NCCN National Comprehensive Cancer Network®

NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®)

Palliative Care

Version 1.2018 — December 19, 2017

NCCN.org

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Palliative Care

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NCCN Guidelines Panel Disclosures

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Clinical Trials: NCCN believes that the best management for any patient with cancer is in a clinical trial.
Participation in clinical trials is especially encouraged.

To find clinical trials online at NCCN Member Institutions, click here: nccn.org/clinical_trials/physician.html.

NCCN Categories of Evidence and Consensus: All recommendations are category 2A unless otherwise indicated.

See NCCN Categories of Evidence and Consensus.

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Discussion

Updates in Version 1.2018 of the NCCN Guidelines for Palliative Care from Version 2.2017 include:

PAL-1

- The title of the page has been modified to include, "*General Overview*" (Also for PAL-2, PAL-3, PAL-4, and PAL-5)

Definition of Palliative Care

- Modified as follows: "Palliative care is an approach to ~~special kind of~~ patient/family/caregiver-centered health care that focuses on optimal ~~effective~~ management of pain and other distressing symptoms, while incorporating psychosocial and spiritual care according to patient/family needs, values, beliefs, and cultures. The goal of palliative care is to anticipate, prevent, and reduce suffering and to support the best possible quality of life for patients/families/caregivers, regardless of the stage of the disease or the need for other therapies. Palliative care can begin~~s~~ at diagnosis..."
- Global Change: "*Patient/family/caregiver*"

PAL-2

Indications

- 4th bullet: "*Complex psychosocial needs*" is new to the page.
- 5th bullet: "*Poor prognostic awareness*" is new to the page.
- 8th, 9th, and 11th bullets modified to include: "Patient/family/*caregiver*"

Reassessment

- "Acceptable" modified to include "*outcomes*" throughout the guideline
- "*If*" has been added to "unacceptable" throughout the guideline
  - "*Re-evaluate intervention options and* intensify *as possible*" modified throughout the guidelines.
  - "Consult *with other providers and* refer to special*ist if available*"

After-Death Interventions

- 4th bullet: modified to include "*(ie, debriefing)*"
- "After-death support" was removed.

Footnotes

- Modified: "Patients with one or more positive indicators require a care plan developed by an interdisciplinary team of physicians, nurses, social workers, mental health professionals, chaplains, *advanced practice providers* ~~nurse practitioners, physician assistants~~, and dietitians."

PAL-3

Indications

- 6th bullet modified: "Metastatic solid tumors *and refractory hematologic malignancies"*
- *"Additional*" added to "indicators may include:"

PAL-5

- Lower arm off Psychosocial distress modified as follows:
  - "Social support challenges or concerns ~~problems~~"
  - "Resource needs ~~problems~~"

PAL-7

Assessment

- 1st sub-bullet *"Limited access to anticancer treatment"* is new to the page
- 10th sub-bullet modified, "~~History of~~ *Concerns regarding* drug or alcohol abuse — see addiction specialist as needed (See NCCN Guidelines for Adult Cancer Pain)"
- 9th bullet modified, "Need for *invasive procedures* (eg, palliative stenting or venting gastrostomy)"

PAL-8

- 1st column (upper pathway) modified: "~~Difficult social~~ *Complex patient/family/caregiver"* circumstances ~~and/or High-risk for complicated bereavement issues~~"
- 2nd column (lower pathway) modified: "~~Staff issues~~ *Oncology care team/staff challenges*"

Assessment

- 1st bullet modified: "Family/caregiver *challenges* ~~limitations~~"
- 2nd bullet is new to the page: "*High-risk for persistent complex bereavement disorder*" with corresponding footnote, *"Persistent complex bereavement disorder is a chronic heightened state of mourning that significantly impairs functioning"* (Also for PAL-25, PAL-26, PAL-34)
- 10th bullet modified: "Patient's concerns regarding *family/caregiver well-being* ~~care of dependents~~"
  - 1st sub-bullet modified: *"Dependent* children *and/or older relatives requiring care living* ~~under 18 years living~~ in the household"
- 15th bullet added: *"Resilience training"*

PAL-9

Interventions (Year to months)

- 3rd bullet modified: "Prepare patient psychologically for possible disease progression *or recurrence*"
- 7th bullet is new to the page: "*Encourage advance care planning*"

Interventions (Months to weeks)

- 7th bullet is new to the page: "*Encourage advance care planning, if not already accomplished*" (Also for the dying patient)

Updates in Version 1.2018 of the NCCN Guidelines for Palliative Care from Version 1.2017 include:

PAL-9, continued

If unacceptable
- *"Re-evaluate palliative care interventions and intensify as possible"* is new throughout the guideline

PAL-10

Interventions (Weeks to days)
- 2nd bullet modified: *"Educate family/caregiver on role of pain medication in the dying process and patient's condition"*
- 9th bullet modified: "Consider *short course* palliative RT for painful bone metastases"

PAL-11

Interventions (Years/Year to months/Months to weeks)
- 1st bullet modified: "Assess symptoms *comprehensively* ~~intensity~~"
- 2nd bullet:*"Educate patient/family/caregiver on patient's condition and risk/ benefits of treatment options"* is new throughout the guideline
- 3rd bullet modified: "Treat *potentially reversible* underlying causes/ comorbid conditions"

Pharmacologic therapy
- 1st sub-bullet modified: "~~If~~ *Consider* opioids ~~naive, morphine~~"
- 2nd sub-bullet modified to be: "Benzodiazepines"

PAL-12

Interventions
- 1st bullet modified: "Assess symptoms *comprehensively* ~~intensity~~"
- 2nd bullet modified: "Address patient/family/caregiver preferences, prognosis, ~~and~~ reversibility of respiratory failure, *and treatment options*"

PAL-13

Assessment and Interventions
- 1st bullet: "Evaluate rate/severity of weight loss *and associated symptoms"*
- 3rd bullet modified: "*Conditions/*symptoms that interfere with intake"
- 4th bullet removed: "Treat reversible cause of anorexia"
- 7th bullet modified: "Consider an exercise program *designed to enhance mobility and conserve energy*"

If unacceptable
- 4th bullet added: *"Consider appetite stimulant"*

PAL-14

Interventions
- 1st bullet added: *"Treat reversible causes of anorexia"*
- 2nd bullet modified: "Assess ~~meaning of symptoms~~ of anorexia/cachexia *severity and associated symptoms* ~~to patient and family~~"
- 7th bullet removed: "Provide emotional support"

PAL-14 (continued)

- 8th bullet: "Treat *reversible causes* ~~for depression, if appropriate~~"
- 9th bullet removed: "Provide education and support to patient and family regarding emotional aspects of withdrawal of nutritional support"
- 10th bullet and subsequent sub-bullet: "~~Inform~~ *Provide education and emotional support to* patient/family/*caregiver regarding* natural history of disease, including the following points:
  - Nutritional support may not ~~be metabolized~~ *reverse weight loss* in patients with advanced cancer"

PAL-15

Nausea and Vomiting Interventions
- 1st bullet is new to page: *"Assess nausea and vomiting severity and associated symptoms"*
- 11th bullet removed: "Consider palliative RT for NV related to brain metastases"
- 12th bullet: *"Review medication list including non-prescribed supplements and herbs and* discontinue any unnecessary medications"

PAL-16

Persistent Nausea and Vomiting/Interventions
- 1st sub-bullet: "Prescribe oral/*sublingual* agent and titrate to maximum benefit..."
- 2nd sub-bullet: "If NV persists, provide ~~IV~~ *parenteral* administration PRN"
- 3rd sub-bullet: "If NV persists, provide scheduled ~~IV~~ *parenteral*..."

PAL-17

Constipation/Preventive Measures
- 1st sub-bullet: "Stimulant laxative ± ~~stool softener~~ *osmotic laxative"*
- 2nd sub-bullet: "Increase dose of laxative ± *osmotic laxative..."*

Interventions, 2nd sub-bullet
- *"Avoid if concern for post-op ileus and/or mechanical bowel obstruction"*

PAL-18

~~Diarrhea~~ Screening and Assessment
- 1st bullet: *"Evaluate diarrhea severity and cause"*
- "*Increase* [and *Compared*] *over baseline*" removed throughout the page
- *"Severity"* is a new subtitle

Interventions/Further Assessment
- *"Cause"* is a new subtitle
- 3rd bullet: *"IBS/Crohn's disease"*
- 4th bullet: *"Post-surgical/anatomic changes (ie, short bowel syndrome)"*
- 7th bullet: "Radiation-induced enteritis *or other adverse effects"*

Updates in Version 1.2018 of the NCCN Guidelines for Palliative Care from Version 1.2017 include:

PAL-18 (continued)

Interventions/Further Assessment
- 1st sub-bullet: "Screen for C. diff, *HIV, and other comorbid infections (ie, ova/parasites)"*

PAL-19

Antidiarrheal Interventions/Screening
- Bullet added: *"Provide immediate antidiarrheal therapy indicated by grade"*

Intervention/Grade I
- 1st bullet: *"If chemotherapy induced, decrease or delay the next dose of chemotherapy"*
- 3rd bullet: "Initiate antidiarrheal (eg, *diphenoxylate/atropine)* if patient not already on opioids"
- 4th bullet removed: "Bland/BRAT or clear liquid diet" (Also for Grade 2)
- 5th bullet removed: "Continue oral hydration and electrolyte replacement" (Also for Grade 2)

Intervention/Grade 3/4
- 5th bullet: "Consider *parenteral* ~~subcutaneous~~ hydration in home setting"

PAL-20
- 1st bullet: *"Evaluate severity and cause(s) of malignant bowel obstruction"*
- 3rd bullet: "Screen for and treat underlying *potentially* reversible causes"

PAL-21

Operative Management, 1st sub-bullet and subsequent sub-bullets
  - ▸ "Discuss treatment options ~~risks~~ with patient/family/caregiver
    - ◊ Risk of mortality, morbidity, and re-obstruction
    - ◊ Overall ~~take into account~~ prognosis ~~and relative~~
    - ◊ Invasiveness of the proposed intervention"

PAL-22

Sleep/Wake Disturbances/Assessment and Interventions
- *"Alpha adrenergic blockers" and "Melatonin-receptor agonist"* are new pharmacologic therapies for insomnia

PAL-23

Delirium
- 1st bullet: "~~Assess~~ *Evaluate* ~~for~~ delirium *severity and cause...*"

Interventions
- *"Support caregivers"* is new to the page for mild/moderate deliruim

PAL-24

Delirium/Interventions
- Removed: "Iatrogenic: Treat cause if possible and provide symptomatic relief"
- 1st bullet: *"Focus on family/caregiver support and coping mechanisms"*
- 2nd bullet: *"Educate family and caregiver(s)"*
- 3rd bullet: "~~Remove~~ *Review treatment plan and discontinue* unnecessary medications, tubes, etc."
- 5th bullet removed: "Focus on symptom management"
- 6th bullet: *"Consider that under- or overtreatment of pain may exacerbate delirium"*
- 7th bullet: "*Examine for fecal impaction or distended bladder as potential causes of delirium"*

Acceptable outcomes
- 2nd bullet: "Reduction of patient/family/*caregiver* distress"

PAL-26

Social Support/Resource Management/Interventions
- *"Child life services if available"* and *"Art and music therapy if available"* ~~is~~ are new to the page.

PAL-27
- Title of page modified: "Preparing *Patients*~~and~~*/Families/Caregivers* for End-of-Life and Transition to Hospice Care" (Also for PAL-28)
- Subtitle modified: "Assessment/Interventions" (Also for PAL-28)

PAL-28

Assessment/Interventions
- 3rd bullet removed: "Assess patient/family understanding of the dying process and provide education"
  - ▸ 2nd sub-bullet and subsequent sub-sub-bullet: "Spiritual *assessment*
    - ◊ *Spiritual* support *if needed*"
- 7th bullet removed: "Educate patient and family on dying process"
- 9th bullet removed: "Promote that patient does not die alone unless dying alone is an established preference of patient"

Updates in Version 1.2018 of the NCCN Guidelines for Palliative Care from Version 1.2017 include:

PAL-29

Advance Care Planning/Interventions
- 1st bullet: *"Assess decision-making capacity and need for surrogate decision-maker"* is new to the page
- 2nd sub-bullet: "Refer to social worker if available"

If unacceptable

5th bullet: *"Consider ethics consult"* is new to the page

PAL-31

Response to Requests for Hastened Death
- 2nd bullet: "Explore the reasons for the request for a hastened death, and find out 'why now' *in a joint discussion with patient, family, and caregivers."*
- 4th sub-bullet: "Ask about individual values and personal views of spiritual/existential suffering *and consider spiritual care consultation for further exploration and intervention."*

PAL-32

Care of the Imminently Dying Hospitalized Patient
- Physical:
  - 1st sub-bullet: "Obtain hospice evaluation, *if available*"
  - 4th tertiary bullet: "Provide *eye and* mouth care to *maintain moisture*"
  - 2nd sub-bullet: "Treat pain and fever"
  - "Avoid deep suctioning"
- Psychosocial:
  - 2nd sub-bullet: "Allow the patient/family/caregiver to have uninterrupted time together *and encourage continued communication*"
  - 7th sub-bullet: "Support cultural~~ly meaningful rituals~~ *practices*"
- Practical:
  - 4th bullet removed: "Ensure privacy for the patient and family; arrange for a private room if possible"
  - 5th bullet removed: "Facilitate around-the-clock family presence"
  - 7th bullet: "*Provide information on* ~~Facilitate~~ funeral planning, *if desired* ~~(see PAL-34)~~"
  - 8th bullet removed: "Assist with estate and financial planning"

PAL-33

Palliative Sedation
- 1st bullet: "Confirm that the patient has refractory symptoms and is imminently dying. *Palliative sedation to unconsciousness, in which the intended effect is deep sedation, remains controversial,* with the following corresponding reference: *Ten Have H, Welie JV. Palliative sedation versus euthanasia: an ethical assessment. J Pain Symptom Manage 2014;47(1):123-136. https://www.ncbi.nlm.nih.gov/pubmed/23742736"*
- 2nd tertiary bullet: "Discontinuation of life-prolonging therapies, *such* as artificial nutrition/hydration ~~is generally not beneficial for patients who are dying~~."

PAL-34

After-Death Interventions
- 8th sub-bullet: "File the death certificate, complete forms, and provide necessary information for the funeral director *and family as appropriate*"
- 3rd bullet removed: "Advance care planning"

PAL-A (4 of 5)

Insomnia
- 6th bullet: "Quetiapine, ~~2.5–5~~ 12.5–25 mg PO at bedtime"
- 8th bullet: "For phase shift disorder consider ramelteon (8 mg 30 minutes before bedtime) or melatonin (30 minutes before bedtime; dosage may vary by formulation)"

Restless Legs Syndrome
- 1st bullet: "Ropinirole, 0.25 mg PO 1–3 hours before bedtime"
- 2nd bullet: "Pramipexole, starting dose 0.125 mg PO at bedtime, may require titration"
- 3rd bullet: "May also consider pregabalin, carbidopa-levodopa, or low-dose methadone with dopamine agonist; however, all of these medications are off-label for RLS"

DEFINITION OF PALLIATIVE CARE[a,c]

Palliative care is an approach to patient/family/caregiver-centered health care that focuses on optimal management of pain and other distressing symptoms, while incorporating psychosocial and spiritual care according to patient/family needs, values, beliefs, and cultures. The goal of palliative care is to anticipate, prevent, and reduce suffering and to support the best possible quality of life for patients/families/caregivers, regardless of the stage of the disease or the need for other therapies. Palliative care can begin at diagnosis and should be delivered concurrently with disease-directed, life-prolonging therapies and should facilitate patient autonomy, access to information, and choice. Palliative care becomes the main focus of care when disease-directed, life-prolonging therapies are no longer effective, appropriate, or desired. Palliative care should be initiated by the primary oncology team and then augmented by collaboration with an interdisciplinary team of palliative care experts.

STANDARDS OF PALLIATIVE CARE[b,c]

- **Institutions should develop processes for integrating palliative care into cancer care, both as part of usual oncology care and for patients with specialty palliative care needs.**
- **All cancer patients should be screened for palliative care needs at their initial visit, at appropriate intervals, and as clinically indicated.**
- **Patients/families/caregivers should be informed that palliative care is an integral part of their comprehensive cancer care.**
- **Educational programs should be provided to all health care professionals and trainees so that they can develop effective palliative care knowledge, skills, and attitudes.**
- **Palliative care specialists and interdisciplinary palliative care teams, including board-certified palliative care physicians, advanced practice nurses, physician assistants, social workers, chaplains, and pharmacists, should be readily available to provide consultative or direct care to patients/families/caregivers who request or require their expertise.**
- **Quality of palliative care should be monitored by institutional quality improvement programs.**

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[a] Hui D, Mori M, Parsons HA, et al. The lack of standard definitions in supportive and palliative oncology literature. J Pain Symptom Manage 2012;43:582-592.

[b] Ferris FD, Bruera E, Cherny N, et al. Palliative cancer care a decade later: accomplishments, the need, next steps – from the American Society of Clinical Oncology. J Clin Oncol 2009;27:3052-3058.

[c] IOM (Institute of Medicine). 2014 Dying in America: Improving quality and honoring individual preferences near the end of life. Washington, DC: The National Academics Press. (iom.edu/endoflife)

Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

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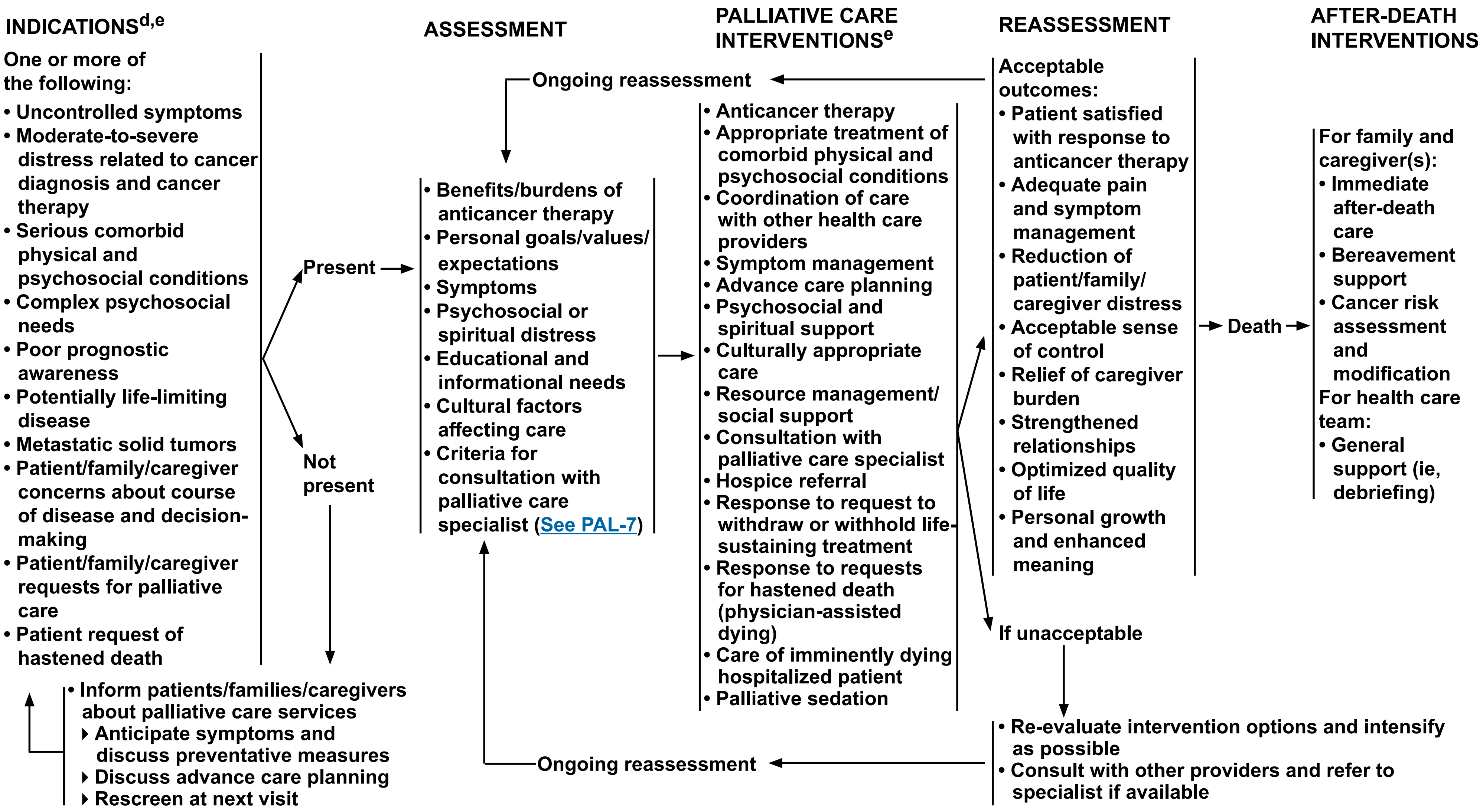

INDICATIONS[d,e]

One or more of the following:
- Uncontrolled symptoms
- Moderate-to-severe distress related to cancer diagnosis and cancer therapy
- Serious comorbid physical and psychosocial conditions
- Complex psychosocial needs
- Poor prognostic awareness
- Potentially life-limiting disease
- Metastatic solid tumors
- Patient/family/caregiver concerns about course of disease and decision-making
- Patient/family/caregiver requests for palliative care
- Patient request of hastened death

Present →

Not present →

- Inform patients/families/caregivers about palliative care services
  - ▸ Anticipate symptoms and discuss preventative measures
  - ▸ Discuss advance care planning
  - ▸ Rescreen at next visit

ASSESSMENT

- Benefits/burdens of anticancer therapy
- Personal goals/values/expectations
- Symptoms
- Psychosocial or spiritual distress
- Educational and informational needs
- Cultural factors affecting care
- Criteria for consultation with palliative care specialist (See PAL-7)

PALLIATIVE CARE INTERVENTIONS[e]

- Anticancer therapy
- Appropriate treatment of comorbid physical and psychosocial conditions
- Coordination of care with other health care providers
- Symptom management
- Advance care planning
- Psychosocial and spiritual support
- Culturally appropriate care
- Resource management/social support
- Consultation with palliative care specialist
- Hospice referral
- Response to request to withdraw or withhold life-sustaining treatment
- Response to requests for hastened death (physician-assisted dying)
- Care of imminently dying hospitalized patient
- Palliative sedation

REASSESSMENT

Acceptable outcomes:
- Patient satisfied with response to anticancer therapy
- Adequate pain and symptom management
- Reduction of patient/family/caregiver distress
- Acceptable sense of control
- Relief of caregiver burden
- Strengthened relationships
- Optimized quality of life
- Personal growth and enhanced meaning

Ongoing reassessment

→ Death →

If unacceptable
- Re-evaluate intervention options and intensify as possible
- Consult with other providers and refer to specialist if available

Ongoing reassessment

AFTER-DEATH INTERVENTIONS

For family and caregiver(s):
- Immediate after-death care
- Bereavement support
- Cancer risk assessment and modification

For health care team:
- General support (ie, debriefing)

---

[d] Patients with one or more positive indicators require a care plan developed by an interdisciplinary team of physicians, nurses, social workers, mental health professionals, chaplains, advanced practice providers and dietitians.

[e] Oncologists should integrate palliative care into general oncology care. Early consultation/collaboration with a palliative care specialist/hospice team should be considered to improve quality of life and survival.

Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

Assessment by Oncology Team (PAL-3)

INDICATIONS[d,e]

- **Uncontrolled symptoms**
  or
- **Moderate-to-severe distress related to cancer diagnosis and/or cancer therapy**
  or
- **Serious comorbid physical, psychiatric, and psychosocial conditions**
  or
- **Patient/family/caregiver concerns about course of disease and decision-making**
  or
- **Patient/family/caregiver requests for palliative care**
- **Metastatic solid tumors and refractory hematologic malignancies**
- **Additional indicators may include:**
  - **Poor performance status ECOG ≥3 or KPS ≤50**
  - **Persistent hypercalcemia**
  - **Brain or cerebrospinal fluid metastasis**
  - **Delirium**
  - **Malignant bowel obstruction**
  - **Superior vena cava syndrome**
  - **Spinal cord compression**
  - **Cachexia**
  - **Malignant effusions**
  - **Palliative stenting or venting gastrostomy**
- **Potentially life-limiting disease**

Present →

ASSESSMENT BY ONCOLOGY TEAM

- **Benefits/burdens of anticancer therapy**
- **Symptoms**
- **Psychosocial distress**

→ **See PAL-4 and PAL-5**

- **Personal goals/values/expectations**
- **Educational and informational needs**
- **Cultural factors affecting care**

→ **See PAL-4 and PAL-5**

- **Criteria for consultation with a palliative care specialist**

→ **See PAL-7**

Not present →

- **Inform the patient/family/caregiver about palliative care services**
  - **Anticipate symptoms and discuss preventative measures**
  - **Discuss advance care planning**
  - **Rescreen at next visit**

---

[d] Patients with one or more positive indicators require a care plan developed by an interdisciplinary team of physicians, nurses, social workers, mental health professionals, chaplains, advanced practice providers and dietitians.

[e] Oncologists should integrate palliative care into general oncology care. Early consultation/collaboration with a palliative care specialist/hospice team should be considered to improve quality of life and survival.

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ASSESSMENT BY ONCOLOGY TEAM

Benefits/burdens of anticancer therapy →

- Natural history of specific tumor
- Potential for response to further treatment
- Potential for treatment-related toxicities
- Patient's understanding of disease prognosis
- Goals and meaning of anticancer therapy for patient/family/caregiver(s)
- Impairment of vital organs
- Performance status
- Serious comorbid conditions

→ Anticancer therapy interventions (See PAL-9)

Patient/family/caregiver(s) goals/ values/ expectations/ priorities →

- Shared decision-making with patient/family/caregiver(s)
- Advance care planning
- Goals and meaning of anticancer therapy
- Quality of life

→ Preparing Patients/Families/Caregiver(s) for End-of-Life and Transition to Hospice Care (See PAL-27)
Advance Care Planning (See PAL-29)

Symptom management[f] →

- Pain → Pain Interventions (See PAL-10)
- Dyspnea → Dyspnea Interventions (See PAL-11)
- Anorexia/cachexia → Anorexia/Cachexia Interventions (See PAL-13)
- Nausea/vomiting (NV) → Nausea/Vomiting Interventions (See PAL-15)
- Constipation → Constipation Interventions (See PAL-17)
- Diarrhea → Diarrhea Interventions (See PAL-18)
- Malignant bowel obstruction → Malignant Bowel Obstruction (See PAL-20)
- Fatigue/weakness/asthenia → See NCCN Guidelines for Cancer-Related Fatigue
- Insomnia/sedation → Insomnia/Sedation Interventions (See PAL-22)
- Delirium → Delirium Interventions (See PAL-23)

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[f] Look for opportunities to use single agents to treat multiple symptoms.

Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

ASSESSMENT BY ONCOLOGY TEAM

Psychosocial distress →

- Psychosocial/psychiatric[f]
  - Depression/anxiety
  - Distress

→ See NCCN Guidelines for Distress Management

- Spiritual or existential needs

→ Consider Consultation with Palliative Care Specialist (See PAL-8)

- Social support challenges or concerns
  - Home
  - Family
  - Community
- Resource needs

→ Social Support/Resource Management (See PAL-25)

- Educational and informational needs
- Cultural factors affecting care

→

- Patient/family/caregiver values and preferences about information and communication
- Patient/family/caregiver perceptions of disease status

→ Preparing Patients/Families/Caregivers for End-of-Life and Transition to Hospice Care (See PAL-27)

Criteria for consultation with palliative care specialist → (See PAL-7)

---

[f] Look for opportunities to use single agents to treat multiple symptoms.

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Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

ONCOLOGY TEAM INTERVENTIONS

- **Collaborate with palliative care specialist/team[d,e]**
- **Collaborate with other health care professionals treating the patient**
- **Refer to appropriate health care professionals**
  - **Mental health and social services**
  - **Spiritual care**
  - **Health care interpreters**
  - **Others**
- **Mobilize community support**
  - **Religious**
  - **School**
  - **Community agencies**
- **Expedite referral to hospice services when appropriate**

REASSESSMENT

Acceptable outcomes:
- **Patient satisfied with response to anticancer therapy**
- **Adequate pain and symptom management**
- **Reduction of patient/family/caregiver distress**
- **Acceptable sense of control**
- **Relief of caregiver burden**
- **Strengthened relationships**
- **Optimized quality of life**
- **Personal growth and enhanced meaning**
- **Advance care planning in progress**

Ongoing re-evaluation and communication between the patient and health care team

If unacceptable

- **Re-evaluate intervention options and intensify as possible**
- **Consult with a mental health professional to evaluate and treat undiagnosed psychiatric disorders, substance abuse, and inadequate coping methods**
- **See NCCN Guidelines for Distress Management**

Ongoing reassessment

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[d] Patients with one or more positive indicators require a care plan developed by an interdisciplinary team of physicians, nurses, social workers, mental health professionals, chaplains, advanced practice providers and dietitians.

[e] Oncologists should integrate palliative care into general oncology care. Early consultation/collaboration with a palliative care specialist/hospice team should be considered to improve quality of life and survival.

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Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

CRITERIA FOR CONSULTATION WITH PALLIATIVE CARE SPECIALIST

ASSESSMENT

Patient characteristics →

- Patient with life-limiting cancer diagnosis
- Limited anticancer treatment options due to:
  - Limited access to anticancer treatment
  - Advanced disease process
  - Multiple and/or severe comorbid conditions
  - Rapidly progressive functional decline or persistently poor performance status
- Need for clarification of goals of care
- Resistance to engage in advance care planning
- High risk of poor pain management or pain that remains resistant to conventional interventions, eg:
  - Neuropathic pain
  - Incident or breakthrough pain
  - Pain with severe associated psychosocial and/or family distress
  - Rapid escalation of opioid dose
  - Multiple drug "allergies" or a history of multiple adverse reactions to pain and symptom management interventions
  - Concerns regarding drug or alcohol abuse — see addiction specialist as needed (See NCCN Guidelines for Adult Cancer Pain)
- High non-pain symptom burden, especially those resistant to conventional management (See PAL-4 for symptoms)
- High distress score (>4) (See NCCN Guidelines for Distress Management)
- Need for invasive procedures (eg, palliative stenting or venting gastrostomy)
- Frequent ED visits or hospital admissions
- Need for ICU-level care (especially involving multi-organ system failure or prolonged mechanical support)
- Communication barriers
  - Language
  - Literacy
  - Physical barriers
  - Cognitive impairment
- Request for hastened death

→ See Oncology Team Interventions (PAL-6)

Continued on next page

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CRITERIA FOR CONSULTATION WITH PALLIATIVE CARE SPECIALIST

ASSESSMENT

Complex patient/family/caregiver circumstances →

- Family/caregiver challenges
- High risk for persistent complex bereavement disorder[g]
- Inadequate social support
- Intensely dependent relationship(s)
- Financial limitations
- Limited access to care
- Family discord
- Spiritual or existential crisis
- Unresolved or multiple prior losses
- Patient's concerns regarding family/caregiver well-being
  - Dependent children and/or older relatives requiring care living in the household

→ See Oncology Team Interventions (PAL-6)

Oncology care team/staff challenges →

- Complex care coordination issues among multiple care teams
- Compassion fatigue
- Moral distress
- Burnout
- Resilience training

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[g] Persistent complex bereavement disorder is a chronic heightened state of mourning that significantly impairs functioning.

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PAL-8

BENEFITS/BURDENS OF ANTICANCER THERAPY

ESTIMATED LIFE EXPECTANCY → **INTERVENTIONS** → **REASSESSMENT**

Years

Year to months →

- Assess understanding of prognosis and goals of therapy
- Discuss whether anticancer therapy is palliative or curative
- Prepare patient psychologically for possible disease progression or recurrence
- Provide appropriate anticancer therapy that is aligned with stated patient goals and priorities
- Provide appropriate prevention and management of symptoms caused by anticancer therapy
- Provide appropriate palliative care
- Encourage advance care planning

Months to weeks →

- Confirm the patient's understanding of incurability of disease
- Offer best supportive care, including referral to palliative care or hospice
- Redirect goals and hopes to those that are achievable based on likely prognosis and life expectancy
- Provide guidance regarding anticipated course of disease
- Consider palliative RT for spinal cord compression; brain metastases; SVC syndrome; dyspnea due to cancer-related bronchial obstruction; cancer-related bleeding; painful bone metastases
- Consider discontinuation of cancer treatment not directly addressing a symptom complex
- Encourage advance care planning, if not already accomplished

Weeks to days (Dying patient) →

- Discontinue all treatments not directly contributing to patient comfort
- Intensify palliative care in preparation for death
- Provide guidance regarding anticipated dying process
- Focus on symptom management and comfort
- Refer to hospice team
- Encourage advance care planning, if not already accomplished

REASSESSMENT

Acceptable outcomes:
- Adequate pain and symptom management
- Reduction of patient/family/caregiver distress
- Prognostic awareness
- Acceptable sense of control
- Relief of caregiver burden
- Optimized quality of life

→ Continue anticancer therapy and palliative care → Ongoing reassessment

If unacceptable →
- Change or discontinue anticancer therapy
- Review patient hopes about and meaning of anticancer therapy
- Review advance care planning
- Re-evaluate palliative care interventions and intensify as possible
- Consult or refer to specialized palliative care services or hospice

→ Ongoing reassessment

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PAIN

ESTIMATED LIFE EXPECTANCY — **INTERVENTIONS** — **REASSESSMENT**

Years
Year to months
Months to weeks
→ **Treat according to NCCN Guidelines for Adult Cancer Pain**

Weeks to days (Dying patient) →
- **Treat according to NCCN Guidelines for Adult Cancer Pain**

In addition:
- **Educate family/caregiver on role of pain medication in the dying process and patient's condition**
- **Do not reduce dose of opioid solely for decreased blood pressure, respiration rate, or level of consciousness when opioid is necessary for adequate management of pain or dyspnea**
- **Maintain analgesic therapy; titrate to optimal comfort**
- **Recognize and treat opioid-induced neurotoxicity, including myoclonus and hyperalgesia**
- **If opioid reduction is indicated, reduce by 25%–50% per 24 h to avoid acute opioid withdrawal or pain crisis. Avoid opioid antagonists**
- **Balance analgesia against reduced level of consciousness based on patient preference**
- **Modify routes of administration as needed (PO, IV, rectal, subcutaneous, sublingual, transmucosal, and transdermal), applying equianalgesic dose conversions**
- **Consider short-course palliative RT for painful bone metastases**

Acceptable outcomes:
- **Adequate pain and symptom management**
- **Reduction of patient/family/caregiver distress**
- **Acceptable sense of control**
- **Relief of caregiver burden**
- **Strengthened relationships**
- **Optimized quality of life**
- **Personal growth and enhanced meaning**

→
- **Continue to treat and monitor symptoms and quality of life**

If unacceptable →
- **Continue to treat according to NCCN Guidelines for Adult Cancer Pain**
- **Consider a consultation with a pain management or palliative care specialist**

→ **Ongoing reassessment**

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DYSPNEA

ESTIMATED LIFE EXPECTANCY

Years
Year to months
Months to weeks
→

INTERVENTIONS[h]

- Assess symptoms comprehensively
- Educate patient/family/caregiver on patient's condition and risk/benefits of treatment options
- Treat potentially reversible underlying causes/ comorbid conditions:
  - Radiation/chemotherapy
  - Therapeutic procedure for cardiac, pleural, or abdominal fluid
  - Bronchoscopic therapy
  - Bronchodilators, diuretics, steroids, antibiotics, or transfusions
  - Anticoagulants for pulmonary emboli
- Relieve symptoms
  - Oxygen therapy for symptomatic hypoxia
  - Educational, psychosocial, and emotional support for the patient/family/caregiver
  - Nonpharmacologic therapies, including fans, cooler temperatures, stress management, relaxation therapy, and physical comfort measures
- Pharmacologic therapy
  - Consider opioids[i]
  - Benzodiazepines
  - Noninvasive positive-pressure ventilation (eg, CPAP, BiPAP) support if clinically indicated for severe reversible condition
  - Consider palliative RT for SVC syndrome or respiratory obstruction by tumor mass

REASSESSMENT

Acceptable outcomes:
- Adequate dyspnea and symptom management
- Reduction of patient/family/caregiver distress

→ Continue to treat and monitor symptoms and quality of life

If unacceptable →
- Re-evaluate palliative care interventions and intensify as possible
- Consult or refer to specialized palliative care services or hospice

→ Ongoing reassessment

Weeks to days (Dying patient) → See Interventions (PAL-12)

[h] See Drug Appendix (PAL-A) for specific recommendations for medical management of symptoms.

[i] For acute progressive dyspnea or for patients who are not opioid naive, more aggressive titration may be required

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DYSPNEA

ESTIMATED LIFE EXPECTANCY

- Years
- Year to months
- Months to weeks

→ See Interventions (PAL-11)

- Weeks to days (Dying patient) →

INTERVENTIONS[h]

- Assess symptoms comprehensively
  - Use labored breathing or other physical signs of dyspnea in noncommunicative patients
- Address patient/family/caregiver preferences, prognosis, reversibility of respiratory failure, and treatment options
- Provide anticipatory guidance for patient/family/caregiver regarding dying of respiratory failure
- Provide emotional and spiritual support
- Focus on comfort
  - Continue to treat underlying condition as appropriate
- Relieve symptoms
  - Fans
  - Oxygen if hypoxic and/or subjective relief is reported
  - Nonpharmacologic therapies; educational, psychosocial, and emotional support (See PAL-11)
- If fluid overload is a contributing factor:
  - Decrease/discontinue enteral or parenteral fluid
  - Consider low-dose diuretics
- If opioid naive, morphine[j]
- If on chronic opioids, consider increasing dose by 25%
- Benzodiazepines
- Reduce excessive secretions[k] with anti-secretory agents
- Consider time-limited trial of mechanical ventilation as indicated

REASSESSMENT

Acceptable outcomes:
- Adequate dyspnea and symptom management
- Reduction of patient/family/caregiver distress

→ Continue to treat and monitor symptoms and quality of life

If unacceptable →
- Re-evaluate palliative care interventions and intensify as possible
- Consider a consultation with a palliative care specialist
- Consider sedation for intractable symptoms (See PAL-33)

→ Ongoing reassessment

---

[h] See Drug Appendix (PAL-A) for specific recommendations for medical management of symptoms.

[j] For acute progressive dyspnea or for patients who are not opioid naive, more aggressive titration may be required.

[k] Hughes A, et al. Audit of three antimuscarinic drugs for managing retained secretions. Palliat Med 2000; 14:221-222.

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ANOREXIA/CACHEXIA

ESTIMATED LIFE EXPECTANCY

Years

Year to months

→

ASSESSMENT AND INTERVENTIONS[h]

- Evaluate rate/severity of weight loss and associated symptoms
- Educate patient/family/caregiver on patient's condition and risk/benefits of treatment options
- Conditions/symptoms that interfere with intake
  - Dysgeusia
  - Xerostomia
  - Mucositis
  - Oral-pharyngeal candidiasis
  - Depression
  - Early satiety (if gastroparesis: try metoclopramide)
  - Nausea/vomiting (NV) (See PAL-15)
  - Dyspnea (See PAL-11)
  - Constipation (See PAL-17)
  - Pain (See NCCN Guidelines for Adult Cancer Pain)
  - Fatigue
  - Eating disorders/body image
- Review/modify medications that interfere with intake
- Evaluate for endocrine abnormalities:
  - Hypogonadism
  - Thyroid dysfunction
  - Metabolic abnormalities (eg, increased calcium)
- Consider an exercise program designed to enhance mobility and conserve energy
- Assess social and economic factors
- Consider nutrition consult
- Consider nutrition support, enteral and parenteral feeding (as appropriate)

REASSESSMENT

Acceptable outcomes:
- Weight stabilization or gain
- Improvement in symptoms that interfere with intake
- Improved energy
- Resolution of metabolic or endocrine abnormalities

→ Continue to treat and monitor symptoms and quality of life

If unacceptable →
- Re-evaluate palliative care interventions and intensify as possible
- Provide dietary consultation
- Consider clinical trial
- Consider appetite stimulant

→ Ongoing reassessment

Months to weeks

Weeks to days (Dying patient) → See Interventions (PAL-14)

---

[h] See Drug Appendix (PAL-A) for specific recommendations for medical management of symptoms.

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ANOREXIA/CACHEXIA

ESTIMATED LIFE EXPECTANCY

Years → See Interventions (PAL-13)

Year to months

Months to weeks

Weeks to days (Dying patient) →

INTERVENTIONS[h]

- Treat reversible causes of anorexia (See PAL-13)
- Assess anorexia/cachexia severity and associated symptoms
- Educate patient/family/caregiver on patient's condition and risk/benefits of treatment options
- Consider appetite stimulant
- Focus on patient goals and preferences
- Provide family/caregiver(s) with alternate ways of caring for the patient
- Treat reversible causes
- Provide education and emotional support to patient/family/caregiver regarding natural history of disease, including the following points:
  - Absence of hunger and thirst is normal in the dying patient
  - Nutritional support may not reverse weight loss in patients with advanced cancer
  - There are risks associated with artificial nutrition and hydration, including fluid overload, infection, and hastened death
  - Symptoms like dry mouth should be treated with local measures (eg, mouth care, small amounts of liquids)
  - Withholding or withdrawing nutrition is ethically permissible and may improve some symptoms.

REASSESSMENT

Acceptable outcomes:
- Adequate anorexia/cachexia symptom management
- Reduction of patient/family/caregiver distress
- Acceptable sense of control
- Relief of caregiver burden
- Strengthened relationships
- Optimized quality of life
- Personal growth and enhanced meaning

→ Continue to treat and monitor symptoms and quality of life

If unacceptable →
- Re-evaluate palliative care interventions and intensify as possible
- Consult or refer to specialized palliative care services or hospice

→ Ongoing reassessment

---

[h] See Drug Appendix (PAL-A) for specific recommendations for medical management of symptoms.

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NAUSEA AND VOMITING

INTERVENTIONS[h]

- Assess nausea and vomiting severity and associated symptoms
- Educate patient/family/caregivers on patient's condition and treatment options
- Chemotherapy/radiation therapy-induced (See NCCN Guidelines for Antiemesis)
- Severe constipation/fecal impaction (See PAL-17)
- Gastroparesis
  - Prokinetic agent
- Bowel obstruction (See PAL-20)
- Central nervous system (CNS) involvement
  - Corticosteroids
  - Palliative radiation therapy
- Gastric outlet obstruction from intra-abdominal tumor or liver metastasis
  - Consider treatment with corticosteroids, a proton pump inhibitor, and metoclopramide
  - Endoscopic stenting
  - Decompressing G-Tube
- Gastritis/GERD
  - Proton pump inhibitor
  - H2-blocker
- Treat other causes (hypercalcemia, uremia, dehydration)
- Medication-induced
  - Review medication list including non-prescribed supplements and herbs and discontinue any unnecessary medications
  - Check available blood levels of necessary medications (eg, digoxin, phenytoin, carbamazepine, tricyclic antidepressants)
  - Treat medication-induced gastropathy (eg, proton pump inhibitor, prokinetic agent)
  - Consider rotating and/or reducing opioid requirement with non-nauseating coanalgesics or procedural interventions
- Psychogenic
  - Consider psychiatric consultation if patient has an eating disorder, somatization, phobia, or panic disorder causing NV. See NCCN Guidelines for Distress Management
- Non-specific NV
  - Initiate pharmacologic management with dopamine receptor antagonists or 5-HT3 receptor antagonists
  - If anxiety contributes to NV, consider adding benzodiazepine
  - If vertiginous component, consider anticholinergic/antihistamine
  - Consider non-pharmacologic therapies, such as acupuncture, hypnosis, and cognitive behavioral therapy

→ If NV stops:
See Reassessment (PAL-16)

→ If NV persists:
See Interventions (PAL-16)

---

[h] See Drug Appendix (PAL-A) for specific recommendations for medical management of symptoms.

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PERSISTENT NAUSEA AND VOMITING

INTERVENTIONS[h,l,m]

- Consider appropriate route of administration
  - Prescribe oral/sublingual agent and titrate to maximum benefit; consider opioid rotation
  - If NV persists, provide parenteral administration PRN
  - If NV persists, provide scheduled parenteral administration or continuous infusion
- Titrate dopamine antagonist to maximum benefit and tolerance.
- For continued NV, consider additional drug classes with potential antiemetic properties: See drug appendix (PAL-A)
  - Corticosteroid
  - 5-HT3 antagonist
  - Antipsychotic
  - Anticholinergic
  - Antihistamine
  - Oral cannabinoid
  - Antidepressant (mirtazapine)

REASSESSMENT

Acceptable outcomes:
- Adequate NV symptom management
- Reduction of patient/family/caregiver distress
- Acceptable sense of control
- Relief of caregiver burden
- Optimized quality of life

→ Continue to treat and monitor symptoms and quality of life

If unacceptable →
- Re-evaluate palliative care interventions and intensify as possible
- Consult or refer to specialized palliative care services or hospice
- Consider palliative sedation (See PAL-33)

→ Ongoing reassessment (See Interventions, PAL-15)

---

[h] See Drug Appendix (PAL-A) for specific recommendations for medical management of symptoms.
[l] An around-the-clock dosing schedule may provide the most consistent benefit to the patient.
[m] Continuous intravenous or subcutaneous infusions of different antiemetics may be necessary for the management of intractable NV.

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CONSTIPATION

Preventive measures[h]
- Increase fluids
- Increase dietary fiber if patient has adequate fluid intake and physical activity
- Exercise, if appropriate
- Administer prophylactic medications
  - Stimulant laxative ± osmotic laxative
  - Increase dose of laxative ± osmotic laxative with goal of 1 non-forced bowel movement (BM) every 1–2 days

→

INTERVENTIONS[h]

If constipation is present:
- Educate patient/family/caregivers on patient's condition and treatment options
- Assess for cause and severity of constipation
  - Discontinue any non-essential constipating medication
- Rule out impaction, especially if diarrhea accompanies constipation (overflow around impaction)
- Rule out obstruction (physical exam, abdominal x-ray/consider GI consult)
- Treat other causes (eg, hypercalcemia, hypokalemia, hypothyroidism, diabetes mellitus, medications)
- Add and titrate bisacodyl with a goal of 1 non-forced BM every 1–2 days

If impacted:
- Administer glycerine suppository ± mineral oil retention enema[n]
- Perform manual disimpaction following pre-medication with analgesic ± anxiolytic

If constipation persists:
- Reassess for cause and severity of constipation
- Recheck for impaction or obstruction
- Consider adding other laxatives
- Consider peripherally acting mu-opioid receptor antagonist (PAMORA) for opioid-induced constipation
  - Avoid if concern for post-op ileus and/or mechanical bowel obstruction
- Administer tap water enema until clear
- Consider use of a prokinetic agent

REASSESSMENT

Acceptable outcomes:
- Adequate constipation symptom management
- Reduction of patient/family/caregiver distress

→ **Continue to treat and monitor symptoms and quality of life** → **Ongoing reassessment**

If unacceptable →
- Re-evaluate palliative care interventions and intensify as possible
- Consult or refer to specialized palliative care services or hospice

→ **Ongoing reassessment**

---

[h] See Drug Appendix (PAL-A) for specific recommendations for medical management of symptoms.

[n] Use suppository and enema with caution in patients receiving chemotherapy due to risk of cytopenia.

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DIARRHEA

SCREENING AND ASSESSMENT

- **Evaluate diarrhea severity and cause**
- **Educate patient/family/caregiver on condition and treatment options**

SEVERITY
Determine Diarrhea Grade[o]

- **Grade 1: Increase of <4 stools/day over baseline; mild increase in ostomy output**
- **Grade 2: Increase of 4–6 stools/day over baseline; moderate increase in ostomy output**
- **Grade 3: Increase of >7 stools/day over baseline; incontinence; hospitalization indicated; severe increase in ostomy output; limiting self-care; interferes with activities of daily living (ADLs)**
- **Grade 4: Life-threatening consequences; urgent intervention indicated**

→

INTERVENTIONS/FURTHER ASSESSMENT

- **Provide immediate antidiarrheal therapy indicated by grade**
- **If chemotherapy induced, decrease or delay the next dose of chemotherapy**

CAUSE
- **IBS/Crohn's disease**
- **Post-surgical/anatomic changes (ie, short bowel syndrome)**
- **Recent antibiotic use**
- **Chemotherapy regimen**
- **RT side effects**
  OR
  Radiation-induced enteritis or other adverse effects
- **Drugs that frequently induce diarrhea**
- **GVHD and/or immunotherapy-related colitis**
- **Pancreatic insufficiency in pancreatic cancer**
- **Dietary changes**
- **Infection**
  - **Screen for C. diff, HIV, and other comorbid infections (ie, ova/parasites)**
- **If fecal impaction is suspected (See PAL-17)**

→ **See Anti-Diarrheal Interventions, Grades 1-4 (PAL-19)**

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[o] NCI Table 3: http://www.cancer.gov/cancertopics/pdq/supportivecare/gastrointestinalcomplications/HealthProfessional/page5#section_5.8

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ANTIDIARRHEAL INTERVENTIONS

SCREENING

INTERVENTION[h]

- **Provide immediate antidiarrheal therapy indicated by grade**

GRADE 1 →
- If chemotherapy induced, decrease or delay the next dose of chemotherapy
- Provide oral hydration and electrolyte replacement
- Initiate antidiarrheal (eg, diphenoxylate/atropine) if patient not already on opioids

GRADE 2 →
- Provide IV fluids if patient is unable to tolerate oral fluids
- Initiate/continue antidiarrheal—as above
- Consider anticholinergic agents
- If non-C.diff infection-related: Treat with appropriate antibiotics
- If C. diff infection-related: Administer antibiotics and probiotics as appropriate
- If chemotherapy-induced:
  - Delay or discontinue next dose of chemotherapy
- If immunotherapy-mediated diarrhea, consider
  - Corticosteroids
  - Infliximab
  - Probiotics

GRADES 3/4 →
- Inpatient hospitalization (intensive care for Grade 4 if consistent with goals)
- For GVHD diarrhea, consider limiting diet, steroids, and IV nutrition
- Provide IV fluids and use antidiarrheal agents and anticholinergics as mentioned above
- Consider somatostatin analog
- Consider parenteral hydration in home setting

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[h] See Drug Appendix (PAL-A) for specific recommendations for medical management of symptoms.

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MALIGNANT BOWEL OBSTRUCTION[p]

ESTIMATED LIFE EXPECTANCY

ASSESSMENT

Years

Year to months →

- Evaluate severity and cause(s) of malignant bowel obstruction
- Educate patient/family/caregivers on patient's condition and treatment options
- Screen for and treat underlying potentially reversible causes
  - Adhesions
  - Radiation-induced strictures
  - Internal hernias
- Assess for malignant causes
  - Tumor mass
  - Carcinomatosis
- Assess the goals of treatment for the patient, which can help guide the intervention[q] (eg, decrease NV, allow patient to eat, decrease pain, allow patient to go home/to hospice)
- Consider patient prognosis and relative invasiveness of intervention proposed and incorporate life-span post procedure

→ **See Procedural Interventions (PAL-21)**

Months to weeks →

Weeks to days (Dying patient)[q] →

- Consider medical management rather than surgical management
- Assess the goals of treatment for the patient, which can help guide the intervention[q] (eg, decrease NV, allow patient to eat, decrease pain, allow patient to go home/to hospice)
- Provide education and support to patient/family/caregiver

→

- Pharmacologic management
- Intravenous or subcutaneous fluids
- Enteral tube drainage
  - Consider only if other measures fail to reduce vomiting
- Endoscopic management

→ **See (PAL-21)**

---

[p] Plain film radiography may be helpful in confirming the clinical diagnosis of bowel obstruction. Consider a CT scan if surgical intervention is contemplated, as it is more sensitive and may help identify the cause of obstruction.

[q] Most malignant bowel obstructions are partial, allowing time to discuss appropriate intervention with the patient/family/caregiver.

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MALIGNANT BOWEL OBSTRUCTION

PROCEDURAL INTERVENTIONS[h]

- Operative management
  - Discuss treatment options with patient/family/caregiver
    - ◊ Risk of mortality, morbidity, and re-obstruction
    - ◊ Overall prognosis
    - ◊ Invasiveness of the proposed intervention
- Risk factors for poor surgical outcome include ascites, carcinomatosis, palpable intra-abdominal masses, multiple bowel obstructions, previous abdominal radiation, very advanced disease, and poor overall clinical status
- Endoscopic management
  - Percutaneous endoscopic gastrostomy tube for drainage
  - Endoscopic stent placement
- Interventional radiology management
  - Gastrostomy tube for drainage
- Pharmacologic management when the goal is maintaining gut function:
  - Use rectal, transdermal, subcutaneous, or intravenous routes of administration
  - Opioids
  - Antiemetics: Do not use antiemetics that increase gastrointestinal mobility such as metoclopramide; however, these may be beneficial in incomplete bowel obstruction
  - Corticosteroids
- Pharmacologic management when gut function cannot be maintained:
  - Administer antisecretory agents
  - Intravenous or subcutaneous fluids
- Nasogastric or gastric tube drainage
  - Increased risk of aspiration
  - Consider a limited trial only if other measures fail to reduce vomiting
- Total parenteral nutrition (TPN)
  - Consider only if there is expected improvement of quality of life and life expectancy of months to years

REASSESSMENT

Acceptable outcomes:
- Adequate management of malignant bowel obstruction symptoms
- Reduction of patient/family/caregiver distress
- Relief of caregiver burden

→ Continue to treat and monitor symptoms and quality of life

If unacceptable →
- Re-evaluate palliative care interventions and intensify as possible
- Consult or refer to specialized palliative care services or hospice

→ Ongoing reassessment

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[h] See Drug Appendix (PAL-A) for specific recommendations for medical management of symptoms.

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SLEEP/WAKE DISTURBANCES INCLUDING INSOMNIA AND SEDATION

ESTIMATED LIFE EXPECTANCY

Years

See NCCN Guidelines for Survivorship

Year to months

Months to weeks

→

ASSESSMENT AND INTERVENTIONS[h]

- Educate patient/family/caregivers on patient's condition and treatment options
- Evaluate type/severity of sleep-wake disturbance, including daytime impairments (eg, Epworth Sleepiness Scale)
- Explore fears and anxiety regarding death/disease
- Provide sleep-hygiene education
- Provide cognitive-behavioral treatment
  - Includes stimulus control, progressive muscle relaxation
- Consider polysomnography if history is suggestive of sleep-disordered breathing
- Treat contributing factors:
  - Pain, depression, anxiety, delirium, and nausea
  - Medication side effects or withdrawal syndromes (eg, corticosteroids, opioids, anticonvulsants, caffeine, hormones, herbals, barbiturates, benzodiazepines, alcohol, tricyclic antidepressants)
  - Primary sleep disorders such as obstructive sleep apnea and periodic limb movement disorder
    - ◊ CPAP/BiPAP
  - Restless legs syndrome
- Provide pharmacologic therapies for refractory sleep/wake disturbance
  - Insomnia:
    - ◊ Antipsychotic
    - ◊ Sedative/hypnotic
    - ◊ Benzodiazepine
    - ◊ Antidepressants
    - ◊ Alpha adrenergic blockers
    - ◊ Melatonin-receptor agonist
  - Daytime sedation:
    - ◊ CNS stimulant/wakefulness-promoting agents

REASSESSMENT

Acceptable outcomes:
- Adequate management of symptoms
- Reduction of patient/family/caregiver distress

→ Continue to treat and monitor symptoms and quality of life

If unacceptable →
- Re-evaluate contributing etiologies
- Change insomnia or antisedation therapy
- Re-evaluate palliative care interventions and intensify as possible
- Consult or refer to specialized palliative care services or hospice

→ Ongoing reassessment

Weeks to days (Dying patient) →
- Assess patient's desire to have insomnia and sedation treated
- Adjust doses of pharmacologic therapies
  - Consider chlorpromazine

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[h] See Drug Appendix (PAL-A) for specific recommendations for medical management of symptoms.

Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

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ESTIMATED LIFE EXPECTANCY

Years
Year to months
Months to weeks
→
- Evaluate delirium severity and cause (eg, DSM criteria) See also NCCN Guidelines for Distress Management
  - Hyperactive
  - Hypoactive
- Educate patient/family/caregivers on patient's condition and treatment options
- Screen for and treat underlying reversible causes
  - Metabolic causes and medication withdrawal
  - Dehydration
  - Unrelieved pain
  - Hypoxia
  - Bowel obstruction/obstipation
  - Infection
  - Brain metastases (consider palliative RT) or other CNS events
  - Bladder outlet obstruction
  - Medication or substance effect or withdrawal (eg, benzodiazepines, opioids, anticholinergics, non-prescribed substances)
- Assess, screen for, and maximize nonpharmacologic interventions (eg, reorientation, cognitive stimulation, sleep hygiene)

DELIRIUM INTERVENTIONS[h]

Severe delirium (agitation) →
- Reduce or eliminate delirium-inducing medications as possible (eg, steriods, anticholinergics, benzodiazepines)
- Administer haloperidol
- Administer alternative antipsychotic medications
- If agitation is refractory to high doses of neuroleptics, consider adding benzodiazepine
- Titrate starting dose to optimal effect with lowest possible dose
- Consider opioid dose reduction or rotation
- Support caregivers

Mild/moderate delirium →
- Administer haloperidol
- Administer alternative antipsychotic medications
- Titrate starting dose to optimal effect with lowest possible dose
- Orient patient with family/caregiver(s) presence
- Support caregivers

REASSESSMENT

Acceptable outcomes:
- Adequate delirium symptom management
- Reduction of patient/family/caregiver distress
- Relief of caregiver burden

→ Continue to treat and monitor symptoms and quality of life

If unacceptable →
- Re-evaluate palliative care interventions and intensify as possible
- Consider consultation with a palliative care specialist or psychiatrist

→ Ongoing reassessment

Weeks to days (Dying patient) → See Interventions (PAL-24)

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[h] See Drug Appendix (PAL-A) for specific recommendations for medical management of symptoms.

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DELIRIUM

ESTIMATED LIFE EXPECTANCY

Years

Year to months

Months to weeks

→ See Interventions (PAL-23)

Weeks to days (Dying patient) →

INTERVENTIONS[h]

- Focus on family/caregiver support and coping mechanisms
- Educate family and caregiver(s)
- Review treatment plan and discontinue unnecessary medications, tubes, etc.
- Decrease doses of medications dependent upon hepatic or renal function
- Consider that under- or overtreatment of pain may exacerbate delirium
- Examine for fecal impaction or distended bladder as potential causes of delirium
- Consider opioid rotation
- Provide appropriate upward dose titration of antipsychotic agents
- Provide appropriate upward dose titration of benzodiazepine for patients with refractory agitation despite high doses of neuroleptics
- Consider rectal or intravenous administration of antipsychotic with or without benzodiazepine

REASSESSMENT

Acceptable outcomes:
- Adequate delirium symptom management
- Reduction of patient/family/caregiver distress
- Relief of caregiver burden
- Optimized quality of life

→ Continue to treat and monitor symptoms and quality of life

If unacceptable →
- Re-evaluate palliative care interventions and intensify as possible
- Consult with a palliative care specialist or psychiatrist
- Consider palliative sedation (See PAL-33)

→ Ongoing reassessment

[h] See Drug Appendix (PAL-A) for specific recommendations for medical management of symptoms.

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SOCIAL SUPPORT/RESOURCE MANAGEMENT

ESTIMATED LIFE EXPECTANCY — **INTERVENTIONS** — **REASSESSMENT**

Years
Year to months
Months to weeks
→
- Consider:
  - ▸ Caregiver(s) availability
  - ▸ Safe home environment
  - ▸ Adequate access to transportation
  - ▸ Sufficient financial resources
- Refer to social services as needed to assist with mobilization of family, community, and financial resources
- Ensure support and education to caregiver(s) and family members
  - ▸ Counseling
  - ▸ Child life services
  - ▸ Support groups
- Respond to caregiver-specific burdens and stresses
- Assess risk for persistent complex bereavement disorder[g]
- Assist family/caregiver(s) with respite care

→ Acceptable outcomes:
- Adequate social support and resource management
- Optimized quality of life
- Relief of caregiver burden
- Reduction of patient/family/caregiver distress
- Acceptable sense of control

→ Ongoing re-evaluation and communication between the patient, caregiver(s), family members, and health care team

→ If unacceptable →
- Re-evaluate palliative care interventions and intensify as possible
- Consider referral to social worker, psychologist, and/or psychiatrist
- See NCCN Guidelines for Distress Management

→ Ongoing reassessment

Weeks to days (Dying patient) → See Interventions (PAL-26)

[g] Persistent complex bereavement disorder is a chronic heightened state of mourning that significantly impairs functioning.

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SOCIAL SUPPORT/RESOURCE MANAGEMENT

ESTIMATED LIFE EXPECTANCY

Years

Year to months

Months to weeks

→ See Interventions (PAL-25)

Weeks to days (Dying patient) →

INTERVENTIONS

- Assess prognostic awareness and discuss prognosis on an ongoing basis with the patient/family/caregiver(s)
- Evaluate and support the patient's desires for comfort
- Explain the dying process and expected events to the patient/caregiver(s)/family members
- Respond to caregiver-specific demands and stresses
- Assess risk for persistent complex bereavement disorder[g]
- Ensure that care conforms with cultural and spiritual/religious practices
- Provide emotional support and address any patient-family or intra-family conflicts regarding intervention
- Child life services if available
- Art and music therapy if available
- Consider palliative care consultation to assist in conflict resolution when the patient, family, and/or professional team do not agree on benefit/utility of interventions
- Obtain medical interpreters/translators who are not related to the patient and family as needed
- Determine eligibility, readiness, and need for specialized palliative or hospice care

REASSESSMENT

Acceptable outcomes:

- Adequate social support and resource management
- Optimized quality of life
- Relief of caregiver burden
- Reduction of patient/family/caregiver distress
- Acceptable sense of control

→ Ongoing re-evaluation and communication between the patient and health care team

If unacceptable →

- Re-evaluate palliative care interventions and intensify as possible
- Consult or refer to specialized palliative care services, hospice, or ethics committee
- Consider referral to social worker, psychologist, and/or psychiatrist
- See NCCN Guidelines for Distress Management

→ Ongoing reassessment

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[g] Persistent complex bereavement disorder is a chronic heightened state of mourning that significantly impairs functioning.

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PREPARING PATIENTS/FAMILIES/CAREGIVERS FOR END-OF-LIFE AND TRANSITION TO HOSPICE CARE

ESTIMATED LIFE EXPECTANCY

- Years
- Year to months
- Months to weeks

→

ASSESSMENT/INTERVENTIONS

- Assess prognostic awareness and patient/family/caregiver understanding of the expected course of disease
- Provide clear, consistent discussion with the patient/family/caregiver about prognosis and anticipated care needs on an ongoing basis
- Facilitate advance care planning (See PAL-29)
  - ▸ Assess for decision-making capacity and need for a surrogate decision maker
  - ▸ Elicit values and preferences with respect to quality of life
- Determine need for specialized palliative care or eligibility and readiness for hospice care

→

REASSESSMENT

Acceptable outcomes:
- Reduction of patient/family/caregiver distress
- Acceptable sense of control
- Relief of caregiver burden
- Strengthened relationships
- Optimized quality of life
- Personal growth and enhanced meaning

If unacceptable:
- Re-evaluate palliative care interventions and intensify as possible

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PREPARING PATIENTS/FAMILIES/CAREGIVERS FOR END-OF-LIFE AND TRANSITION TO HOSPICE CARE

ESTIMATED LIFE EXPECTANCY | **ASSESSMENT/INTERVENTIONS** | **REASSESSMENT**

Years

Year to months → See Interventions (PAL-27)

Months to weeks

Weeks to days (Dying patient) →

- Educate patient/family/caregiver on dying process
- Refer to hospice care agencies
- Address potential need for transitions in care while ensuring continued involvement of primary care physician and primary oncology team
- Provide information and additional referrals, as necessary, for:
  - ▸ Psychosocial assessment
    - ◊ Legacy work
    - ◊ Grief counseling
  - ▸ Spiritual assessment
    - ◊ Spiritual support if needed
- Funeral/memorial service planning
- Respect goals and needs of the patient/family/caregiver regarding the dying process

→ Acceptable outcomes:
- Reduction of patient/family/caregiver distress
- Acceptable sense of control
- Relief of caregiver burden
- Optimized quality of life

→ If unacceptable:
- Re-evaluate palliative care interventions and intensify as possible

→ Ongoing reassessment (See PAL-27)

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ADVANCE CARE PLANNING

ESTIMATED LIFE EXPECTANCY

Years

Year to months

→

INTERVENTIONS

- Assess decision-making capacity and need for surrogate decision-maker
- Ask patient if he/she has a living will, medical power of attorney, health care proxy, or patient surrogate for health care
  - If not, encourage patient to prepare one
  - Refer to social worker if available
- Explore fears about dying and address anxiety
- Initiate discussion of personal values and preferences for end-of-life care
- If patient values and goals lead to a clear recommendation regarding future treatment in light of disease status, physician should make a recommendation about future care
- Document patient values and preferences and any decisions in accessible site in medical record (including MOLST/POLST[r] if completed)
- Encourage the patients to discuss wishes with family/proxy
- Initiate discussion of palliative care options, including hospice if appropriate
- Introduce palliative care team if appropriate
- Refer to state and institutional guidelines for additional guidance

Months to weeks

Weeks to days (Dying patient) → See Interventions (PAL-30)

REASSESSMENT

Acceptable outcomes:
- Adequate advance care planning
- Reduction of patient/family/caregiver distress
- Acceptable sense of control
- Relief of caregiver burden
- Optimized quality of life

→ Ongoing re-evaluation and communication between the patient and health care team

If unacceptable →

- Explore patient reluctance to engage in advance care planning
- Explore fears and worries about illness
- Refer to palliative care if the patient is having difficulty engaging in discussion of advance care planning
- Consider referral to a mental health clinician to evaluate mental health issues
- Consider ethics consult
- See NCCN Guidelines for Distress Management

→ Ongoing reassessment

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[r] Patient's values and preferences and any decisions should be documented in the medical record, including MOLST/POLST (Medical Orders for Life-Sustaining Treatment or Physician Orders for Life-Sustaining Treatment).

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ADVANCE CARE PLANNING

ESTIMATED LIFE EXPECTANCY / **INTERVENTIONS** / **REASSESSMENT**

Years →
- See Interventions (PAL-29)

Year to months →
- See Interventions (PAL-29)

Months to weeks →
- Address years-to-months interventions
- Determine patient/family/caregiver preferences for the location of the patient's death
- Confirm the patient's values and decisions in light of changes in status
- If not previously done, make recommendations about appropriate medical treatment to meet the patient's values and goals
- Ensure complete documentation of the advance care plan in the medical record, including MOLST/POLST[r] if applicable, to assure accessability of the plan to all providers across care settings
- Explore family/caregiver concerns about the patient's plan and seek resolution of conflict between patient/family/caregiver goals and wishes
- Consider consultation with a palliative care specialist to assist in conflict resolution when the patient, family, and health care team disagree
- Explore fears about the future and provide emotional support

Weeks to days (Dying patient) →
- Assure that all items identified above are complete
- Implement and ensure compliance with advance care plan
- Clarify and confirm patient and family decisions about life-sustaining treatments, including CPR, if necessary
- Explore desire for organ donation and/or autopsy
- Encourage the patient/family/caregiver to limit CPR with the use of do not resuscitate (DNR)/do not attempt resuscitation (DNAR)/allow natural death (AND)

Reassessment

Acceptable outcomes:
- Adequate advance care planning
- Reduction of patient/family/caregiver distress
- Acceptable sense of control
- Relief of caregiver burden
- Optimized quality of life

→ Ongoing re-evaluation and communication between the patient/family/caregiver and health care team

If unacceptable →
- Explore patient reluctance to engage in advance care planning
- Explore fears and worries about illness
- Refer to palliative care if the patient is having difficulty engaging in discussion of advance care planning
- Consider referral to a mental health clinician to evaluate mental health issues
- See NCCN Guidelines for Distress Management

→ Ongoing reassessment

---

[r] Patient's values and preferences and any decisions should be documented in the medical record, including MOLST/POLST (Medical Orders for Life-Sustaining Treatment or Physician Orders for Life-Sustaining Treatment).

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RESPONSE TO REQUESTS FOR HASTENED DEATH (PHYSICIAN-ASSISTED DYING)

- We believe that a request for hastened death often has important meanings that require exploration. The most appropriate initial response to a request for hastened death is to intensify palliative care. Patients making such a request should be referred to a palliative care specialist. However, evaluating a patient's request for hastened death is an important skill, even for clinicians who feel this practice is never morally acceptable. Clarifying these meanings may enlarge the range of useful therapeutic options and might reduce the patient's wish to die.
- Explore the reasons for the request for a hastened death, and find out "why now" in a joint discussion with the patient, family, and caregivers.
  - Reassess symptom management.
  - Reassess psychological/psychiatric issues, especially depression, anxiety, grief, psychosis, delirium, and dementia.
  - Ask about the patient's relationship to family or other important people.
  - Ask about individual values and personal views of spiritual/existential suffering and consider spiritual care consultation for further exploration and intervention.
  - Assess for fears of caregiver burden and abandonment and re-emphasize physician commitment to the patient.
- Address the request explicitly. If a patient uses a euphemism for death or refers to it indirectly, ask for clarification. Do not assume that a wish for death to come soon is a wish for a lethal prescription.
- Distinguish wishing not to live in the patient's current state from wishing for a hastened death.
- Request a consult with a mental health professional to evaluate and treat reversible causes of psychological suffering.
- Offer information about the natural history of the disease and explain the process of dying.
- Discuss the differences between withdrawal of life-sustaining nutrition/hydration, voluntary cessation of eating or drinking, and/or sedation for refractory symptoms.
- Address the role of medical caregivers, including hospice if appropriate.
- Know the local legal status of hastened death. Some patients may be confused about legal/ethical distinctions; treatment withdrawal and aggressive treatments for symptoms, such as pain, are not requests for hastened death. Euthanasia is not legal in any state in the United States.
- Examine your own response as a clinician to a particular patient's request. Requests for hastened death can force clinicians to confront their own personal, professional, moral, and legal responsibilities. Dealing with an individual patient can be quite different from thinking about the issue in abstract circumstances. Consider a consultation with an ethics committee, palliative care service, or experienced colleague. These cases are usually complex and often benefit from consideration of multiple perspectives.
- Clarify the care plan. Requests for hastened death should prompt ongoing discussion and active attempts to ameliorate physical, psychosocial, and spiritual distress. Re-emphasize your own commitment to providing continuing care for the patient. Maintain medications for symptom management.

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CARE OF THE IMMINENTLY DYING HOSPITALIZED PATIENT

For an imminently dying patient, consider using an end-of-life care order set, which may contain physical, psychosocial, and practical interventions, including the following:

- **Physical**
  - ‣ Obtain hospice evaluation, if available
  - ‣ Intensify comfort measures
    - ◊ Implement skin safety protocol according to risk assessment:
      - – Regularly repositioning the patient for comfort as indicated
      - – Reassessing and premedicating for wound care as needed
      - – Using a pressure-relieving mattress, if available
      - – Provide eye and mouth care to maintain moisture
      - – Treat for urinary retention and fecal impaction
  - ‣ Ensure deactivation of implanted defibrillator
  - ‣ Consider deactivation of implanted pacemaker in select patients
  - ‣ Discontinue unnecessary diagnostic tests and interventions such as transfusions, needle sticks, blood glucose monitoring, oxygen saturation monitoring, and suctioning
  - ‣ Replace check of vital signs with regular (eg, every 4 h) symptom assessments
  - ‣ Switch routes of medication administration when the oral route is no longer feasible
  - ‣ Adjust doses of medications to optimal comfort
    - ◊ Treat pain and fever
  - ‣ Treat unclearable terminal secretions (death rattle) by:
    - ◊ Reducing parenteral and enteral fluids
    - ◊ Repositioning the patient
    - ◊ Avoid deep suctioning
  - ‣ Treat dyspnea by adjusting the dose of medication (See PAL-11)
  - ‣ Treat refractory restlessness and agitation with palliative sedation (See PAL-33)
  - ‣ Be prepared to discuss a request for organ donation and autopsy
- **Psychosocial**
  - ‣ Help support the patient/family/caregiver to accept discontinuation of TPN and transfusions, dialysis, IV hydration, and medications that will not add to the patient’s comfort)
  - ‣ Consider social work and chaplain consults
  - ‣ Allow the patient/family/caregiver to have uninterrupted time together and encourage continued communication
  - ‣ Ensure that the family/caregiver understands the signs and symptoms of imminent death and that they are supported throughout the dying process
  - ‣ Offer anticipatory bereavement support
  - ‣ Provide support to children and grandchildren and provide education to parents on age-appropriate grieving process
  - ‣ Encourage visits by children if consistent with family values
  - ‣ Support cultural practices
  - ‣ Ensure that caregivers understand and will honor advance directives
  - ‣ Promote healthy grieving
- **Practical**
  - ‣ Mobilize in-hospital end-of-life care policies and procedures
  - ‣ Ensure that the patient's advance directives are documented and implemented
  - ‣ Discuss and document patient/family/caregiver wishes for resuscitation. In the event that CPR is unlikely to be effective, recommend other options such as AND or promoting comfort care.
    - ◊ If the patient/family/caregiver have not documented a DNAR order, intensify patient/family/caregiver education, counsel ~~the family~~ on the importance of a DNAR, or AND
  - ‣ Provide the patient/family/caregiver with respectful space and uninterrupted time together
  - ‣ Provide information on funeral planning, if desired

See After-Death Interventions (PAL-34)

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PALLIATIVE SEDATION

- **Confirm that the patient has refractory symptoms and is imminently dying. Palliative sedation to unconsciousness, in which the intended effect is deep sedation, remains controversial.[s]**
  - **Refractory symptoms are symptoms that cannot be adequately managed despite comprehensive, interdisciplinary palliative care that does not compromise consciousness.**
  - **Imminently dying patients have a prognosis of hours to days. If palliative sedation is being considered, prognosis should be confirmed by two physicians.**

- **Obtain informed consent for sedation from the patient and/or surrogate/family.**
  - **Discuss the patient's disease status, treatment goals, prognosis, and expected outcomes with the patient and/or surrogate.**
  - **Clarify that sedation will consist of the continuous administration of medications that will render the patient unconscious**
  - **Review the ethical justification of the use of sedation with the patient/surrogate/family and members of the health care team.**
    - **An ethics consult may be considered in accordance with institutional guidelines and state regulations.**
  - **Explain that consent for sedation must be accompanied by consent for:**
    - **Discontinuation of life-prolonging therapies, such as artificial nutrition/hydration.**
    - **Withholding of cardiopulmonary resuscitation**

- **Support reassignment of health care professionals who cannot provide sedation due to personal or professional values and beliefs as long as patient care can be safely transferred to the care of another health care professional.**

- **Select an appropriate sedative treatment plan based on the patient's response to recent and current medications.[h] Typical sedatives used for palliative sedation parenteral infusions include:**
  - **Midazolam**
  - **Propofol**

- **Continue current pain and symptom management interventions and titrate as needed.**

- **Monitor patient symptoms regularly, titrate sedatives and other medications, and reassess the need for ongoing palliative sedation based on response and drug/drug interactions to establish and maintain a level of sedation that relieves the patient's refractory symptoms.**

- **Provide ongoing psychosocial and spiritual support for the patient's surrogate, family, and health care professionals.**

[h] See Drug Appendix (PAL-A) for specific recommendations for medical management of symptoms.

[s] Ten Have H, Welie JV. Palliative sedation versus euthanasia: an ethical assessment. J Pain Symptom Manage 2014;47(1):123-136. https://www.ncbi.nlm.nih.gov/pubmed/23742736.

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DEATH

Death →

ASSESSMENT

A "peaceful death":
- Free from avoidable distress and suffering for the patient, family, and caregiver(s)
- In general accord with the patient's and family's wishes
- Consistent with clinical, cultural, and ethical standards

→

AFTER-DEATH INTERVENTIONS

For family and caregiver(s)
- Immediate after-death care:
  - Inform family (if not present) of death
  - Offer condolences
  - Provide the family time with the body
  - Involve chaplain to assess family's desire for religious ritual or spiritual support
  - Remove tubes, drains, lines, and the foley catheter unless an autopsy is planned
  - Ensure culturally sensitive, respectful treatment of the body
  - Address survivor concerns about organ donation and/or autopsy
  - File the death certificate, complete forms, and provide necessary information for the funeral director and family as appropriate
  - Inform other involved health care professionals of the patient's death
- Bereavement support:
  - Formally express condolences on the patient's death (eg, card, call, letter)
  - Refer to appropriate bereavement services within the institution or in the community
  - Attend a debriefing meeting with the family if they desire one
- Identify family members at risk for persistent complex bereavement disorder[g]

For health care professionals

General support:
- Legitimize discussion of personal issues that impact patient care
- Create a climate of safety for discussion of patient deaths
- Provide regular opportunities for reflection and remembering for staff through a memorial ritual

After-death support:
- Review medical issues related to the patient's death
  - Explore concerns and questions regarding quality of patient care
- Review the family's emotional responses to the patient's death
- Review the staff's emotional responses to the patient's death
  - Identify health care professionals at risk for persistent complex bereavement disorder,[g] moral distress, or compassion fatigue
  - Include nurses, nursing assistants, physician team members (including medical students, residents, and fellows), social workers, and chaplaincy, as appropriate
  - Consider a bereavement ritual for staff (eg, brief reading, moment of quiet)

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[g] Persistent complex bereavement disorder is a chronic heightened state of mourning that significantly impairs functioning.

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PALLIATIVE CARE DRUG APPENDIX

Condition	Recommended Agents and Dosage by Estimated Life Expectancy and Symptom Etiology
Dyspnea (PAL-11)	**Life Expectancy: Years; Year to Months; and Months to Weeks** • General: Morphine, 2.5–10 mg PO q2h PRN or 1–3 mg IV q2h PRN for opioid naïve, increase dose by 25% for non-opioid naïve ▸ For acute progressive dyspnea, or for patients who are not opioid naïve, more aggressive titration may be required • Anxiety: Lorazepam, 0.25–1 mg PO q4h PRN for benzodiazepine naïve
Dyspnea (PAL-12)	**Life Expectancy: Weeks to Days (dying patient)** • General: Morphine, 2.5–10 mg PO q2h PRN or 1–3 mg IV q2h PRN if opioid naïve, increase dose by 25% for non-opioid naïve ▸ For acute progressive dyspnea, or for patients who are not opioid naïve, more aggressive titration may be required • Anxiety: Lorazepam, 0.25–1 mg PO q4h PRN if benzodiazepine naïve • Fluid overload: Furosemide
Secretions (PAL-12)	• Excessive secretions: Scopolamine, 0.4 mg SC q4h PRN/1.5 mg patches, 1–3 patches q 3 OR atropine, 1% ophthalmic solution 1–2 drops SL q4h PRN OR glycopyrrolate, 0.2–0.4 mg IV or SC q4h PRN
Anorexia/ Cachexia (PAL-13)	**Life Expectancy: Years; Year to Months** • Depression/anorexia: Mirtazapine, 7.5–30 mg QHS • Gastroparesis (early satiety): Metoclopramide 5–10 mg PO QID 30 min before meals and at bedtime • Low/no appetite: Megestrol acetate, 400–800 mg/d
Anorexia/ Cachexia (PAL-14)	**Life Expectancy: Months to Weeks; Weeks to Days (dying patient)** • Offer education to patient • Low/no appetite: Megestrol acetate, 400–800 mg/d OR olanzapine, 5 mg/d OR dexamethasone, 4–8 mg/d OR consider cannabinoid • Depression: Mirtazapine, 7.5–30 mg QHS

See key for abbreviations PAL-A (5 of 5)

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PALLIATIVE CARE DRUG APPENDIX

Condition	Recommended Agents and Dosage by Estimated Life Expectancy and Symptom Etiology
Nausea and Vomiting (NV)-Initial Treatment (PAL-15)	Life Expectancy: Years; Year to Months; Months to Weeks; and Weeks to Days (dying patient) • See NCCN Guidelines for Antiemesis for chemotherapy/radiation-induced NV • Gastroparesis: Metoclopramide, 5–10 mg PO QID 30 min before meals and at bedtime • CNS involvement: Dexamethasone, 4–8 mg BID-TID • Gastric outlet obstructions: Dexamethasone, 4–8 mg/d; proton pump inhibitor; metoclopramide, 5–10 mg PO QID 30 min before meals and at bedtime • Gastritis/GERD: Proton pump inhibitor OR H2 blocker • Medication-induced gastropathy: Proton pump inhibitor OR metoclopramide, 5–10 mg PO QID 30 min before meals and at bedtime Nonspecific NV • Dopamine receptor antagonists or 5HT3 receptor antagonists • Haloperidol, 0.5 mg TID OR metoclopramide, 5–10 mg PO QID 30 min before meals and at bedtime OR prochlorperazine, 5–10 mg 3–4 times/d, maximum 40 mg/d OR olanzapine, 5–10 mg 2–3 times/d OR ondansetron, 4–8 mg every 6 h • Contributing anxiety: Lorazepam, 0.5–1 mg q4h PRN • Vertiginous component: Anticholinergic AND/OR antihistamine
Nausea and Vomiting (NV)-Initial Treatment (PAL-16)	Life Expectancy: Years; Year to Months; Months to Weeks; and Weeks to Days (dying patient) • Consider appropriate route of administration ▸ 1) Prescribe oral agent and titrate to maximum benefit; consider opioid rotation ▸ 2) If NV persists, provide IV administration PRN ▸ 3) If NV persists, provide scheduled IV administration or continuous infusion • Titrate to maximum benefit and tolerance: olanzapine, prochlorperazine, haloperidol, or metoclopramide • For continued NV, consider additional agents: ▸ Dexamethasone, 4–8 mg/d; ondansetron, 4–8 mg every 6 h; scopolamine (patch or IV); meclizine, 25–100 mg/d; oral cannabinoid
Constipation (PAL 17)	Life Expectancy: Years; Year to Months; Months to Weeks; and Weeks to Days (dying patient) • Prophylaxis: Senna • General: Add bisacodyl, titrate to 10–15 mg daily-TID with a goal of 1 non-forced bowel movement (BM) every 1–2 days • Persistent constipation: bisacodyl suppository, one rectally daily-BID; polyethylene glycol, 1 capful/8 oz water BID; lactulose, 30–60 mL BID-QID; sorbitol, 30 mL q2h x 3, then PRN; magnesium hydroxide, 30–60 mL daily-BID; or magnesium citrate, 8 oz daily • Opioid-induced constipation: Consider methylnaltrexone, 8 or 12 mg/dose SC, no more than once a day; linaclotide, 72–145 mcg/d; naloxegol, 12.5–25 mg/d ▸ Not for post-op ileus and mechanical bowel obstruction

See key for abbreviations PAL-A (5 of 5)

PALLIATIVE CARE DRUG APPENDIX

Condition	Recommended Agents and Dosage by Estimated Life Expectancy and Symptom Etiology
Diarrhea (PAL-19)	**Life Expectancy: Years; Year to Months; and Months to Weeks** Grade 1 • General: Loperamide, 4 mg PO x 1 then 2 mg PO after each loose stool, up to 16 mg/d • If not on opioids: Diphenoxylate/atropine 1–2 tabs PO q6h PRN, maximum 8 tabs/d Grade 2 • Initiate/continue loperamide, 4 mg PO x 1 then 2 mg PO after each loose stool, up to 16 mg/d • If not on opioids: diphenoxylate/atropine 1–2 tabs PO q6h PRN, maximum 8 tabs/d • Consider hyoscyamine, 0.125 mg PO/ODT/SL q4h PRN, max: 1.5 mg/d; atropine 0.5–1 mg SC/IM/IV/SL q 4–6h PRN • C. diff-induced: metronidazole, 500 mg PO/IV QID x 10–14 days; vancomycin, 125–500 mg PO QID x 10–14 days • Non-C. diff infection: treat appropriately based on culture findings • Immunotherapy-related: dexamethasone, 4–8 mg/d; infliximab, 5 mg/kg q 2–6 weeks Grades 3/4 (Inpatient hospitalization w/ICU for Grade 4) • Initiate/continue loperamide, 4 mg PO x 1 then 2 mg PO after each loose stool, up to 16 mg/d • If not on opioids: diphenoxylate/atropine, 1–2 tabs PO q6h PRN, maximum 8 tabs/d • Consider hyoscyamine, 0.125 mg PO/ODT/SL q4h PRN, max: 1.5 mg/d; atropine 0.5–1 mg SC/IM/IV/SL q 4–6 h PRN • Consider octreotide, 100–200 mcg/d SC, q8h or by continuous infusion
Diarrhea (PAL-19)	**Life Expectancy: Weeks to Days (dying patient)** • Reevaluate ongoing antidiarrheal, anticholinergic agents • Initiate or increase dose of around-the-clock opioid • Consider scopolamine, 0.4 mg SC every 4 h PRN • Consider octreotide, 100–200 microgram SC q8h • Consider glycopyrrolate, 0.2–0.4 mg IV q4h PRN
Malignant Bowel Obstruction (PAL-20)	**Life Expectancy: Years; Year to Months; Months to Weeks; and Weeks to Days (dying patient)** Goal to Maintain Gut Function • Reduce opioid dose or rotate opioid • Metoclopramide, 5–10 mg PO QID 30 min before meals and at bedtime • Dexamethasone, 4–12 mg IV daily, discontinue if no improvement in 3–5 days Gut Function Cannot be Maintained • Scopolamine (patch or IV); hyoscyamine, 0.125 mg PO/ODT/SL q4h PRN; glycopyrrolate, 0.2–0.4 mg IV q4h PRN • Octreotide, 100–300 mcg SC BID-TID or 10–40 mcg/h continuous SC/IV infusion; if prognosis >8 weeks, consider long-acting release (LAR) or depot injection

See key for abbreviations PAL-A (5 of 5)

Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

PALLIATIVE CARE DRUG APPENDIX

Condition	Recommended Agents and Dosage by Estimated Life Expectancy and Symptom Etiology
Sleep/Wake Disturbance (PAL-22)	**Life Expectancy: Years; Year to Months; and Months to Weeks** **Insomnia** • Trazodone, 25–100 mg PO at bedtime • Olanzapine, 2.5–5 mg PO at bedtime • Zolpidem, 5 mg PO at bedtime • Mirtazapine, 7.5–30 mg PO at bedtime • Chlorpromazine, 25–50 mg PO at bedtime • Quetiapine, 12.5–25 mg PO at bedtime • Lorazepam, 0.5–1 mg PO at bedtime • For phase shift disorder consider ramelteon (8 mg 30 minutes before bedtime) or melatonin (30 minutes before bedtime; dosage may vary by formulation) **Daytime Sedation** • Caffeine, 100–200 mg PO q 6 hours, last dose 4 PM • Methylphenidate, start with 2.5–20 mg PO BID, second dose no later than 6 hours before bedtime • Dextroamphetamine, 2.5–10 mg PO BID, second dose no later than 12 hours before bedtime • Modafinil, 100–400 mg PO each morning **Restless Legs Syndrome** • Ropinirole, 0.25 mg PO 1–3 hours before bedtime • Pramipexole, starting dose 0.125 mg PO at bedtime, may require titration • May also consider pregabalin, carbidopa-levodopa, or low-dose methadone with dopamine agonist; however, all of these medications are off-label for RLS
Sleep/Wake Disturbance (PAL-22)	**Life Expectancy: Weeks to Days (dying patient)** • Titrate dose of existing pharmacotherapy • Consider chlorpromazine, 25–100 mg PO/PR at bedtime

See key for abbreviations PAL-A (5 of 5)

Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

PALLIATIVE CARE DRUG APPENDIX

Condition	Recommended Agents and Dosage by Estimated Life Expectancy and Symptom Etiology
Delirium (PAL-23)	**Life Expectancy: Years; Year to Months; and Months to Weeks** Mild/Moderate Delirium • Haloperidol, 0.5–2 mg PO BID/TID • Alternatives: risperidone, 0.5–1 mg PO BID; olanzapine, 5–20 mg PO daily; or quetiapine fumarate, 25–200 mg PO/SL BID Severe Delirium (agitation) • Haloperidol, 0.5–2 mg IV q1–4h PRN • Alternatives: olanzapine, 2.5–7.5 mg PO/SL q2–4h PRN (maximum = 30 mg/d); chlorpromazine, 25–100 mg PO/PR/IV q4h PRN for bedbound patients • High-dose neuroleptic-refractory: Consider adding lorazepam, 0.5–2 mg SC/IV q4h
Delirium (PAL-24)	**Life Expectancy: Weeks to Days (dying patient)** • Upward titrate haloperidol, risperidone, olanzapine, or quetiapine fumarate • High-dose neuroleptic-refractory: Upward titrate lorazepam • Consider rectal or IV haloperidol • Consider chlorpromazine, 25–100 mg PO/PR at bedtime with or without lorazepam, 0.5–2 mg SC/IV q4h
Palliative Sedation (PAL-33)	**Imminently dying patient** • Midazolam, continuous infusion • Propofol, continuous infusion

Abbreviations Key
Timing: q (every); h (hour); d (day); BID (twice a day); TID (three times per day); QID (four times per day); QHS (at bedtime); PRN (as needed)
Route of administration: IM (intramuscular); IV (intravenous); ODT (orally disintegrating tablet); PO (oral); PR (rectal); SC (subcutaneous); SL (sublingual)

Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

Discussion

This discussion is being updated to correspond with the newly updated algorithm. Last updated 06/01/17

NCCN Categories of Evidence and Consensus

Category 1: Based upon high-level evidence, there is uniform NCCN consensus that the intervention is appropriate.

Category 2A: Based upon lower-level evidence, there is uniform NCCN consensus that the intervention is appropriate.

Category 2B: Based upon lower-level evidence, there is NCCN consensus that the intervention is appropriate.

Category 3: Based upon any level of evidence, there is major NCCN disagreement that the intervention is appropriate.

All recommendations are category 2A unless otherwise noted.

Table of Contents

Overview

The aim of the NCCN Guidelines for Palliative Care is to help assure that each patient with cancer experiences the best quality of life possible throughout the illness trajectory by providing guidance for the primary oncology team. The NCCN Palliative Care Panel is an interdisciplinary group of representatives from NCCN Member Institutions, consisting of medical oncologists, hematologists and hematologic oncologists, pediatric oncologists, neurologists and neuro-oncologists, anesthesiologists, psychiatrists and psychologists, internists, palliative care and pain management specialists, and geriatric medicine specialists. These guidelines were developed and are updated annually by the collaborative efforts of these experts based on their clinical experience and available scientific evidence.

More than 1.68 million people are expected to be diagnosed with cancer in the United States in 2017, and 600,920 people are expected to die of the disease.[1] Global cancer rates are increasing, with an associated rise in the number of cancer survivors living with symptoms and disabilities as a result of their disease and/or its treatment (see the NCCN Guidelines for Survivorship).[1-3] More than one-third of patients with cancer in a large observational cohort study reported moderate to severe symptoms in the majority of categories (pain, nausea, anxiety, depression, shortness of breath, drowsiness, well-being, loss of appetite, and tiredness) in the last weeks of life.[4] Greater access to palliative care may help to address the challenges faced by oncology patients and their families.

The Center to Advance Palliative Care (CAPC; www.capc.org) describes an optimal approach in which care is "provided by a team of palliative care doctors, nurses, and other specialists who work together with a patient's other doctors to provide an extra layer of support. It is appropriate at any age and at any stage in a serious illness and can be provided along with curative treatment".[5] During the past 20 years, increasing attention has been paid to quality-of-life issues in oncology throughout the disease trajectory.[3,6-11] Palliative care in oncology began as hospice and end-of-life care, but it has developed into an integral part of comprehensive cancer care.[3,12-16]

Literature Search Criteria and Guidelines Update Methodology

Prior to the update of this version of the NCCN Guidelines® for Palliative Care, an electronic search of the PubMed database was performed to obtain key literature in palliative care published between June 2015 and May 2017, using the following search terms: (palliative care AND cancer) OR (palliative care AND oncology) OR (hospice AND cancer) OR (hospice AND oncology) OR ("end of life" AND cancer) OR ("end of life" AND oncology). The PubMed database was chosen as it remains the most widely used resource for medical literature and indexes only peer-reviewed biomedical literature.

The search results were narrowed by selecting studies in humans published in English. Results were confined to the following article types: Clinical Trial; Guideline; Meta-Analysis; Multicenter Study; Randomized Controlled Trial; Systematic Reviews; and Validation Studies.

The PubMed search resulted in 589 citations and their potential relevance was examined. The data from key PubMed articles selected by the panel for review during the Guidelines update meeting as well as articles from additional sources deemed as relevant to these Guidelines and discussed by the panel have been included in this version of the Discussion section (eg, e-publications ahead of print, meeting abstracts). Recommendations for which high-level evidence is lacking are based on the panel's review of lower-level evidence and expert opinion.

The complete details of the Development and Update of the NCCN Guidelines are available on the NCCN webpage.

Palliative Care in Oncology

These guidelines define palliative care as a special kind of patient- and family-centered health care that focuses on effective management of pain and other distressing symptoms, while incorporating psychosocial and spiritual care according to patient/family needs, values, beliefs, and culture(s). The goals of palliative care are to anticipate, prevent, and reduce suffering and to support the best possible quality of life for patients and their families, regardless of the stage of the disease or the need for other therapies.[17] Palliative care begins at diagnosis and should be delivered concurrently with disease-directed, life-prolonging therapies and should facilitate patient autonomy, access to information, and choice. While palliative care previously focused on end-of-life care, the idea that palliative care needs to be integrated earlier into the continuum of cancer care is increasingly understood.[18-22] Palliative care becomes the main focus of care when disease-directed, life-prolonging therapies are no longer effective, appropriate, or desired, or when symptoms predominate.

Palliative care should be initiated by the primary oncology team (including physicians, nurses, social workers, other mental health professionals, chaplains, physician assistants, pharmacists, and dietitians) and then augmented by collaboration with an interdisciplinary team of palliative care experts to address intractable symptoms and/or complex psychosocial issues. Additionally, palliative care efforts should reach beyond the patient to family and caregivers. When further anti-cancer therapy is likely to do more harm than good, palliative care becomes the predominant care offered to patients with advanced cancer. When possible, inpatient palliative care can facilitate transfer to hospice care at home or in a care facility. For patients too unstable for transfer out of the inpatient setting, palliative care and hospice may provide end-of-life care for patients in the hospital. Palliative care should continue even after the patient's death in the form of bereavement support for the patient's family and caretakers. Several groups have described their ideas and approaches for, experience and outcomes with, and barriers to developing successful programs that integrate palliative care into routine oncologic care.[21-35]

Impact of Palliative Care

In February 2012, ASCO published a provisional clinical opinion based on 7 randomized controlled trials and expert consensus.[36] The ASCO panel stated that there is substantial evidence to show that "palliative care—when combined with standard cancer care or as the main focus of care—leads to better patient and caregiver outcomes". The ASCO panel concluded that strong consideration should be given to the integration of palliative care with standard oncology care early in the course of illness for patients with metastatic cancer and/or high symptom burden. In 2014, a dynamic service model for integrating palliative care into the continuum of oncology care was presented at an ASCO leadership conference.[34]

In 2016, ASCO updated their guidelines to state – based on multiple randomized trials – that palliative care should be standard for all advanced cancer patients. Systematic review of the palliative care in oncology data supported best outcomes with care provided by an interdisciplinary palliative care team initiated within eight weeks of diagnosis.[37] In the existing trial data, oncologist-alone care served as the standard and inferior arms, and the data were unable to demonstrate that oncologists alone were able to adequately provide both the oncologic and palliative aspects of care. The principal investigators of several of these major trials support implementation of the TEAM approach (***Time***, an extra hour a month; ***Education***, especially about prognostic awareness, achievable goals, and advance care planning; ***Assessments*** done formally for symptoms, spiritual needs, and distress/coping; and ***Management***, by and interdisciplinary team) as a structured way for oncology offices to design their care.[38]

Studies show that early integration of palliative care into the cancer care continuum results in improved patient outcomes.[39-41] A remarkable study showed that early introduction of palliative care can not only improve quality of life for patients with advanced cancer but can also improve survival.[42] A secondary analysis of this study further showed that patients receiving early palliative care were less likely to receive intravenous chemotherapy in the last 60 days of life (odds ratio, 0.47; 95% CI, 0.23–0.99; P = .05),[43] likely because these patients had a more accurate understanding of their prognosis, which impacted decisions about their care.[44] Another study demonstrated significant improvement in multiple symptoms within one day of a palliative care consultation, highlighting the potential benefit of palliative care even during brief hospital stays.[45]

A recent prospective study showed that early integration of palliative care facilitated the discontinuation of anticancer regimens and improved measures of quality of life for patients with advanced breast or gynecologic cancers. Further, palliative care consultation was a positive prognostic factor for overall survival.[40] Similarly, a retrospective analysis of 609 patients with terminal cancer suggested that increased duration of palliative care services was positively correlated with survival time.[46] Home-based palliative care was associated an equal or longer survival compared to inpatient palliative care in patients with cancer.[47]

Results were recently reported from the ENABLE III trial, which examined outcomes after early versus delayed initiation of palliative care in patients with advanced cancer. Patients in the early palliative care group had significantly higher Kaplan-Meier 1-year survival rates than the delayed palliative care group (63% vs. 48%, $P = .038$).[41] The timing of interventions for caregivers was also examined in this trial, suggesting that earlier provision of palliative care for caregivers lessened their depression and stress burden scores.[48]

In a study comparing standard care with ongoing palliative care in patients with advanced cancer who had a prognosis of 6 to 24 months to live, palliative care resulted in improved patient quality of life, satisfaction with care, and decreased symptom severity.[39] A recent retrospective analysis of patients with advanced cancer highlighted the importance of early palliative care consultations (>3 months before death) and revealed an association between outpatient palliative care and decreased aggressiveness of end-of-life care.[49]

A 2015 systematic review of studies on early integration of outpatient/home palliative care revealed numerous trials demonstrating the positive impact of early palliative care, but also highlighted the lack of standard methodology across trials to assess outcomes.[50] Overall, research suggests that successful integration of palliative care early in the continuum of care reduces morbidity for patients with cancer and enhances patient and family/caregiver satisfaction (reviewed by Rocque and Cleary[51] and Khan et al[52]).

Earlier palliative care has also been shown to affect end-of-life care trajectories. Palliative care consultations in patients with advanced cancers have also been shown to reduce the quantity and intensity of life-prolonging care received towards the end of life. Likewise, the lack of palliative care team consultation has been shown to be a predisposing factor for futile life-sustaining treatments at the end of life.[53] An observational study suggested that inpatient palliative care led to stabilized end-of-life care trajectories after discharge.[54]

Studies have also demonstrated the potential for community-based or home-based palliative care services to positively influence patient care. These services have been associated with reduced need for end-of-life emergency department visits, reduced length and frequency of hospitalization, as well as fewer ICU admissions and in-hospital deaths.[55-59] Palliative care has been shown to reduce symptom burden, improve quality of life, and increase the odds of dying at home. Similarly, a 2013 Cochrane Database systematic review that analyzed home palliative care in patients with advanced illness demonstrated reliable reduction of symptom burden and increased likelihood of dying at home without a negative impact on caregiver grief.[60]

Palliative care has also been linked to cost-savings as well. Earlier palliative care consultations have been associated with decreased health care costs for patients with advanced cancer, including those with multiple comorbidities.[61,62] According to recent data, dedicated palliative care units and programs can be cost effective and favorably impact health systems finances.[63,64]

Role of Hospice Care

Hospice is the most established model of palliative care for patients with a prognosis of less than 6 months and is eligible for coverage by third-party payers and Medicare. Enrollment in hospice has been shown to reduce hospitalization and receipt of high-intensity non-hospice care at the end of life. According to the National Home and Hospice Care Survey, the number of adult patients with cancer using hospice care tripled during 1991 through 1992 to 1999 through 2000.[65] The 2013 edition of *NHPCO Facts and Figures: Hospice Care in America* states that 43.3% of Medicare decedents with a cancer diagnosis accessed ≥3 days of hospice in 2007, increasing from 36.6% in 2001.[66] However, the median length of stay (LOS) in hospice service was just under 19 days in 2012,[66] and recent studies suggest continued underuse of hospice services among eligible patients.[67,68] Most patients who receive hospice care in this country are referred too late for hospice care to exert its full benefit, and many patients are never referred at all.[69,70] A recent study of Medicare patients with advanced lung cancer supports this, revealing that over 75% of patient deaths occurred without enrollment in hospice.[71]

An analysis of the SEER database revealed that men with advanced prostate cancer who were enrolled in hospice were less likely to receive high-intensity care, including ICU admission and inpatient stays, at the end of life.[69] Moreover, a study of 207 deceased patients with cancer who had stopped cancer treatment showed reduced emergency department visits, hospitalizations, and other noncancer clinic visits for those enrolled in hospice.[72] Additionally, analyses of data from 3069 deceased patients more than 50 years of age (extracted from the Health and Retirement Study) revealed that hospice enrollment significantly decreased hospitalization, non-hospice health care utilization, and cost of care.[73]

End-of-life care can often be more aggressive than what is supported by current evidence. Generally, Medicare patients with poor-prognosis cancer received highly intensive end-of life-care.[74] Furthermore, administration of chemotherapy late in the course of cancer care, including in the last days of life, is growing more common,[75,76] and oncologists have reported that they have found hospice regulations and reimbursement limitations too restrictive.[77] Overall, provision of end-of-life care was inconsistent and varied widely across regions, even among comprehensive cancer centers.[74,78]

One study at an academic medical center revealed marked and unwarranted variation in hospice LOS within divisions and by doctor. For instance, in thoracic oncology, several oncologists had an average LOS of 36 days while others were clustered around 4 days for the same patient population. However, oncologists were receptive to feedback and training[79] By establishing hospice referrals as a quality improvement measure, one health system reported that LOS in hospice doubled within a year of implementation.[80] Similarly, another recent study revealed that educational outreach and implementation of specific triggers for palliative care consultation were associated with increased hospice referrals and LOS.[81]

Palliative Care Standards & Research

Assessing outcomes and evaluating palliative cancer care is essential to ensure high-quality, evidence-based care. However, systematic reviews of the data often suggest that many aspects of palliative care lack high-quality evidence, and there is a general lack of standard methodology in palliative care trials.[50,82-84]

The third edition of the Clinical Practice Guidelines for Quality Palliative Care by the National Consensus Project was published in 2013,[85] and the National Quality Forum has developed a national quality framework for evaluating palliative care programs, extending beyond terminally ill patients with cancer to include a broad spectrum of patients with multiple illnesses.[86] These guidelines provide an in-depth assessment of many issues surrounding palliative care (eg, cultural, ethical, legal, physical, psychological, social, spiritual, and existential aspects of care).

ASCO recently published a statement on individualized care for patients with advanced cancer.[9] While significant improvements over the past decade were noted (eg, improvements in palliative care education and training for oncologists; an increase in hospital-based palliative care programs and community-based hospice organizations), the statement points out that conversations with patients about their palliative needs are still happening too late in the progression of their disease. Some of the key elements of individualized care listed in the report state that patients should be given:

- enough information to enable them to make informed choices regarding their treatment;
- encouragement to focus on symptom-directed palliative care when disease-directed therapies fail;
- the opportunity to participate in clinical trials that may improve their outcome or that of future patients; and
- the opportunity to die with dignity and peace of mind.

In August 2011, the Commission on Cancer (CoC) of the American College of Surgeons (ACS) released new accreditation standards for hospital cancer programs (http://www.facs.org/news/2011/coc-standards0811.html).[87] Their patient-centered focus requires that patients have access to palliative and hospice care, psychosocial support, and pain management—either onsite or by referral. The standards also state that palliative care should be provided by an interdisciplinary team of medical and mental health professionals, social workers, and spiritual counselors and should be available beginning at the time of diagnosis and continuously throughout treatment, surveillance, and bereavement.

In 2014, the Institute of Medicine (IOM) released a consensus report entitled “Dying in America- Improving Quality and Honoring Individual Preferences Near the End of Life,” in which experts highlighted the need for improved end-of-life care. Key findings and recommendations for improved quality of care focused on person-centered, family-oriented care; clinician-patient communication and advance care planning;

professional education and development; policies and payment systems; and public education and engagement.[88]

Implementation of standardized patient-centered outcome measures (PCOMs) in palliative care has been shown to impact processes of care, improving symptom recognition, promoting discussion of quality of life, and increasing referrals based on PCOM-generated information.[35] Similarly, a study by Kamal and colleagues showed that provider conformance with supportive care quality measures significantly improved quality of life for patients with cancer who were receiving palliative care.[89]

Trial Design

The evidence base for the treatment recommendations for physical and psychosocial symptoms in patients with cancer is generally weak.[83,84] Clinical trials in palliative oncology face many challenges, including recruitment difficulties, high attrition rates, and insufficient funding.[90-92] Several groups have recommended considerations for the design of future palliative care clinical trials, including standardization of reporting and supportive care measures, the integration of technology for data collection, the use of validated outcome measures, and the use of trial designs other than the randomized controlled trial.[35,93-100] In addition, formal feasibility studies can help ensure the success of subsequent larger trials.[94,101]

A 2015 systematic review of studies on early integration of outpatient/home palliative care revealed numerous trials demonstrating the positive impact of early palliative care, but also highlighted the lack of standard methodology across trials to assess outcomes.[50] Despite the challenges associated with conducting large-scale palliative care research studies, several notable studies have examined the impact of palliative care efforts on patient and family/caregiver outcomes.[83]

Ongoing studies continue to evaluate improved methods for early integration of palliative care into oncologic treatment.[102]

Barriers to Timely Provision of Palliative Care

The major reasons for delayed referral to palliative care are professional reluctance and public confusion about the definition of palliative care. Despite the growth of clinical and academic palliative care over the past two decades and the efforts of most palliative care organizations to clarify that palliative care should be given at the time of diagnosis or when there are poorly managed symptoms regardless of prognosis, many people think that palliative care still refers only to care given at the end of life, leading to an inappropriate association of palliative care with death.[103-106] Supportive care has been suggested as an alternative name, to help break this association and facilitate earlier use of palliative care for patients in need. Supportive care in cancer initially focused on the support of patients receiving active cancer therapy with antiemetics, antibiotics, bone marrow stimulants, and transfusions.[107] However, some studies suggest that patients and providers may prefer supportive care terminology to refer to palliative care services.[108,109] At MD Anderson Cancer Center, a switch in the service name from “Palliative Care” to “Supportive Care” was associated with increased patient referrals, referrals at an increased interval before death, and referrals earlier in the course of disease.[110] Regardless of the terminology, patients and families should be informed that palliative care is an integral part of their comprehensive cancer care.[103,111,112]

A retrospective review of patients with advanced cancer seen at MD Anderson Cancer Center found that only 45% of patients had a palliative care consultation before death, and many of those occurred close to death.[113] Similarly, a retrospective study of 6076 patients with advanced pancreatic cancer revealed that only 52% of patients received a palliative care consultation.[114] Data from the Nationwide Inpatient Sample on patients with incurable head and neck cancers revealed a palliative care consultation rate of only 5%.[115] Interestingly, in a recent survey only 37% of physicians reported that they had access to a specialized palliative care service that accepted patients on chemotherapy.[116] Despite the 6-month prognosis eligibility, the median length of service for hospice patients in 2012 was 18.7 days. Approximately 36% of hospice patients died or were discharged within 7 days of admission to hospice care.[66] Thus, barriers to early referrals still exist (reviewed by Davis et al[22]).

The American Academy of Hospice and Palliative Medicine (www.aahpm.org), founded in 1988, and the CAPC (www.capc.org), established in 1999, are organizations dedicated to advancing the discipline of hospice and palliative medicine. These organizations seek to expand access to quality palliative care services in hospitals and other health care settings for people with advanced illness.

Training in Palliative Care

Educational programs should be provided to all health care professionals and trainees so they can develop effective palliative care knowledge, skills, and attitudes. The number of palliative care programs in the United States is rapidly increasing. The establishment of hospice and palliative medicine as a medical subspecialty in 2008 received support from at least 10 cosponsoring American Board of Medical Specialties (ABMS; www.abms.org) boards, including Anesthesiology, Family Medicine, Internal Medicine, Physical Medicine and Rehabilitation, Psychiatry and Neurology, Surgery, and Pediatrics. Support for expansion of palliative medicine education has been offered by the Liaison Committee on Medical Education (LCME; www.lcme.org), which has mandated palliative medicine education for medical schools. In addition, the Accreditation Council for Graduate Medical Education (ACGME; www.acgme.org) now requires training in palliative medicine for oncology fellows, including training in pain, psychosocial care, personal awareness, and hospice care.

Researchers at a large urban teaching hospital demonstrated the effectiveness of education on palliative care and referral criteria for increasing overall referrals to palliative care services and enhanced referrals for the purpose of pain management.[117] Effective training in palliative care can also positively impact provider, patient, and caregiver quality of life. One study suggested that an online palliative care education intervention for primary care physicians led to measurable improvements in patient outcomes such as pain, symptoms, and quality of life.[118] In a survey study, oncology fellows reported that training on end-of-life issues and goal-of-care discussions mitigated burnout and distress.[119]

Provider education and training in palliative care can positively impact providers and patients. The OPTIM (Outreach Palliative Care trial of Integrated Regional Model) study is a multiregional, mixed-methods study that examined the effects of a palliative care intervention implemented across 4 regions of Japan.[120] The intervention consisted of provider education and training; education and awareness initiatives for the general public/patients; establishment of community-based palliative care teams to instruct community health care institutions; and establishment of regional palliative care centers to coordinate multidisciplinary community resources. Surveys were provided to patients, bereaved family members, physicians, and nurses both before and after the intervention. The results indicated an increased percentage of patients receiving palliative care and dying at home, increased patient- and family-reported quality of care, and decreased physician- and nurse-reported difficulties in providing palliative care.

Palliative care resources that may be useful for clinicians are listed in Table 1, below.

Communication Skills Training

Provider communication skills play a particularly important role for palliative care in oncology. However, several studies have revealed gaps in patient-centered communication with regard to patient prognosis and understanding of the intent of treatment. Valuable insight has been garnered regarding provider communication and patient understanding from the Cancer Care Outcomes Research and Surveillance (CanCORS) study of approximately 10,000 patients with lung or colorectal cancer. A survey of 1193 patients from CanCORS found that 69% of patients with advanced lung cancer and 81% of those with advanced colorectal cancer thought that their palliative chemotherapy could cure them.[121] While it is unclear whether these patients were told their prognosis, if they did not understand or choose to understand the information, or if they merely answered the survey with a high degree of optimism,[122] this result demonstrates a clear need for improvement in the area of physician-patient communication. Additional analyses of 722 patients with stage IV lung or colorectal cancer showed that only 33% of patients recognized that their chemotherapy regimens were "not at all" likely to cure their cancer.[123] Similar misconceptions also apply to palliative radiation therapy. In a study of 384 patients with inoperable lung cancer, 64% of patients did not understand that their radiation therapy was not curative.[124] Notably, in a cohort of 686 patients with metastatic lung or colorectal cancer from CanCORS, only 16.5% were able to correctly state their prognosis.[125]

Survey and observational data have revealed that many doctors are hesitant to have honest discussions with their patients, in part because these discussions can be very difficult and emotionally draining for the physicians.[126-128] Oncologists revealed a high level of perceived burden regarding discussions about discontinuing anticancer treatments, and study results have indicated a desire on the part of providers for additional communication skills training.[127,128] Training in communication has been shown to improve clinician-patient communication [129-133] and to possibly decrease physician burnout and improve physician empathy and mood.[134] For example, a recent randomized controlled trial showed that an 11-hour communication skills training workshop for oncologists was effective at improving communication skills, including those specific to the transition to palliative care.[135] Additionally, the VOICE cluster randomized controlled trial recently demonstrated the effectiveness of a patient-centered communication training for physicians caring for patients with advanced cancer.[133]

Clear, consistent, and empathetic communication with the patient and family about the natural history of the cancer and its prognosis is at the core of effective palliative care.[136-140] It is important to assess and reassess patient goals and preferences regarding communication of difficult news over the course of disease.[141] When patients understand the goals of treatment, they can make choices that are consistent with their life goals. A multicenter observational study revealed that prognostic disclosure from physicians resulted in more realistic patient expectations regarding life expectancy without harming measures of emotional wellbeing or patient ratings of their physician relationship.[142] In addition, effective patient-physician communication has been shown to decrease patient stress, increase adherence to treatment, and improve outcomes.[143,144] Open communication with relatives or caregivers of patients with cancer is also critical, particularly when patients near the end of life.[139,145]

NCCN Guidelines for Palliative Care

The NCCN Guidelines for Palliative Care were developed to facilitate the appropriate integration of palliative care into oncology practice. The guidelines outline procedures for screening, assessment, palliative care interventions, reassessment, and after-death care. The panel initially focused on the needs of patients in their last 12 months of life. The panel chose this period to distill the content of textbooks and curricula into guidelines that could facilitate clinical decision-making in the same way that NCCN disease-oriented and symptom-oriented guidelines have. More recent versions of these guidelines have expanded the focus to all patients and family experiencing cancer throughout the disease trajectory, consistent with the Provisional Clinical Opinion from ASCO.[36]

Palliative Care Screening

The primary oncology team should screen all patients at every visit for one of more of the following: 1) unmanaged symptoms; 2) moderate to severe distress related to cancer diagnosis and therapy; 3) serious comorbid physical, psychiatric, and psychosocial conditions; 4) potentially life-limiting disease; 5) metastatic solid tumors; 6) patient or family concerns about the course of disease and decision-making; 7) patient or family requests for palliative care; and/or patient request for hastened death. Patients who meet these screening criteria and those who make a specific request for palliative care should undergo a full palliative care assessment.

Patients who do not meet these screening criteria should be re-screened at the next visit. In addition, the oncology team should inform patients and their family members about palliative care services. Anticipation of palliative care needs and prevention of symptoms should also be discussed, and conversations regarding advance care planning should be initiated.

Palliative Care Assessment

Patients who meet screening criteria (see above) should undergo a comprehensive palliative care assessment by their primary oncology team evaluating the benefits and burdens of anticancer therapy; physical symptoms; psychosocial or spiritual distress; personal goals, values, and expectations; educational and informational needs; and cultural factors affecting care.[6-8]

Assessment for Benefits and Burdens of Anticancer Therapy

Many cancer symptoms can be relieved by control of the cancer with anti-cancer therapy. Assessment of the benefits and burdens of anticancer therapy for each individual is based on the existing NCCN disease-specific guidelines (the most recent version of all guidelines can be found on the NCCN website at www.NCCN.org). Special attention should be given to the natural history of the specific tumor; the potential for response to further treatment; the meaning of anticancer therapy to the patient and family; the potential for treatment-related toxicities including impairment of vital organs and performance status; and serious comorbid conditions. Specific recommendations regarding anticancer therapy for patients with various life expectancies are discussed in *Palliative Care Interventions*, below.

Assessment of Patient and Family Goals, Values, Expectations, and Priorities

Patients and their families should also be asked about their personal goals, values, expectations, and priorities. Shared decision–making with patient and family is important. A 2015 systematic review of quantitative studies identified the following elements of palliative care that were ranked as most important by patients and their families: effective communication and shared decision–making; expert care; respectful and compassionate care; and trust and confidence in clinicians.[140]

The patients' priorities for palliative care, including goals, the perceived meanings of both anticancer therapy and quality of life, should be assessed. Goals and expectations that might be better met by the hospice model of palliative care should be identified. When appropriate, it is important to determine the patients' understanding of the incurability of their disease and whether patients wish to know survival statistics.

Assessment of Physical Symptoms

The most common symptoms that need to be assessed are pain, dyspnea, anorexia, cachexia, nausea, vomiting, constipation, malignant bowel obstruction, fatigue, weakness, asthenia, insomnia, daytime sedation, and delirium.[146] Palliative interventions for these symptoms are discussed individually below.

Assessment of Psychosocial Distress

Assessment of psychosocial distress should focus on illness-related distress and psychosocial, spiritual, or existential needs according to the NCCN Guidelines for Distress Management. Special problems with social support and resources (ie, home, family, community, or financial issues) must also be assessed. Recommendations for the management of psychosocial distress can be found below and in the NCCN Guidelines for Distress Management.

Assessment of Educational and Informational Needs and Cultural Factors Affecting Care

The values and preferences of patients and families about information and communication should also be assessed. The oncology team should inquire about cultural factors affecting care and perceptions of the patient/family regarding the patient's disease status.[147]

Criteria for Consultation with Palliative Care

Criteria for consultation with a palliative care specialist are based on patient characteristics, social circumstances, and anticipatory bereavement issues. The oncology team should consider consultation for patients with a life-limiting cancer diagnosis or limited anticancer treatment options due to advanced disease process, multiple/severe comorbid conditions, and/or rapidly progressive functional decline or persistently poor performance status. Additional criteria include high symptom burden, especially non-pain symptoms resistant to conventional management; history of multiple allergies or adverse effects; frequent emergency department visits or hospital admissions; need for ICU-level care; need for palliative stenting/gastrostomy; a high distress score (eg, ≥4 on the Distress Thermometer; see the NCCN Guidelines for Distress Management); cognitive impairment; or communication barriers. In addition, consultation with palliative care specialists should be considered for those needing clarification of the goals of care; patient/family or provider dissatisfaction with the care plan; those at high risk for poor pain management; those who make a request for hastened death; and/or those who are resistant to engaging in advance care planning.

Difficult social circumstances or a high risk for complicated grief reactions indicate a need for referral for consultation with a palliative care specialist. These may include family/caregiver limitations, inadequate social support, financial limitations, limited access to care, family discord, intensely dependent relationships, financial limitations, limited access to care, patient's concern regarding care of dependents, spiritual or existential distress, unresolved or multiple prior losses, and/or children younger than18 years of age living in the household.

Palliative care consultation should also be considered when complex care coordination issues exist among multiple care teams, or if staff issues such as compassion fatigue, moral distress, or burnout are present. For more information regarding psychosocial issues affecting care providers, see the section on *Psychosocial Support for Palliative Care Providers*.

Palliative Care Interventions

The oncology team should initiate palliative treatments following the specific recommendations described in these guidelines for common symptoms. Comorbid physical and psychosocial conditions should be treated by appropriate clinicians. Consultation or collaboration with palliative care specialists or teams is recommended for patients with more complex problems to improve their quality of life and survival.[36,41,42,47] Referrals should be made as needed to mental health and social services, pastoral care, health care interpreters, hospice services, or other specialists. Finally, the oncology team can be helpful in mobilizing community support through religious organizations, schools, or community agencies.

The panel divided patients into 3 groups to address the effect of life expectancy on the delivery of palliative care interventions: 1) patients with years to months to live; 2) patients with months to weeks to live; and 3) dying patients in their final weeks to days. Patients in their final hours of life are referred to as *imminently dying* and may require special interventions. The panel recognizes the lack of precision in estimating life expectancy but believes that this delineation will be useful for the delivery of appropriate palliative care interventions. The patient and family's personal, spiritual and existential, cultural, and religious goals, values, and expectations may change throughout these timeframes. Optimal provision of palliative care requires ongoing reassessment and modification of strategies, as well as ongoing communication between the patient, family, and health care team.

Indicators that patients are in their last 6 months of life include decreased performance status (ECOG score ≥3; KPS score ≤50), persistent hypercalcemia, central nervous system metastases, delirium, superior vena cava syndrome, spinal cord compression, cachexia, malignant effusions, liver failure, kidney failure, or other serious comorbid conditions. Many patients with stage IV cancers, especially those with metastatic lung cancer, pancreatic cancer, and glioblastoma multiforme, would benefit from palliative care beginning at diagnosis, because expected survival is limited.[148-150]

For patients whose life expectancy is "years to months" or "months to weeks," it is important to determine how much information a patient wishes to know and how much of that information should be shared with the patient's family. In patients queried regarding preferences about receiving prognostic information and detailed information on their disease, studies show that the majority express a desire to receive this information.[151-154] Patients will also require answers to any questions about what to expect in the next few months and anticipatory guidance on the dying process. In addition, determining the decision-making styles of patients and their families helps facilitate congruence of a patient's goals, values, and expectations with those of the family. Clinicians should also determine the patient's assessment of the relative importance of quality of life compared with length of life. Patients should be assisted in reviewing and revising their life priorities, resolving their unfinished business, and putting their financial and personal affairs in order.

Dying patients may wish to prepare for death and to help prepare family members to go on without them. Both patients and families benefit from education on the dying process. Families should be guided through their anticipatory grief, and arrangements should be made to ensure that the patient's and family's needs and goals regarding the dying process are respected. Planning to ensure continuing care and referrals to appropriate care is important. Arrangements should be available to ensure that the patient does not die alone unless that is the patient's preference.

Clinicians should discuss the prognosis with patients and their families clearly and consistently to help them develop realistic expectations. Assessment and confirmation of understanding of prognosis is important and may guide treatment decisions. Information about the natural history of the specific tumor and the realistic outcomes of anticancer therapy should be included in the discussion. Many investigators have shown that seriously ill middle-aged and older patients tend to be more optimistic and less accurate about their prognosis than their physicians; such misunderstanding of the situation can affect their preferences for cardiopulmonary resuscitation and for life-extending measures.[155] Spiritual, existential, and cultural issues are often best addressed through collaboration with pastoral care counselors, professional translators, the patient's personal clergy, and representatives from the patient's cultural community. Religious and cultural issues surrounding the beliefs and practices near the time of death must be anticipated and carefully managed.[147,156] Finally, social and spiritual support and resource management interventions should be provided to ensure a safe end-of-life care environment, a competent primary caregiver, and access to necessary medications and treatments. Providers must be sensitive to cultural values that may influence the best way for this information to be presented and discussed.

Palliative care interventions for managing specific symptoms and the benefits and burdens of anticancer therapy are discussed below as outlined in the algorithm. Additional palliative care interventions for other symptoms will be developed as deemed necessary.

Anticancer Therapy

A recent IOM report, *Communicating with Patients on Health Care Evidence*, found that 90% of Americans surveyed want to know their options for tests and treatments and to be involved in decision making for their health, with almost 50% wanting to discuss the option of forgoing anticancer therapy and continuing non-chemotherapy palliative care.[157,158] However, the report also found that far fewer respondents had such discussions with their physicians.

Patients who have years to months to live and a good performance status are likely to be interested in continuing anticancer therapy to prolong survival and reduce cancer-related symptoms.[159-162] Anticancer therapy may be conventional evidence-based treatment as outlined in the NCCN disease-specific guidelines (available at www.NCCN.org) or treatment in the context of a clinical trial. In some of the advanced-stage cancers, chemotherapy may be superior to best supportive care and may prolong survival.[163,164] Palliative RT also plays an important role in the management of patients with advanced cancer.[165] Furthermore, patients with advanced cancer who are not eligible for systemic chemotherapy may benefit from molecular targeted therapies that may be effective for relieving symptoms, maintaining stable disease, and improving quality of life without the adverse events that may be associated with cytotoxic cancer therapies.[166,167] Physicians, patients, and their families should discuss prognosis, intent and goals of therapy (palliative or curative), range of choices, benefits and burdens of anticancer therapy, and possible effects on quality of life. In addition, the oncology team should prepare the patient psychologically for possible disease progression.

Anticancer therapy should be in line with stated patient goals and priorities and be accompanied by appropriate prevention/management of side effects as well as palliative care. A recent longitudinal cohort study evaluated the impact of palliative chemotherapy on quality of life near death as a function of patient performance status. In patients with progressive metastatic cancer, palliative chemotherapy failed to improve quality of life near death for those with moderate or poor performance status and worsened quality of life for those with initially good performance status.[168] Anticancer therapy may at times go beyond what is evidence-based. A CanCORS study of 1574 patients with metastatic non-small cell lung cancer suggested that many patients received higher doses and a greater number of palliative radiation treatments than what is supported by current evidence.[169] Additionally, a study of patients with metastatic colorectal cancer revealed that more than 90% of patients consulted with a medical oncologist, and 82% of these patients received chemotherapy.[170]

Patients with months to weeks to live should be provided with guidance regarding the anticipated course of the disease. Physicians should confirm patients' understanding of goals of therapy and preferences regarding prognostic information. These patients are typically tired of therapy, homebound, and more concerned about the side effects of more treatment. The focus of treatment for these patients shifts from prolonging life towards maintaining quality of life. These patients should consider potential discontinuation of anticancer treatment that is not directly addressing a symptom complex and be offered best supportive care, including referral to palliative care or hospice.[167,168,171-173] To avoid demeaning the value of end-of-life care, palliative care and/or hospice care should not be described as "giving up," but instead reframed as "fighting" for better quality of life.

In general, patients with weeks to days to live (ie, dying patients) should discontinue all treatments not directly contributing to patient comfort. Intensive palliative care focusing on symptom management should be provided in addition to preparation for the dying process. Refer to hospice when possible.

Symptom Management

Special considerations in the implementation of these guidelines based on life expectancy are delineated in the algorithm. The major focus of these special considerations is the withholding and withdrawal of aggressive interventions; prevention and elimination of side effects associated with pharmacologic pain management; the acceptance of loss of function for the sake of relief of symptoms; and the treatment of the unique symptoms of patients in their final hours of life.

With regard to symptoms, the management of pain, dyspnea, anorexia/cachexia, nausea and vomiting, constipation, diarrhea, malignant bowel obstruction, fatigue, delirium, and psychological distress is fundamental[174-176] and discussed in detail below. As a general principle, if/when appropriate, providers should try to use palliative interventions that may address multiple symptoms.

Pain

See the NCCN Guidelines for Adult Cancer Pain. In addition, it is important to note that dying patients in their last weeks of life have several specific requirements. For instance, opioid dose should not be reduced solely for decreased blood pressure, respiration rate, or level of consciousness when opioid is necessary for adequate management of dyspnea and pain. In fact, opioids can be titrated aggressively for moderate/severe acute/chronic pain.[177] In addition, palliative sedation can be considered for refractory pain (see below) following consultation with pain management/palliative care specialists. Palliative RT may be used to address pain associated with bone metastases.[178,179]

Dyspnea

Dyspnea is one of the most common symptoms in patients with advanced lung cancer.[180] The American Thoracic Society consensus statement defines dyspnea as "a subjective experience of breathing discomfort that consists of qualitatively distinct sensations that vary in intensity".[181]

Symptom intensity should first be assessed in all patients. In non-communicative patients with weeks to days to live, symptom intensity should be assessed using physical signs of dyspnea. Underlying causes or comorbid conditions should be treated using chemotherapy or radiation therapy; therapeutic procedures for cardiac, pleural, or abdominal fluid[182-184]; bronchoscopic therapy; or bronchodilators, diuretics, steroids, antibiotics, transfusions, or anticoagulants for pulmonary emboli.

Both pharmacologic and non-pharmacologic interventions have been investigated in the management of dyspnea. A review concluded that little definitive data evaluating the effectiveness of dyspnea interventions exist and that randomized controlled trials are needed.[185,186] Other reviews have determined that there are sufficient data to make treatment recommendations.[183,187] Pharmacologic interventions may include opioids with or without benzodiazepines.[183,185,186,188-191] Benzodiazepines can be tried for treatment of dyspnea if it is associated with anxiety; the beneficial effect of benzodiazepines on dyspnea in patients with advanced cancer is small.[185]

Of the opioids, morphine has undergone the most extensive investigation for treating dyspnea in patients with cancer, but recent studies have also looked at opioids such as fentanyl and oxycodone. A single-institution trial of nebulized fentanyl in patients with cancer with dyspnea showed improved oxygenation and reduced tachypnea, and 79% of patients said it improved their breathing.[192] An attempted randomized, placebo-controlled trial at the same institution was not successful, because the practice had already diffused widely with over 1000 doses being prescribed.[193] Multiple case reports give promising data about fentanyl, but further research is needed.[194] In a small randomized controlled trial, prophylactic subcutaneous fentanyl was effective for improving dyspnea and fatigue at rest and following a 6-minute walk test.[195] A study revealed that nebulized fentanyl reduced intensity and unpleasantness of dyspnea in patients with chronic obstructive pulmonary disease (COPD).[196] Nebulized fentanyl has not yet been studied in patients with cancer, but it can be considered in patients who do not respond well to the other interventions in these guidelines. Additionally, an observational study of 136 patients with terminal cancer also suggested that continuous infusion of subcutaneous oxycodone may provide relief of dyspnea in addition to relief of pain.[197] For patients receiving chronic opioids, the panel recommends consideration of a 25% dose increase to manage dyspnea.

Scopolamine, atropine, hyoscyamine, and glycopyrrolate are options to reduce excessive secretions associated with dyspnea.[198-202] Glycopyrrolate does not effectively cross the blood–brain barrier and is less likely than the other drug options to cause delirium, but this agent can produce anticholinergic side effects.[203-205] Scopolamine can be administered subcutaneously or transdermally; physicians should be aware that the onset of benefit for transdermal scopolamine patches is about 12 hours,[206] and they are thus not an appropriate choice for imminently dying patients. A subcutaneous injection of scopolamine can be administered when the patch is applied or if management of secretions is inadequate.

Palliative RT can be considered for patients with SVC syndrome or those who have respiratory obstruction by tumor mass.[165,207]

Non-pharmacologic interventions include the use of handheld fans directed at the face, supplemental oxygen, and time-limited trials of noninvasive mechanical ventilation. A randomized, controlled, crossover trial demonstrated that breathlessness was reduced in patients when they directed a handheld fan toward their faces.[208] Another randomized controlled trial examined the effects of room air versus palliative oxygen delivered via nasal cannula in patients with refractory dyspnea. Dyspnea scores were no different among patients receiving palliative oxygen versus room air, encouraging the use of less burdensome interventions.[209]

High-flow nasal oxygen and noninvasive mechanical ventilation are not available outside of the hospital setting, but may provide temporary improvements in hypoxemia and dyspnea. In a recent feasibility study of 200 patients with solid tumors randomized to receive either noninvasive positive-pressure ventilation (biphasic positive airway pressure, BiPAP) or oxygen therapy, patients in the ventilation group had greater improvements in dyspnea symptoms and required lower doses of opiates than patients in the oxygen group.[210] However, a smaller phase II randomized trial comparing high-flow oxygen to BiPAP for persistent dyspnea in patients with advanced cancer revealed no significant differences between the two approaches.[211]

As life expectancy decreases, the role of mechanical ventilation and oxygen diminishes, and the role of opioids, benzodiazepines, glycopyrrolate, and scopolamine increases. If fluid overload is a contributing factor, enteral and parenteral fluids should be decreased or discontinued, and low-dose diuretics can be considered.

Anorexia/Cachexia

Cachexia is physical wasting with loss of skeletal and visceral muscle mass and is very common among patients with cancer.[212,213] Many patients with cancer lose the desire to eat (anorexia), which contributes to cachexia. Cachexia can also occur independently from anorexia, as proinflammatory cytokines and tumor-derived factors directly lead to muscle proteolysis.[212,213] Cachexia leads to asthenia (weakness), hypoalbuminemia, emaciation, immune system impairment, metabolic dysfunction, and autonomic failure. Cancer-related cachexia has also been associated with failure of anti-cancer treatment, increased treatment toxicity, delayed treatment initiation, early treatment termination, shorter survival, and psychosocial distress.[212-214] A recent study that examined cancer cachexia in a cohort of 1473 patients across all weight ranges showed that muscle depletion conveys a similarly poor prognosis as involuntary weight loss, regardless of body mass index.[215]

Reversible causes of anorexia, such as oropharyngeal candidiasis and depression, should be addressed. Treatment includes the relief of symptoms that interfere with food intake (eg, pain, constipation, nausea/vomiting), as well as metoclopramide for early satiety.[183,187,216]

For patients with months-to-weeks or weeks-to-days life expectancy, consider the use of appetite stimulants (eg, megestrol acetate, dexamethasone, olanzapine) if increased appetite is an important aspect of quality of life.[217-221] A recent systematic review and meta-analysis of megestrol acetate revealed improved appetite and slight improvements in weight gain when using this drug to treat anorexia/cachexia in patients with cancer.[218] While one in four patients treated with megestrol acetate will have an increase in appetite and 1 in 12 will have an increase in weight, clinicians need to know that 1 in 6 will develop thromboembolic phenomena and 1 in 23 will die due to the drug.[218]

A combination therapy approach may yield the best possible outcomes for patients with cancer cachexia. A randomized phase III trial in 332 patients with cancer-related anorexia/cachexia revealed superior outcomes for patients receiving a combination regimen that included medroxyprogesterone, megestrol acetate, eicosapentaenoic acid and L-carnitine supplementation, and thalidomide, versus therapy with any of the above single agents.[222] Another phase III trial of 104 patients with advanced gynecologic cancers and cachexia supported the merits of combination therapy; compared with megestrol acetate alone, patients receiving megestrol acetate plus L-carnitine, celecoxib, and antioxidants had improved lean body mass, appetite, and quality of life.[223]

Although cannabinoid-based interventions (eg, dronabinol, cannabis) have some demonstrated efficacy for treating chemotherapy-induced nausea and vomiting and AIDS-related anorexia, the data to support cannabinoid-based interventions for treating anorexia/cachexia in patients with cancer are very limited, in part due to legal constraints within this field of research.[224] A randomized clinical trial of cannabis extract and delta-9-tetrahydrocannabinol in patients with cancer-related anorexia-cachexia syndrome did not demonstrate a benefit of these agents over placebo on appetite and quality of life.[225] Another randomized trial comparing megestrol acetate to dronabinol in treating cancer-associated anorexia revealed megestrol acetate to be superior for promoting weight gain (75% vs. 49% of patients) and appetite (11% vs. 3%) in patients with advanced cancer.[226] However, to a lesser extent, dronabinol did improve appetite and weight gain in some study patients. Ultimately, for some patients with cancer-related anorexia, cannabinoids could be helpful. However, it is important to note that cannabinoid administration in elderly patients may induce delirium, and providers should be aware of the local state rules and regulations regarding medicinal cannabinoid use.

Nutrition consultation should also be considered, because calorie-dense, high-protein supplementation has demonstrated some efficacy for weight stabilization,[183,212,227-229] although some studies show nutritional interventions to be ineffective.[230] A meta-analysis found that while nutritional intervention does not significantly affect weight gain or energy intake, it can improve some aspects of quality of life, including emotional functioning, dyspnea, and hunger.[231] Nutritional support, including enteral and parenteral feeding as appropriate, should also be considered when the disease or treatment affects the ability to eat and/or absorb nutrients and the patient's life expectancy is months to years.[232] The goals and intensity of nutritional support change as life expectancy is reduced to weeks to days. Overly aggressive enteral or parenteral nutrition therapies can actually increase the suffering of dying patients.[232-235] In addition, a recent randomized controlled trial of patients with cancer enrolled in hospice found that parenteral hydration had no effect on dehydration symptoms such as fatigue and hallucination and had no effect on quality of life or survival.[236] Therefore, instead of artificial hydration and nutrition, palliative care in the final weeks of life focuses on treating dry mouth and thirst, and providing education and support to the patient and family regarding the emotional aspects of withdrawal of nutritional support. Family members should be informed of alternate ways to care for dying patients.

Nausea and Vomiting

Chemotherapy-induced nausea and vomiting has a major impact on a patient's quality of life.[237] Nausea and vomiting induced by chemotherapy or radiation therapy should be managed as outlined in the NCCN Guidelines for Antiemesis. Patients can also experience nausea and vomiting unrelated to chemotherapy and radiation, resulting from gastric outlet obstruction, bowel obstruction, constipation, opioid use, or hypercalcemia.[238] These causes should be identified and treated. Consider palliative RT for nausea and vomiting related to brain metastases.[165,239,240] Proton pump inhibitors and histamine-2 (H2) receptor antagonists can be used to manage gastritis or gastroesophageal reflux. Gastric outlet obstruction may benefit from treatment with corticosteroids; alternative treatment options include endoscopic stenting or insertion of a decompressing G-tube. Many medications can also cause nausea and vomiting, and blood levels of possible culprits, such as digoxin, phenytoin, carbamazepine, and tricyclic antidepressants, should be checked.[241,242]

Non-specific nausea and vomiting are often managed with dopamine– or 5-HT3 (5-hydroxytryptamine 3)–receptor antagonists (eg, prochlorperazine, haloperidol, metoclopramide, olanzapine). However, experts have debated the quality and strength of the evidence to support specific agents in the management of nonspecific nausea and vomiting in palliative care.[243,244] A systematic review assessed the level of evidence for antiemesis unrelated to chemotherapy, concluding that antiemetic recommendations have moderate to weak evidence at best; the strongest evidence supported the use of metoclopramide.[244] For anxiety-related nausea, the addition of benzodiazepines can be considered. If a vertiginous component to the nausea and vomiting exists, anticholinergic/antihistamine agents may be appropriate.

Titrate dopamine receptor antagonists to maximum benefit and tolerance.[245-249] In the setting of continued nausea and vomiting, consider additional drug classes with potential antiemetic properties: corticosteroids,[250,251] 5-HT3 receptor antagonists,[252-254] anticholinergic agents and/or antihistamines,[251] or oral cannabinoids.[255] Agents that target the cannabinoid system may offer some efficacy in treating refractory chemotherapy-induced nausea and vomiting.[256] Dronabinol and nabilone are two cannabinoid agents approved for treating chemotherapy-induced nausea and vomiting that is refractory to standard antiemetic therapies. Alternative therapies (eg, acupuncture, hypnosis, cognitive behavioral therapy) can also be considered.[257-259] Palliative sedation (see below) can be considered as a last resort if intensified efforts by specialized palliative care or hospice services fail.

For persistent nausea and vomiting, consider the appropriate route of administration. First, prescribe oral agent and titrate to maximum benefit and consider opioid rotation.[260] If nausea and vomiting is persistent, provide IV administration as needed. For continued persistent symptoms, provide scheduled IV administration or continuous infusion of antiemetics. An around-the-clock dosing schedule may provide the most consistent benefit to the patient. Continuous intravenous or subcutaneous infusions of different antiemetics may be necessary for the management of intractable NV.

Constipation

Constipation occurs in approximately 50% of patients with advanced cancer and most patients treated with opioids.[261] Although several drugs including antacids, anticholinergic drugs (antidepressants, antispasmodics, phenothiazines, and haloperidol), and antiemetics are known to cause constipation,[262] opioid analgesics are most commonly associated with constipation. Providers should discontinue any nonessential constipating medications. In addition to physical discomfort, constipation in patients with advanced cancer can cause psychological distress and anxiety regarding continued opioid use.[263] Opioid-induced constipation (OIC) should be anticipated and treated prophylactically with a stimulating laxative to increase bowel motility with or without stool softeners.[264] While there is little evidence on which is the best initial bowel regimen in patients with cancer[265] one small study compared the use of senna alone versus a senna-docusate combination. The results demonstrated that the addition of the stool softener docusate was not necessary.[266] Increasing intake of fluid and physical activity should also be encouraged, when appropriate. Added dietary fiber may be considered for patients with adequate fluid intake.

If constipation is present, the cause and severity must be assessed. Impaction, obstruction, and other treatable causes, such as hypercalcemia, hypokalemia, hypothyroidism, and diabetes mellitus, should be assessed and treated. Constipation may also be treated by adding bisacodyl 10 to 15 mg, 2 to 3 times daily with a goal of 1 non-forced bowel movement every 1 to 2 days. If impaction is observed, glycerine suppositories (with or without mineral oil retention enema) may be administered or manual disimpaction may be performed. Use suppository and enema with caution in patients receiving chemotherapy due to risk of cytopenia.

If constipation persists, adding other laxatives may be considered, such as rectal bisacodyl once daily or oral polyethylene glycol, lactulose, magnesium hydroxide, or magnesium citrate.[265] If gastroparesis is suspected, the addition of a prokinetic agent, such as metoclopramide, may be considered.

Peripherally acting µ-opioid receptor antagonists may help to relieve OIC while maintaining pain management. Recent studies have shown that methylnaltrexone provided effective relief of OIC while preserving opioid-mediated analgesia.[267,268] Naloxegol, a similar peripherally acting µ-opioid receptor antagonist, has also been studied for treating OIC in patients receiving chronic opioids for noncancer pain.[269,270] Gastrointestinal specialists have reported some success using erythromycin for constipation symptoms that do not respond to peripherally-acting µ-opioid receptor antagonists such as methylnaltrexone.

Several newer agents have also been examined for treating constipation. Lubiprostone is an orally active prostaglandin analog that activates select chloride channels to enhance intestinal fluid secretion.[271,272] This agent was shown to be effective for treating OIC in patients with chronic noncancer pain. Lubiprostone could be used in combination with a peripherally acting µ-opioid receptor antagonist such as methylnaltrexone. Linaclotide is a selective agonist of guanylate cyclase-C receptors in the intestines to enhance intestinal secretions, and has been effective in the treatment of constipation associated with irritable bowel syndrome and chronic idiopathic constipation.[273,274] The American Gastroenterological Association includes lubiprostone and linaclotide as recommended options for treating constipation associated with irritable bowel disorder.[275]

Based on these results, the NCCN Palliative Care Panel recommends considering 0.15 mg per kilogram of body weight of methylnaltrexone every other day (no more than once a day) for patients experiencing constipation that has not responded to standard laxative therapy. Methylnaltrexone should not be used in patients with a postoperative ileus or mechanical bowel obstruction.

Diarrhea

In patients with cancer, diarrhea can be caused by a number of potential factors, including anticancer treatment-related side effects, infection, antibiotic use, dietary changes, or fecal impaction.[276] Diarrhea is a common side effect of various chemotherapeutics (eg, fluorouracil and irinotecan), as well tyrosine kinase inhibitors and certain biologic agents (eg, ipilimumab, cetuximab, panitumumab).[277-280] Abdominal and pelvic radiation therapy (alone or as part of chemoradiation regimens) can also induce gastrointestinal toxicity resulting in diarrhea.[278,279]

The National Cancer Institute Common Toxicity Criteria are typically used for measuring diarrhea in this patient population.[276] The panel recommends that patients be screened to determine the grade of diarrhea. Providers should provide immediate intervention for dehydration based on grade and assess for potential cause(s).

For patients with years, years to months, or months to weeks of estimated life expectancy who have grade 1 or 2 diarrhea, recommendations include hydration and electrolyte replacement (oral or IV fluids as appropriate), antidiarrheal medications, and a bland/BRAT (Bread, Rice, Applesauce, Toast) or clear liquid diet. If chemotherapy-related, decrease dose or discontinue therapy. For treating grade 2 diarrhea, anticholinergic agents such as hyoscyamine or atropine can be considered. Infection-induced diarrhea should be treated with the appropriate antibiotic. Immunotherapy-related diarrhea can be treated with corticosteroids, infliximab, and/or probiotics. Patients with grade 3 or 4 diarrhea should receive inpatient treatment (intensive care for Grade 4 diarrhea if consistent with patient goals). In addition to fluid replacement, antidiarrheal therapy, and anticholinergics, octreotide can also be considered. For graft-versus-host disease (GVHD) diarrhea, consider limiting diet, administering steroids, and IV nutrition. In the home setting, subcutaneous hydration can be considered.

For patients with weeks to days of estimated life expectancy, the above interventions can be considered as consistent with the goals of care. At-home IV hydration may be considered in addition to scopolamine or hyoscyamine. If diarrhea persists, consider octreotide or glycopyrrolate. Patients should begin around-the-clock opioids or receive an increased dose of ongoing opioid regimens.

Malignant Bowel Obstruction

Malignant bowel obstructions are usually diagnosed clinically and confirmed with radiography. For patients with years to months to live, surgery following CT scan is the primary treatment option. While surgery can lead to improvements in quality of life, surgical risks should be discussed with patients and families, including risk of mortality, morbidity, and re-obstruction.[281] Also take into account prognosis and relative invasiveness of the intervention proposed. Although surgery is the primary treatment for malignant obstruction, some patients with advanced disease or patients in generally poor condition are unfit for surgery and require alternative management to relieve distressing symptoms. Risk factors for poor surgical outcome include ascites, carcinomatosis, palpable intra-abdominal masses, multiple bowel obstructions, previous abdominal radiation, advanced disease, and poor overall clinical status.[282] In these patients, medical management can include pharmacologic measures, parenteral fluids, endoscopic management, and enteral tube drainage (silicone tubing may offer superior comfort over vinyl).

Pharmacologic management of malignant bowel obstruction can be separated into two groups of patients: those for whom the goal is to maintain gut function and those for whom gut function is no longer possible. When the goal is maintaining gut function, patients can be treated with opioids, antiemetics, and corticosteroids, alone or in combination. When gut function is no longer considered possible, pharmacologic options also include somatostatin analogs (eg, octreotide) and/or anticholinergics.[283-288] If octreotide is helpful and the patient has a life expectancy of at least 1 month, it may be beneficial to consider a depot form of octreotide once an optimal dose is established. Antiemetics that increase gastrointestinal mobility such as metoclopramide should not be used in patients with complete obstruction, but may be beneficial when obstruction is partial. Use of octreotide is recommended early in the diagnosis because of its efficacy and tolerability.[289,290] Despite positive findings from several smaller randomized trials, a recent phase III trial of octreotide in 86 patients with malignant bowel obstruction failed to demonstrate a significant effect of this drug on days free of vomiting, number of vomiting episodes, symptom management, and other secondary endpoints.[291]

A venting gastrostomy tube (inserted by interventional radiology, endoscopy, or surgery) or an endoscopically placed stent can also palliate symptoms of malignant bowel obstruction.[292,293] Total parenteral nutrition can be considered to improve quality of life in patients with a life expectancy of years to months. These interventions have been shown to have little positive impact on survival time, but may improve quality of life.[148,149]

Fatigue/Weakness/Asthenia

The data on methylphenidate for treating cancer-related fatigue have been mixed.[294] While some trials have suggested a dose-dependent benefit of this agent on fatigue symptoms,[295,296] other studies have failed to produce positive results.[297] Phase III randomized trials of modafinil for treating cancer-related fatigue suggested that modafinil had a modest efficacy and was most effective for those with severe fatigue.[298,299] For more information, see the NCCN Guidelines for Cancer-Related Fatigue.

Sleep/Wake Disturbances

Patients with cancer often suffer from insomnia or daytime sedation.[300-302] In a recent study of 442 patients with advanced cancer, 330 (75%) patients were assessed as having baseline sleep disturbance as assessed by the Edmonton Symptom Assessment System (ESAS) sleep item.[303] Patients should first be evaluated for sleep/wake disturbances using, for example, the Epworth Sleepiness Scale.[304] If patients have a history of sleep-disordered breathing (eg, excessive snoring, gasping for air, observed apneas, frequent arousals, sudden involuntary movement of arm or legs during sleep, unexplained daytime drowsiness), polysomnography should be considered. Polysomnography should also be considered for patients with head and neck cancers, because obstructive sleep apnea (OSA) is prevalent in patients with this disease.[305,306] Primary sleep disorders, such as OSA and periodic limb movement disorder, should be treated with continuous positive airway pressure (CPAP) or BiPAP.[307] Restless leg syndrome, if present, can be treated with ropinirole, pramipexole with pregabalin, or carbidopa-levodopa.[308-316] Fears and anxiety regarding death and disease should be explored, and other contributing factors to sleep/wake disturbances should be treated, including pain, depression, anxiety, delirium, and nausea. Cognitive behavioral therapy may be effective in treating sleep/wake disturbances in patients with cancer.[187,317-321]

For refractory insomnia, pharmacologic management includes the short-acting benzodiazepine lorazepam; the non-benzodiazepine zolpidem; antipsychotic medications such as chlorpromazine, quetiapine, and olanzapine; and sedating antidepressants such as trazodone and mirtazapine.[322] The panel suggests that mirtazapine may be especially effective in patients with depression and anorexia. Benzodiazepines should be avoided in older patients and in patients with cognitive impairment, because they have been shown to cause decreased cognitive performance.[323] Caution should be exercised when administering zolpidem due to the known risk of next-morning impairment. In 2013, the U.S. Food and Drug Administration (FDA) required lower recommended doses of zolpidem (ie, from 10 mg to 5 mg for immediate-release products and from 12.5 mg to 6.25 mg for extended-release formulations).[324]

For refractory daytime sedation, the guidelines suggest several options. The central nervous system stimulants methylphenidate or dextroamphetamine should be given with a starting dose of 2.5 to 5 mg orally (PO) with breakfast. If the effect of the drug does not last through lunch, a second dose can be given at lunch, preferably no later than 2:00 PM. Doses can be escalated as needed.[325] Another option for refractory daytime sedation is the psychostimulant modafinil, which has been approved in adults for excessive sleepiness associated with OSA/hypopnea syndrome (OSAHS), shift work sleep disorder, and narcolepsy.[326] The panel also recommends caffeine and dextroamphetamine as additional options for refractory daytime sedation. The last dose of caffeine should be given no later than 4:00 PM.

Dying patients should be assessed for their desire to have their insomnia or sedation treated. The doses of their pharmacologic therapies can be adjusted as appropriate. The addition of an anti-psychotic drug (chlorpromazine or quetiapine) can be considered in patients whose insomnia is refractory.

Please also see the NCCN Guidelines for Adult Cancer Pain and the NCCN Guidelines for Cancer-Related Fatigue for their discussions on sleep/wake disturbances.

Delirium

Delirium should be assessed using the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria.[327] Reversible causes should be identified and treated appropriately.[328] Delirium may present as either a hypoactive or a hyperactive subtype.[329] Recent studies have suggested that hypoactive delirium was the most prevalent subtype in palliative care patients and that this condition is often underdiagnosed due to its presentation.[330,331]

Two comprehensive reviews describe the evidence base for recommended pharmacologic and non-pharmacologic treatments for delirium in patients with cancer.[187,332] Non-pharmacologic interventions (eg, reorientation, cognitive stimulation, sleep hygiene) should be maximized before pharmacologic interventions are used. Delirium-inducing medications (ie, steroids, anticholinergics) should be reduced or eliminated as much as possible.[333] Benzodiazepines should not be used as initial treatment for delirium in patients not already taking them.

The symptoms of moderate delirium can be managed with oral haloperidol, risperidone, olanzapine, or quetiapine fumarate.[334-336] The symptoms of severe delirium (ie, agitation) should be managed with antipsychotic, neuroleptic drugs such as haloperidol, olanzapine, or chlorpromazine.[337] Because of its hypotensive side effect, intravenous chlorpromazine should only be used in bed-bound patients. A benzodiazepine, such as lorazepam, may be added for agitation that is refractory to high doses of neuroleptics.[338] The presence of therapeutic levels of neuroleptics usually prevents the paradoxical excitation sometimes seen when delirious patients are given lorazepam. The dosages of these symptom-management medications should be titrated to optimal relief. Opioid dose reduction or rotation can also be considered for patients with severe delirium. RT can be considered for patients with delirium due to brain metastases, however there are currently no data demonstrating improvement, and palliative efforts should be intensified with the awareness that delirium is a marker for “days not weeks” prognosis.[339-341] Caregivers should be supported in caring for their loved one and coping with this distressing condition.

Delirium in patients with advanced cancer and limited life expectancy and/or shortened prognosis.[339-342] In these patients, iatrogenic causes should be eliminated whenever possible. Opioid rotation can be considered (see NCCN Guidelines for Adult Cancer Pain) if the delirium is believed to be caused by neurotoxicity of the current opioid. If delirium is a result of disease progression, palliative care must be focused on symptom management and family support. Neuroleptic and benzodiazepine medications should have their dose increased and/or their route of administration changed to ensure adequate delirium symptom management.[343] Unnecessary medications and tubes should be removed. For refractory delirium in dying patients, palliative sedation can be considered following consultation with a palliative care specialist and/or psychiatrist (see below).

Please also see the NCCN Guidelines for Distress Management for further discussion of delirium in patients with cancer.

Psychosocial Distress – Social Support/Resource Management

For distress related to psychological or psychiatric complications and spiritual or existential crisis, please see the NCCN Guidelines for Distress Management.

For best outcomes, psychosocial care should be integrated into routine cancer care across all disease stages and in both the inpatient and outpatient settings.[32,344] A recent systematic review of patients with advanced cancer identified psychosocial resources among the factors that promoted personal growth during the experience of cancer.[345]

For patients with estimated life expectancy ranging from years to months experiencing psychosocial distress, social support/resource management should be offered. Assess prognostic awareness and discuss on an ongoing basis with patient, family, and caregivers. Patients should be cared for in a safe environment with available caregivers. In addition, it is important to ensure that the patient has adequate financial resources and refers to social services (social worker, psychologist, and/or psychiatrist) as needed. Support and education should be provided to the caregivers and family members.[346-348] Personal, spiritual, or cultural issues related to the patient's illness and prognosis should be discussed.[349] Bereavement risk should be assessed. If language is a barrier, a professional health care interpreter, who is not related to the patient or family, should be available for patients, caregivers, and families as needed.

In a dying patient with an estimated life expectancy of weeks to days, the patient's desires for comfort should be evaluated and supported. The process of dying and the expected events should be explained to the patient, caregivers, and family members. Bereavement risk should be reassessed. Patients and family members should be provided with emotional support to address any intra-family conflict regarding palliative care interventions. Eligibility and readiness for specialized palliative/hospice care should be determined.

Palliative Care Reassessment

The outcome measures for these guidelines are much more difficult to define than those for NCCN disease-specific guidelines. The panel reviewed end-of-life care outcomes from several surveys of North American citizens.[103,350-352] The panel chose a modified version of Singer's outcomes until more precise outcome measures are available. Acceptable palliative care should provide the following: 1) adequate pain and symptom management; 2) reduction of patient and family distress; 3) acceptable sense of control; 4) relief of caregiver burden; 5) strengthened relationships; and 6) optimized quality of life, personal growth, and enhanced meaning. The panel added "having an advance care plan in progress" as part of the criteria for acceptable outcome. Research is ongoing regarding better ways to measure "dying well."[353]

All patients should be reassessed regularly, and effective communication and information sharing must exist between the patient, caregivers, and health care providers. Patients and family members benefit most from ongoing discussions about the natural history of the disease and prognosis in clear, consistent language. If the interventions are unacceptable upon reassessment, the oncology or palliative care team should intensify palliative care and reassess the patient and family situation. The oncology team should also consult specialized palliative care services, hospice, or an ethics committee. Referral to a psychiatrist or psychologist to evaluate and treat undiagnosed psychiatric disorders, substance abuse, and inadequate coping mechanisms should be considered. If psychosocial distress persists, palliative care options should be intensified, and the patients should be managed according to the NCCN Guidelines for Distress Management.

Patients' treatment goals and expectations may change and evolve as disease progresses. Reassessment should be ongoing, with continuation or modification of life-expectancy–guided palliative care until the patient's death or survivorship.

End-of-Life Care Issues

Preparing Patients and Families for End-of-Life and Transition to Hospice Care

For patients with an estimated life expectancy of years or years to months, providers should engage in clear, consistent discussion with the patient and family about prognosis and anticipated care needs on an ongoing basis. Facilitate advance care planning and assess decision-making capacity and need for a surrogate decision maker. Elicit values and preferences with respect to quality of life and determine need for specialized palliative care or eligibility and readiness for hospice care. When the patient's functional status indicates 6-12 months prognosis, a dedicated "hospice information" visit with the oncologist may ease the transition to hospice care for the patient and family and ensure that the oncologist remains involved.

Patients with an estimated life expectancy of months to weeks or weeks to days should be referred to hospice agencies. Assess patient/family understanding of the dying process and provide education as needed. Providers should address potential need for transitions in care while ensuring continued involvement of the primary care physician and primary oncology team. Patients should receive information and additional referrals, as necessary, for psychosocial assessment, legacy work, grief counselling, spiritual support, and funeral/memorial service planning.

Respect goals and needs of the patient and family regarding the dying process and promote that patient does not die alone unless this is an established preference of patient.

Advance Care Planning

The oncology team should initiate discussions of personal values and preferences for end-of-life care while patients have a life expectancy of years to months. Recent studies have shown that these discussions frequently happen too late in the trajectory of disease, often during acute hospital care and often with health professionals other than the primary oncologist.[354-356] Further, earlier end-of-life care discussions have been associated with less aggressive care and increased use of hospice,[357,358] while less aggressive care has been associated with an improved quality of life.[359] Studies suggest that most patients with cancer would prefer to die at home,[360,361] but lack of timely advance care planning can render this impossible.

ASCO has developed a booklet to help patients and their families understand and discuss the cancer diagnosis and treatment options (http://www.cancer.net/coping/advanced-cancer-care-planning). A recent randomized controlled trial found that a video decision support tool increased the likelihood that patients would choose to forgo resuscitation.[362] A randomized controlled trial of a structured intervention to facilitate end-of-life discussions (consisting of an information pamphlet and provider discussion) led to earlier designation of do-not-resuscitate orders and decreased the likelihood of patients dying in the hospital.[363] In addition, a recent study showed that electronic prompts and email reminders to doctors could increase rates of documentation of code status in patients with advanced lung cancer.[364] A 2015 systematic review summarizes the evidence base from randomized trials of interventions designed to promote shared decision making and advance care planning in patients with serious illness.[365]

Advance care planning should include an open discussion about palliative care options, such as hospice; personal values and preferences for end-of-life care; the congruence between the patient's wishes/expectations and those of the family/health care team; and information about advance directives. It may be helpful to determine the patient and family's prior experience(s) with end-of-life care. Patients should be asked if they have completed any advance care planning such as living wills, powers of attorney, or delineation of specific limitations regarding life-sustaining treatments including cardiopulmonary resuscitation, mechanical ventilation, and artificial nutrition/hydration. The patient's values and preferences and any decisions should be documented in the medical record, including MOLST or POLST (Medical Orders for Life-Sustaining Treatment or Physician Orders for Life-Sustaining Treatment) if completed.[366]

When the patient's life expectancy is reduced to months to weeks, the oncology team should actively facilitate completion of appropriate advance directives and ensure their availability in all care settings. MOLST/POLST should be documented and accessible to all providers across care settings. The team should also confirm the patient's values and decisions in light of changes in status. Palliative care consultation can be considered to assist in conflict resolution when the patient, family, and/or medical professional team do not agree on the benefit/efficacy of interventions.

The patient's preferred location for receiving end-of-life care should be determined. Most patients with cancer would prefer to spend one's remaining time at home,[360,361] but sometimes their care needs or support system at home cannot support their care. Some patients request to receive end-of-life care in a skilled nursing facility or an in-patient hospice facility.[361,367] A prospective study showed that patients dying in an ICU had higher levels of physical and emotional distress compared with patients dying at home or in hospice. Additionally, caregivers of these patients had a greater incidence of prolonged grief disorder.[368] Providing palliative care services has been shown to decrease deaths in ICUs.[367] A recent retrospective cohort study showed that patients who wanted to be at home at the end of life were more likely to do so if they had daily hospice visits, if they were married, if they had advance directives, if they did not have moderate or severe pain, or if they had good performance status.[361] A second retrospective study suggested that referral to specialist palliative care at a greater interval of time prior to death increased the likelihood of patients dying at home or in hospice rather than in the hospital.[369] If advance care plans have not been completed, the oncology team should explore the patient's reluctance to engage in advance care planning and refer to palliative care if needed.

In patients with a life expectancy of only weeks to days, the patient's decision regarding cardiopulmonary resuscitation and other life-sustaining treatments must be clarified and confirmed. Providers should facilitate continued involvement of the primary care physician and primary oncology team. The desire for organ donation and/or autopsy must also be explored with the patient. Overall, the oncology team must implement and ensure compliance with the patient's advance care plan.

Requests for Hastened Death

Special palliative care interventions include responses to requests for hastened death (ie, physician-assisted dying). The most appropriate initial response to a request for hastened death is to intensify palliative care. All such patients should be referred to a palliative care specialist. A request for hastened death often has important meanings that require exploration. Open exploration of the patient's request for hastened death may identify unmet needs and new palliative care interventions that may be helpful. Concerns related to the withdrawal of life-sustaining treatment, voluntary cessation of eating and drinking, and/or sedation should be discussed with patients and families. Psychiatric consultation to evaluate and treat reversible causes of psychological suffering should be requested. Patients should be assured that their health care team is committed to providing continuing care. Although physician-assisted suicide, under specified conditions, is legal in the states of California, Oregon, Montana, Vermont, and Washington, euthanasia is not legal in any of the United States.[370-374] It is important for physicians to know the local legal status of physician-assisted suicide, as other states have pending legislation regarding either prohibiting or permitting physician-assisted suicide. Several organizations have released position statements and/or helpful websites on the issue of physician aid-in-dying (see Table 1).

Care of the Imminently Dying Hospitalized Patient

An imminently dying patient is defined as one within hours of death who is not stable enough for transport.[375] Caring for an imminently dying patient is intense for the patient, family, and health care team. A recent international qualitative study described many of the common non-pharmacologic palliative care activities provided in the last days of life.[376] An end-of-life care order set that includes physical, practical, and psychosocial interventions may be beneficial for practitioners to use for imminently dying patients. If not already done, obtaining a hospice evaluation may also be helpful.

The physical aspects of care for an imminently dying patient focus on adequate symptom management and comfort, keeping in mind the patient's wishes and values. Approaches may include intensifying ongoing care; adjusting medication doses for optimal comfort; discontinuing unnecessary interventions (eg, diagnostic tests, transfusions, artificial nutrition, hydration, dialysis, needle sticks); ensuring access to symptom-relief medication through alternate routes if oral administration is difficult; improving physical comfort by providing a pressure-relieving mattress and regular repositioning; eye and mouth care to maintain moisture; treating urinary retention and fecal impaction; managing terminal restlessness and agitation with palliative sedation; reducing death rattle/terminal secretion (eg, repositioning patient; reducing parenteral and enteral fluids; adding medications such as scopolamine, hyoscyamine, atropine, or glycopyrrolate)[202,377]; and preparing for patient and family requests for autopsy and/or organ donation. Physicians may also wish to consider deactivating implanted pacemakers in select patients.[378]

The psychosocial aspects of care for an imminently dying patient take into account individual and family goals, preferences, cultures, and religious beliefs. Open communication should occur between the patient, family, and care team regarding the physical and psychological aspects of the dying process and the importance of honoring any advance directives. The care plan may also include consultation with social workers or chaplains to meet social and spiritual needs; counseling to promote healthy grieving; support for children/grandchildren and education for parents on age-appropriate grieving processes. Patients who are actively dying in their final hours of life should be allowed to spend uninterrupted time with family, if they wish to do so.

The practical aspects of care for an imminently dying patient in the hospital include: mobilizing in-hospital end-of-life care policy and procedures; ensuring that the patient's advance directive is documented and implemented and a do-not-attempt-resuscitation (DNAR) or allow natural death (AND) order is written and followed; securing a private room for the patient; and enabling family presence around-the-clock. Discuss and document patient/family wishes for resuscitation. In the event that CPR is unlikely to be effective, recommend other options such as AND or promoting comfort care. If the patient and family have not documented a DNAR order, patient/family education and counseling should be intensified to try to help them accept this level of care to prevent harm to the patient from futile attempts at cardiopulmonary resuscitation. Providers should be aware that policies regarding resuscitation may differ based on treatment setting. A patient with a documented inpatient DNAR order may also require DNAR orders for out-of-hospital settings (eg, residential care, ambulance transport). In states where the MOLST/POLST is honored across all treatment settings, it will protect the patient.

Palliative Sedation

Palliative sedation may be considered for imminently dying patients (life expectancy of hours to days) with refractory symptoms that persist despite comprehensive, interdisciplinary palliative care. If palliative sedation is being considered, a prognosis of imminent death should be confirmed. Informed consent must be obtained from the patient and/or a surrogate or family member following discussions of the patient's disease status, treatment goals, prognosis, and expected outcomes. Consent for palliative sedation must be accompanied by consent for discontinuation of life-prolonging therapies (such as artificial hydration/nutrition) and withholding of cardiopulmonary resuscitation, as these therapies would only serve to increase suffering in this case.

Palliative sedation has its ethical justification in the Doctrine of Double Effect,[379-384] which provides guidance in situations where an attempt to do good also produces harm (eg, providing medication for the relief of suffering that also causes respiratory depression). Several studies have investigated whether palliative sedation shortens survival. Results obtained from systematic reviews did not reveal a clear impact of palliative sedation on survival time, although many of the included studies lacked high-quality data.[385,386] A large prospective study in 2426 patients with advanced cancer provided additional evidence that continuous deep sedation provided by palliative care specialists did not significantly shorten survival time.[387] Prior to initiating palliative sedation, an ethics consult should be considered in accordance with institutional guidelines and state regulations.

Palliative sedation is best performed by palliative care experts.[388] The most common sedatives used for palliative sedation are midazolam and propofol by parenteral infusions.[382] Recent studies suggested that palliative sedation may also be feasible in the home setting and could be utilized in patients who wish to die at home.[389,390]

A Peaceful Death

These NCCN Guidelines are the first to include death as an expected outcome and after-death care for the family as an essential part of the continuum of cancer care. Many studies have attempted to define a "good death" or a "peaceful death" from the perspective of clinicians, patients, and families.[391-394] Interestingly, one study found that patients, families, and physicians had very similar ideas of what constitutes a peaceful death: freedom from pain, being at spiritual peace, and being with family ranking among the top three considerations by all three groups.[394] End-of-life care should be flexible enough to ensure that the death is viewed as a peaceful death by those involved.[394] The definition of a "peaceful death" used by the NCCN Palliative Care Panel is "one that is free from avoidable distress and suffering for patients, families, and caregivers; in general accord with patient's and family's wishes; and consistent with clinical, cultural, and ethical standards."[395]

Final results of the prospective, longitudinal cohort Coping With Cancer study of 396 patients with advanced cancer and their caregivers were recently reported. The study found a higher quality of life in the last weeks of life in patients who avoided visits to the ICU and feeding tubes, did not die in the hospital, worried less, prayed or meditated, were visited by a pastor in the hospital or clinic, and felt a strong therapeutic alliance with their physicians.[359]

After-Death Care Interventions

Comprehensive palliative care for the patient's family and caregivers continues after the patient's death. Immediate issues include informing the family (if not present), offering condolences, and providing family time with the body. Chaplain involvement to assess family's desire for religious ritual or spiritual support may be helpful. Additional concerns include ensuring culturally sensitive and respectful treatment of the body, including removal of tubes, drains, lines, and the Foley catheter (unless an autopsy is planned); addressing concerns about organ donation or autopsy; facilitating funeral arrangements through completion of necessary paperwork; and informing insurance companies and other health care professionals of the patient's death.

Bereavement support should be offered, beginning with a personal visit or telephone call from the patient's primary oncology team, followed by a condolence letter. Family members at risk for complicated grief should be identified and offered support and treatment.[396-398] Children of patients with cancer represent a uniquely at-risk population for psychosocial dysfunction. Additionally, a recent study suggested that certain predictors of prolonged grief could be identified in family caregivers at the time of the patient's entry to palliative care; these factors include severity of pre-death symptoms; condition of the caregiver's relationship to the patient; impact of caregiving duties on the caregiver's schedule; quality of family functioning; and level of optimism, especially if low.[399]

Bereavement care is often best provided by an experienced hospice team or a skilled mental health care professional. The family may request a debriefing meeting from the medical team and may require assistance in identifying community bereavement resources. A well-supported end-of-life care experience will facilitate the family's acceptance of appropriate referrals for cancer risk assessment and risk modification. If not already recommended, providers should direct family members towards genetic screening, especially if the deceased patient was positive for known genetic markers that confer risk. For more information, see the NCCN Guidelines for Genetic/Familial High-Risk Assessment: Breast and Ovarian and Genetic/Familial High-Risk Assessment: Colorectal.

Putting Palliative Care Guidelines into Practice

Institutions should develop processes for integrating palliative care into cancer care, both as part of usual oncology care and for patients with specialty palliative care needs. Many approaches to this have been described, but there is no single best practice.[23-31,400]

Patients and families should be informed that palliative care is an integral part of their comprehensive cancer care. Educational programs should be provided to all health care professionals and trainees so that they can develop effective palliative care knowledge, skills, and attitudes. Skilled palliative care specialists and interdisciplinary palliative care teams, including board-certified palliative care physicians, advanced practice nurses, and physician assistants, should be readily available to provide consultative or direct care to patients and families who request or require the expertise. Finally, the quality of palliative care should be monitored by institutional quality improvement programs.

The experiences of patients with cancer begin with the diagnosis, and many palliative care questions should be considered early in the comprehensive cancer care plan. As the cancer progresses and the value of further anticancer therapy diminishes, palliative measures should be intensified. Clear and consistent discussion of goals, values, preferences, prognostic information, and therapeutic options can help patients, families, and providers make appropriate decisions in a shared manner.

Undergoing anticancer therapy should not preclude addressing end-of-life issues. Collaborating with palliative care experts on such matters extends oncologists' therapeutic repertoire and diminishes the stress of caring for patients who have incurable disease. Increasing emphasis on palliative care in oncology should improve patient outcomes and provide new avenues for clinical research and professional satisfaction. Timely introduction of members of the institutional or community palliative care team allows patients to meet the individuals who will help them and their families through their experience. Because the diagnosis of cancer and impending death is such a frightening experience, oncologists must work to alleviate those fears by assuring patients that the members of the oncology and palliative care teams will work with them and their families regardless of what happens. Additionally, oncologists must discuss prognosis with both the family and the palliative care team in order to anticipate and manage problems commonly associated with the diagnosis and treatment of cancer.

As the disease progresses, many patients and families need help coping with the implications of increasing disease burden. Some patients and families have great difficulty accepting a poor prognosis and, as a result, do not engage in advance care planning.[401,402] This may be a sign of imperfect understanding of the disease and should be addressed directly and compassionately.[402] Palliative care supports ongoing education to help patients and families better understand and prepare for disease progression.

Oncologists should encourage advance care planning early in the disease trajectory in order to create a care plan that is consistent with the patients' wishes. In addition, advance care planning can lessen the burden of making difficult end-of-life decisions. The combined efforts of the oncology team and the hospice/palliative care team can improve the overall outcome for patients and their families.

Psychosocial Support for Palliative Care Providers

After the loss of a patient, psychosocial support should be available for providers who have been involved in the patient's care. A bereavement or memorial ritual, such as a brief reading or moment of quiet, can be considered. Funeral attendance by health care professionals may also be considered. Health care professionals should review medical issues related to patient death, explore concerns and questions about quality of patient care, and review emotional responses of family and staff to the patient's death.

Oncology and palliative care teams commonly encounter patient loss and deal with grief, and over time the resultant emotional distress can lead to provider burnout, compassion fatigue, and/or moral distress.[403-406] These syndromes can manifest as symptoms of depression, anxiety, fatigue, and low mental quality of life.[407] Personnel experiencing such symptoms should be identified and assisted. Considerable research has been dedicated to evaluating patterns of patient, family, and caregiver grief, and interventions to mediate this distress. Far less attention has been devoted to similar issues among health care providers and teams; further research is needed. For a summary of the literature on compassion fatigue and burnout among oncology providers, see reviews by Najjar and colleagues (2009),[403] Shanafelt and Dyrbye (2012),[407] and Sherman and colleagues (2006).[408]

Although limited in quantity, most studies on compassion fatigue are derived from the oncology nursing literature. A large survey of hospice and palliative care providers (ie, clinical, administrative, allied health workers) revealed a strong correlation between burnout and compassion fatigue, and revealed the need for enhanced support of individuals in this field.[409] Additionally, a cross-sectional survey of nurses, medical assistants, and radiology technicians at a comprehensive cancer center revealed concerning levels of burnout and compassion fatigue in both inpatient and outpatient care settings.[410] A resiliency program was piloted and eventually scaled hospital-wide to educate providers on these issues and provide interventional strategies. Improvements in burnout and secondary traumatic stress were observed.[410,411] Several studies from the Mayo Clinic demonstrated that mindfulness training through the Stress Management and Resiliency Training (SMART) program was able to improve anxiety, stress, quality of life, and mindfulness among providers.[412-414] A recent meta-analysis of efficacy data on meditative interventions for health professionals demonstrated a small to moderate benefit according to measures of emotional exhaustion (effect size 0.37, 95% CI, 0.04–0.70), sense of personal accomplishment (effect size 1.18, 95% CI, 0.10–2.25), and life satisfaction (effect size 0.48, 95% CI, 0.15–0.81).[415]

Qualitative research on compassion fatigue interventions reveals that oncology clinicians rated the following resources as helpful: educational interventions, support programs or resources in the workplace, retreats, and self-care measures.[403,416] Unfortunately, despite the reported desire for such interventions, access can be limited. In a nationwide survey of oncology nurses, only 60% of survey respondents reported access to an employee assistance program, 45% reported no offerings of education addressing workplace coping, and 82% of respondents reported no off-site programs such as retreats.[416]

Generally, evidence-based interventions for compassion fatigue, moral distress, and burnout in physicians are lacking. When asked to provide useful preventative measures and coping strategies, palliative care specialists recommended emphasizing the rewarding aspects of their work and strategies for "enhanced meaning-making".[417] Experts in the field have also highlighted the importance of self-awareness and self-care measures for oncologists and palliative care specialists to decrease levels of compassion fatigue.[418] To this end, self-care was established as a core competency area for fellows in hospice and palliative medicine.[418] Examples and evidence for additional preventative strategies and solutions for oncologist burnout are reviewed by Shanafelt and Dyrbye.[407]

Conclusion

These guidelines are intended to help oncology teams incorporate palliative care into their practice and thereby provide the best and most comprehensive cancer treatment possible for patients with incurable cancer. Patients with advanced disease may be overly optimistic about their chances of cure and survival, and this can have a negative effect on their quality of life. One study found that those who overestimated their survival were more likely to die a bad death.[155] Using a decision aid, Smith et al found that most patients want honest information, even if it is bad news.[419] Although use of the decision aid typically took 20 minutes and was challenging for oncologists, it did not cause patients to give up hope or become distressed. Physician-led discussion of disease progression and death can improve quality of care and quality of life for both patients and families.[420] Providing information in a collaborative manner protects the autonomy of patients to make informed decisions based on potential treatment outcomes.[421] Palliative care can help patients and families set realistic expectations and meet short- and longer-term goals, such as important life-cycle events. Much of the care outlined in these guidelines is geared toward a different hope than that for cure of the disease itself.[125,419,422] Even when cure is no longer possible, hope remains: hope for dignity, comfort, and closure and for growth at the end of life. It is our hope that these guidelines will help oncology and palliative care professionals together create a better future for patients, families, and providers.

Table 1: Palliative Care Internet Resources for Clinicians[a]

Palliative Care Clinical Competencies

www.epec.net
Education in Palliative and End-of-life Care (EPEC): Comprehensive curriculum covering fundamentals of palliative medicine; teaching guides

www.StopPain.org
Department of Pain Medicine and Palliative Care at Beth Israel Medical Center: Online education for physicians, nurses, and pharmacists

Clinical, Educational, Professional, and Public Resources

www.palliativedrugs.com
Palliativedrugs.com: Extensive information on pharmacologic symptom management

www.aahpm.org
American Academy of Hospice and Palliative Medicine: Physician membership organization; board review courses; publications

www.abim.org
The American Board of Internal Medicine: Physician Board Certification

www.nhpco.org/
National Hospice and Palliative Care Organization: Nonprofit membership organization representing hospice and palliative care programs and professionals in the United States

www.hpna.org/
Hospice & Palliative Nurses Association: Specialty nursing organization with evidence-based educational tools for the nursing team

www.hms.harvard.edu/cdi/pallcare
Center for Palliative Care at Harvard Medical School: Faculty development courses, other educational programs

www.nationalconsensusproject.org/
National Consensus Project for Quality Palliative Care: Clinical practice guidelines

www.americangeriatrics.org/
American Geriatrics Society: Clinical guidelines and continuing education

Palliative Care Program Development

www.capc.org
Center to Advance Palliative Care: Technical assistance for clinicians and hospitals seeking to establish or strengthen a palliative care program

www.capc.org/palliative-care-leadership-centers/
Palliative Care Leadership Centers: Eight exemplary palliative care programs providing site visits, hands-on training, and technical assistance to support new palliative care clinicians and programs nationwide

Physician-Assisted Dying

Statement on Physician-Assisted Dying approved by the AAHPM Board of Directors on June 24, 2016: **http://aahpm.org/positions/pad**

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[a] All websites accessed May 2017.

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