Palliative Chemotherapy Cancer and Palliative Care

An overview of the principles, practices, and integration of palliative care for the cancer patient.

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CASE TO CONSIDER

Mr. J.R. is a 69-year-old man with **stage IV non–small cell lung cancer** who presents to your primary care clinic seeking guidance. He has completed **three cycles of combination chemotherapy and immunotherapy** but reports increasing fatigue, nausea, and numbness in his fingertips. He says, “I don’t know if I can keep doing this—I just want to understand what my options are.”

He describes mild shortness of breath with exertion and a 10-pound unintentional weight loss over the past two months. He denies hemoptysis or chest pain. He lives with his wife, has a 45-pack-year smoking history (quit 10 years ago), and has hypertension and mild COPD.

"What should I do, Doc?"

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- Is this a fair question?
- How do you balance honesty and empathy in difficult conversations?
- When should goals of care discussions take place?
- How can we help patients maintain hope amid declining health?
- How can primary care teams support patients overwhelmed by treatment decisions?

OBJECTIVES

Define Palliative Chemotherapy and goals of treatment.

Review the value and necessity of shared decision making.

Review commonly accepted performance assessment for patients undergoing chemotherapy.

Review common palliative chemotherapeutic agents.

Review the challenges and opportunities for primary care teams to support their patients facing cancer diagnoses and treatment.

DISCLOSURES

None to report.

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WHAT IS PALLIATIVE CHEMOTHERAPY?

IT DEPENDS ON WHO YOU ASK

Medical Oncologist

PCP/ER/Hospitalist

Palliative Specialist

Hospice Medical Director

Patient/Patient's Support Team

What Is Palliative Chemotherapy?

Used to relieve symptoms and improve quality of life, not to cure

Palliative chemotherapy aims to alleviate symptoms and enhance the patient's quality of life, rather than to cure the underlying cancer.

Includes cytotoxic agents, targeted therapy, and immunotherapy

Palliative chemotherapy regimens can utilize a variety of treatment modalities, including traditional cytotoxic agents, targeted therapies, and immunotherapy.

Goal: reduce tumor burden, relieve symptoms, possibly extend life

The primary goals of palliative chemotherapy are to reduce the tumor burden, alleviate distressing symptoms, and potentially extend the patient's lifespan.

Palliative chemotherapy, including cytotoxic agents, targeted therapies, and immunotherapies, is used to improve the quality of life for patients with advanced, incurable cancers by relieving symptoms and, in some cases, extending life. The treatment approach is highly individualized based on the patient's condition and goals.

WHAT IS PALLIATIVE CHEMOTHERAPY?

Any chemical agent intended to impede or abate the progression of neoplastic cellular proliferation AND

Side effect profile leads to net improvement of quality of life.

WHAT IS QUALITY OF LIFE?
WHO DECIDES:

Patient Centered

Goals of Care/Proactive Planning

Symptom Control

Relief of Suffering

Educating, Empowering, Healing

When Is Palliative Chemotherapy Appropriate?

Advanced, incurable cancers

Palliative chemotherapy is appropriate for patients with advanced, incurable cancers that have chemo- or immuno-sensitive biology.

Chemo- or immuno-sensitive biology

The cancer type and molecular characteristics should indicate potential responsiveness to chemotherapy or immunotherapy.

Patients with good performance status

Patients should have an ECOG performance status of 0-2, indicating they are able to carry out self-care and light work.

Palliative chemotherapy can be a viable option for patients with advanced, incurable cancers that have chemo- or immuno-sensitive characteristics and who maintain a good performance status, as it may provide symptom relief, tumor control, and potentially modest survival benefit.

CAPC.2024

HOW TO MEASURE SYMPTOMATIC IMPACT AND PERFORMANCE STATUS

ECOG performance status

Grade	Description of patient
0	Fully active, able to carry on all predisease performance without restriction
1	Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature, e.g., light housework, office work
2	Ambulatory and capable of all self-care but unable to carry out any work activities; up and about more than 50% of waking hours
3	Capable of only limited self-care; confined to bed or chair more than 50% of waking hours
4	Completely disabled; cannot carry on any self-care; totally confined to bed or chair
5	Dead

MDedge News

Source: Eastern Clinical Oncology Group

Table 1. Karnofsky Performance Scale Index (KPS)

Score (category)	Karnofsky
100	Normal; no complaints; no evidence of disease.
90	Able to carry on normal activity; minor signs or symptoms.
80	Normal activity with effort; some signs symptoms of disease.
70	Care for self; unable to carry on normal activity or to do active work.
60	Requires occasional assistance but is abl to care for most of his needs.
50	Requires considerable assistance and frequent medical care.
40	Disabled; requires special care and assistance.
30	Severely disabled; hospitalization necessary; active supportive treatment is necessary.
20	Very sick; hospitalization necessary; active supportive treatment is necessary.
10	Moribund; fatal processes progressing rapidly.
0	Dead.

Balancing Risks and Benefits

Benefits

Symptom relief, tumor control, potential life extension

Risks

Fatigue, nausea, immune-related toxicity

The risks and benefits of palliative chemotherapy must be carefully weighed and regularly reassessed to ensure it aligns with the patient's goals and preferences.

Ethical Dimensions in Palliative Chemotherapy

- **Respect patient autonomy**
  Ensure informed consent and shared decision-making, honoring patient preferences
- **Avoid harm (non-maleficence)**
  Weigh potential toxicity against expected benefits, do not cause unnecessary suffering
- **Prioritize quality of life**
  Avoid overly aggressive measures near end of life, focus on symptom relief and comfort
- **Consider cultural beliefs**
  Understand and accommodate diverse patient preferences and values
- **Assess treatment futility**
  Determine when continuing chemotherapy may no longer align with patient goals

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Facilitating Informed, Values-Based Decisions

Explore Patient Goals

Understand the patient's priorities, whether it's life extension or symptom relief.

Discuss Prognosis and Treatment Intent

Transparently communicate the expected outcomes and that the goal is palliative, not curative.

Review Treatment Options

Present the available options, including chemotherapy, immunotherapy, and supportive care.

Involve Caregivers and Use Decision Aids

Engage the patient's support system and utilize decision-making tools to facilitate informed choices.

Document and Respect Preferences

Ensure the patient's values and treatment preferences are clearly documented and honored.

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WHAT IS MOST IMPORTANT TO YOU?

WHAT IS MOST SACRED TO YOU?

- Answer may be medical in nature, and it may not.
- Educating patients on their situation and options.
- Empowering patients to make treatment choices most appropriate for them at this most critical time.

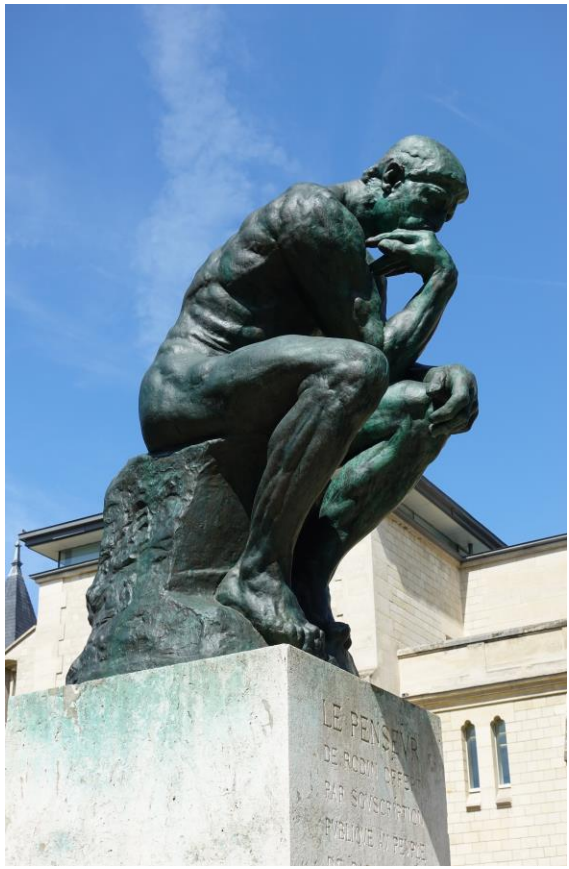
THE FOUR QUESTIONS:

How are you doing?

What's most important?

What is your gut/intuition telling you?

Are you scared/anxious?



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Chemotherapy and Immunotherapy in Common Cancers

Cancer Type	Palliative Regimen
Lung Cancer	Carboplatin + Pemetrexed + Pembrolizumab
Breast Cancer	Capecitabine, Taxanes ±Tamoxifen/Aromatase Inhibitor ± Anti Her II ± **Immunotherapy**
Colorectal Cancer	FOLFOX, FOLFIRI, Capecitabine +/- Immunotherapy
Melanoma	Nivolumab, Pembrolizumab ± Ipilimumab Pulse Decadron, Lenalidomide

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Palliative Oncology Drug Table

Generic Name	Trade Name	Mechanism of Action	Route	Palliative Indications	Key Toxicities
Cisplatin	Platinol	DNA cross-linking	IV	Lung, bladder, H&N, GI	Nephrotoxicity, ototoxicity, nausea, neuropathy
Carboplatin	Paraplatin	DNA cross-linking	IV	Ovarian, lung, H&N	Myelosuppression (thrombocytopenia), nausea
Paclitaxel	Taxol	Stabilizes microtubules	IV	Breast, lung, ovarian	Neuropathy, myelosuppression, hypersensitivity
Docetaxel	Taxotere	Inhibits microtubule depolymerization	IV	Breast, prostate, lung	Edema, neutropenia, alopecia
5-Fluorouracil	Adrucil	Thymidylate synthase inhibitor	IV, topical	GI cancers (colon, gastric, anal)	Diarrhea, mucositis, hand-foot syndrome
Capecitabine	Xeloda	Oral prodrug of 5-FU	Oral	Colorectal, breast, GI	Hand-foot syndrome, diarrhea, fatigue
Gemcitabine	Gemzar	Inhibits DNA synthesis	IV	Pancreatic, lung, bladder	Myelosuppression, flu-like symptoms, rash
Irinotecan	Camptosar	Topoisomerase I inhibitor	IV	Colorectal, pancreatic	Diarrhea (acute/delayed), neutropenia
Cyclophosphamide	Cytoxan	DNA alkylation	IV, oral	Breast, lymphoma, sarcoma	Hemorrhagic cystitis, myelosuppression, SIADH
Doxorubicin	Adriamycin	DNA intercalation, free radicals	IV	Breast, lymphoma, sarcoma	Cardiotoxicity, alopecia, myelosuppression
Vincristine	Oncovin	Inhibits microtubule formation	IV	Lymphoma, leukemia	Neuropathy, constipation, minimal myelosuppression
Nivolumab	Opdivo	PD-1 inhibitor	IV	Melanoma, NSCLC, RCC, H&N	IRAEs: pneumonitis, colitis, hepatitis
Pembrolizumab	Keytruda	PD-1 inhibitor	IV	MSI-H, melanoma, NSCLC, gastric	IRAEs, fatigue, rash
Atezolizumab	Tecentriq	PD-L1 inhibitor	IV	Lung, bladder	IRAEs similar to PD-1 inhibitors
Ipilimumab	Yervoy	CTLA-4 inhibitor	IV	Melanoma, RCC (combo)	IRAEs: colitis, rash, hepatitis

Physician's Desk Reference. 2025

Oral Targeted Therapies in Palliative Oncology

Cancer Type	Drug (Class)	Target / Mechanism	Clinical Use
NSCLC	Osimertinib, Erlotinib (EGFR TKIs)	EGFR mutation	EGFR-mutant NSCLC with CNS or systemic mets
	Alectinib, Lorlatinib (ALK TKIs)	ALK rearrangement	ALK+ NSCLC, especially with brain mets
	Crizotinib, Entrectinib (ROS1/NTRK TKIs)	ROS1/NTRK fusion	ROS1/NTRK-driven advanced NSCLC
Melanoma	Dabrafenib + Trametinib (BRAF/MEK inhibitors)	BRAF V600E	Rapidly progressing metastatic melanoma
Colorectal Cancer	Regorafenib (TKI)	Multikinase inhibition	Refractory metastatic CRC
	Trifluridine/Tipiracil (nucleoside analog)	DNA synthesis	Heavily pretreated metastatic CRC
Breast Cancer	Palbociclib, Abemaciclib (CDK4/6 inhibitors)	Cell cycle inhibition	HR+/HER2– metastatic breast cancer
	Alpelisib (PI3K inhibitor)	PIK3CA mutation	PIK3CA-mutant HR+/HER2– MBC
Prostate Cancer	Abiraterone, Enzalutamide (Androgen Pathway Inh.)	CYP17, AR inhibition	Metastatic castration-resistant/sensitive prostate cancer
Renal Cell Cancer	Cabozantinib, Sunitinib (TKIs)	VEGFR, MET, AXL	Metastatic RCC symptom control
Leukemias (CML/CLL)	Imatinib, Dasatinib (BCR-ABL TKIs)	BCR-ABL	Chronic phase or palliative blast-phase CML
	Ibrutinib, Acalabrutinib (BTK inhibitors)	BTK	Elderly/frail CLL/SLL
Any solid tumor	Larotrectinib, Entrectinib (TRK inhibitors)	NTRK fusions	NTRK+ tumors across cancer types

Chemotherapy and Palliative Care: A Team Approach

Coordinate with oncology

Work closely with the oncology team to ensure holistic planning and care delivery

Address physical needs

Manage symptoms and treatment-related side effects in collaboration with the care team

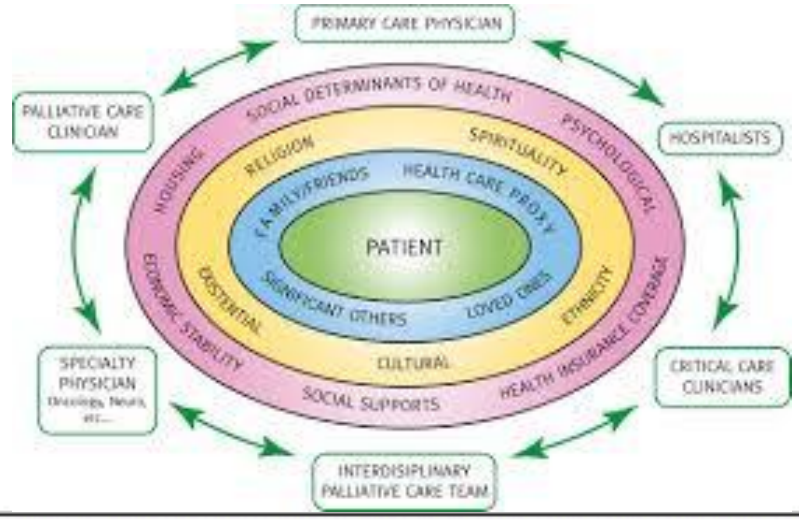
Address emotional and spiritual needs

Provide support for the patient and their loved ones to address psychological, social, and existential concerns

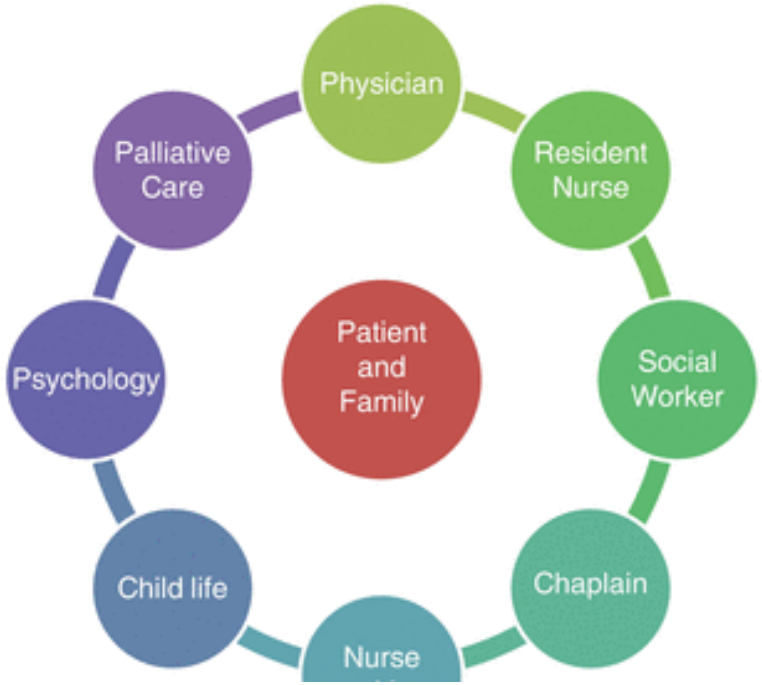
Effective collaboration between the palliative care team and oncology team is essential to provide comprehensive, patient-centered care that addresses the physical, emotional, and spiritual needs of patients receiving palliative chemotherapy.

The Role of the Team in Palliative Chemotherapy

Providing palliative chemotherapy to patients with advanced, incurable cancers requires a collaborative, multidisciplinary team approach. The palliative care team should work closely with the oncology team, including oncologists, pharmacists, nurses, and social workers, to ensure goal-concordant, patient-centered care. Regular communication and coordination among these providers help manage symptoms, address side effects, and provide holistic support for the patient and their caregivers.



A multidisciplinary team has multiple members who all interact with the patient and family in a parallel fashion



CURATIVE/PALLIATIVE/HOSPICE

Is the disease curative?

Can symptoms be relieved by impeding the progression of the neoplasm?

Do the side effects maintain an acceptable performance status?

Does the patient maintain an acceptable quality of life?

Does the intervention allow for the completion of patient's goals?

Is financial cost a potential barrier?

PALLIATIVE CHEMO FOR PRIMARY CARE PROVIDERS

Get to know your oncologist and referral sources.

Collaboration is the key

What are the barriers to continued chemotherapy or hospice?

- Medical
- Financial
- Emotional/Spiritual/Psychosocial
- Fear of abandonment

Primary Care teams can and should be a trusted source of guidance

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LET'S TAKE A BREAK!

Any Questions?

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