

Consensus Statement Supporting the Presence of Onsite Radiation Oncology Departments at VHA Medical Centers

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Background: Although multiple studies demonstrate that radiotherapy is underused worldwide, the impact that onsite radiation oncology at medical centers has on the use of radiotherapy is poorly studied. The Veterans Health Administration (VHA) Palliative Radiotherapy Taskforce has evaluated the impact of onsite radiation therapy on the use of palliative radiation and has made recommendations based on these findings.

Observations: Radiation consults and treatment occur in a more timely manner at VHA centers with onsite radiation therapy compared with VHA centers without onsite radiation oncology. Referring practitioners with onsite radiation oncology less frequently report difficulty contacting a radiation oncologist (0% vs 20%, respectively; $P = .006$) and patient travel (28% vs 71%, respectively; $P < .001$) as barriers to referral for palliative radiotherapy. Facilities with

onsite radiation oncology are more likely to have multidisciplinary tumor boards (31% vs 3%, respectively; $P = .11$) and are more likely to be influenced by radiation oncology recommendations at tumor boards (69% vs 44%, respectively; $P = .02$).

Conclusions: The VHA Palliative Radiotherapy Taskforce recommends the optimization of the use of radiotherapy within the VHA. Radiation oncology services should be maintained where present in the VHA, with consideration for expansion of services to additional facilities. Telehealth should be used to expedite consults and treatment. Hypofractionation should be used, when appropriate, to ease travel burden. Options for transportation services and onsite housing or hospitalization should be understood by treating physicians and offered to patients to mitigate barriers related to travel.

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Radiation therapy, along with surgery and systemic therapy, is a primary therapeutic modality for cancer management. At least half of cancer patients receive radiation as part of their treatment regimen.¹ Multiple studies demonstrate that radiotherapy is underutilized worldwide.² One reason for underutilization of radiotherapy globally is poor access to this treatment modality. Factors that contribute to poor access include long wait times for consultation, delays in treatment initiation, distance to a treatment facility, and poor coordination of care.

TASKFORCE FINDINGS

The presence of onsite radiation oncology and its impact on utilization of radiotherapy is poorly studied. The Veterans Health Administration (VHA) Palliative Radiotherapy Taskforce recently conducted a survey to determine the barriers to referral and timeliness of treatment for palliative radiotherapy within the VHA.³ Key findings of this study comparing centers with onsite radiation departments with centers without onsite radiation departments include:

a. Radiation consults are more likely to be completed within 1 week of consult request at

- centers with onsite radiation therapy (68% vs 31%, respectively; $P = .01$).
- b. Centers with onsite radiation therapy more frequently deliver emergent treatment within 24 hours for patients with spinal cord compression, an emergency condition in which prompt radiation can prevent or minimize long-term neurologic disability (94% vs 70%, respectively; $P = .01$).
- c. Referring practitioners with onsite radiation departments are less likely to report difficulty contacting a radiation oncologist as a barrier to referral for palliative radiotherapy (0% vs 20%, respectively; $P = .006$).
- d. Referring practitioners with onsite radiotherapy report patient travel as a barrier to referral for palliative radiotherapy less frequently (28% vs 71%, respectively; $P < .001$).
- e. Practitioners with onsite radiation oncology departments are more likely to have multidisciplinary tumor boards (31% vs 3%, respectively; $P = .01$) and are more likely to be influenced by radiation oncology recommendations at tumor boards (69% vs 44%, respectively; $P = .02$).

Based on the findings of this study, the VHA Palliative Radiotherapy Taskforce has prepared this consensus statement regarding the

importance of onsite radiation oncology departments at VHA medical centers. More information regarding our 5 key findings and their implications for patient care are as follows:

Timeliness of Radiation Oncology Consultation

Delays in radiation oncology consultation, which can also delay treatment initiation, are associated with poor satisfaction among both patients and referring clinicians.⁴ Wait times have been identified as a barrier to utilization of radiotherapy by both patients and clinicians.^{5,6} Furthermore, delays in initiation of definitive therapy have been associated with worse outcomes, including worse overall survival.^{7,8} Our survey study demonstrates that consults for palliative radiotherapy are occurring in a more timely manner at centers with onsite radiation departments. Radiation oncology consults are more frequently completed within 1 week at centers with onsite radiation oncology departments compared with centers without onsite radiation oncology departments (68% vs 31%, $P = .01$). This trend would likely be seen for nonpalliative, definitive cases as well. The presence of radiation oncology departments onsite at VHA medical centers is an important component of timely care for veterans to optimize outcomes of cancer treatment.

Timely Delivery of Radiotherapy for Oncologic Emergencies

There are a few scenarios in which emergent radiation treatment, within 24 hours, is indicated. These include malignant spinal cord compression, uncal herniation from brain metastasis, superior vena cava syndrome, and tumor hemorrhage.⁹ Studies on management of metastatic spinal cord compression demonstrate that delays in treatment are associated with reduced ambulation¹⁰ as well as loss of sphincter function and incontinence.¹¹

Our study demonstrates that VHA medical centers with onsite radiotherapy more frequently deliver radiotherapy within 24 hours for patients with metastatic spinal cord compression. This timely delivery of treatment is critical to optimizing functional status and quality of life in patients requiring treatment for oncologic emergencies. Revisiting treatment pathways for such situations at regular intervals is crucial given that residents and staff

RECOMMENDATIONS

Based on findings from our study, the VHA Palliative Radiotherapy Taskforce makes the following recommendations:

1. VHA radiation oncology services should be maintained, where present, to reduce delays related to offsite referral for treatment. Expansion of radiation services to facilities that currently do not have onsite radiation departments should be considered.
2. Centers that do not have onsite radiation oncology departments should partner with local academic or community departments, or nearby VHA radiation oncology departments should be considered for improved communication, multidisciplinary tumor board coverage, care coordination, and continuity of care.
3. Telehealth should be used in order to expedite consults. Telehealth partnerships should be considered between facilities that do not have onsite radiation oncology with outside VHA radiation oncology departments.
4. Hypofractionation should be used, when appropriate, to ease travel burden for patients by reducing the number of trips for treatment.
5. Available transportation services should be understood by referring clinicians and offered to patients in whom travel is a barrier to treatment.
6. Onsite housing, when available, should be used to ease travel burden in patients who cannot travel back and forth for treatment. Hospital or onsite nursing home admission can also be considered.

may rotate and be unfamiliar with emergency protocols.

Communication With Radiation Oncologists

Several studies have demonstrated that the inability to contact a radiation oncologist and poor communication result in decreased referrals for palliative radiotherapy.^{12,13} Our study demonstrates that onsite radiation oncology is associated with improved ability to contact a radiation oncologist. About 20% of clinicians at facilities without onsite radiation oncology reported difficulty contacting a radiation oncologist, compared with 0% at facilities with onsite radiation departments ($P = .006$).

It is possible that increased radiation oncology presence at VHA medical centers, through attenuation of barriers related to contacting a radiation oncologist and improved communication, would lead to increased use of radiotherapy. Increased communication between referring clinicians and radiation oncologists also can help with education of those clinicians making the referral. Since knowledge gaps have been identified in multiple studies as a barrier to referral for

radiotherapy, such communication and increased education on the role of radiotherapy could increase use.¹²⁻¹⁴

Patient Travel

Patient ability to travel was the most commonly reported barrier (81%) to referral for palliative radiotherapy in our study. Travel time and transportation difficulties have been established in multiple studies as barriers to radiotherapy for both definitive and palliative management.¹⁵⁻¹⁸ Travel for radiotherapy was much less frequently reported as a barrier among respondents with onsite radiation oncology departments compared with those without onsite radiation departments (28% vs 71%, respectively; $P < .001$).

It is therefore possible that expansion of VHA radiation oncology services, allowing for provision of onsite radiotherapy at more VHA facilities, would reduce travel burden. Increasing travel accommodations for patients and provision of patient lodging on hospital campuses, which is already offered at some VHA medical centers (ie, Fisher House Foundation), could also help attenuate this barrier.

Multidisciplinary Tumor Boards

Our study demonstrates that centers with onsite radiation departments more frequently hold multidisciplinary tumor boards compared with centers without radiation departments (31% vs 3%, respectively; $P = .01$). Multidisciplinary tumor boards allow subspecialties to meet regularly to communicate about patient care and can help mitigate barriers related to communication and education of the referring health care practitioners.

As cases are discussed in multidisciplinary tumor boards, health care practitioners have the opportunity to make recommendations and provide education on potential benefits and/or downsides of treatments offered by their respective specialties. Several studies have demonstrated that cases discussed at multidisciplinary tumor boards are more likely to be referred for radiation therapy.¹⁹⁻²¹ Furthermore, multidisciplinary tumor boards have been associated with improved treatment outcomes.²²

CONCLUSIONS

In this consensus statement the VHA Palliative Radiotherapy Taskforce recommends the optimization of use of radiotherapy within the

VHA. Radiation oncology services should be maintained where present in the VHA, with consideration for expansion of services to additional facilities. Telehealth should be used to expedite consults and treatment. Hypofractionation should be used, when appropriate, to ease travel burden. Options for transportation services and onsite housing, or hospitalization, should be understood by practitioners and offered to patients to mitigate barriers related to travel.

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