

Palliative Care and Symptom Management for Women with Advanced Ovarian Cancer



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KEYWORDS

• Palliative care • Hospice • Advanced ovarian cancer • Physician-assisted suicide

KEY POINTS

- Timely initiation of palliative care has been shown to improve quality of life and survivorship for patients with advanced metastatic cancer.
- Practical approaches to pain, shortness of breath, ascites, and bowel obstruction can improve patient symptom burden.
- Barriers to implementation of palliative care consultation include misunderstanding of differences between palliative care and hospice.
- New challenges in palliative care include legalization of physician-assisted suicide, opioid prescribing, and prognostication/symptom management with concurrent biologic/targeted treatments.

INTRODUCTION

Despite advances in therapy and improvement in overall survival from ovarian cancer, more than 60% of patients are diagnosed with advanced-stage disease and fewer than 30% reach 5 years of survival. This article defines palliative care and current standards in oncology regarding expectations for initiation of palliative care as well as benefits of early dissemination. Current literature describing palliative care in this patient population is presented. Additionally, common pain and symptom management strategies, current state of physician-assisted suicide (PAS) in the United States, and challenges of pain management in the midst of an opioid epidemic are discussed.

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DEFINITION OF PALLIATIVE CARE

As per the World Health Organization, “Palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.”¹ As early as 2012, the American Society of Clinical Oncology (ASCO) recommended integration of palliative care into standard oncology care, particularly in patients with advanced, recurrent, and metastatic cancer.² Patients receiving palliative care also can receive disease-modifying therapy, including chemotherapy, radiation therapy, immunotherapy, surgery, and blood transfusions. In practical terms, palliative care can be delivered by a consultative inpatient or outpatient service, and providers of any medical subspecialty can initiate and deliver basic components of palliative care, including advanced care directives and pain and symptom management.

PALLIATIVE CARE

Early initiation and delivery of palliative care have become a priority initiative for clinical oncology as endorsed by the ASCO. In 2017, ASCO-sponsored guidelines recommended early initiation of palliative care in parallel with disease-modifying therapy for all patients with advanced cancer.³ Palliative care has been demonstrated to improve quality of life, mood, and end-of-life care by randomized trials, systematic reviews, and meta-analyses.^{4–10} Incorporated into a team approach with a patient’s oncology team, palliative care specialists can provide an additional resource for support, symptom management, and advanced care planning. New evidence is emerging regarding optimal time for referral of patients with cancer. In a small cell lung cancer population, which also carries a high symptom burden, studies have demonstrated improved quality-of-life scores, lower rates of depressive symptoms, and longer survival in patients randomized to receive early palliative care referral in addition to standard oncology treatment.⁴ In particular, project ENABLE, a multicenter randomized trial of a palliative care intervention in advanced cancer patients, showed higher scores for mood and quality of life for those patients who were randomized to receive a palliative care intervention in addition to standard oncology care versus standard oncology care alone.⁶ The optimal role and timing for initiation of palliative care for women with ovarian cancer, however, have yet to be defined.

DIFFICULTY IN INITIATION OF PALLIATIVE CARE FOR WOMEN WITH OVARIAN CANCER

An important aspect of the timing and initiation of palliative care is understanding disease prognosis and fluctuation of symptom burden caused by disease progression and cancer treatments. To date, there has not been shown an effective screening method for ovarian cancer in patients without a known increased risk. Given that stage at diagnosis is intricately linked to survival of ovarian cancer, 75% of women are diagnosed with advanced-stage disease, and the overall 5-year survival remains only 45% and 25% for patients with metastatic disease (stages III and IV).¹¹ Despite response rates of up to 80% with surgery and chemotherapy, 60% of women recur as early as within 1 year to 2 years of remission and require second-line treatment, often going through multiple further lines of chemotherapy. Once recurrence has occurred, ovarian cancer is rarely curable. Some patients, however, are able to achieve durable response with multiple lines of chemotherapy, and, with the introduction of immunotherapies

and targeted therapies, it has been suggested to view ovarian cancer as a more chronic disease. With the advent of new disease-modifying therapies, however, there are new and different side effects and long-term sequelae. Most experts in palliative care do not suggest changing recommendations for early palliative care despite advances in biologics and targeted therapies. Survival from ovarian cancer has improved in certain demographic groups over the past 40 years, particularly in younger women (under age 60) and non-African American women.¹¹ African American women have been found to be at increased risk of death from ovarian cancer compared with white woman, and median survival has been found to be approximately 1 year shorter than for white women. Despite data supporting overly optimistic prognostication and prognostication reporting by oncologists' intuitions, efforts have been made to improve accuracy with incorporation of functional metrics, as measured by Karnofsky performance scale status, Eastern Cooperative Oncology Group score, and Palliative Performance Scale.

Ovarian cancer can have a high but fluctuating symptom burden throughout the course of the disease. Patients may present with vague bloating, early satiety, abdominal pain, change in bowel habits, urinary symptoms, or nausea but can often present with more severe symptoms.¹² Significant fatigue is common throughout initial diagnosis and treatment, and 67% to 92% of patients report this symptom.¹³ A recent study of 217 ovarian cancer patients' symptomatology in the last year of life revealed most commonly patients reported bloating, abdominal pain, poor appetite, fatigue, nausea, and changes in bowel function.¹³ A majority of patients experienced significant symptoms during the course of their disease, with escalation in severity and number of symptoms in the last 6 months to a year of life.¹³ Palliation of symptoms in ovarian cancer is thus a significant portion of the care of patients with this disease. The authors present current information regarding the management of symptomatology in advanced ovarian cancer.

HOSPICE IN WOMEN WITH OVARIAN CANCER

Hospice is a philosophy of care that is initiated when disease-modifying therapy is deemed futile or causes more harm than good. In practical terms, patients who enroll in hospice have decided to forego any further disease-modifying therapy, including chemotherapy, surgery, radiation, or immunotherapy, unless it is for symptom control. Initially introduced in the United States in the 1960s, the past 40 years have seen a progressive uptake in hospice services and significant legislation regarding the payment for and provision of the services.¹⁴ Patients enrolled in hospice are cared for at home or in a care facility depending on the severity of their symptom burden. Typical hospice care includes durable medical equipment and 4 hours of daily care if in an outpatient setting. Common myths surrounding hospice include the ideas that a patient can no longer see a primary physician or oncologist, that housing is provided, and that care is provided around the clock for 24 hours (**Table 1**). Care is typically available by telephone around the clock unless acute care periods are allowed by hospice. Lewin and colleagues retrospectively reported prolonged survival for women with advanced ovarian cancer enrolled in hospice compared with nonenrolled counterparts.¹⁵ Although more older women with ovarian cancer have received hospice care at the end of life over time, evidence suggests lower-income women and minorities do not receive hospice services at the same rate as higher-income and white women.¹⁶

PALLIATIVE CARE IN WOMEN WITH GYNECOLOGIC AND OVARIAN CANCER

Early palliative care involvement has also been shown to be beneficial in the gynecologic cancer population; however, current evidence suggests referral continues to be

Myth	Explanation
A patient must have a DNR code status to be accepted into hospice care.	Patients choosing hospice care have agreed to not return to the emergency department for issues related to their cancer/primary disease; however, a DNR/DNI code status is not mandatory. For practical purposes, if a patient enrolled in hospice has not chosen DNR/DNI status, the patient may be returned to the hospital or emergency room for resuscitation, which is in conflict with the intent of choosing hospice care.
Hospice pays for all medical care.	Patient preexisting insurance coverage is responsible for medications related to non-cancer-related conditions (ie, insulin for diabetic care).
Hospice provides a place to live.	Hospice care can be delivered in a hospital, nursing facility, or home; however, hospice does not pay for housing.
Hospice provides 24-h in-person care.	Hospices typically provide 4 h of care and may escalate for brief time periods to 24 h in-person provider-based care. The onus of care for remaining time is on the patient family or caregiver. Hospice care is provided 24 h a day by telephone access.
A patient must abandon the primary care physician or oncologist when enrolled in hospice.	Patients may continue to see their oncologist or family physician while enrolled in hospice.

Abbreviations: DNI, do not intubate; DNR, do not resuscitate.

reactionary to very poor prognosis or high symptom burden and usually within 30 days of death.^{17,18} One study found those gynecologic cancer patients who received a palliative care consultation greater than 30 days prior to death had less surgery and chemotherapy in the last 30 days of life.¹⁹ Evidence also suggests improvement in advanced directive counseling and decision making with early palliative care. Ovarian cancer patients who do not have outpatient goals of care and advanced care planning conversations have been shown to have more aggressive measures at the end of life.²⁰ This advanced planning has not been shown to increase depressive symptoms in patients or to increase worry.²¹ Furthermore, recent evidence has demonstrated reduced health care costs in these patients receiving earlier palliative care consultation.^{19,22} Additionally, no difference in survival was found despite the difference in costs.¹⁵

If patients decline early palliative care but present with increasing symptom burden, there is a role for consultation at any stage of symptomatology. One study even demonstrated significant improvement in symptoms within 1 day of palliative care consultation in patients with advanced gynecologic malignancies.²³

Studies specific to palliative care for women with ovarian cancer are resonant with studies from other disease sites resulting in increasing rates of enrollment in hospice, increase in time spent in hospice care, and fewer procedures at the end of life.²⁴ Uppal and colleagues²⁵ reported on trends in palliative care referral from 2004 to 2010, in 106,203 nonelective hospital admissions of women with ovarian cancer, and found both a clinically and statistically significant increase in referral of patient with ovarian cancer to palliative care, from 2.7% to 10.4%. Unfortunately,

discharge to hospice increased only from 9% to 11%, and inpatient mortality decreased only from 10% to 7%.

Caregivers of patients with ovarian cancer have been shown to have reduced quality of life and distress during treatment, with increased symptomatology in patients having a significantly negative impact on their quality of life. Palliative care consultation also improving caregiver quality of life and level of distress.²⁶ It is extremely important to involve caregivers and family members in palliative care and discussions involving end-of-life care. Without their involvement in these discussions, patients are more likely to receive aggressive end-of-life care, which is associated with worse caregiver and family member bereavement adjustment.²¹ Providers may have concerns regarding initiating and leading discussions regarding advanced directives, goals of care, and end-of-life care. There are many resources for these challenging situations that can be used to help patients and providers (Table 2).

INTERVENTIONS FOR PAIN AND SYMPTOM MANAGEMENT

Palliative Surgery

Most patients with advanced ovarian cancer recur after their initial treatment with surgery and platinum-based chemotherapy. Most patients are treated with subsequent lines of chemotherapy in this situation; however, at times, patients are considered for secondary cytoreductive surgery. Evidence has been mixed regarding the effect of secondary debulking on survival patterns. Much evidence is retrospective and involves small patient cohorts. Studies suggest patients with isolated recurrence and ability to cytoreduce to less than 1 cm of macroscopic disease improve overall survival. Additionally, cytotoxic chemotherapy prior to secondary surgery in these patients seems to have an adverse impact on survival.²⁷ Patients with recurrent low-grade and borderline ovarian tumors exhibit a different clinical course with less chemoresponsive tumors and may benefit from hormonal or targeted treatment or even secondary debulking surgery.²⁸

Palliative Radiation

Radiation treatments have typically been avoided in the primary treatment of ovarian cancer secondary to poor response rates, toxicity, tumor biology, and the typical patterns of disseminated intraperitoneal spread. Palliative radiation has been used in the advanced and recurrent settings for specific symptoms, including pain and bleeding

Table 2

Communication tools available on-line and in applications advocated by VitalTalk.com and AAHPM.org for all levels of trainees and providers

Resource	Access
American Academy of Hospice and Palliative Medicine	http://aahpm.org/self-study/
Serious Illness Conversation Guide	https://www.ariadnelabs.org/resources/downloads/
VitalTalk	http://www.vitaltalk.org
Framework models for communicating serious news to patients and their families	http://www.uptodate.com
STEPS Forward program	https://www.stepsforward.org/modules/end-of-life-planning

from specific lesions. A recent review of 64 ovarian cancer patients receiving palliative radiation showed good response rates for symptomatic control of bleeding from vaginal metastases (93%) and pain caused by tumor (87%).²⁹ Nonbony metastases showed higher rates of response than bony metastases (93% vs 75%), and histology was also a significant predictor of response, with clear cell carcinoma having the lowest response rate (60%).²⁹

Additionally, brain metastases, although rare in gynecologic cancer, have been reported to occur in 1% to 2.5% of patients.^{30,31} Some studies have reported median survival as short as 2 weeks and as long as 4 to 9 months after diagnosis and treatment of brain metastases.^{32–34} Multiple metastases incur a poor prognosis.³⁵ Treatment with targeted radiation therapy or whole-brain radiation therapy can significantly ameliorate symptoms and increase survival in these patients.^{30,36} A combination of surgical management and radiation treatment seems most beneficial in this subset of patients, increasing survival up to 20 months.^{34,37} Patients with extracranial disease in addition have a much poorer prognosis.³⁷

Palliative Chemotherapy/Immunotherapy/Targeted Therapy

Palliative chemotherapy can be used in the treatment of recurrent ovarian cancer, and many investigators argue all treatment is “palliative” in nature because recurrent ovarian cancer is seldom curable. Great interest in the field of immunotherapy and targeted therapies toward malignancies have been shown in the past several years. These therapies present the ability to focus on immune checkpoint inhibition to allow a patient’s own immune system to aid in eliminating malignancy and producing clinical response or control of disease for extended periods of time. Potential modalities for treatment have included monoclonal antibodies, vaccines, immune cellular therapies, and immune checkpoint blockades. Because a vast majority of patients with epithelial ovarian cancer (EOC) respond to first-line therapy but eventually become resistant, the appeal for less toxic regimens is great; the palliative utility of these agents for ovarian cancer is yet to be determined. Multiple immunotherapies are under investigation for effectiveness in EOC; however, to date no treatment is Food and Drug Administration approved for use in ovarian cancer. Inhibitors of the enzyme poly (ADP-ribose) polymerase are a targeted therapy that have been shown to increase survival in women with platinum-sensitive ovarian cancer and have shown efficacy for patients with BRCA mutations. Because they are oral medications, they are easier to administer and work into the lifestyle of many patients. If side effects are tolerable for these patients, overall survival has been shown improved.³⁸ Palliative clinicians, however, are now confronted with more complex symptom management strategies because standardly recognized first-line palliative medications may not be compatible with these agents. Additionally, novel side effects, such as blurry vision and ocular changes with immune checkpoint inhibitors, present novel challenges.

SYMPTOMS

Pain

Despite recommendations for aggressive treatment of cancer pain, malignancy-related pain is still undertreated.³⁹ In particular, women with advanced ovarian cancer have been shown to be prescribed less pain medication at the end of life.⁴⁰ Uncontrolled cancer-related pain is associated with poor quality of life, distress, reduced physical activity, and depression.⁴¹ Patients may have pain due to tumor burden, bowel obstruction, liver or bone metastases, or many other

symptom-related causes of pain. Additionally, patients report increasing pain in the last 6 months of life.¹³ There are many options for pain control in patients with malignancy. A multimodal approach, including acetaminophen, nonsteroidal anti-inflammatory drugs when appropriate, and opioid pain medication can all be used in the pharmacologic management of cancer-related pain. In advanced ovarian cancer, extended release opioids can be an effective tool and have not been shown to increase adverse events.⁴² Many guidelines have detailed options for initiating and titrating opioid medications in this population.⁴³ Some patients may have gastrointestinal complaints with opioid medications, in particular nausea, vomiting, or constipation. Transdermal patches have not been shown to reduce gastrointestinal symptoms when compared with oral medications.⁴⁴ It is important to include a bowel regimen in the management of patients on long-term narcotic regimens to avoid constipation, including both stool softeners and laxatives.

In patients where refractory pain exists or where symptoms from other pain management modalities may be limited, interventional procedures may be possible. Image-guided nerve blocks and/or neurolysis may significantly improve pain and quality of life.⁴⁵ Various interventions may be undertaken for specific tumor-related pain, including bone metastasis and intractable abdominal pain. CT-guided procedures are often the mainstay of these interventions.⁴⁶ Neuraxial analgesia may be possible via spinal or epidural routes. Nerve block and destructive techniques also can be used.⁴⁷ Consultation with an interventional team or pain management team may be able to identify appropriate candidates for interventional procedures.

Risk of Opioid Addiction

Much recent attention has been drawn to the opioid epidemic in the media and medical profession. Recent evidence indicates that patients tend to receive more opioid medications than they require in the postoperative setting. Evidence also suggests gynecologic cancer patients, however, are at low risk for opioid misuse.⁴⁸ Patients with pain from their malignancy should not have medication withheld, and use must balance safety and accessibility.⁴⁹

Shortness of Breath

Respiratory symptoms in advanced ovarian cancer may occur from multiple causes, including tumor burden compressing lung volume, ascites, pleural effusion, infectious sources, pain, and, more rarely, lung metastases. Alleviation of these symptoms is usually achieved with targeted interventions. Ascites can be drained percutaneously at a single point or in a recurrent fashion with an indwelling catheter (discussed later). Infectious causes, such as pneumonia, can be treated with antibiotics and oxygen therapy as well as input from respiratory therapy. Pain control can be used to improve respiratory status with opioid analgesics. Opioid analgesics may also be used to reduce dyspnea at the end of life.⁵⁰

Symptomatic pleural effusion may be diagnosed after patients present with dyspnea. Usually these are diagnosed with a chest radiograph and clinical examination findings. Optimal management may depend on the disease status in the individual patient. Initially patients may achieve relief with a thoracentesis. Consultation with a pulmonologist or interventional radiology depending on services available may be able to provide this procedure. At times patients receive further cytotoxic therapy that may reduce the need for recurrent drainage. Patients nearing the end of the life may benefit from procedures to allow repeat drainage or to eliminate reaccumulation of effusions.

Placement of a tunneled drainage catheter has been shown effective and well tolerated.⁵¹ Additionally, catheters improve quality of life because they avoid repeated procedures and allow for patient control over their symptoms and comfort.⁵² Video-assisted thoroscopic surgery with pleurodesis has been shown efficacious and safe in this population.^{53,54} Consultation with a cardiothoracic surgeon may be helpful to determine if this procedure would be helpful for an individual patient.

Ascites

Due to the nature of spread of EOC, patients often initially present with malignant ascites in the setting of peritoneal carcinomatosis. The pathophysiology is suspected to be related to the transcoelomic spread of the cancer cells onto the peritoneum and their direct secretion of fluid.⁵⁵ Third spacing of intravascular fluid occurs in advanced malignancy, which likely contributes secondary to altered permeability of the cell membranes to proteins.⁵⁶ Additionally, vascular endothelial growth factor (VEGF) (a glycosylated mitogen that induces proliferation of endothelial cells, which is crucial to the function of normal ovaries) expression has been shown to correlate with increased ascites production in EOC.⁵⁷

Patients who present with symptomatic ascites are largely relieved by either surgical debulking or neoadjuvant chemotherapy within several weeks. In recurrent or progressive EOC, ascites can recur. If patients are no longer receiving chemotherapy or disease is unresponsive, they can be significantly symptomatic. Symptoms can include distention, nausea, vomiting, shortness of breath, and abdominal pain.

Given the role of VEGF in malignant ascites, a common chemotherapy in recurrent and primary ovarian cancer, bevacizumab (VEGF inhibitor), has been used specifically for the treatment of palliation of malignant ascites. There have been reports of success in reducing or eliminating the need for drainage of malignant ascites after initiation of therapy with bevacizumab.⁵⁸ Additionally, use of intraperitoneal bevacizumab is under investigation and has been reported for reduction in ascites in advanced ovarian cancer.^{59,60} Risks and benefits of therapy with bevacizumab must be weighed because rare but serious side effects can occur, including bowel perforation, poor wound healing, hypertension, and thromboembolism.

A tunneled catheter (most commonly PleurX) can be placed in patients with recurrent symptomatic ascites to avoid repeated need for procedures to drain the fluid. The rates for successful placement in patients are high, reported up to 100%.^{61,62} Patients and their families can learn to drain their catheter with provided bags at home or they may be drained at a skilled nursing facility or hospice. Patients are then free to drain the ascites when they are symptomatic and do not need repeated procedures. Risk of complications is low but can include infection or dislodgement.⁶²

Psychosocial Distress

Advanced cancer is associated with increasing distress with increasing symptom burden and can be particularly evident in the last 6 months to 12 months of life. Assessment of distress and symptoms is essential at each health care encounter. As discussed previously, palliative care interventions have been shown to reduce distress and depressive symptoms. Additionally, pharmacotherapy is available for patients with diagnosed depression and anxiety.

Bowel Disorders/Obstruction

Gastrointestinal symptoms are common in EOC. Constipation in advanced ovarian cancer may result from multiple factors. These include opioid analgesics and other

medications as well as intestinal dysmotility secondary to tumor burden. First-line treatment includes combination of stool softeners and laxatives and eliminating unnecessary constipating medications. Dosage can be increased with a goal of a soft bowel movement every 1 day to 2 days. Enemas may be given for severe constipation or impaction.

Due to the typical presentation and spread of EOC, patients may present with bowel obstruction due to carcinomatosis and tumor implants throughout the abdomen and on the bowel surface. This is estimated to affect between 25% and 50% of EOC patients during their disease course, and many die from or with a bowel obstruction.⁶³⁻⁶⁵ Patients may present, either initially or in the recurrent setting, with nausea, vomiting, inability to tolerate anything by mouth, abdominal distention, pain, and bloating. Diagnosis of obstruction is typically suspected with abdominal examination and symptomatology and confirmed radiographically with abdominal radiographs and/or CT scan of the abdomen and pelvis. Obstructive symptoms may be similar to large malignant ascites, severe constipation, and large tumor burden, and thus it is important to rule out these alternative conditions in the initial evaluation. It is important to localize the site of obstruction because this aids in guiding further management. The majority of malignant obstruction in EOC patients is at the level of the small bowel; however, 10% to 30% may present with large bowel obstruction.^{66,67} Additionally, functional ileus from widespread carcinomatosis, that is, tumor coating the bowels without true obstruction, may mimic malignant obstruction. It is important to distinguish this entity because it may be managed more appropriately with medical therapy than with procedures.

Studies have identified survival after diagnosis of malignant bowel obstruction in advanced ovarian cancer in the range of weeks to months.^{68,69} Although optimal treatment is not defined, generally, maintaining quality of life and symptom control and attempting to restore ability to tolerate liquids and/or some food for comfort are goals of management of these patients. Initially, patients must have decompression with a nasogastric tube. This can be difficult to tolerate and thus is a short-term solution but essential initially to decompress the bowel and provide symptomatic relief.

Some studies have attempted to identify prognostic factors that may aid in selection of patients who will benefit from surgery. Surgical management can include laparotomy and tumor debulking to relieve obstruction or intestinal diversion with ileostomy or colostomy. One retrospective study of 62 patients undergoing surgical management of malignant bowel obstruction found a postprocedure 60-day mortality of 29%, and that less than 2 L of ascites, younger age, and higher preoperative albumin correlated with longer survival.⁷⁰ Other studies have quoted perioperative mortality in the 10% to 40% range, even in patients with reported good performance status.⁷¹⁻⁷³ Complications may be extensive, including wound infection, return to the operating room, ileus, high output stomas, fistulas, and perioperative infections, including urinary tract infection and pneumonia.⁶⁶

Medical management may be attempted with appropriate patients with somatostatin or octreotide, sometimes in combination with steroid administration, and promotility agents. Given that somatostatin analogs reduce gastric secretions, they can provide symptomatic relief for patients or mitigate need for a nasogastric tube. Steroids are believed to reduce tumor edema. There is limited evidence for these regimens; however, some success has been reported in individual cases.^{74,75}

Symptomatic relief with venting gastrostomy tube placement has been used as a palliative management option with success for many patients. Most patients have successful placement of the tube (more than 90% of the time), and most are able to

tolerate at least some liquids or food.^{76,77} Patients should be counseled regarding the palliative nature of this placement prior to placement. Symptomatic relief of nausea and vomiting has been reported in several case series of over 90%.⁷⁷⁻⁷⁹ Gastrostomy tube may be placed endoscopically, percutaneously, or via laparotomy and may be placed by a gastroenterologist, interventional radiologist, or gynecologic oncologist or general surgeon; this practice may vary by institution.

Large bowel obstruction presents a unique challenge in the advanced ovarian cancer patient in the setting of a competent ileocecal valve. Given minimal relief in decompression from nasogastric tube placement, often patients may need to make decisions regarding management with their providers in a more urgent fashion. Patients can benefit from a diverting colostomy or ileostomy; however, as described previously, this can be a morbid procedure for many patients. Some situations may make palliative endoscopic stenting more appealing. A gastroenterology consultation may be obtained to determine if a patient is a candidate for stenting. Some studies report clinical success rates of approximately 50%, whereas others report closer to 90%.⁸⁰⁻⁸² Complications can include perforation, migration, and failure, and reobstruction after successful placement. If palliation is successful, however, a laparotomy and/or ostomy may be avoided. Rarely, patients are managed with nasogastric tube decompression, intestinal diversion, or gastrostomy tube placement and may then receive chemotherapy. Patients who have platinum-sensitive disease may have more success in this scenario.

PHYSICIAN-ASSISTED SUICIDE

PAS is defined as the intentional prescription of lethal dose of medication at a patient's request that is self-administered at a time and place of the patient's choosing. This is in contrast to euthanasia, which is physician-administered lethal medication. The American Academy of Hospice and Palliative Medicine takes a position of studied neutrality on physician-assisted dying.⁸³ Currently, in the United States, physician-assisted dying is legal in 6 states, including Oregon, Washington, Vermont, Colorado, Montana, and California and also in Washington, DC. The original Death with Dignity legislation was enacted in Oregon and consists of a series of prerequisite steps that if followed abrogate the cause of death as suicide, thereby avoiding interference with preexisting life insurance benefits⁸⁴ (**Box 1**). Patient cause of death is recorded as the primary cancer/medical disease and not suicide on the death certificate. Data regarding utilization of PAS currently does not show racial/ethnic, gender, or socioeconomically related disparities. Although it is commonly understood that PAS is illegal by federal legislation, the most accurate representation of the Supreme Court standing on PAS is that states are autonomous in legislating PAS. Physicians are protected by the legislation, as it is stated: "No person shall be subject to civil or criminal liability or professional disciplinary action for participating in good faith compliance with ORS 127.800 to 127.897. This includes being present when a qualified patient takes the prescribed medication to end his or her life in a humane and dignified manner."⁸⁴ A consulting physician must agree with the primary attending physician's diagnosis and assessment that the patient suffers from a terminal disease and additionally is capable, acting voluntarily, and has made an informed decision.⁸⁴ In states where PAS is not legal, providers may worry regarding unintentional hastening of death through opioid medications. In extreme cases of refractory symptomatology, palliative sedation and high-dose administration of opioids is also protected by legislation (terminal sedation) as addressed by the supreme court.⁸⁵

Box 1**Oregon death with dignity prerequisites for legal prescription of lethal medications**

- To request a prescription for lethal medications, the DWDA requires that a patient must be
 - An adult (18 years of age or older)
 - A resident of Oregon
 - Capable (defined as able to make and communicate health care decisions)
 - Diagnosed with a terminal illness that will lead to death within 6 months
- To receive a prescription for lethal medication, the following steps must be fulfilled:
 - The patient must make 2 oral requests to his or her physician, separated by at least 15 days.
 - The patient must provide a written request to his or her physician, signed in the presence of 2 witnesses.
 - The prescribing physician and a consulting physician must confirm the diagnosis and prognosis.
 - The prescribing physician and a consulting physician must determine whether the patient is capable.
 - If either physician believes the patient's judgment is impaired by a psychiatric or psychological disorder, the patient must be referred for a psychological examination.
 - The prescribing physician must inform the patient of feasible alternatives to DWDA, including comfort care, hospice care, and pain control.
 - The prescribing physician must request, but may not require, the patient to notify next of kin of the prescription request.
 - Physicians must report to the Oregon Health Authority all prescriptions for lethal medications.^a
 - Pharmacists must be informed of the prescribed medication's intended use.
 - Physicians and patients who adhere to the requirements of the DWDA are protected from criminal prosecution.
 - Choice of DWDA cannot affect the status of a patient's health or life insurance policies.
 - Physicians, pharmacists, and health care systems are under no obligation to participate in the DWDA.

Abbreviation: DWDA, Death with Dignity Act.

^a Reporting is not required if patients begin the request process but never receive a prescription.

Data from Oregon Health Authority. Death with Dignity Act. Oregon Revised Statute. Available at: <http://www.oregon.gov/oha/PH/PROVIDERPARTNERRESOURCES/EVALUATIONRESEARCH/DEATHWITHDIGNITYACT/Pages/ors.aspx>. Accessed March 30, 2018.

SUMMARY

EOC and the associated malignancies are often diagnosed in the later stages and carry a high risk of recurrence. Additionally, they carry a high rate of life-altering symptoms. Given that long-term survival rates from recurrent EOC are low, an individualized conversation regarding interventions, including chemotherapy, surgery, and palliative measures, should be undertaken in each clinical setting. Early consultation with a palliative care team and multidisciplinary approach to care can improve symptom-related quality of life, reduce depressive symptoms, improve end-of-life aggressive care utilization, result in earlier hospice service referral, and additionally aid in the coping, quality-of-life, and bereavement adjustment of caretakers and family members. Referral to hospice does not shorten survival and is associated with better symptom control. Standardized utilization of a multidisciplinary and realistic method of optimizing palliative care for patients with ovarian cancer may result in the most optimal quality-of-life outcomes for patients and their families.

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