

Supplemental Appendix for:
Recommendations for Palliative and Hospice Care in NCCN Guidelines for Treatment of Cancer
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Appendix 1. Definitions and Recommendation for Timing of “Palliative Care” Involvement in the Context of NCCN Guidelines

Guidelines	Description of Recommendation (Page)
Guidelines for Hematologic Malignancy (N=5)	
Acute Lymphoblastic Leukemia (Adult and AYA)	Relapsed/ refractory disease. (ALL-8)
B-cell Lymphomas	<ol style="list-style-type: none"> 1. Follicular Lymphoma (Grade 1-2):(a) Histologic transformation to DLBCL after multiple lines of prior therapies; (b) NR or progressive disease after clinic trial, or ibritumomab tiuxetan, or chemoimmo-therapy, or ISRT, or axicabtagene ciloleucel or tisagenlecleucel therapy (only after ≥ 2 prior chemoimmunotherapy regimens, if not previously); (c) Following therapies in item (b), CR, PR case, still no response, or relapsed, or progressive disease after subsequent therapies, and not candidate for additional therapy. (FOLL-8) 2. Nodal Marginal Zone Lymphoma: (a) Histologic transformation to DLBCL after multiple lines of prior therapies; (b) NR or progressive disease after clinic trial, or ibritumomab tiuxetan, or chemoimmo-therapy, or ISRT; (c) CR, PR case with therapies in item (b), still no response, or progressive disease after subsequent therapies, and not candidate for additional therapy. (NODE-6) 3. AIDS-Related B-Cell Lymphomas: primary CNS lymphoma. (AIDS-3)
Multiple Myeloma	Relapse or Progressive disease with additional treatment: After additional treatment, patient has refractory disease and lack of treatment options. (MYEL-7)
Pediatric Acute	1. Relapsed/refractory disease (either first time or multiple time). (PEDALL-9,

Lymphoblastic Leukemia	10,11) 2. Treatment for pain: the panel encourages consultation with pediatric pain or palliative care specialists. (PEDALL-B 6 OF 9)
Systemic Light Chain Amyloidosis	1. Relapsed/refractory disease. (AMYL-2) 2. Newly diagnosed disease. (AMYL-2)

Guidelines for Solid Tumor (N=24)

Breast Cancer	<ol style="list-style-type: none"> 1. Recurrent or stage IV (M1) disease: recommend supportive care (See NCCN Guidelines for Palliative Care and NCCN Guidelines for Supportive Care). 2. Systemic treatment of recurrent or stage IV (M1) disease: ER and/or PR positive; HER2 negative: (a) progression or unacceptable toxicity on first-line endocrine therapy, (b) For those with visceral crisis: progression or unacceptable toxicity on first-line chemotherapy, after subsequent therapy, consider no further cytotoxic therapy and continue supportive care (See NCCN Guidelines for Palliative Care and NCCN Guidelines for Supportive Care) (BINV-22) 3. Systemic treatment of recurrent or stage IV (M1) disease: ER and/or PR positive; HER2 positive: (a) progression on first-line endocrine therapy, (b) progression on first-line chemotherapy + HER2-targeted therapy, after subsequent therapy, consider no further HER2-targeted therapy and continue supportive care (See NCCN Guidelines for Palliative Care and NCCN Guidelines for Supportive Care) (BINV-24) 4. Systemic treatment of recurrent or stage IV (M1) disease: ER and/or PR negative; HER2 positive: when considering no further HER2-targeted therapy and continue supportive care (See NCCN Guidelines for Palliative Care and NCCN Guidelines for Supportive Care) (BINV-25) 5. Systemic treatment of recurrent or stage IV (M1) disease: ER and/or PR negative; HER2 negative: when considering no further cytotoxic therapy and continue supportive care (See NCCN Guidelines for Palliative Care and NCCN Guidelines for Supportive Care) (BINV-26)
Central Nervous System Cancers	1. Principles of Brain and Spine Tumor Management: Palliative and pain management care should be integrated into management of neuro-oncology patients early in the course of their treatment (UPDATES, BRAIN-E 1 OF 3)

2. Adult Low-Grade (WHO Grade I or II) Glioma/Pilocytic and Infiltrative Supratentorial Astrocytoma/Oligodendoglioma: recurrent or progressive, low-grade disease, including (a) prior fractionated external beam RT: resectable or unresectable disease, (b) no prior fractionated external beam RT: resectable or unresectable disease. (ASTR-3)
3. Anaplastic gliomas/Glioblastoma with poor performance status (KPS < 60). (GLIO-2, 3, 4)
4. Recurrent disease for Anaplastic oligodendroglioma, Anaplastic oligoastrocytoma NOS, Anaplastic astrocytoma, Anaplastic gliomas, Glioblastoma: (a) if poor PS; (b) after clinical trial, systemic chemotherapy, surgery, reirradiation, alternating electric field therapy for glioblastoma, (GLIO-5)
5. Adult Intracranial and Spinal Ependymoma (Excluding Subependymoma): treatment for progression or recurrence disease, including (a) resectable disease prior RT: Gross total or subtotal resection and evidence of metastasis (brain, spine, or CSF); (b) unresectable disease prior RT with evidence of metastasis (brain, spine, or CSF). (EPEN-4)
6. Recurrent Disseminated Adult Medulloblastoma: Palliative/best supportive care, including focal radiation, if indicated. (AMED-3)
7. Relapsed or refractory Primary CNS Lymphoma: palliative care is recommended for all the cases. (PCNS-3)
8. Limited Brain Metastases: (a) disseminated systemic disease with poor systemic treatment options; (b) systemic disease progression, with limited systemic treatment options and poor PS. (LTD-2, 4)
9. Recurrent Extensive Brain Metastases: systemic disease progression with limited systemic treatment options. (MU-2)
10. Leptomeningeal metastases: (a) patients with a good status who do not desire further therapy may also be treated with palliative and/or best supportive care; (b) patients with a poor status (KPS < 60; Multiple, serious, neurologic deficits; Extensive systemic disease with few treatment options; Bulky CNS disease, Encephalopathy); (c) CFS cytology continually positive and evidence of clinical or radiologic progression of leptomeningeal disease and continue chemotherapy for 4 weeks or switch chemotherapy and treat for 4 weeks before re-testing CFS, but cytology continually positive and evidence of clinical or radiologic progression of leptomeningeal disease; (d) CFS cytology positive and evidence of clinical or radiologic progression of leptomeningeal disease after switch chemotherapy. (LEPT-1, 2, 3)
11. Practitioners should become familiar with palliative and hospice care resources that are available in their community in order to help educate

patients and families that involvement of these services does not indicate state of hopelessness, no further treatment, or abandonment. (BRAIN-E 1 OF 3)

12. Surgery for recurrent disease may be followed by chemotherapy if patients have previously had fractionated EBRT. At progression following chemotherapy, the options are: 1) a different chemotherapy regimen; 2) consider reirradiation; and 3) palliative/best supportive care. (MS-10)
13. A patient with a poor PS should receive palliative/best supportive care without further active treatment. (MS-16)
14. Patients with a poor PS can be management by RT, TMZ along, or palliative/best supportive care. (MS-16)
15. Upon disease progression, several option are available depending on the histologic type, extent of disease, age of the patient, and PS: 1)RT; 2) chemotherapy for patients who are refractory to surgery or RT; or 3) palliative or best supportive care. (MS-18)
16. For patients who are treated with prior WBRT and ultimately relapse, they may consider further chemotherapy (systemic and/or intrathecal), reirradiation, or palliative/best supportive care. (MS-24)
17. In either case, palliative/best supportive care remains an option. (MS-24)
18. If systemic CNS disease progression occurs in the setting of limited systemic treatment options and poor PS, palliative or best supportive care is the first option. (MS-32)
19. For patients with systemic disease progression, options include palliative/best supportive care or reirradiation. (MS-32)
20. Patients in the poor-risk group are usually offered palliative/supportive care measures. (MS-34)
21. Progressive disease: If the patient's clinical status is deteriorating from progressive leptomeningeal disease or if the cytology is persistently positive, the clinician has several options: 1) RT to symptom sites, 2) systemic chemotherapy, or 3) palliative or best supportive care. (MS-35)

- Cervical Cancer
1. Local regional recurrence after therapy for relapse: recommend best supportive care (See NCCN Guidelines for Palliative care). (CERV-11)
 2. Stage IVB or distant metastases: not amenable to local treatment, recommend best supportive care (See NCCN Guidelines for Palliative care) (CERV-12)

Colon Cancer

Patients not appropriate for intensive therapy after systemic therapy for advanced or metastatic disease: no improvement in functional status,

recommend best supportive care (See NCCN Guidelines for Palliative Care). (COL-D 1OF 3)

Cutaneous
melanoma

1. Disease limited to nodal recurrence: Unresectable previous lymph node dissection. (ME-15)
2. Disseminated (unresectable) distant metastatic disease, either with or without brain metastases. (ME-16)
3. Metastatic or unresectable disease after first-line therapy: disease progression or maximum clinical benefit from BRAF targeted therapy, consider best supportive care for poor performance status (See NCCN Guidelines for Palliative Care). (ME-I 1OF 5)

Esophageal and
Esophagogastric
Junction
Cancers

1. Squamous cell carcinoma:
 - (a) Tumor classification of cT4b. (ESOPH-3, 4)
 - (b) Primary treatment for medically fit patients (preoperative chemoradiation): persistent local disease, unresectable or metastatic disease. (ESOPH-5)
 - (c) Primary treatment for medically fit patients (definitive chemoradiation): persistent local disease, new metastatic disease. (ESOPH-5)
 - (d) Surgical outcomes/clinical pathologic finding for squamous cell carcinoma (patients have not received preoperative chemoradiation): R2 resection (R2 = Macroscopic residual cancer or M1), palliative management is an option for postoperative management. (ESOPH-6)
 - (e) Surgical outcomes/clinical pathologic findings for squamous cell carcinoma (patients have received preoperative chemoradiation): R2 resection, palliative management is an option for postoperative management. (ESOPH-7)
 - (f) Tumor classification of cT1b-T4a N0-N+, or cT4b (unresectable): non-surgical candidate unable to tolerate chemoradiation. (ESOPH-8)
 - (g) Locoregional recurrence or metastatic disease. (ESOPH-9)
 - (h) Unresectable locally advanced, locally recurrent, or metastatic disease: KPS $\geq 60\%$ or ECOG performance score ≤ 2 , and after perform PD-L1 testing (if not done previously) if metastatic squamous cell carcinoma is suspected. (ESOPH-10)
 - (i) Unresectable locally advanced, locally recurrent, or metastatic disease: KPS $< 60\%$ or ECOG performance score ≥ 3 . (ESOPH-10)
2. Adenocarcinoma:
 - (a) Tumor classification of cT4b. (ESOPH-12,13)
 - (b) Primary treatment for medically fit patients (preoperative chemoradiation): persistent local disease, unresectable or metastatic disease. (ESOPH-14)

- (c) Primary treatment for medically fit patients (definitive chemoradiation): persistent local disease, new metastatic disease. (ESOPH-14)
 - (d) Surgical outcomes/clinical pathologic findings for adenocarcinomas (patients have not received preoperative chemoradiation): R2 resection, palliative management is an option for postoperative management. (ESOPH-15)
 - (e) Surgical outcomes/clinical pathologic findings for adenocarcinomas (patients have received preoperative chemoradiation): R2 resection, palliative management is an option for postoperative management. (ESOPH-16)
 - (f) Tumor classification of cT1b-T4a N0-N+, or cT4b (unresectable): non-surgical candidate unable to tolerate chemoradiation. (ESOPH-17)
 - (g) Locoregional recurrence or metastatic disease. (ESOPH-18)
 - (h) Unresectable locally advanced, locally recurrent, or metastatic disease: KPS $\geq 60\%$ or ECOG performance score ≤ 2 , and after perform HER2, PD-L1, MSI/MMR testing (if not done previously) if metastatic adenocarcinoma is suspected. (ESOPH-19)
 - (i) Unresectable locally advanced, locally recurrent, or metastatic disease: KPS $< 60\%$ or ECOG performance score ≥ 3 . (ESOPH-19)
3. Principles of multidisciplinary team approach for esophagogastric cancers: Optimally at each meeting, all relevant disciplines should be encouraged to participate and these may include: surgical oncology, medical oncology, gastroenterology, radiation oncology, radiology, and pathology. In addition, the presence of nutritional services, social workers, nursing, palliative care specialists, and other supporting disciplines are also desirable. (ESOPH-E, MS-38)
 4. Principles of Palliative/Best Supportive Care:
 - (a) A multimodality interdisciplinary approach to palliative care of the esophageal cancer patient is encouraged. (ESOPH-H 1 OF 3)
 - (b) Patients with dysphagia who are not candidates for curative surgery should be considered for palliative of their dysphagia symptoms, based on symptom severity. (ESOPH-H 1 OF 3)
 - (c) Other symptom management: obstruction, pain, bleeding, nausea/vomiting. (ESOPH-H 2, 3 OF 3)
 5. Palliative RT or palliative/best supportive care are the appropriate options for non-surgical candidates who are unable to tolerate chemoradiation. (MS-39)
 6. Alternatively, patients with persistent local disease or unresectable/metastatic disease following either preoperative or definitive chemoradiation should be managed with palliative/best supportive care.

(MS-40)

7. Alternatively, patients with R2 resection can receive palliative management. (MS-40)
8. Palliative management and best supportive care are always indicated for patients with unresectable locally advanced, recurrent, or metastatic disease. The decision to offer palliative/best supportive care alone or with systemic therapy is dependent upon the patient's performance status. (MS-42)
9. Patients with a KPS < 60% or an ECOG PS score ≥ 3 should be offered palliative/best supportive care only. Systemic therapy can be offered in addition to palliative/best supportive care for patients with better performance status (KPS score $\geq 60\%$ or ECOG PS score ≤ 2). (MS-42)
10. In patient with advanced or metastatic esophageal or EGJ cancer, palliative/best supportive care provides symptom relief, improvement in overall quality of life, and may result in prolongation of life. (MS-43)

Gastric Cancer

1. Stage IV and metastatic disease(cM1). (GAST-1, 2)
2. Locoregional disease (cM0): non-surgical candidate. (GAST-2)
3. Primary treatment for medically fit patients (perioperative chemotherapy, or perioperative chemoradiation): palliative management is an addition management for resectable disease, unresectable or metastatic disease. (GAST-3)
4. Surgical outcomes/clinical pathologic findings (patients have not received preoperative chemotherapy or chemoradiation): R2 resection (R2 = Macroscopic residual cancer or M1), or ypM1. (GAST-4)
5. Surgical outcomes/clinical pathologic findings (patients have received preoperative chemotherapy or chemoradiation): R2 resection, or pM1. (GAST-5)
6. Unresectable disease or non-surgical candidate following primary treatment: Unresectable or medically inoperable and/or metastatic disease. (GAST-6)
7. Locoregional recurrence or metastatic disease. (GAST-8)
8. Unresectable locally advanced, locally recurrent, or metastatic disease: KPS $\geq 60\%$ or ECOG performance score ≤ 2 , and after perform HER2, PD-L1, MSI/MMR testing (if not done previously) if metastatic adenocarcinoma is documented or suspected. (GAST-9)
9. Unresectable locally advanced, locally recurrent, or metastatic disease: KPS < 60% or ECOG performance score ≥ 3 . (GAST-9)
10. Principles of multidisciplinary team approach for esophagogastric cancers: Optimally at each meeting, all relevant disciplines should be encouraged to participate and these may include: surgical oncology, medical oncology, gastroenterology, radiation oncology, radiology, and pathology. In addition,

the presence of nutritional services, social workers, nursing, palliative care specialists, and other supporting disciplines are also desirable. (GAST-E, MS-29)

11. Principles of Palliative/Best Supportive Care:

- (a) A multimodality interdisciplinary approach to palliative care of the gastric cancer patient is encouraged. (GAST-J 1 OF 3, MS-33)
 - (b) Other symptom management: obstruction, pain, bleeding, nausea/vomiting. (GAST-J 1, 2 OF 3)
12. Surgery is preferred for patients with resectable disease after chemoradiation while those found to still have unresectable disease should receive palliative management. (MS-22)
 13. Non-surgical candidates with locoregional disease should receive palliative management. All patients diagnosed with metastatic disease are considered non-surgical candidates and should be treated with palliative management/best supportive care. (MS-30)
 14. Patients found to have resectable disease on imaging should proceed with surgery while those found to have unresectable or metastatic disease after primary treatment should receive palliative management. (MS-30)
 15. Patients with unresectable, medically inoperable, metastatic disease, recurrence, restaging should receive palliative management. (MS-31)
 16. Palliative management, as clinically indicated, is an alternative option for patients following an R2 resection. (MS-31)
 17. Palliative management should be offered to all patients with metastatic disease and may also be offered to patients with R2 resection, as clinically indicated. (MS-31)
 18. Palliative management and best supportive care are always indicated for patients with unresectable, locally advanced, recurrent, or metastatic disease. The decision to offer palliative/best supportive care alone or with systemic therapy is dependent upon the patient's performance status. (MS-32)
 19. Patients with a KPS < 60% or an ECOG PS score ≥ 3 should be offered palliative/best supportive care only. Systemic therapy or chemoradiation (only if local unresectable and not previously received) can be offered in addition to palliative/best supportive care for patients with better performance status (KPS score $\geq 60\%$ or ECOG PS score ≤ 2). (MS-32, 33)
 20. In patient with advanced or metastatic gastric cancer, palliative/best supportive care provides symptom relief, improvement in overall quality of life, and may result in prolongation of life. (MS-33)

Cancers	services and specialists with expertise in the management of patients with head and neck cancer for optimal treatment and follow-up. Palliative care is an option of adjunctive services. (TEAM-1)
Kidney Cancer	Supportive care remains a mainstay of therapy for all patients with metastatic RCC (See NCCN Guidelines for Palliative Care). (MS-26)
Malignant Pleural Mesothelioma	Principles for supportive care: See NCCN Guidelines for Palliative Care as indicated. (MPM-B)
Merkel Cell Carcinoma	<ol style="list-style-type: none"> 1. Clinical M1. (MCC-4) 2. Local and/or regional recurrence. (MCC-5) 3. Disseminated recurrence (MCC-5) 4. NCCN recommendations for treatment of Distant metastatic disease: All patients should receive best supportive care, and depending on the extent of the disease and other case-specific circumstances, palliative care alone may be the most appropriate option for some patients. (MS-24)
Non Small Cell Lung Cancer	<ol style="list-style-type: none"> 1. Pathologic diagnosis of NSCLC: Initial evaluation includes “Integrate Palliative Care”. (NSCL-1) 2. Advanced or metastatic disease: Integrate palliative care. (NSCL-17) 3. For patients with Stage IV disease who have a good PS, platinum-based chemotherapy is beneficial. DATA show that early palliative care combined with systemic therapy improves quality of life, mood, and survival in patients with metastatic NSCLC, even if these patients had less aggressive end-of-life care, when compared with those not receiving palliative care alone. (MS-29)
Occult Primary	<ol style="list-style-type: none"> 1. For patients with active and incurable disease, psychosocial support, symptom management, end-of-life discussions, palliative care interventions, and hospice care should all be considered and utilized as appropriate. (OCC-16, MS-17) 2. In addition to psychosocial support, patients with active and incurable CUP often require symptom management and palliative care interventions. (MS-10) 3. Specialized approaches may include palliative care options (such as

thoracentesis and paracentesis), targeted therapies, and/or novel approaches to RT. (MS-17)

- Ovarian Cancer
1. Stage IA or IB: Patient with Grade 2 endometrioid, after having observe or IV platinum-based therapy x 3-6 cycles, is recommended to refer for palliative care assessment, if appropriate. (OV-4)
 2. Stage IA or IB: Patient with Grade 3 endometrioid, after having IV platinum-based therapy, is recommended to refer for palliative care assessment, if appropriate. (OV-4)
 3. Stage IC (Grade 1, 2, or 3): After having IV platinum-based therapy, recommend to refer for palliative care assessment, if appropriate (OV-4)
 4. Stage II, III, IV: After having platinum-based chemotherapy, completion surgery as indicated by tumor response and potential resectability in selected patients, recommend to refer for palliative care assessment, if appropriate. (OV-4)
 5. Stage I, II, III and IV after primary treatment, following recurrent disease: refer for palliative care assessment, if appropriate. (OV-6)
 6. Progression on primary, maintenance or recurrence therapy, or stable or persistent disease (if not on maintenance therapy), or completed remission and relapse < 6 months after completing chemotherapy. (OV-7)
 7. Complete remission and relapse \geq 6 months after completing prior chemotherapy: (a) Radiographic and/or clinical relapse: after treatment with secondary cytoreductive surgery; (b) Biochemical relapse (rising CA-125 and no radiographic evidence of disease). (OV-7)
 8. Performance status, end-organ status, and pre-existing toxicities from prior regimens. If appropriate, palliative care should also be discussed as a possible treatment choice. (OV-C 5OF 9)
 9. The NCCN Guidelines recommend symptom management and best supportive care for all patients, women should be referred for palliative care assessment if appropriate. (MS-6, 17, 34)
 10. Although palliative care is appropriate at many stages during the disease course, an assessment for palliative care is especially appropriate for women with platinum-resistant disease who may be receiving continuous systemic therapy. (MS-19)
 11. Consideration of palliative care intervention is appropriate at several stages during the disease course. (MS-33)
- Pancreatic Adenocarcinoma
1. Multidisciplinary consultation: Multidisciplinary review should ideally involve expertise from diagnostic imaging, interventional endoscopy,

medical oncology, radiation oncology, surgery, pathology, geriatric medicine, and palliative care. (PANC-1, MS-9)

2. Locally advanced disease, (a) Poor PS; (b) Good PS: after first-line therapy, poor PS and disease progression;(c) Good PS :after first -line and second-line therapy, declining PS. (PANC-7)
3. Metastatic disease: (a) Poor PS; (b) Good PS: after first-line therapy, poor PS and disease progression;(c) Good PS and disease progression: after first-line and second-line therapy. (PANC-7)
4. Recurrence after resection: (a) Local recurrence: pancreatic operative bed; (b) Metastatic disease with or without local recurrence. (PANC-9)
5. Management of metastatic disease: Patients who present with poor performance status may benefit from single-agent chemotherapy, but comfort-directed measures are always paramount. An alternative option for these patients is palliative and best supportive care. (MS-30)
6. Management of locally advanced disease: Palliative and best supportive care and single-agent chemotherapy or palliative RT are options for patients with poor or declining performance status. (MS-31)
7. Management of recurrent of disease after resection: Palliative and best supportive care without additional therapy should also be an option, especially for patients with poor performance status. (MS-47)
8. A significant subset of patients with pancreatic cancer will require substantial palliative interventions that are, in many respects, unique to the disease. The multidisciplinary management of symptoms due to biliary obstruction, gastric outlet obstruction, and cancer-related pain is of primary importance. The main objective of palliative care is to prevent and ameliorate suffering while ensuring optimal quality of life. (MS-48)

Penile Cancer Metastatic penile cancer: No response to CT, RT or chemoradiotherapy/disease progression. (PN-9)

Rectal Cancer Patient not appropriate for intensive therapy after systemic therapy for advanced or metastatic disease: no improvement in functional status, recommend best supportive care (See NCCN Guidelines for Palliative care). (REC-F 1 OF 3)

- Small Cell Lung Cancer
1. Limited stage IIB-IIIC(T3-4, N0, M0; T1-4,N1-3, M0): Poor PS (3-4) not due to SCLC. (SCL-4)
 2. Extensive stage without localized symptomatic sites or brain metastases: Good PS(0-2) or Poor PS(3-4) due to SCLC. (SCL-5)

3. Extensive stage without localized symptomatic sites or brain metastases: Poor PS(3-4) not due to SCLC. (SCL-5)
4. Relapse or primary progression disease (PS 0-2): Response to subsequent systemic therapy, but progression or development of unacceptable toxicity, performance status declines to PS 3-4. (SCL-7)
5. Relapse or Primary progression disease (PS 0-2): No response to subsequent systemic therapy or unacceptable toxicity, performance status declines to PS 3-4. (SCL-7)
6. Relapse or Primary progression disease (PS 3-4). (SCL-7)

Soft Tissue Sarcoma Unresectable or Stage IV Retroperitoneal/Intra-Abdominal: No downstaging, palliative care only. (RETSARC-4)

Testicular Cancer Recurrence disease: Second-line therapy, post second-line therapy, third-line therapy include best supportive care and palliative care. (TEST-13,14, 15)

- Thyroid Carcinoma
1. Anaplastic thyroid carcinoma: when establish goal of therapy, recommend to discuss palliative care options. (ANAP-1)
 2. Metastatic anaplastic thyroid carcinoma (Stage IVC): Recommend palliative care. (ANAP-2)
 3. Metastatic anaplastic thyroid carcinoma (Stage IVC): After having aggressive therapy, recommend palliative care as an option of surveillance and management. (ANAP-2)
 4. The role of palliative and supportive care is paramount and should be initiated early in the disease. (MS-39)

- Uterine Neoplasms
1. Endometrial Carcinoma: Disseminated metastases with therapy for relapse, if progression. (ENDO-9)
 2. Palliative care measures should also be considered in management of patients with systemic disease. (MS-19)

- Vulvar Cancer (Squamous Cell Carcinoma)
1. Metastatic disease beyond pelvis (any T, any N,M1 beyond pelvis). (VULVA-7)
 2. Clinical nodal or distant recurrence: Multiple pelvic nodes, or distant metastasis, or prior pelvic EBRT. (VULVA-10)
 3. Clinical nodal or distant recurrence: Isolated groin/pelvic recurrence: prior EBRT. (VULVA-10)
 4. Systemic therapy, palliative/best supportive care, or clinical trial enrollment

is recommended for patients experiencing recurrence who received prior pelvic EBRT, and for patients with multiple positive pelvic nodes or distant metastasis. (MS-15)

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| Uveal | 1. Distant metastatic disease (UM-6) |
| Melanoma | 2. Distant metastatic disease: Residual or progressive disease after treatment. (UM-6) |
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Abbreviations: DLBCL, Diffuse large B-cell lymphoma; NR, No response; ISRT, involved-site radiation therapy; CR, Complete response; PR, Partial response; AIDS, Acquired immunodeficiency syndrome; CNS, Central nervous system; NCCN, National Comprehensive Cancer Network; ER, Estrogen receptor; PR, Progesterone receptor; HER2, Human epidermal growth factor receptor 2; WHO, World Health Organization; KPS, Karnofsky performance status score; NOS, No organism seen; PS, Performance status; RT, Radiation therapy; CSF, Cerebrospinal fluid; EBRT, External Beam Radiation Therapy; TMZ, Temozolomide; WBRT, Whole brain radiation therapy; ECOG, Eastern Cooperative Oncology Group; PD-L1, Programmed death-ligand 1; MSI/MMR, Microsatellite instability/Mismatch repair; EGJ, Esophagogastric junction; RCC, Renal cell carcinoma; NSCLC, Non small cell lung cancer; CUP, Cancer of unknown primary; CT, Chemotherapy.

**Appendix 2. Definitions and Recommendation for Timing of “Hospice Care” Involvement
in the Context of NCCN Guidelines**

Guidelines (N=3)	Description of Recommendation (Page)
Central Nervous System Cancers	Practitioners should become familiar with palliative and hospice care resources that are available in their community in order to help educate patients and families that involvement of these services does not indicate state of hopelessness, no further treatment, or abandonment. (BRAIN-E 1OF 3)
Cervical Cancer	Patients with refractory systemic cancer warrant a comprehensive coordinated approach involving hospice care, pain consultants, and emotional and spiritual support, individualized to situation (see the NCCN Guidelines for Palliative Care). (MS-19)
Occult Primary	For patients with active and incurable disease, psychosocial support, symptom management, end-of-life discussions, palliative care interventions, and hospice care should all be considered and utilized as appropriate. (OCC-16)