

# Shaping the Future of Radiation Oncology

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You know better than most how rising costs and an aging population threaten our ability to provide sustainable health care. As a radiation oncologist in private practice for nearly twenty years, I know firsthand the difficult treatment choices patients and physicians face. Often these decisions are complicated by gaps in evidence, or by a fee-for-service environment that undermines adequate dissemination of evidence-based best practices that would benefit patients and a resource-constrained health care system. My experience was similar in both academic and community settings.

Those increasingly complex challenges led me to AIM Specialty Health, where I see the opportunity to help shape the future of cancer care. As my first year anniversary approaches, I am pleased to report that we are making progress towards reform, particularly in the area of radiation oncology.

## Getting to Market

Unlike the rigorous FDA drug approval process, obtaining 510(k) clearance of a new radiation device only requires demonstrating it is “substantially equivalent” to currently approved devices and safety.

## Identifying the Right Tool for the Job

Each type and stage of cancer has multiple treatment options, and the rapid pace of innovation in radiation oncology is exciting. However, leaders in the field are **grappling with appropriateness and value**. There is often demand for treatment even without compelling evidence of clinical superiority, reduced toxicity, or cost effectiveness. Advanced modalities are becoming commonplace, such as stereotactic radiosurgery (SRS), volumetric CT-based image guidance radiation therapy (IGRT), and ultra-precise intensity modulated radiation therapy (IMRT) made possible by a new generation of linear accelerators. Proton therapy centers have proliferated, in spite of **high-profile evidence** that advises restraint in use.

Wide **variation in utilization and costs** also raises concerns about underused, high-value modalities. For example, brachytherapy seed implantation used for prostate cancer has the same cure rate and fewer side effects than surgery or external radiation, and costs about one third less. Thankfully, the American Society for Radiation Oncology (ASTRO) has **stepped up efforts** to address the growing need for training programs, but the lower profitability of brachytherapy continues to limit its adoption.

At AIM, our goal is to help providers find the appropriate choice among many available tools.

### What this means to you

Health plans develop medical necessity policies for advanced radiation treatment, but determinations are becoming more difficult. With our expanded Radiation Oncology Solution, AIM ensures that highly technical and complex treatments are used where indicated while avoiding overuse of unproven technology. AIM radiation oncologists support providers with peer consultations and specialist expertise in interpreting appropriateness criteria.

## The Role of Fractions

Radiation therapy is delivered in a series of individual daily treatments (fractions) determined by the clinical situation and administered over a period of one to nine weeks. Providers receive reimbursement based on each fraction. Recent data from [several large randomized clinical trials](#) and a [meta-analysis](#) shows that hypofractionation (larger doses of radiation delivered over three weeks) is as effective and less toxic than a treatment course spread over six weeks. Despite the evidence and [Choosing Wisely recommendations](#), only [30% of eligible patients are receiving treatment in this manner](#).

Additional [evidence](#) on hypofractionation for early stage breast cancer published in [JAMA Oncology](#) supports how simple adjustments to dosing schedules can reduce side effects and be less costly and more convenient for patients.

### What this means to you

Given this bundling trend and cost increases for each IMRT treatment, an expanded pre-service review of fractions provides additional value. For conventional therapy, the AIM program also helps control both radiation exposure resulting from IGRT overutilization in routine cases as well as costs.

## Every Patient, Every Day Exposure

Over the past few years image guidance technology has been bundled with new machines for IMRT, SRS, and stereotactic body radiation therapy (SBRT). Its use has quickly become routine in pre-treatment workflow, where it is used to recommend patient shifts for optimal positioning. In addition to the added costs, there is a clinical downside to performing IGRT on every patient, every day: unnecessary radiation exposure. Using IGRT with conventional radiation therapy is only indicated in limited circumstances with demonstrated clinical benefit.

### What this means to you

Health plans should incorporate hypofractionation review as part of oncology care management. At AIM, our comprehensive solution includes fraction management for early breast cancer and bone metastases. As additional high-quality evidence becomes available, AIM will update our guidelines accordingly. We collect and report data on fraction counts for all cancer types, helping health plans monitor practice patterns and collaborate with individual providers.

## What's on the Horizon?

More costly treatment technology will continue to be introduced without any requirement for improved outcomes.

The most recent example of unproven new technology is MRI-guided radiation therapy delivered with Cobalt 60 sources (ViewRay). This technology boasts real-time imaging of both tumors and normal tissues during treatment. A [recent review](#) concluded only that treatment could be delivered with similar accuracy to other forms of IMRT. Investigators are also exploring the influence of strong magnetic fields on the biology of how [radiation affects different tissues](#) (called the alpha/beta ratio). Until these complex interactions are better understood and this form of therapy has been shown to improve outcomes, we consider this technology experimental. Billing protocols are just now being established, but a possible scenario could include: a daily MRI, a daily IMRT re-planning/simulation, and a daily IMRT treatment delivery multiplied by 35-45 fractions. This would supplant proton therapy as the most costly radiation

therapy innovation in recent years. In this era of evidence-based, high-value care, far more evidence is necessary to support such technology.

Electronic brachytherapy is another treatment on our radar screen. This technology has been used for several years to treat breast cancer, and now oncologists partnering with dermatologists use the same machine to treat basal and squamous skin cancers. With reimbursement for a course of therapy dramatically outpacing usual care (\$24,000+ vs. \$200-\$2,100), ***use increased more than 2,000%*** between 2011 and 2013.

As your partner in managing the quality and cost of care, AIM continues to stay at the forefront of oncology, monitoring new treatment options in radiation oncology. Our ultimate goal is to support you in ensuring your members receive appropriate, safe, and affordable care.

I encourage you to follow me (@RZimmermanMD) on Twitter to keep an eye on topics and issues of concern to your plan. To learn more about the AIM Oncology Solution and our clinical leadership team, visit [www.aimspecialtyhealth.com/oncology](http://www.aimspecialtyhealth.com/oncology).

### What this means to you

At AIM, our comprehensive solution for Radiation Oncology assures the clinical appropriateness of radiotherapy treatments within your provider network. The program cornerstone is a prospective review of radiation modality including proton therapy, IMRT, brachytherapy, and stereotactic treatment using both SRS and SBRT. Order requests are also reviewed for appropriateness of fractions, IGRT, special consults, and procedure codes. Providers are supported with peer-to-peer discussions between radiation oncologists. Insights from a range of reporting options assist your plan in a number of ways including case-rate contracting and monitoring provider practice behavior trends.

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## THE AIM ONCOLOGY SOLUTION

Interested in learning more about how our Solution can help your organization and members?

Go to [www.aimspecialtyhealth.com/oncology](http://www.aimspecialtyhealth.com/oncology)