

Title	Treatment Pathway: Palliative Radiation for Oncology Patients on Hospice with Bleeding
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I. Background

The goals of hospice are to maintain or enhance the comfort, independence, and quality of life for patients who have a life limiting disease such as cancer and an expectation of six months or less to live. These goals are achieved by reducing burdensome and/or unnecessary healthcare interventions for the patient and their caregiver(s)/family.

The intent of this document developed by MOQC, in collaboration with hospice medical directors and radiation oncologists across the State of Michigan, is to establish a framework to guide the care of hospice patients who could benefit from palliative radiation oncology treatment.

II. Purpose

This document defines the criteria for providing uniform and appropriate palliative radiation for selected oncology patients who are enrolled in hospice. It describes a mechanism to refer and treat a subset of hospice patients to radiation oncology for treatment, while minimizing the financial and care burden to oncology practices, hospices and patients/families.

Radiation therapy can be an effective palliative treatment for cancer-related symptoms such as pain, bleeding, and airway obstruction. Hospice physicians and radiation oncologists have significant alignment with treatment planning and care in providing symptom management for this population.

The treating physician must provide care based on relevant and presenting information to determine the propriety of any specific treatment pathway or course of action. This document is not intended to establish a legal standard of care.

III. Personnel

Michigan Oncology Quality Consortium (MOQC): A member of the Value Partnership Program of Blue Cross Blue Shield of Michigan (BCBSM). MOQC uses data to develop best practices in areas where there is variation in care practices. MOQC represents nearly 60 practices, which include over 85% of eligible oncologists practicing in Michigan.

Hospice Medical Director (HMD): A physician with primary responsibility for the medical component of a hospice’s patient care program. The HMD is responsible for working with an

interdisciplinary team to provide for the palliation of symptoms and the medical management of those medical conditions contributing to the terminal prognosis of a hospice patient. Critical components of the HMD's role are the determination of prognosis, certification of hospice eligibility, and optimization of the palliative management of the patient while enrolled in hospice.

Radiation Oncologist (RO): A physician with the primary responsibility of managing the radiation treatment process. The RO is responsible for the evaluation of disease stage, assessment of comorbidities and previous treatments, and discussion of the impact of treatment, including benefits and potential harm with the patient. Critical components of the RO's role are the supervision of all aspects of simulation, approval of final treatment plans in collaboration with a medical physicist and dosimetrist, and supervision of the actual treatment process.

IV. Palliative Radiation Therapy Treatment Pathway for Oncology Patients on Hospice with Bleeding

a. Screening Criteria and Clinical Scenarios

Criteria
1. Bleeding must be amenable to radiation therapy
2. Sites of bleeding: head and neck, bladder, chest wall/skin, gastrointestinal or gynecologic region
3. Patients with a history of bleeding in whom recurrent bleeding could be anticipated
4. Stable vital signs as assessed by hospice physician
<p>Scenario # 1: Appropriate Candidate for Radiation – Skin lesions</p> <p>A 43-year-old patient with squamous cell carcinoma of the head and neck, presenting with an oozing, bleeding wound.</p> <p>Explanation: The patient is having oozing or ongoing occasional bleeding due to a known malignancy that is not imminently life-threatening, and the patient is hemodynamically stable.</p>
<p>Scenario # 2: Appropriate Candidate for Radiation – Hemoptysis</p> <p>A 55-year-old patient with non-small cell lung cancer presenting with four days of approximately 1 tablespoon a day of hemoptysis.</p> <p>Explanation: The patient is bleeding due to a known malignancy that is not imminently life-threatening, and the patient is hemodynamically stable.</p>

Scenario # 3: Appropriate Candidate for Radiation – Rectal bleeding

A 90-year-old patient with localized rectal cancer s/p rectal stent who develops near continuous oozing of blood from the rectum. The patient appears to have lost a unit of blood.

Explanation: The patient is bleeding due to a known malignancy that is not imminently life-threatening, and the patient is hemodynamically stable.

Scenario # 4: Appropriate Candidate for Radiation – Hematuria from bladder cancer

A 70-year-old patient presenting with discrete episodes of hematuria and abdominal pain. Prior ultrasound scan showed a bladder wall lesion, confirmed by flexible cystoscopy and histology revealed grade 3 transitional cell carcinoma of the bladder with invasion into the lamina propria.

Explanation: The patient is bleeding due to a known malignancy that is not imminently life-threatening, and the patient is hemodynamically stable.

Scenario # 5: Inappropriate Candidate for Radiation

A 60-year-old patient with heavy bleeding from the neck. The blood is bright red, soaking a hand towel every hour, and the patient is dizzy upon standing. The patient has had previous radiation to the lateral neck which was completed before enrolling in hospice.

Explanation: The patient is having an arterial bleed, with hemodynamic instability, which will likely to lead to the end of life within hours to a few days.

Palliative Performance Scale (PPS) of $\geq 40\%$ (important for transportation)

A useful tool in prognostication is the Palliative Performance Scale (PPS, scored 0–100 in 10-point increments) in which higher numbers indicate better function. Similar to the Karnofsky Performance Scale, which focuses on ambulation and self-care, the PPS assesses functional status.

The PPS assesses five domains: (1) ambulation (range, bed-bound to full); (2) activity (unable to work to normal); (3) self-care (completely dependent to completely independent); (4) intake (mouth care only to full diet); and (5) level or consciousness (drowsy or coma to fully alert).

b. Goals of Treatment

The goals of treatment should be discussed with the patient and family/caregivers by the hospice medical director. A summary should be communicated to the radiation oncologist and to members of the hospice team providing care to the patient and family. The radiation oncology consultation can occur in-person or via telehealth, as appropriate.

c. Treatment Planning

The optimal fractionation and dose for bleeding is 8Gy in a single fraction. The patient should be scheduled for a second treatment but will be evaluated within 7 days for a possible second treatment with 8Gy.

Before a second fraction is offered, the patient’s goals of care and preferences, including an appraisal of the experience with the first fraction, will be made. A conversation between a staff member at the radiation oncology facility and patient will also take place before the second fraction, ideally the day before the second fraction appointment.

Treatment planning must be based on consideration of the patient’s history, physical examination, endoscopy, diagnostic imaging, surgical findings, pathological findings, and response to previous therapies.

The following are physician and practice expectations and proposed process, from notification to completion of treatment:

Process Step #	Hospice	Radiation Oncology
1	Continue pharmacologic and non-pharmacologic pain and symptom management prior to radiation therapy	
2	Complete referral form. The referral form should state that the patient is a hospice patient being referred for single fraction, one-day treatment.	
3	Initiate verbal communication by Hospice Medical Director to discuss treatment plan with Radiation Oncologist	Receive verbal communication from Hospice Medical Director and confirm treatment plan
4	Send face sheet to radiation oncology practice so that patient can be pre-registered for one- day treatment	Receive face sheet from hospice; use information to pre-register and schedule patient for treatment. Every attempt will be made to use telehealth to decrease patient and caregiver burden.
5		Schedule patient: Same day simulation and treatment slot is the goal

6	Provide radiation oncology practice with name of medical oncology practice for recent imaging and/or pathology reports	Complete: Pre-registration Prepare chart for day of service (recent imaging, pathology report, recent consultations, current practice requirements)
7		Do not anticipate additional imaging to be required. Rely on physical exam, recent imaging and CT simulation Anticipate: - 2D/complex isodose plan - Encourage use of open fields Discourage use of custom immobilization
8		Ensure patient/family is provided correct instructions
9	Pre-dose patient on/before day of treatment to tolerate treatment pathway and/or to mitigate side effects	
10	Determine what medication and/or documentation is sent with patient on day of RO treatment	
11	Discuss/organize transportation with patient/family to and from radiation oncology practice	
12	Patient arrives/receives treatment Receives discharge instructions	Greet patient/family Bill level 3 consult Provide discharge instructions
13		Complete documentation and billing of services
14	Receive documentation of radiation oncology treatment and place in patient's medical record	Send documentation to hospice. Send billing to hospice or appropriate payer
15	Complete billing of radiation oncology services	

d. Simulation and Treatment

Simulation is the process of establishing and documenting the treatment position, defining the appropriate volume to be treated, and the normal structures within or adjacent to this volume.

Simulation and Treatment should ideally be completed on the same day for this population. If multiple sites are being treated, it is up to physician and patient discretion to separate the treatments if more convenient for the patient.

e. Timeframe Expectations

Time of referral receipt to time of radiation completion should be 5 business days or less.

f. Recommended Preparation of Patients

The Hospice Medical Director is responsible for treatment before radiation depending on the anatomical localization of bleeding. This includes but is not limited to: stopping coagulants, pressure bandages, surgery, or embolization.

Premedication of a patient for pain and anticipated side effects of radiation therapy will be the responsibility of the Hospice Medical Director. The medication used is dependent on the area of the body impacted by the radiation.

The Hospice Medical Director is responsible for providing the patient with adequate pain medication for the day of treatment (e.g., PRN, break through medications), as well as assessing and adjusting pharmacologic and non-pharmacologic strategies for pain after radiation treatment is provided.

V. Required Documentation

- 1) From Hospice to Radiation Oncology Practice (Referral):
 - Referral form
 - Most recent Imaging (include both reports and digital images; if hospice does not have, inform radiation oncology what practice or hospital should be contacted)
 - Pathology report (if hospice does not have, inform radiation oncology what practice or hospital should be contacted)

- 2) From Radiation Oncology to Hospice (End of Treatment):
 - Returning to Residential Hospice and/or Nursing Home/Skilled Facility on Day of Treatment
 - i. Discharge summary (see Appendices)

 - Dictated Documentation (2-4 days later)
 - i. Consult/follow-up note
 - ii. Treatment summary

VI. Appendices

- a. Palliative Performance Scale (PPS)
- b. Sample Discharge Summary
- c. Sample Follow-up Script

VII. References

1. Sapienza LG, Ning MS, Jhingran A. (2018). Short-course palliative radiation therapy leads to excellent bleeding control: a single centre retrospective study. *Clin Transl Radiat Oncol.* 22(14):40–6.

2. Strijbos, J., van der Linden, Y.M., Vos-Westerman, H., van Baardwijk, A. (2019). Patterns of practice in palliative radiotherapy for bleeding tumours in the Netherlands; a survey study among radiation oncologists. *Clinical and Translational Radiation Oncology*. 15; 70–75
3. Gharzai L.A., Beeler W.H., Hayman J.A., Mancini B., Jagsi R., Pierce L., Moran J.M., Dominello M.M., Boike T., Griffith K., et al. (2019). Michigan Radiation Oncology Quality Consortium. Recommendations for single fraction radiation therapy and stereotactic body radiation therapy in palliative treatment of bone metastases: A statewide practice patterns survey. *Practical Radiation Oncology*, 9:e541–e548. doi: 10.1016/j.prro.2019.07.005.
4. Moeller B., Balagamwala E.H., Chen A., et al. (2018). Palliative thoracic radiation therapy for non- small cell lung cancer: 2018 Update of an American Society for Radiation Oncology (ASTRO) Evidence-Based Guideline. *Practical Radiation Oncology*, 8:245-50. 10.1016/j.prro.2018.02.009
5. Myers J., Kim A., Flanagan J., Selby D. (2015). Palliative performance scale and survival among outpatients with advanced cancer. *Supportive Care in Cancer*, 23:913–918
6. Lutz S. T., Jones J., Chow E. (2014). Role of radiation therapy in palliative care of the patient with cancer. *Journal of Clinical Oncology*, 32: 2913–2919

Appendix A
Palliative Performance Scale (PPSv2)

PPS	Ambulation	Activity Level & Evidence of Disease	Self-Care	Intake	Consciousness
PPS 100%	Full	Normal activity & work No evidence of disease	Full	Normal	Full
PPS 90%	Full	Normal activity & work Some evidence of disease	Full	Normal	Full
PPS 80%	Full	Normal activity & work <i>with</i> effort Some evidence of disease	Full	Normal or reduced	Full
PPS 70%	Reduced	Unable normal activity & work Significant disease	Full	Normal or reduced	Full
PPS 60%	Reduced	Unable hobby/house work Significant disease	Occasional assistance	Normal or reduced	Full or confusion
PPS 50%	Mainly sit/lie	Unable to do any work Extensive disease	Considerable assistance	Normal or reduced	Full or drowsy or confusion
PPS 40%	Mainly in bed	Unable to do most activity Extensive disease	Mainly assistance	Normal or reduced	Full or drowsy +/- confusion
PPS 30%	Totally bed bound	Unable to do any activity Extensive disease	Total care	Reduced	Full or drowsy +/- confusion
PPS 20%	Totally bed bound	Unable to do any activity Extensive disease	Total care	Minimal sips	Full or drowsy +/- confusion
PPS 10%	Totally bed bound	Unable to do any activity Extensive disease	Total care	Mouth care only	Drowsy or coma
PPS 0%	Dead	-	-	-	-

Instructions: PPS level is determined by reading left to right to find a 'best horizontal fit.' Begin at left column reading downwards until current ambulation is determined, then read across to next and downwards until each column is determined. Thus, leftward columns take precedence over the columns on the right. See definitions of terms below.

Definition of Terms for PPS

As noted below, some of the terms have similar meanings with the differences being more readily apparent as one reads horizontally across each row to find an overall 'best fit' using all five columns.

Ambulation (Use item **Self-Care** to help decide the level)

- **Full** — no restrictions or assistance
- **Reduced ambulation** — degree to which the patient can walk and transfer with occasional assistance
- **Mainly sit/lie vs Mainly in bed** — the amount of time that the patient is *able* to sit up or *needs* to lie down
- **Totally bed bound** — unable to get out of bed or do self-care

2. **Activity & Evidence of Disease** (Use **Ambulation** to help decide the level.)

- **Activity** — Refers to normal activities linked to daily routines (ADL), house work and hobbies/leisure.
- **Job/work** — Refers to normal activities linked to both paid and unpaid work, including homemaking and volunteer activities.
- Both include cases in which a patient continues the activity but may reduce either the time or effort involved.

Evidence of Disease

- **No evidence of disease** — Individual is normal and healthy with no physical or investigative evidence of disease.
- **'Some,' 'significant,' and 'extensive' disease** — Refers to physical or investigative evidence which shows disease progression, sometimes despite active treatments.

Example 1: Breast cancer: **some** = a local recurrence **significant** = one or two metastases in the lung or bone **extensive** = multiple metastases (lung, bone, liver or brain), hypercalcemia or other complication Example 2: CHF: **some** = regular use of diuretic &/or ACE inhibitors to control **significant** = exacerbations of CHF, effusion or edema necessitating increases or changes in drug management; **extensive** = 1 or more hospital admissions in past 12 months for acute CHF & general decline with effusions, edema, SOB

3. **Self-Care**

- **Full** — Able to do all normal activities such as transfer out of bed, walk, wash, toilet and eat without assistance.
- **Occasional assistance** — Requires *minor* assistance from several times a week to once every day, for the activities noted above.
- **Considerable assistance** — Requires *moderate* assistance every day, for *some* of the activities noted above (getting to the bathroom, cutting up food, etc.)
- **Mainly assistance** — Requires *major* assistance every day, for *most* of the activities noted above (getting up, washing face and shaving, etc.). Can usually eat with minimal or no help. This may fluctuate with level of fatigue.
- **Total care** — Always requires assistance for all care. May or may not be able to chew and swallow food.

4. **Intake**

- **Normal** — eats normal amounts of food for the individual as when healthy
- **Normal or reduced** — highly variable for the individual; 'reduced' means intake is less than normal amounts when healthy
- **Minimal to sips** — very small amounts, usually pureed or liquid, and well below normal intake.
- **Mouth care only** — no oral intake

5. **Conscious Level**

- **Full** — fully alert and orientated, with normal (for the patient) cognitive abilities (thinking, memory, etc.)
- **Full or confusion** — level of consciousness is full or may be reduced. If reduced, confusion denotes delirium or dementia which may be mild, moderate or severe, with multiple possible etiologies.
- **Full or drowsy +/- confusion** — level of consciousness is full or may be markedly reduced; sometimes included in the term stupor. Implies fatigue, drug side effects, delirium or closeness to death.
- **Drowsy or coma +/- confusion** — no response to verbal or physical stimuli; some reflexes may or may not remain. The depth of coma may fluctuate throughout a 24-hour period. Usually indicates imminent death

Appendix B – Sample Discharge Summary

Date:

Patient's Name:

Patient's Date of Birth:

Total Number of Fractions Administered:

Location of Treatment:

Date of Completion:

Possible Side Effects from Treatment:

Radiation Therapy may cause side effects. **Following up with your hospice doctor after your treatment is important.** In general, side effects from your treatment will start to subside 14 days after treatment.

Possible side effects to expect from radiation therapy

- | | | |
|-----------------------------------|--|--|
| <input type="checkbox"/> Diarrhea | <input type="checkbox"/> Difficulty swallowing | <input type="checkbox"/> Cough |
| <input type="checkbox"/> Fatigue | <input type="checkbox"/> Dry Mouth | <input type="checkbox"/> Fever |
| <input type="checkbox"/> Nausea | <input type="checkbox"/> Hair loss | <input type="checkbox"/> Shortness of breath |
| <input type="checkbox"/> Vomiting | <input type="checkbox"/> Mouth and gum sores | <input type="checkbox"/> Other |

Everyone's experience with radiation is different. If side effects appear or worsen, call your hospice doctor and ask them to provide treatment options.

Skin and Oral Care

- Avoid direct heat and cold to the treatment area
- Avoid sun exposure to the treated area; use a sunscreen of at least 30 SPF
- Mild soap and water may be used directly to the treated area once healing is established.
- Continue the skin care you used before your radiation treatment.
- Continue the skin care you used while on radiation treatment until your skin is healed.

- Continue oral rinses and mouth care.
- Use fluoride gel trays every day.
- Dressing instructions:
 - Fatigue and tiredness may continue for several weeks depending on how your body responds to treatment. Be sure to get the sleep, rest and activity you need.
- You are currently not taking any medications.
- If on steroids, please talk to your hospice physician.
- Continue all the medication(s) prescribed by your hospice physician.

New medicines ordered by Radiation Oncologist:

- Dexamethasone
- Ondansetron (brand name Zofran)
- Prednisolone
- Methylprednisolone

- Diet as tolerated or as directed by your hospice doctor.
- Low fiber diet.
- Avoid highly seasoned foods.
- Liquid supplements may be helpful.

Additional Information:

Patient or Caregiver Signature:

Nurse Signature:

Date:

Date:

Time:

Time:

Appendix C – Sample Follow-up Script

Date:

Patient's Name:

Patient's Date of Birth:

Total Number of Fractions Administered:

Location of Treatment:

Date of Completion:

1. Assess symptoms post radiation therapy.

PROMPT: "Since your procedure have you experienced any of the following symptoms?"

Ask these questions of every patient:

- Bleeding at radiation site
- Erythema
- Fatigue
- Pain
- Shortness of breath

Ask these questions of abdominal cancer patients:

- Diarrhea
- Nausea
- Vomiting

Ask these questions of head & neck cancer patients:

- Difficulty swallowing
- Mucositis

2. Assess the patient’s (and/or their caregiver’s) perception and understanding of the clinical status and prognosis. Take time to be silent and hear the patient’s thoughts.

PROMPTS:

→“What is your understanding of what the doctors have already told you about your illness?”

→“Is it a good time to talk about what to do next?”

→ “Is it okay if we talk more about next steps?”

3. Name and acknowledge the patient’s emotions and thoughts.

	Action	Examples
N	Name	Ask the patient to describe what they are feeling. If you can pick up strong emotions, name them: “It sounds like you are feeling some fear about treatment.”
U	Understand	Express understanding. “I know it must feel very scary.”
R	Respect	Express respect. “You are handling a very tough situation as best as you can.”
S	Support	Express respect. “I’m here if you have any thoughts or questions.”
E	Explore	Ask what else the patient may be thinking. “Tell me more.”

4. Identify the patient's goals prior to recommending any further radiation.

PROMPTS:

→ "What's most important to you?"

→ "What concerns you?"

→ "What situations would be unacceptable to you?"

5. Repeat back what the patient (or caregiver) has said.

PROMPTS:

→ "I hear you saying that what's most important to you is..."

→ "I understand that you want to make sure to avoid the following things ..."

6. Plan the next radiation treatment, if it matches the patient's values.

PROMPTS:

→ "Now that I understand better what's important to you, let's talk a bit more about the options for treatment."

→ "Here are some things we can do next..."

→ "Would it be helpful for me to offer a recommendation?"

7. Document this discussion