willing to respond, please find someone else. You are entitled to know and understand what is happening in your treatment plan. Don't rely on the Internet solely." —*Patient, Breast Cancer, Female*

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"I can share with you my experience with radiation therapy was very positive with a positive outcome. I would suggest that you be very comfortable with your [provider]. I would say anything less than 100 percent confidence in your treatment providers is not acceptable. My providers took plenty of time during initial consultation and allowed ample time for questions. All questions were answered and explained in detail, especially if they perceived we did not understand. It would be hard to imagine having such an important therapy for a potentially devastating illness and not be comfortable with your health care provider. Please choose carefully." —*Caregiver, Lymphoma/Leukemia/Hodgkin's, Male*

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"Follow all of their advice. They do this every day for many people. Trust them. Don't be afraid to ask any question. Make sure you tell them every side effect you have. Communicate!!!! Remember to call me anytime you need me. I will be there for you." —*Patient, Breast Cancer, Female*

## Thomas Eichler, MD, FASTRO

### **What are the takeaways that best summarize for you the findings from the research?**

The most surprising result of the survey was how many people still refer to us as "radiologists." The other somewhat unexpected finding was that patients felt that they weren't given enough information such as on the side effects of radiation therapy.



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### **How will the results influence how you provide information to your patients?**


I now spend additional time describing the side effects of treatment, even though I tend to review the sequelae of treatment in considerable detail already.

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### **Why is this research important to radiation oncology and ASTRO members?**

Most patients view "the" oncologist as their medical oncologist. We need to do a better job of defining ourselves as radiation oncologists and of underscoring with patients the importance of what we do.

patients, cancer support organizations and ASTRO members are being updated to include more information on side effects, and more detailed language to better describe the treatment team, specific modalities and disease sites. In addition, new patient videos are in development that will also focus on more detail in these areas. An updated PowerPoint presentation for use at Rotary club meetings and other community presentations and a presentation for use during grand rounds and meeting with physicians are currently in development. (see "Resources for radiation therapy" on page 22).

ASTRO will also seek additional opportunities to publicize the benefits of radiation therapy, including outreach to primary care physicians and coordination with other cancer organizations to place information about radiation therapy on those websites. If you have suggestions on other ways ASTRO can inform patients about the benefits of radiation therapy, please send them to [astronews@astro.org](mailto:astronews@astro.org). 





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Radiation Oncology



# Resources for radiation therapy

*ASTRO provides information about treatment for patients, caregivers, health care professionals and the public*

BY BRITTANY ASHCROFT, COMMUNICATIONS MANAGER, BRITTANYA@ASTRO.ORG

## AS THE LEADING ORGANIZATION IN RADIATION

**ONCOLOGY**, an essential aspect of ASTRO's mission is to provide information about the field. One key element of that work is to provide resources for patients and caregivers, as well as ASTRO members, to ensure people are informed about radiation therapy as a safe and effective treatment option. ASTRO is also in the process of updating and expanding these resources.

## RTANSWERS.ORG

ASTRO's patient website, RTAnswers.org, is a resource for patients and caregivers to find detailed information about radiation therapy; what to expect before, during and after treatment; questions for patients to ask about radiation safety; and a dictionary to help patients with terms they will hear.

Last year, the "Find a Radiation Oncologist" section of the website was enhanced to allow patients to search for a radiation oncologist by distance (50 miles maximum) from a zip code or city and state, which allows patients to see the 50 closest (by proximity) radiation oncologists. Patients can also search based on options including city, state, specialty and languages. In the coming months, ASTRO will review the information on RTAnswers.org for content freshness with the goal of expanding the areas on survivorship, side effects and long-term symptom management.

## PATIENT BROCHURES

ASTRO offers award-winning patient brochures to provide valuable information to those receiving radiation

therapy treatments. Currently, there are 16 brochures available in print and/or online in English, with three translated into Spanish. Each brochure explains in detail what a patient can expect when being treated with radiation, including the types of treatment available and potential side effects, as well as descriptive information regarding the various members of the treatment team.

In addition to brochures on the treatment team, specific disease-site brochure topics include breast; prostate; lung; head and neck; colon, rectum and anus; brain; skin; gynecologic; bladder; lymphoma; upper GI; brain metastases and bone metastases. Printed versions of the brochures are available to provide to patients and other health care professionals at [www.astro.org/MyASTRO/Products/Index.aspx](http://www.astro.org/MyASTRO/Products/Index.aspx). Downloadable PDF versions of the brochures are available at RTAnswers.org.

With the recent completion of updated public awareness research (see "Public perceptions about radiation oncology" on page 12) and ASTRO's involvement in the *Choosing Wisely®* campaign, ASTRO's Communications Committee is in the process of reviewing the brochures for readability and for inclusion of more detailed side effect information, updated technology information and elements from ASTRO's *Choosing Wisely* list.

In the updated brochures, the printed version will remain a four-fold format and will include additional information about the role of the radiation oncologist and more details on possible side effects of treatment. The online version will offer an expanded version of the printed brochure with more detail on the radiation oncology treatment team, including hyperlinks to more information on the Web.





## PATIENT VIDEOS

ASTRO has developed a 17-minute informational patient video, “An Introduction to External Beam Radiation Therapy,” to explain the radiation treatment process from start to finish while addressing frequently asked patient questions and concerns. The video also includes testimonials from patients about their experiences while undergoing radiation therapy.

Members can embed the video on their own websites to show to patients or guide their patients to RTAnswers.org to view the video. In addition, the video is available for sale on DVD for those centers wishing to include it in patient packets.

This year, ASTRO is working on three additional patient videos. These videos will cover radiation therapy for lung cancer, breast cancer and prostate cancer.

## ADDITIONAL TOOLS AND TEMPLATES

In addition to RTAnswers.org, patient brochures and videos, ASTRO offers other resources to members to help relay accurate information about radiation therapy to patients, other health care professionals and the general public.

In the “Tools and Templates” area of the “My ASTRO” section of ASTRO.org, members will find PowerPoint presentations and website templates to use, free of charge.

There are two PowerPoint presentations members can download. The radiation therapy presentation for health care professionals presentation provides a detailed overview of radiation therapy, the treatment process and clinical application of radiation in the management of cancer. These slides are designed for use in grand rounds and presentations to other medical professionals.

The radiation therapy presentation for the public, “Understanding Radiation Therapy,” is a shorter PowerPoint


designed for use with patients and the general public. It offers a basic introduction to radiation oncology, the members of the radiation treatment team and the different types of radiation therapy.

ASTRO is currently updating both of these PowerPoint presentations. Once complete, the updated slides will be available on the ASTRO website.

In addition to the PowerPoint presentations, ASTRO has created an information-packed, easy-to-navigate website template that members can use and personalize. The template includes:

- “An Introduction to External Beam Radiation Therapy” patient video.
- Disease specific information on cancers commonly treated with radiation, including breast, prostate and lung cancer.
- Description of the radiation therapy treatment team.
- Explanations of external beam radiation therapy and brachytherapy.
- Clinical trials information that explains how they work and how patients can participate.
- Information on managing side effects.
- A list of questions patients may want to ask their doctor before beginning treatment.

The site also contains pages that members can personalize to include names and photographs of treatment team members, directions to the facility, contact information and insurances accepted. Two versions of the basic template are provided free to all ASTRO members.

These resources are available to all ASTRO members in the “My ASTRO” portion of the ASTRO website. In addition, the patient video is available on RTAnswers.org. If you have any questions, contact [communications@astro.org](mailto:communications@astro.org). 



## ASTRO AND SOCIETY OF SURGICAL ONCOLOGY ISSUE CONSENSUS GUIDELINE ON MARGINS FOR BREAST-CONSERVING SURGERY WITH WHOLE BREAST IRRADIATION

ASTRO AND THE SOCIETY OF SURGICAL ONCOLOGY (SSO) have issued a consensus guideline on margins for breast-conserving surgery for invasive breast cancer.

The “Society of Surgical Oncology-American Society for Radiation Oncology Consensus Guideline on Margins for Breast-Conserving Surgery With Whole-Breast Irradiation in Stages I and II Invasive Breast Cancer” was developed by a multidisciplinary consensus panel of breast experts who developed the statement using the results of a meta-analysis of margin width and ipsilateral breast tumor recurrence (IBTR) from a systematic review of 33 studies from MEDLINE and evidence-based medicine published from 1965 to January 2013, in the context of outcomes from contemporary trials.

Studies eligible for inclusion in the meta-analysis allowed for calculation of the proportion of IBTR in relation to margin widths, included information on microscopic margins reported quantitatively with defined threshold distances/widths and included the patient age data. The studies encompassed 28,162 patients with stage I or II invasive breast cancer, treated with whole breast irradiation and with a minimum median follow-up time of four years. Patients treated with neoadjuvant chemotherapy or with pure ductal carcinoma in situ (DCIS) were not included.

The primary clinical question was “What margin width minimizes the risk of IBTR?” Specific clinical circum-


stances that could impact the question, such as tumor histology, patient age, use of systemic therapy and technique of radiation delivery, were also examined.

The consensus guideline includes the following eight clinical practice guideline recommendations: 1) positive margins, defined as ink on invasive cancer or DCIS, are associated with at least a two-fold increase in IBTR. This increased risk is not nullified by delivery of a boost, delivery of systemic therapy or favorable biology; 2) negative margins (no ink on tumor) optimize IBTR. Wider margin widths do not significantly lower this risk; 3) the rates of IBTR are reduced with the use of systemic therapy. In the event a patient does not receive adjuvant systemic therapy, there is no evidence suggesting that margins wider than no ink on tumor are needed; 4) margins wider than no ink on tumor are not indicated based on biologic subtype; 5) the choice of whole breast irradiation delivery technique, fractionation and boost dose should not be dependent on margin width; 6) wider negative margins than no ink on tumor are not indicated for invasive lobular cancer. Classic lobular carcinoma in situ (LCIS) at the margin is not an indication for re-excision. The significance of pleomorphic LCIS at the margin is uncertain; 7) young age ( $\leq 40$  years) is associated with both an increased local relapse on the chest wall after mastectomy and is more frequently associated with adverse biologic and pathologic features. There is no evidence that increased margin width nullifies the

increased risk of IBTR in young patients; 8) an extensive intraductal component identifies patients who may have a large residual DCIS burden after lumpectomy. There is no evidence of an association between increased risk of IBTR when margins are negative.

The consensus guideline was made possible by a grant from the Susan G. Komen Foundation. The SSO Executive Council and ASTRO's Board of Directors both approved the document in October 2013. It has also been endorsed by the American Society of Clinical Oncology and the American Society of Breast Diseases.

The panel was led by Co-chairs Monica Morrow, MD (SSO), and Meena S. Moran, MD (ASTRO). The multidisciplinary members included Nehmat Houssammi, MD, PhD (University of Sydney, Sydney, Australia, methodologist), Suzanne Klimberg, MD (American Society of Breast Surgeons), Mariana Chavez MacGregor, MD (American Society of Clinical Oncology), Jay Harris, MD, FASTRO (ASTRO), Janet Horton, MD (ASTRO), Gary Freedman, MD (ASTRO), Stuart Schnitt, MD (College of American Pathologists), Peggy Johnson (patient advocate), Armando Giuliano, MD (SSO), and Seema A. Khan, MD (SSO).

The manuscript is available in the March 1 issue of the *International Journal of Radiation Oncology • Biology • Physics*, in the March issue of the *Annals of Surgical Oncology* and in the March 10 issue of the *Journal of Clinical Oncology*. 

## HDR BRACHYTHERAPY WHITE PAPER EVALUATES CURRENT GUIDANCE DOCUMENTS AND MAKES RECOMMENDATIONS TO IMPROVE PATIENT SAFETY

ASTRO HAS ISSUED A WHITE PAPER IN THE SERIES ADDRESSING PATIENT SAFETY as part of the *Target Safely* campaign. “A review of safety, quality management, and practice guidelines for high-dose-rate brachytherapy: Executive summary” recommends that practitioners follow current guidance documents and experience hands-on training in new procedures in order to improve quality and patient safety.

The white paper, commissioned by ASTRO’s Board of Directors, evaluates the current safety and practice guidance for high-dose-rate (HDR) brachytherapy, makes recommendations for guidance applications to the delivery of HDR brachytherapy and suggests topics where additional guidance and research are necessary. In addition, the white paper examines the adequacy of general physics, quality assurance and clinical guidance currently available for the most common treatment sites with regard to patient safety.

The white paper recommends that practitioners become familiar with and follow existing guidance before beginning treatment, and that deviation from the current guidance should occur only when supported by clinical studies or in the setting of a clinical trial approved by an institutional review board. It also suggests that the treatment team should undergo practical, hands-on training and participate in at least five proctored cases before performing an HDR brachytherapy procedure for the

first time independently. The white paper points to specific safety and physics reports of the American Association of Physicists in Medicine task groups with important recommendations and guidelines that should be followed.

The report also concludes that, while current guidance documents remain relevant, professional societies should accelerate the development of new or updated guidance documents for the following disease sites and techniques: skin, central nervous system, gastrointestinal, lung or endobronchial, and esophagus, and that a clinical trial of brachytherapy for biliary carcinoma should be considered. Additionally, the white paper emphasizes the need for professional organizations to establish an events report database in order to gather and analyze events to help generate potential guidelines and increase the quality and safety of HDR brachytherapy.


“HDR brachytherapy is a very safe and effective treatment modality, with practitioners following most of the guidance provided,” said Bruce R. Thomadsen, PhD, a professor in the Department of Medical Physics at the University of Wisconsin School of Medicine and Public Health. “The document may be of greatest use to a practitioner starting an HDR brachytherapy program through direction to guidance documents that should be used to establish practices and procedures.”

ASTRO’s Board of Directors



approved the full-length document (supplemental material) on September 21, 2013. The white paper is endorsed by the American Brachytherapy Society, the American Association of Physicists in Medicine, the American Association of Medical Dosimetrists and the American Society of Radiologic Technologists. The American College of Radiology’s Commission on Radiation Oncology has reviewed and accepted the white paper.

The study’s authors are Bruce R. Thomadsen, PhD, Beth A. Erickson, MD, FASTRO, Patricia J. Eifel, MD, FASTRO, I-Chow Hsu, MD, Rakesh R. Patel, MD, Daniel G. Petereit, MD, FASTRO, Benedick A. Fraass, PhD, FASTRO, and Mark J. Rivard, PhD.

The executive summary is available in the March–April issue of *Practical Radiation Oncology (PRO)*, and the executive summary and supplemental material are available on the *PRO* website as open-access articles at [www.practicalradonc.org](http://www.practicalradonc.org). 

## RADIATION ONCOLOGY INCIDENT LEARNING SYSTEM MOVES TOWARD FULL LAUNCH

**THE RADIATION ONCOLOGY INCIDENT LEARNING SYSTEM (RO-ILS)** continues to make progress towards a national launch this year. As a patient safety organization (PSO) and one of the key commitments of ASTRO's *Target Safely* campaign, RO-ILS will provide the opportunity for members of the radiation oncology treatment team to report and learn from errors and near-misses in a secure and non-punitive environment.

Established by the Patient Safety and Quality Improvement Act of 2005 (PSQIA), PSOs provide both privilege and confidentiality for the collection and analysis of data on patient events. PSOs aim to improve the quality and safety of health care delivery and are certified by the Agency for Healthcare Research and Quality (AHRQ). The protected environment provided by RO-ILS will allow members of the radiation oncology treatment team to collect, aggregate and analyze data to identify and reduce the risks and hazards associated with patient care. As the only medical specialty-sponsored PSO for the radiation oncology community, RO-ILS provides an exciting opportunity to elevate the quality and safety in the field.

ASTRO has contracted with Clarity PSO, one of the earliest PSOs to be certified with AHRQ, to provide PSO services for RO-ILS. Recognizing the importance of the role physicists play in the safe delivery of care in radiation oncology, ASTRO has partnered with the American Association for Physicists in

Medicine (AAPM). AAPM is a joint sponsor of RO-ILS and is providing significant financial and intellectual support for system design, program implementation and program evaluation.

The development of RO-ILS is managed by the PSO Steering Committee, comprised of representatives from ASTRO and AAPM, using the consensus recommendations for incident learning database structures in radiation oncology (Ford E.C., Fong de Los Santos L., Pawlicki T., Sutlief S., Dunscombe P. *Med Phys.* 2012;39(12):7272-90). The data elements within RO-ILS are largely consistent with other systems, such as the International Atomic Energy Agency's SAFRON (Safety in Radiation Oncology) and the Conference for Radiation Control Program Directors report form structure.

### BETA TESTING

Beta testing of the full RO-ILS program began in September. Members of ASTRO's Multidisciplinary Quality Assurance Subcommittee (MDQA) and the PSO Steering Committee are serving as beta testers for RO-ILS.

To ensure a comprehensive assessment of the program, beta testers go through the full process of participation, beginning with signing a contract with Clarity PSO. This initial contracting step is required to provide the confidentiality and privilege protections for radiation oncology providers. After the facility signs the contract, they may begin entering protected data into the

RO-ILS Web portal. An analysis tool included in the RO-ILS Web portal allows participants to monitor and track events internally. Each participating facility will receive reports specific to their institution, as well as more generalized summaries of the aggregate data.

ASTRO staff and volunteers are overseeing the evaluation of each component of the program throughout the beta testing phase, including the contracting process, usability of the Web portal, appropriateness of data elements and utility of outputs. These evaluations will be reviewed with members of the PSO Steering Committee and the MDQA, and appropriate changes will be made prior to the full launch of RO-ILS. The beta testing phase is expected to last through the second quarter of 2014, with an anticipated national launch this summer.

### RO-HAC

To aid in the implementation and analysis of patient safety data collected by RO-ILS, the Radiation Oncology Healthcare Advisory Council (RO-HAC) was established. This council will provide radiation oncology-specific expertise to RO-ILS. RO-HAC members will assist with the initial triage of events submitted to RO-ILS and perform root-cause analysis of select events. The RO-HAC will help disseminate output reports to participating facilities, as well as to the larger radiation oncology community.

*Continued on Page 31*

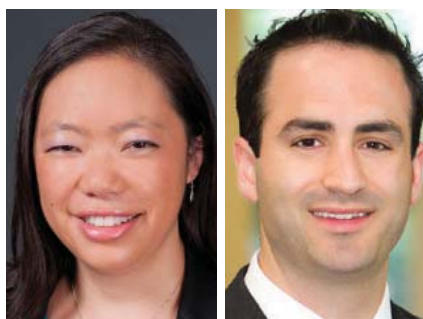


## TRANSITIONING FROM RESIDENT TO ATTENDING PHYSICIAN

**ONE OF THE MOST STRIKING TRANSITIONS** in medicine is a transition from resident to an attending physician. After years of rigorous training, countless exams and presentations, innumerable sleepless nights spent mastering the necessary skills and acquiring pertinent knowledge, you now have the final say in the care of your patient. You are the person ultimately responsible for every aspect of your patient's care in radiation oncology. It's a truly remarkable feeling, but with it comes an enormous amount of responsibility. This weighs heavily on the mind of every senior resident as we prepare to enter the world of clinical practice. We asked two recent graduates, Dan Golden, MD, and Joanne Jang, MD, PhD, about their own experiences with the transition to the ranks of an attending physician.

### 1. What has been the most challenging aspect of entering practice? Was there anything that has been unexpected?

**Dr. Golden:** The most challenging aspect of entering practice is realizing that the final decision regarding patient management is now mine. As a resident, no matter how diligent and careful you are, there is always the subconscious comfort of knowing that the attending is responsible for the final decision regarding patient management. However, with this added responsibility comes increased gratitude from the patients. Because residents rotate services, I hadn't previously followed a patient from consult, through treatment and into long-term follow-up. Yesterday I saw one of my



JOANNE JANG, MD, PHD

DAN GOLDEN, MD

first patients three months after treatment. Knowing I was part of the care team that achieved a complete response for a locally advanced cervical cancer was a great feeling.

**Dr. Jang:** One of the challenging aspects is dealing with the medical oncologists and surgeons when there is controversy about what treatment should be given. Reviewing radiation plans that could potentially lead to more side effects than we are usually comfortable with is also challenging.

### 2. Is there anything you would have done differently as a resident to prepare for your first year in practice?

**Dr. Golden:** I wish I had spent more time in dosimetry as a junior resident. During my final year of residency I made sure to spend time in dosimetry asking questions, reviewing plans and trying to understand treatment planning. This has served me well during my first year as an attending because I am able to review plans with dosimetry and physics and provide constructive input to improve target coverage and

reduce dose to normal structures. Spending more time in dosimetry earlier in residency would have only strengthened my knowledge about treatment planning.

**Dr. Jang:** I would have reviewed more plans (with the attending if possible) to see what could be changed to make them more acceptable if they are not already. I made a point to do some of this, but there wasn't enough time to do it as much as I would have liked.

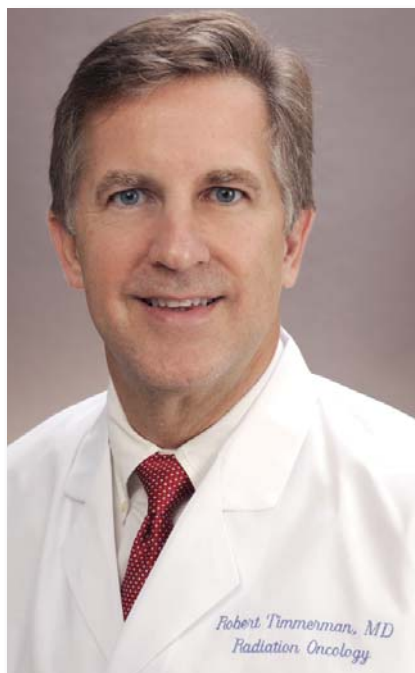
### 3. What are the major differences between your current practice environment and the training environment in residency? How have you adapted to these changes?

**Dr. Golden:** My residency was at a large academic medical center, while my practice is at an academic satellite. Because many of my referring physicians are in private practice, I am learning to adapt to this environment. I make sure to send my notes to the entire care team (all consulting physicians and the patient's primary care provider) since they may not have access to the hospital's EMR. In addition, patient care is more fragmented in a private practice environment, which requires an extra effort on my clinic's part to maintain a high level of coordination of care.

**Dr. Jang:** Obviously, you are now ultimately responsible for the patients. You are expected to be the expert with the patient and at tumor boards. I adapted by preparing more and working harder

*Continued on Page 31*

## THE RESURRECTION OF HYPOFRACTIONATION IN ROUTINE CLINICAL PRACTICE



IN ONE OF HIS LAST ARTICLES PUBLISHED PRIOR TO HIS DEATH, radiotherapy giant Gilbert Fletcher, MD, warned practitioners of his craft: "There is overwhelming evidence that fraction size of more than 2 Gy produces late unfavorable sequelae, and therefore, despite the inconvenience for patients and taxing of machine time, hypofractionation should not be used..."<sup>1</sup> Given his contributions and stature among his peers, it is no great surprise that the advice stuck solidly, creating a formidable barrier to any clinician wanting to explore short course fractionation. Radiotherapists for a whole generation strongly avoided hypofractionation despite the fact that hypofractionation has a longstanding place in the history of radiotherapy.

Indeed, since the advent of using radiation for fighting cancer at the turn of the last century, treatments were delivered in few fractions (hypofractionation), often just a single session. While there was initial genuine optimism with early tumor control, severe toxicity appeared late (months and years) after therapy that doomed the implementation. More protracted

fractionation schedules were more tolerable and became mainstream. In an era when very large volumes of innocent normal tissues were irradiated to high dose en route to irradiating the tumor, more protracted fractionated radiotherapy allowed a biological advantage exploiting differential repair between normal tissue and tumor. Hypofractionation was relegated to the palliative setting or for superficial tumors in the skin, etc. Glimpses of hypofractionation reappeared from time to time during the next 100 years mostly to conserve costs or initiated by specialists outside of radiation oncology (e.g., brain radiosurgery).

While the contemporary radiation oncology community has generally had little appetite for hypofractionation in the curative setting, innovations in technology of radiation delivery and computerization of processes has sparked a re-examination of the strategy. Many of these technologies were not available during Dr. Fletcher's career, including 3-D targeting and delivery, intensity modulation, image guidance prior to delivery, motion assessment/control and stereotactic targeting precision. All of these tools can be used to reduce the high-dose volume to the immediate tumor-bearing area. If considerably less normal tissue suffers high dose exposure, toxicity might be avoided by this "geometric avoidance," the radiotherapy equivalent of "targeted therapy." Hypofractionation in this more modern form has been increasingly utilized based on both institutional and randomized experiences.

Today, hypofractionation can be

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While the contemporary radiation oncology community has generally had little appetite for hypofractionation in the curative setting, innovations in technology of radiation delivery and computerization of processes has sparked a re-examination of the strategy.

justified for a variety of curative-intent treatments from breast and prostate to metastatic disease. Some reports for common cancers favor hypofractionation over conventional<sup>2</sup>, while others add justification to the caution<sup>3</sup>. In particular, the more central, hilar structures associated with bodily organs seem to be most sensitive to toxicity from hypofractionation, warranting special caution. Yet opportunities to more effectively treat classically “radioresistant” histologies with hypofractionation, like renal cell cancer and melanoma<sup>4</sup>, are readily apparent, offering a model to utilize and refine the methods.

The oligofractionated forms of hypofractionation constituting stereotactic radiation delivery have particularly challenged the dogma that hypofractionation and late toxicity are synonymous. These treatments have been shown to afford the highest tumor control/eradication rates ever noted in the field for difficult cancers<sup>5</sup>. Yet their good tolerance afforded by geometric avoidance via the implementation of innovative technologies is remarkable.

Like surgery, stereotactic radiation therapy is highly effective in several types of primary cancer arising in solid organs. However, the likely huge role of stereotactic radiation and hypofractionation will come in the treatment of metastatic cancer<sup>6</sup>. Systemic therapies continue to improve but show no sign that they will ultimately control gross tumor bulk. Surgical metastectomy has been used in patients, but is extremely limited by its invasiveness and ultimate tolerance, especially for the common multi-focal disease. Non-invasive,

out-patient treatments like stereotactic radiation therapy may fill a needed role for such patients if clinical trials confirm their efficacy and tolerance. This metastatic cancer group treated for cure or improvement in survival could constitute a new frontier for radiation therapy.

Comparative- and cost-effective-ness analyses generally favor hypofractionation over traditional fractionation. Without a doubt, patients prefer its convenience. Most experts admit,

however, that full implementation of hypofractionated strategies in routine practice will require additional training, equipment and quality assurance measures to maintain acceptable safety. While few doubt its potency, long-term follow-up of well-conducted clinical trials must confirm acceptable late morbidity. Still, many leaders in the field consider hypofractionation will likely hold a more significant role for the future of radiation oncology and for improved cancer care.

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*This article was submitted on behalf of the Clinical, Translational and Basic Science Advisory Committee.*



# From the ABR

## CONTINUOUS CERTIFICATION

*Note: As part of its continuing efforts to better inform and educate candidates for initial certification and diplomates holding certificates, the American Board of Radiology (ABR) is providing a series of brief updates about new or existing programs, changes or points of confusion. For additional questions or thoughts about new topics, email [abr@theabr.org](mailto:abr@theabr.org).*

**COMMENSURATE WITH INTRODUCTION OF THE CENTERS FOR MEDICARE AND MEDICAID'S (CMS) Physician Quality Reporting System (PQRS)** and passage and subsequent implementation of The Patient Protection and Affordable Care Act (PPACA), it became apparent that the then-employed performance and reporting structure of the ABR Maintenance of Certification (MOC) program did not adequately address the needs of legislators, regulators, the American Board of Medical Specialties (ABMS) or ABR diplomates. These shortcomings applied primarily to 1) the need for demonstration of “active participation” in MOC for public reporting purposes not addressed satisfactorily in a 10-year cycle of MOC, and 2) the ability of MOC to serve as a surrogate for adequate attainment of PQRS metrics to receive bonus payments available to diplomates through that program. The existing requirements of the 10-year MOC cycle effectively allowed minimal levels of participation for a significant portion of the cycle, with late-cycle catch-up. The Continuous Certification (ConCert) program introduced for all MOC participants on January 1, 2013, effectively maintains all previous MOC requirements but changes reporting to diplomates, the ABMS and CMS to better meet the needs of all involved. Basic elements of the revised program include:

**Component 1:** Continuous current and unrestricted state licensure.

- This component is unchanged.

**Component 2:** Annual participation in lifelong learning activities and periodic evaluation (CME and SA-CME, which includes SAMs).


- The previous program required completion of 250 category 1 credits in the 10-year cycle and eight SAMs.
- The new program requires completion of 75 category 1 CME credits in three years (assessed annually each March 15 for the prior three calendar years), with 25 of those credits related to self-assessment instruments. ABMS requires this ratio of self-assessment to CME for all 24 specialty certifying boards.

**Component 3:** Successful examination (passing result) within the past 10 years.

- This component remains unchanged, but with the new program, the diplomate may elect to take the examination at any time, i.e., one is not required to wait 10 years before the next exam attempt. It is anticipated that by 2015 diplomates may be able to select specific site/category modules comprising up to 30 percent of the examination.

**Component 4:** Participation in evaluation of performance in practice (Practice Quality Improvement/PQI) projects.

- This component requirement of three projects in a 10-year period remains unchanged, but there will be a significantly greater number and type of opportunities for projects. One project must be completed in each rolling three-year period, assessed annually for the prior three calendar years. The previous distinction between Type I and Type II projects and the requirement for completion of at least one project in each type have been eliminated.

Future articles will provide additional details regarding various aspects of the ConCert program and how reporting of activity will be provided to diplomates and various stakeholders. Additional information can be found in the radiation oncology MOC brochure, available at [www.theabr.org/sites/all/themes/abr-media/pdf/4PanelBrochure\\_RO.pdf](http://www.theabr.org/sites/all/themes/abr-media/pdf/4PanelBrochure_RO.pdf) or in the diplomate's personal ABR website, myABR, at <https://myabr.theabr.org>. 

### Hospice and Palliative Medicine Examination

Registration for the Hospice and Palliative Medicine Examination is open March 1 through May 1, 2014, for those candidates who have completed an ACGME-accredited fellowship in Hospice and Palliative Medicine and are interested in taking the subspecialty examination. The exam will be administered on October 2, 2014, at Pearson VUE Test Centers. For further information, please refer to the ABR website at [www.theabr.org/ic-hpm-landing](http://www.theabr.org/ic-hpm-landing) or email [lmorris@theabr.org](mailto:lmorris@theabr.org).

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## CHAIR'Supdate

will be treated by these high-quality practices.


As APEX continues to move forward, with acceptance of facility applications opening in May and on-site survey scheduling beginning in July, I would like to thank the ASTRO Accreditation Advisory Workgroup, led by co-chairs Prabhakar Tripuraneni, MD, FASTRO, and James Hayman, MD, MBA, and the ASTRO staff who have been integral to developing and launching this valuable opportunity for ASTRO and radiation oncology practices nationwide. If you would like to apply to be a surveyor or help this important initiative, please contact Amy Mumo at [amym@astro.org](mailto:amym@astro.org).

*Dr. Lawton is professor, program director and vice-chair of radiation oncology at the Medical College of Wisconsin in Milwaukee. She welcomes comments on her editorial at [astronews@astro.org](mailto:astronews@astro.org).*

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## RO-ILSupdate

RO-HAC is a multidisciplinary team comprised of physicians, physicists, an administrator and a dosimetrist selected through an application process. RO-HAC members for 2014 include Adam Dicker, MD, PhD, Gary Ezzell, PhD, Eric Ford, PhD, Benedick A. Fraass, PhD, FASTRO, David J. Hoopes, MD, Theresa Kwiatkowski, CMD, RT, Kathy Lash, RT, and Gregory Patton, MD, MBA, MS. There will be future solicitations for new RO-HAC volunteers.

Please be sure to watch for the summer issue of *ASTRONews* for details on how facilities can participate in this important initiative. More information on RO-ILS is available at [www.astro.org/ROILS](http://www.astro.org/ROILS). For specific questions, email [ROILS@astro.org](mailto:ROILS@astro.org). 

Continued from Page 27

## ARRO

to make sure I knew the subject matter beforehand.

### 4. Do you have any advice to graduating residents?

**Dr. Golden:** Being an attending radiation oncologist is a blast. Although there are new and different job stresses (e.g., more responsibility), these are far outweighed by the personal fulfillment you get after successfully guiding a patient from initial consultation, through radiation treatment and into long-term follow-up.

**Dr. Jang:** Learn the basics for each disease site and don't worry about the zebras. Look at more plans on your own or with your attending to see if you like them or not and what you would try to change.

*Dr. Golden is a recent graduate of the University of Chicago Residency Program in Radiation Oncology and immediate past vice-chair of the ARRO Executive Committee. He is currently an assistant professor of radiation and cellular oncology at the University of Chicago Pritzker School of Medicine with practice based at the University of Chicago Medicine Comprehensive Cancer Center at Silver Cross Hospital in New Lenox, Ill.*

*Dr. Jang is a recent graduate of the Harvard Radiation Oncology Program and is currently an instructor in radiation oncology at the Harvard Medical School and a physician at Beth Israel Deaconess Medical Center in Boston, specializing in gynecologic malignancies.*

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# JOURNALS

## HIGHLIGHTS FROM ASTRO'S JOURNALS

### FROM THE JANUARY-FEBRUARY 2014 ISSUE OF *PRACTICAL RADIATION ONCOLOGY (PRO)*

#### **Patterns of Intrafractional Motion and Uncertainties of Treatment Setup Reference Systems in Accelerated Partial Breast Irradiation for Right- and Left-sided Breast Cancer**

by Yue *et al*

This study investigates the patterns of treatment setup strategies in 3-D CRT APBI for breast cancer. Statistical differences were found between the right- and left-sided treatments in vector directions of intrafractional motion and treatment setup errors in the reference systems, but less in their overall magnitudes.

#### **Dosimetric Analysis of Radiation Therapy Oncology Group 0321: The Importance of Urethral Dose**

by Chow *et al*

RTOG 0321 is the first multi-institutional cooperative group, high-dose-rate prostate brachytherapy trial with complete digital brachytherapy dosimetry data. This study found higher urethral dose, larger high-dose volumes and lower-dose homogeneity are associated with greater toxicities. A mean dose-volume histogram comparison at all dose levels should be used for quality control and future research comparison.

For more article highlights from ASTRO's journals, visit [www.astro.org/astronews](http://www.astro.org/astronews).

Access these articles and more on the PRO website at [www.practicalradonc.org](http://www.practicalradonc.org) and the Red Journal website at [www.redjournal.org](http://www.redjournal.org).

### HIGHLIGHTS FROM THE *INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY • BIOLOGY • PHYSICS (RED JOURNAL)*

#### DECEMBER 1, 2013

#### **Preliminary Toxicity Analysis of 3-Dimensional Conformal Radiation Therapy Versus Intensity Modulated Radiation Therapy on the High-Dose Arm of the Radiation Therapy Oncology Group 0126 Prostate Cancer Trial**

by Michalski *et al*

The fact that a randomized trial comparing 3-D radiation against IMRT in prostate cancer was never performed is often held as a criticism of radiation oncology. This study analyzes all men in the high-dose arm of the randomized RTOG dose-escalation trial for prostate cancer in which patients received either 3-D CRT or IMRT, according to institutional ability. It shows that IMRT does indeed reduce the volumes of bladder and rectum irradiated compared to 3-D. More importantly, IMRT is associated with lower rates of acute and late toxicity. Zelefsky and Deasy discuss the implications of these important findings in an editorial.

#### JANUARY 1, 2014

#### **Beyond the Standard Curriculum: A Review of Available Opportunities for Medical Students to Prepare for a Career in Radiation Oncology**

by Agarwal *et al*

These authors have written a critical review in which they use Google and PubMed to bring together, for the first time, all existing clinical, health policy and research programs for medical students in radiation oncology.



#### **Standing on the Shoulders of Giants: Results From the Radiation Oncology Academic Development and Mentorship Assessment Project (ROADMAP)**


by Holliday *et al*

These authors surveyed academic radiation oncology faculty and collected data regarding the presence and nature of their mentoring relationships. They correlated these data with objective measures of academic productivity and found that faculty with mentors had higher numbers of publications, citations, h-indices and m-indices and higher rates of funding.

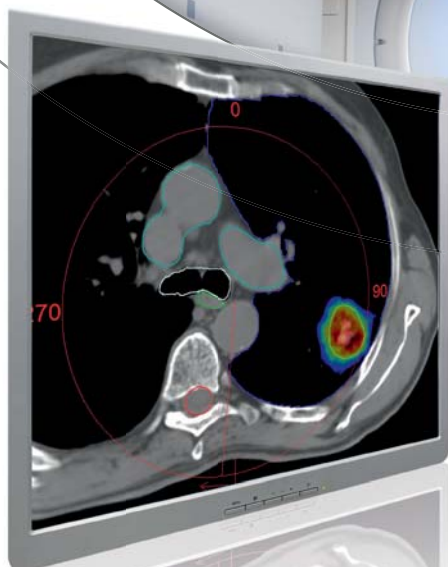
#### FEBRUARY 1, 2014

#### **Receipt of Guideline-Concordant Treatment in Elderly Prostate Cancer Patients**

by Chen *et al*

This study examined treatments received by elderly prostate cancer patients using the SEER-Medicare linked database. One-third to one-half of high-risk patients received treatment discordant with the NCCN guidelines. Discordance was high even in patients with minimal comorbidities and a greater than 10-year life expectancy. These results appear to demonstrate significant undertreatment of elderly patients with aggressive prostate cancer. 





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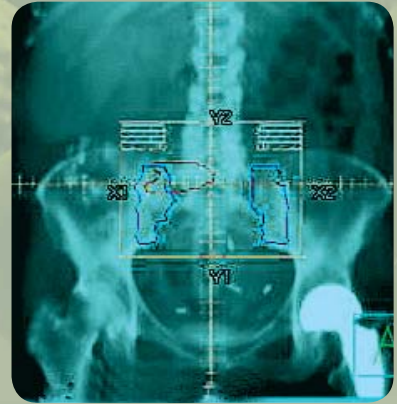
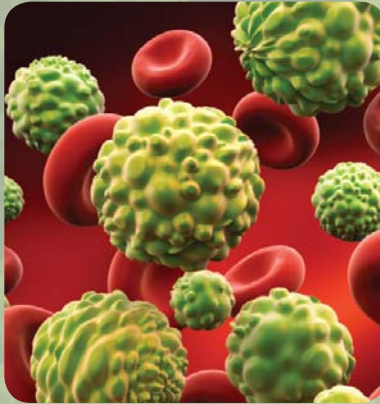
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