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Treatment Summaries in Radiation Oncology and Their Role in Improving Patients' Quality of Care: Past, Present, and Future

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Introduction

As a specialty that relies almost entirely on referrals from other physicians, radiation oncology has had a long tradition of emphasizing the importance of good communication with other physicians. In addition to the consultation note dictated before the start of treatment that typically concludes with a recommended treatment plan, the other key component of this process has been the creation of a treatment summary at the conclusion of a course of radiation. Anecdotally, the general impression throughout the US oncology community is that radiation oncologists always dictate a treatment summary and that the summaries are perceived as being quite useful. The goals of this article are to briefly review why radiation oncology treatment summaries are important, define what they should contain, discuss their role as part of recent efforts to improve the quality of care in oncology, and conclude with some thoughts regarding how these documents might be improved.

At a minimum, the radiation oncology treatment summary signals the completion of a patient's treatment with radiation therapy. More importantly, the document should also include many details regarding the treatment course and follow-up plan, which can be of use to the patient's current and future physicians, including oncologists and primary care physicians. This is especially important in radiation oncology for two reasons. First, because almost all patients with cancer treated with radiation receive multimodality treatment, accurate, complete, and timely communication among their treating oncologists is crucial. Second, although some patients receive all of their cancer care within a single institution, it is much more common in the United States for care to be fragmented among several facilities with, for example, a patient undergoing surgery in one hospital, receiving chemotherapy in a separate infusion center, and getting radiation therapy in a third facility. Given such situations, good communication is critical for ensuring proper coordination of care.

In 2004, the American College of Radiology endorsed a set of recommendations based on informal expert consensus regarding communication in radiation oncology.¹ In addition to providing guidance regarding consultation and follow-up notes, the document devoted considerable attention to the radiation oncology treatment summary (Table 1). Specifically, it recommends that the treatment summary contain the diagnosis and

Table 1. Recommended Components of Radiation Oncology Treatment Summary

Description of treatment process
Doses delivered
Assessment of tolerance of treatment
Progress toward treatment goals (eg, completion of curative course of treatment or symptomatic improvement during palliative course of treatment)
Subsequent care plans

Data adapted.¹

stage of the patient's cancer, the dates the patient was treated, the total doses of radiation delivered to the target/tumor being treated and other key organs, the total number of treatments delivered, any adverse effects the patient may have experienced and how they were managed, whether or not the treatment was completed as planned, the patient's response to the treatment if appropriate, and any follow-up plans, scheduled referrals, and/or instructions given to the patient at the completion of treatment. Other optional technical details that could be included at the discretion of the treating radiation oncologist include the delivery technique, the number of beams, their orientation and energy, and/or the fractionation scheme used. Lastly, it was recommended that the summary document should be timely, with a note in the patient's chart and copies sent to the referring physician, primary care physician, and involved oncologists generally within 1 week.

As noted above, it is widely accepted that US radiation oncologists dictate treatment summaries. However, there are actually very little data in the literature regarding their use, and the data are not as favorable as one would expect. The only published data comes from ASCO's National Initiative for Cancer Care Quality.² As part of the study, the medical records of just more than 1,200 patients with breast cancer were reviewed. These women resided in five different metropolitan areas across the United States and were diagnosed in 1998. One of the quality measures assessed as part of this study for those women treated with radiation was whether information regarding the total dose of radiation, dose per fraction, number of fractions, and the site treated was documented in the radiation therapy med-

ical record. In this study, only 50% of patients were found to have had such information documented in a treatment summary, and across the five metropolitan sites the rate ranged from 35% to 81% (95% CI, 45% to 56%).

Acknowledging the importance of the radiation therapy treatment summary and given these data, one of the quality measures developed by a joint American Society for Radiation Oncology/American Society of Clinical Oncology/American Medical Association (AMA) Physician Consortium for Performance Improvement (PCPI) Oncology Work Group for the development of measures for the Centers for Medicare and Medicaid Services (CMS) Physician Quality Reporting Initiative program dealt specifically with the radiation treatment summary.³ The measure examined the percentage of patients with cancer treated with radiation that had a radiation therapy treatment summary report communicated to their relevant physicians as well as to the patient within 1 month of completing treatment. At a minimum, the document should include the dose received, the patient's progress toward the goals of treatment, his/her tolerance of treatment, and any follow-up plans. One of the novel things about this measure was the requirement that a copy of the summary be sent to the patient. Although this measure was endorsed by the AMA PCPI and the National Quality Form, it was one of the 40 measures of the 100 submitted by the AMA PCPI that was not selected by CMS for inclusion in the 2009 Physician Quality Reporting Initiative program.^{4,5} Although the AMA PCPI encouraged the development of communication measures, the Work Group was informed that CMS rejected this measure on the basis that it considered the measure to be a documentation measure and therefore not worthy of inclusion in the program. It is true that a treatment summary documents the treatment received; however, the benefit of communicating this information in a timely fashion to both involved physicians and the patient as an important component of the quality of care being provided appears to have been overlooked.

Although radiation oncology may be ahead of medical oncology when it comes to treatment summaries, there is still much work that needs to be done within the radiation oncology community regarding this issue. It is commonly assumed that radiation therapy treatment summaries are always created, but the data from the National Initiative for Cancer Care Quality would suggest otherwise. It is also disappointing that CMS did not acknowledge the role of the treatment summary as a means of assessing and improving the quality of cancer care. Addi-

tional effort is needed to correct this oversight. As also addressed in the treatment summary quality measure, these documents should be provided to the patient, as well as to other physicians.

Another improvement would be the development of a standardized format for treatment summaries across radiation oncology. This should help to ensure that at least the basic information will be available in all radiation therapy treatment summaries and in a format that is easy to understand. Additional definition and standardization of the data elements of the radiation oncology treatment summary would also allow for such data to be more easily downloaded from a radiation oncology electronic medical record into a templated treatment summary document and perhaps even into a registry for quality reporting, thereby reducing physician burden on multiple levels. The widespread use of electronic medical records in radiation oncology also provides the potential to easily download and append more detailed technical information about the treatment delivered (eg, representative transverse, coronal, and sagittal images of the treatment plan; dose volume histograms; and so on) to the treatment summary for future use should additional treatment with radiation need to be considered. Because of the multidisciplinary nature of oncology care, protocols should be developed to extract the key information contained in the radiation therapy treatment summary and distill it so that it can also be incorporated into a more general summary of a patient's entire cancer treatment. Coordination of the specialties in formulating compatible templates for treatment summaries would be beneficial. Given the potential benefits associated with such improvements, it is clear that treatment summaries are an area where radiation oncologists can build on past efforts and improve the future quality of care for all patients receiving treatment with radiation.

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