

Clinical Investigation

Effect of Terminology Used to Describe Medical Oncologists on Perceptions of Radiation Oncologists as Equal Partners in Cancer Care



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Abstract

Purpose: Our purpose was to assess the terminology used to describe the different oncologic subspecialties at academic institutions in the United States and determine whether the use of the term “oncologist” to describe a medical oncologist (MO) may affect the multidisciplinary care of patients with cancer.

Methods and Materials: An electronic survey was sent to chairs and program directors at all 94 academic radiation oncology departments in the United States. Questions assessed the terminology used to describe the oncologic subspecialties in their hospital’s electronic medical record system, their views on how that terminology may affect referral patterns, and the perception of radiation oncologists’ (ROs) role in patient care.

Results: Responses were received from 40 institutions (response rate, 42.6%). Fifteen percent of hospital electronic medical record systems used the term “oncology” instead of “medical oncology” (51%) or “hematology/oncology” (28%). Describing MOs simply as “oncologists” was thought to more likely affect patient views of MOs as the primary decision maker in their cancer care (mean Likert-type rating, 3.43) than it would affect the probability of up-front multidisciplinary referrals (mean Likert-type rating, 2.69). Patient perceptions of ROs as equal partners in care were thought to be less associated with the terminology used to describe MOs (mean Likert-type rating, 3.15) than the behavior of ROs in patient care (mean Likert-type rating, 4.65; $P < .001$), the attitude of MOs toward ROs (mean Likert-type rating, 4.59; $P < .001$), and the involvement of ROs in the initial new patient visits rather than a downstream referral (mean Likert-type rating, 3.95; $P < .001$).

Conclusions: The terminology used to describe MOs was thought to affect patient and provider perceptions of RO, but less so than other patient-provider interaction factors.

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Introduction

The American Society of Clinical Oncology and the European Society for Medical Oncology consensus statement on quality cancer care endorses multidisciplinary treatment as the optimal environment for patients with cancer.¹ This multidisciplinary team includes medical oncologists (MO), surgical oncologists (SO), and radiation oncologists (RO), among others. One area of focus of the American Society for Radiation Oncology is that ROs are seen as equal partners in oncology.² However, patients' understanding of the role of each subspecialist in their care may be limited, and the patient perception of each subspecialist may be affected not only by their personal interactions with the subspecialist, but also by the way subspecialists describe each other.³ For instance, MOs may be referred to simply as "oncologists," which could affect the way patients and other health care professionals view the rest of the care team, including the SOs and ROs caring for a patient. Ultimately, it is plausible this affects referral patterns, patients' trust in their providers, and how cohesively the team works together.

There are minimal data on the effect that the terminology and branding of oncology subspecialists has on cancer care delivery, though terminology has been shown to affect other aspects of medicine. For instance, nurse practitioners discourage the use of the terms "midlevel provider" or "physician extender" because they imply an intermediate or dependent nature of their work.⁴ Some palliative care physicians also refer to themselves as "supportive care physicians" given the negative association of the word "palliative" with hospice or end-of-life; although education for patients and colleagues can help clarify this terminology, studies have also demonstrated that rebranding can result in earlier referrals.^{5,6} Finally, regarding patient safety, the term "medical error," which implies some degree of guilt, has been largely replaced by terms like "adverse event" or "incident"; similarly, a "near miss" may be more positively referred to as a "good catch."⁷

Therefore, this study aims to better understand the terminology used to describe the different oncologic subspecialties at academic institutions in the United States, along with the views of RO leaders of those institutions regarding the effect of differences in terminology on their practice.

Methods and Materials

An electronic survey was developed in accordance with relevant Checklist for Reporting Results of Internet E-Surveys (CHERRIES) guidelines,⁸ and piloted with 8 ROs at academic medical centers. It was then sent to all residency program directors ($n = 94$) in academic RO departments, and in the event of a nonresponse it was sent to the chairperson at that institution. The goal was to have 1

response per academic center. These individuals were targeted for the survey because it was felt that the nature of their leadership positions would give them experience and perspective on the clinical aspects of multidisciplinary care at their institution. Research Electronic Data Capture, a secure web application used to build and manage online surveys and databases, was used to develop and disseminate the surveys.⁹ All responses were received between June and August 2019. Participation was anonymous, voluntary, and without financial incentive.

The question structures were predominately multiple choice and 5 point Likert-type scales (where "1" represented the least and "5" the most likely, common, or important answer choice). [Table E1](#) shows the full survey. Each participant was asked what terminology is used to describe the professions of MO and RO in their electronic medical record system when viewed by patients and providers. Participants were then asked how they believed calling MOs simply "oncologists" may affect patient and provider perceptions of appropriate multidisciplinary referral patterns, and the value of ROs in oncologic decision-making and treatment. The final set of questions assessed participants' involvement in multidisciplinary clinics for curative-intent patients with cancer, and whether they believed that they were treated as equal partners in cancer care with the other MOs and SOs involved. Descriptive statistics including mean and standard deviation (SD) were used to summarize the findings. The Wilcoxon signed-rank test was used to compare the Likert-type responses across questions. This study was approved by the West Virginia University institutional review board.

Results

Responses to the survey were received from 40 out of 94 institutions (response rate, 42.6%; 12% margin of error at 95% confidence interval). A total of 77% of participants were male and graduated from medical school a median of 16 years ago (interquartile range, 11-28 years). Sixty percent of participants were program directors and 40% chairs. The median number of ROs per participating department was 16 (interquartile range, 11-25), and 75% were part of a National Cancer Institute designated cancer center. Thirty-six percent of the departments were located in the Midwest, 28% in the Northeast, 18% in the South, and 18% in the West.

"Medical oncology" (51%) and "hematology/oncology" (28%) were the most commonly used names of the referral order to MO in hospital electronic medical record systems, though "oncology" was also used at 15% of institutions, and other more disease-site specific terms like "breast oncology" or "thoracic oncology" were used at 2% of institutions. A similar distribution of names was visible to patients/providers to describe an appointment with an MO. RO

appointments were labeled as such for 87% of respondents, with exceptions including “radiology/oncology,” “radiation medicine,” and “rad oncology therapy.” Fifty-three percent of participants believed that most patients think of ROs as a type of oncologist, though 28% believed that patients considered ROs to be a type of radiologist, and 20% were uncertain.

When an MO is referred to simply as a patient’s “oncologist,” 49% of participants believed that curative-intent patients were either very much or extremely more likely to view their MO as the primary decision maker in their cancer care (mean Likert-type rating, 3.43; SD, 1.01). However, most participants did not believe that the naming of MOs commonly affected the probability of up-front multidisciplinary referral of curative-intent patients (mean Likert-type rating, 2.69; SD, 1.08).

Participants felt that they are treated as equal partners in curative-intent patient care with MO and SO a mean of 74% of the time (SD, 18.1%). Table 1 shows the relative perceived importance of several factors in contributing toward curative-intent patients with cancer as having a more favorable view of ROs as equal partners in their care. The naming of MOs was considered significantly less important ($P < .001$) than other factors related to the attitude of the MOs and ROs and the timing of the RO consultation in relation to other visits. Along these lines, participation of ROs in multidisciplinary clinics for new curative-intent patients with cancer was either very or extremely common for 73% of participants at their institution (mean Likert-type rating, 4.15; SD, 1.22).

Two options were given as potential equitable ways of displaying the name of different oncologic subspecialties: “medical oncology/radiation oncology/surgical oncology” and “oncology (medical)/oncology (radiation)/oncology (surgery).” Sixty-three percent of participants preferred the former, 10% the latter, and 25% believed either is acceptable. However, free text comments for this question also suggested that each type of oncologist should be qualified by their subspecialty (eg, thoracic oncology), and 1 respondent stated that “medical oncologists should be called ‘chemical’ oncologists since everyone is providing medical care.”

Discussion

This study sought to better understand the terminology used to describe different types of oncologists at academic institutions in the United States and the perceived effect of that terminology on multidisciplinary relationships and patient care. We found most institutions did label each of the oncologic subspecialties with specific descriptors, whereas only 15% of institutions used a more nonspecific term like “oncology” to describe “medical oncology” in the electronic medical record. Approximately one-half of participants believed that labeling MOs as oncologists

Table 1 Perceived importance of 4 factors in contributing to curative-intent patients with cancer having a more favorable view of radiation oncologists as equal partners in their care

Factors	Mean (SD) Likert-type rating	Responded very-extremely important (%)
Medical oncologists are referred to as such, rather than as oncologists	3.15 (1.22)	49%
Radiation oncologists are part of the initial new patient visit rather than a downstream referral	3.95 (1.09)	76%
The individual medical oncologist values the opinion of the radiation oncologist	4.59 (0.76)	97%
The individual radiation oncologist engages the patient appropriately in diagnostic and therapeutic decision-making	4.65 (0.75)	97%

Abbreviation: SD = standard deviation.

would be likely to affect patient views of their providers. More importantly, the attitude and behavioral practices of each subspecialist and the involvement of ROs in up-front multidisciplinary consultations were thought to be more important than naming alone in patients’ views of ROs as equal partners in their care.

This study highlights the importance of the RO’s roles in multidisciplinary management and clinics, which are shown to effectively streamline management of curative-intent malignancies and increase patient satisfaction.¹⁰⁻¹⁴ Unfortunately, our findings suggest that inclusion of ROs in multidisciplinary clinics may be lacking at approximately one-quarter of academic centers. Although the cause of this requires further exploration, it may imply that up-front RO input is not perceived as essential or providing value; this could be improved with appropriate emphasis from a cancer center’s leadership to ensure that patients are ultimately receiving comprehensive evidence-based recommendations. Interestingly, MOs tend to view too much involvement of ROs in the palliative setting with skepticism, though there is little data on whether a parallel scenario may also be occurring in the curative multidisciplinary setting.¹⁵

Additionally, with 28% of respondents believing patients consider ROs to be a type of radiologist, these findings suggest that the name “radiation oncology” may be confusing to patients in and of itself. Developing patient education materials that highlight the distinction from radiology, the oncologic training required to become an RO, and how ROs work in concert with other

oncologists on a multidisciplinary team, may help ameliorate patients' confusion.³

To our knowledge, this is the first study addressing the effect of the terminology used to describe different types of oncologists on patient care. Although our findings may be hypothesis generating and built upon in future research, the relatively small sample of ROs surveyed is a major limitation of this study due to selection bias. Ideally, future studies would seek 360 degree perspectives from medical and surgical oncologists, because terminology and branding are also likely to affect them, as well as from patients, because most patients lack any formal medical training and may be more susceptible to misunderstanding subtleties in terminology. Additionally, the answers to the more objective questions describing the terminology used may have been limited by recall bias, as we did not specifically ask participants to log in to their electronic medical record to verify the terminology used. The answers to the more subjective questions could have also been biased by targeting leaders at academic institutions rather than a more clinically diverse group of ROs. Despite these limitations, the results of this study should stimulate greater interest in optimizing the terminology used to describe different types of oncology subspecialists and the role of ROs in multidisciplinary cancer care, which may have an effect on effective patient-centered care.

Supplementary Materials

Supplementary material for this article can be found at <https://doi.org/10.1016/j.adro.2020.09.001>.

References

1. American Society of Clinical Oncology; European Society for Medical Oncology. ASCO-ESMO consensus statement on quality cancer care. *Ann Oncol*. 2006;17:1063-1064.

2. American Society for Clinical Oncology. Strategic Plan. Available at: https://www.astro.org/About-ASTRO/Strategic_Plan. Accessed May 29, 2020.
3. Royce TJ. Radiation oncology: What's in a name? *Pract Radiat Oncol*. 2019;9:125-127.
4. Hoyt KS. Why the terms "mid-level provider" and "physician extender" are inappropriate. *Adv Emerg Nurs J*. 2012;34:93-94.
5. Fadul N, Elsayem A, Palmer JL, et al. Supportive versus palliative care: What's in a name? A survey of medical oncologists and midlevel providers at a comprehensive cancer center. *Cancer*. 2009; 115:2013-2021.
6. Dalal S, Palla S, Hui D, et al. Association between a name change from palliative to supportive care and the timing of patient referrals at a comprehensive cancer center. *Oncologist*. 2011;16: 105-111.
7. Brattebo G, Bergstrom J, Neuhaus C. What's in a name? On the nuance of language in patient safety. *Br J Anaesth*. 2019;123:534-536.
8. Eysenbach G. Improving the quality of web surveys: The Checklist for Reporting Results of Internet E-Surveys (CHERRIES). *J Med Internet Res*. 2004;6:e34.
9. Harris PA, Taylor R, Thielke R, et al. Research electronic data capture (REDCap) — A metadata-driven methodology and workflow process for providing translational research informatics support. *J Biomed Inform*. 2009;42:377-381.
10. Pawlik TM, Laheru D, Hruban RH, et al. Evaluating the impact of a single-day multidisciplinary clinic on the management of pancreatic cancer. *Ann Surg Oncol*. 2008;15:2081-2088.
11. Soares KC, Cosgrove DC, Herman JM, Pawlik TM. Multidisciplinary clinic in the management of hepatocellular carcinoma. *Ann Surg Oncol*. 2014;21:1059-1061.
12. Page AJ, Cosgrove D, Elnahal SM, Herman JM, Pawlik TM. Organizing a multidisciplinary clinic. *Ch Clin Oncol*. 2014; 3:43.
13. Elnahal SM, Pronovost PJ, Herman JM. More than the sum of its parts: How multidisciplinary cancer care can benefit patients, providers, and health systems. *J Natl Comp Can Net*. 2013;11: 738-742.
14. Elnahal SM, Moningi S, Wild AT, et al. Improving safe patient throughput in a multidisciplinary oncology clinic. *Physician Leadership J*. 2015;2:56-60.
15. Gross JP, Kruser JM, Moran MR, et al. Radiation oncologists' role in end-of-life care: A perspective from medical oncologists. *Pract Radiat Oncol*. 2019;9:362-370.