

Overview

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I. Definition

- A. The World Health Organization (WHO, n.d.) defines palliative care as an interdisciplinary approach of care used to improve the quality of life for patients and families living with and dying from advanced disease through the prevention and relief of symptoms by the impeccable assessment and management of pain and other problems, physical, psychosocial, and spiritual.
- B. Palliative care
 1. Provides skilled, evidence-based symptom management
 2. Promotes quality of life throughout the disease trajectory—up to and including the time of death
 3. Recognizes the debility and decline from the burden of disease, symptoms, and age in the dying process
 4. Integrates expertise from all disciplines (e.g., medicine, nursing, social work, spiritual providers) to address and individually manage the myriad of issues associated with complex disease management
 5. Offers a support system to help patients live as actively as possible until death
 6. Implements a team approach to address the needs of patients and families, including bereavement preparation and follow-up
 7. Is integrated earlier in the course of disease and used concomitantly with medical modalities intended to prolong life, including chemotherapy, radiation, and surgery (WHO, n.d.). Prudent diagnostics should be used to investigate underlying causes of symptoms.
- C. The Center to Advance Palliative Care (CAPC) influences the national direction, integration, and implementation of palliative care in the United States and endorses the WHO definition, purpose, and function of palliative care. Primary care providers in the routine management of patients with multiple chronic conditions (MCCs) are expected to provide the basic elements of palliative care, such as pain and symptom assessment and management and advance care planning (National Consensus Project for Quality Palliative Care [NCP], 2013).
- D. The Institute of Medicine* (IOM, 2014) defines *palliative care* as an umbrella term that encompasses a spectrum of approaches in delivering care for people

**On March 15, 2016, the Institute of Medicine (IOM) of the National Academies of Sciences, Engineering, and Medicine was renamed the Health and Medicine Division (HMD). Reports issued prior to this change will continue to be cited as IOM reports throughout this book.*

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with advanced conditions. Various organizations have developed conceptual or functional definitions of palliative care, suggesting that it aims to prevent, relieve, reduce, or soothe the symptoms of diseases or disorders without producing a cure (IOM, 2014).

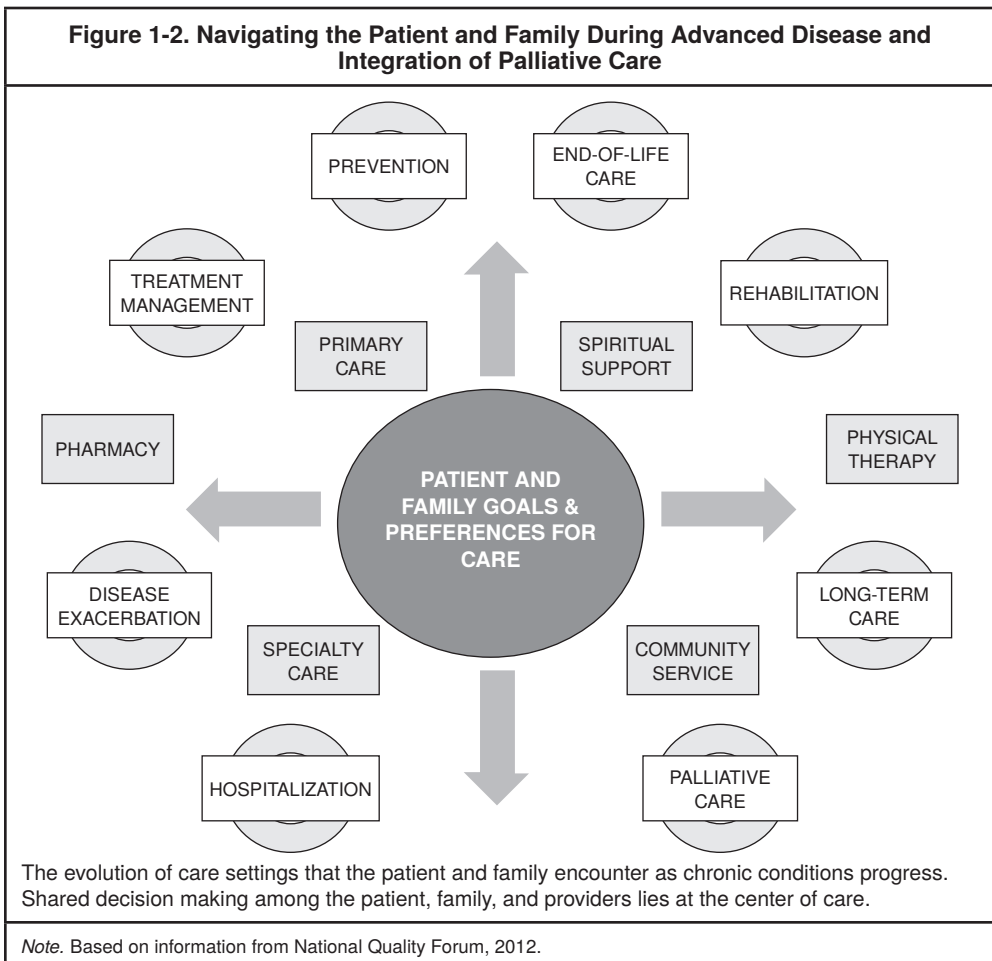
1. In 2013, WHO further elaborated on the definition and role of palliative care to include a broader concept that involves all care systems, including hospice, that prioritize symptom control and do not necessarily require the presence of an imminently terminal condition or a time-limited prognosis and therefore may extend beyond six months (Connor & Bermedo, 2014).
 2. Palliative care should include a balance of comfort measures and curative interventions that vary across a wide spectrum of healthcare delivery systems (Connor & Bermedo, 2014).
 3. Palliative care should focus on achieving the best possible quality of life for patients and caregivers based on patient and family needs and goals and independent of a prognosis.
 4. Interdisciplinary palliative care teams assess and treat symptoms, support decision making, and help match treatments through shared decision making between the patient and family.
 5. Patient and family goals should drive the patient-specific plan of care and mobilize practical support for the patient and caregivers.
 6. The Centers for Medicare and Medicaid Services (CMS, 2008) describe palliative care as patient- and family-centered care that optimizes quality of life by anticipating, preventing, and treating poorly managed symptoms.
- E. Palliative care throughout the continuum or trajectory of disease involves addressing physical, intellectual, emotional, social, and spiritual needs and facilitating patient autonomy, access to information, and choice (CMS, 2008).
1. CMS (2008) changed its definition of palliative care and for the first time did not provide specific language on prognostic indicators or time specificity (e.g., implemented in the last six months of life) (see Figure 1-1).
 2. The National Quality Forum (NQF) described palliative care as patient- and family-centered care that optimizes quality of life by anticipating, preventing, monitoring, and managing suffering.
 - a) In 2012, NQF separated palliative care from end-of-life care and developed hospice measurements for evaluation and determination of quality measurements (see Figure 1-2).
 - b) Beginning in 2014 and for each year thereafter, a hospice program's failure to submit required quality data will result in a reduction of two per-

Figure 1-1. New Centers for Medicare and Medicaid Services (CMS) Definition of Palliative Care

New CMS Definition of Palliative Care Does Not Mention Prognosis

"Palliative care means patient- and family-centered care that optimizes quality of life by anticipating, preventing, and treating suffering. Palliative care throughout the continuum of illness involves addressing physical, intellectual, emotional, social, and spiritual needs and to facilitate patient autonomy, access to information, and choice" (p. 32204).

Note. Based on information from Centers for Medicare and Medicaid Services, 2008.



- centage points to the market basket percentage increase for that fiscal year (NQF, 2012).
- c) The data submitted by individual hospice programs must be made publicly available, with hospice programs having an opportunity to review the data prior to their release. No date has been specified to begin public reporting of hospice quality data (NQF, 2015).
 - d) CMS finalized the Hospice Item Set (HIS) in the 2014 rule to meet the quality reporting requirements for hospices for the 2016 payment determination (NQF, 2015).
 - e) All Medicare-certified hospices are required to submit an HIS-Admission record and HIS-Discharge record for each patient admission to specific hospice programs (NQF, 2015).
3. NQF (2015) measures applicable to palliative care include the following:
 - a) Patients treated with an opioid are equally prescribed a bowel regimen.
 - b) Pain screening is performed using psychometric pain evaluation and assessment tools.
 - c) Dyspnea treatment is identified.

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- d) Dyspnea screening and the use of evidence-based interventions are instituted.
 - e) Beliefs and values are uniquely addressed and evaluated (if desired by the patient).
4. Previous NQF (2012) recommendations included in the 2015 measurements include goal attainment, patient engagement, care coordination, depression assessment and management, the caregiver role, and timely referral to hospice (NQF, 2015).
5. The NQF (2015) measures require that hospice programs in the United States identify a future direction for their program that includes the following:
 - a) Develop an outcome measure addressing evidence-based pain management.
 - b) Select measures that address care coordination, communication, timeliness and responsiveness of care, and 24-hour access to the healthcare team.

II. Key aspects

- A. Since the recognition of the Medicare hospice benefit in 1982, the emergence of palliative care has taken time to differentiate from hospice or end-of-life care. These terms often are used synonymously by healthcare professionals and the public. Despite the current initiative for earlier integration of palliative care interventions into the trajectory of disease, barriers remain because of nomenclature and understanding the differences between palliative care, hospice, and end-of-life care.
 1. Barriers include limitations of current evidence-based guidelines that identify and inform providers on the integration of skilled palliative care interventions in advanced symptomatic disease.
 2. The Agency for Healthcare Research and Quality (2015) implemented SHARE decision making between providers and patients. This approach is essential as the patient and family proactively plan for palliative care.
 3. Proactive patient-centered palliative care communication reduces delays in optimally managing the complex care needs of the patient and family (Callaway, 2012).
 4. Studies examining earlier integration of palliative care principles have demonstrated improved patient adherence to treatment modalities, along with improved management of psychological stressors, greater quality of life, and improved survival rates (Bakitas et al., 2009; Temel et al., 2010).
 5. Escalating costs, along with the growing burden of symptomatic MCCs, provider shortages, and an expanding aging population, have resulted in policy makers and healthcare administrators turning to palliative care models that have demonstrated past success and are forecasted to deliver future promise.
 6. Many initiatives for advancing and improving palliative care originate from partnerships. The following are exemplars of such collaborations:
 - a) A multifaceted coalition including the American Academy of Hospice and Palliative Medicine, CAPC, the Hospice and Palliative Nurses Association, the Last Acts Partnership, and the National Hospice and Palliative Care Organization convened to develop NCP. This coalition sought to reach a consensus in defining palliative care and outlining its philosophy and principles.
 - b) The NCP clinical practice guidelines were first released in 2004 and revised in 2009 and 2013. For a complete review of this palliative care resource and to download the guidelines, see www.nationalconsensusproject.org.

- c) In 2006, NQF, a private, nonprofit organization, released *A National Framework and Preferred Practices for Palliative and Hospice Care Quality*. Together, NCP and NQF have collaborated to advance palliative care.
 - d) After a thorough review, NQF endorsed the following eight domains for palliative care outlined from the *Clinical Practice Guidelines for Quality Palliative Care* (NCP, 2013):
 - (1) Domain 1: Structure and Processes of Care
 - (2) Domain 2: Physical Aspects of Care
 - (3) Domain 3: Psychological and Psychiatric Aspects of Care
 - (4) Domain 4: Social Aspects of Care
 - (5) Domain 5: Spiritual, Religious, and Existential Aspects of Care
 - (6) Domain 6: Cultural Aspects of Care
 - (7) Domain 7: Care of the Patient at the End of Life
 - (8) Domain 8: Ethical and Legal Aspects of Care
- B. The Robert Wood Johnson Foundation (RWJF) brought attention to end-of-life conversations for seriously ill and dying patients.
- 1. RWJF released a groundbreaking report emphasizing the need for improved communication at the end of life in *JAMA* in November 1995 (Connors et al., 1995). Shortcomings surrounding healthcare delivery and patient preferences in advanced disease helped RWJF to identify a need for research in palliative care.
 - 2. RWJF helped to establish the following programs and initiatives:
 - a) Last Acts®, a consumer organization formed as an end-of-life awareness campaign (De Milto, 2002)
 - b) Promoting Excellence in End-of-Life Care, which highlighted the need for physicians to become competent in providing high-quality health care to patients in noncurative situations
 - c) Education in Palliative and End-of-Life Care, an important program in which the American Medical Association designed a “train the trainer” course to educate physicians in end-of-life care and provided the model of curriculum used today for training physicians, nurses, and other palliative care professionals
 - d) Advanced Practice Nursing: Pioneering Practices in Palliative Care
 - 3. For more information on RWJF, see www.rwjf.org.
- C. Key drivers for quality palliative care access and integration
- 1. American Society of Clinical Oncology (ASCO): ASCO is a nonprofit physician organization dedicated to issues unique to clinical oncology and provides clinical opinions based on emerging palliative care data. For more information, see www.asco.org.
 - 2. The Joint Commission (TJC)
 - a) TJC provides palliative care certification designed to recognize hospital inpatient programs that demonstrate high-quality interdisciplinary palliative care.
 - b) TJC certifies hospital compliance with relevant standards for the effective use of evidence-based clinical practice guidelines, along with quality improvement performance measures.
 - c) For more information on TJC palliative care certification, see www.jointcommission.org/certification/palliative_care.aspx.
 - 3. Health and Medicine Division (HMD, formerly IOM) of the National Academies of Sciences, Engineering, and Medicine

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- a) HMD's aim is to help individuals in government and the private sector make informed health decisions, including palliative care issues, by providing reliable evidence.
 - b) For more information, see www.nationalacademies.org/hmd/About-HMD.aspx.
4. CAPC
- a) CAPC remains the leading source for resources in palliative care program development with established tools and educational preparation for providers and agencies.
 - b) In addition, CAPC releases a state-by-state report card and rankings in state and regional access to palliative care in hospitals.
 - c) For more information, see www.capc.org/about/capc.
5. The Quality Oncology Practice Initiative (QOPI®)
- a) QOPI is a quality improvement program for outpatient hematology and oncology practices.
 - b) The initiative provides data-driven quality improvement and promotes self-examination and improvement in practice.
 - c) For more information, see www.instituteforquality.org/qopi-qcp.
- D. The IOM (2014) report *Dying in America: Improving Quality and Honoring Individual Preferences Near the End of Life* highlighted the crucial and often stressful decision making that has become increasingly more complex in today's healthcare delivery system by doing the following:
1. Underscoring the national priority to improve end-of-life care through improved communication, advance care planning, and increased institutional accountability through development of quality measures
 2. Recognizing that patient-centered care is the cornerstone for the delivery of palliative care
- E. Quality improvement in patient care continues to emerge as a national priority.
1. The escalating Medicare population dying from MCCs is compounded with poorly managed symptoms, exacerbations in disease, prevalence of polypharmacy, and the complexities that occur from an uncoordinated healthcare delivery system.
 2. Quality should begin to increase with adherence to the NQF measurements and public transparency requirements—all a direct result of the Patient Protection and Affordable Care Act (ACA).
- III. Current findings
- A. Within recent years, research interests in palliative care issues have gained momentum.
1. Although much of the palliative care literature to date has originated from oncology settings, favorable outcomes have helped to propel interests for research inquiries outside of oncology and into other specialties such as cardiology, pulmonary, and neurology.
 2. As expected, research findings demonstrate that earlier palliative care integration helps to improve overall patient outcomes.
- B. Most palliative care evidence has originated from oncology settings, and elements of clinical palliative care remain less developed than other well-established medical specialties (Norris et al., 2008).
- C. A landmark 1995 study by Connors et al. has been credited for launching investigational interests in end-of-life communications, patient goals of care, caregiver distress, and healthcare delivery.

1. The Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatment (SUPPORT) was a randomized controlled clinical trial conducted over 10 years that yielded startling findings.
 - a) Significant deficits in physician knowledge or understanding of individual patient healthcare preferences, including advance care planning and physical symptom management
 - b) Inadequate communication between healthcare providers and seriously ill patients and discrepancies between patient care delivery and individual patient preferences and goals
 2. The SUPPORT study proved monumental in advancing the need for further palliative care research and served as a driving force behind the development of palliative care as a specialty within the United States (Connors et al., 1995).
- D. Two out of three Medicare beneficiaries are diagnosed with MCCs (U.S. Department of Health and Human Services [DHHS], 2010, 2016). The integration of palliative care can be used to decrease the excessive costs of care burdening the current healthcare system (Ward, Schiller, & Goodman, 2014) (see Table 1-1).
- IV. Relevance to practice
- A. The largest U.S. patient population is those who are living with and dying from MCCs (U.S. DHHS, 2010). This patient population uses the majority of healthcare resources and requires full collaboration with multiple disciplines to ensure optimal patient outcomes (see Table 1-2).
 - B. Improving symptom management in patients with MCCs reduces disease exacerbation, which helps to prevent and reduce admission into hospital and decrease cost of care (IOM, 2014).
 1. Preventing symptoms through skilled palliative care helps patients to maintain physical functioning and reduce deconditioning and debility.
 2. Integrating pertinent disciplines into the management of patient care can help to ensure that all patient issues are addressed and appropriately managed, including physical, psychological, emotional, spiritual, and rehabilitation (WHO, n.d.).
 3. The integration of palliative care should begin at the onset of a confirmed diagnosis of a chronic condition and used throughout the disease trajectory up to and including the time of death (IOM, 2014).
 4. Interdisciplinary palliative care interventions increase in intensity in the presence of symptoms, exacerbations, debility, and approaching death.
 5. Symptom management is palliative care, and knowledge and understanding of the pharmacologic and nonpharmacologic interventions and collaboration with the interdisciplinary healthcare team can be combined to ensure supportive, coordinated, and comprehensive care for patients and their families in the last years of life.
 6. Providers prescribing medications require knowledge and skill in understanding drug–drug interactions because 95% of medications prescribed in the palliative setting go through the cytochrome P450 enzyme system and increase the propensity for adverse reactions in the setting of more than five concomitant medications (U.S. DHHS, 2010).
 7. Clinical care plans should be used and routinely updated based on patient and family needs.
 8. As the disease trajectory progresses, the care plan requires modification and is used to guide the interdisciplinary team to support the multiple dimensions of the patient.

Table 1-1. Cost Savings Attributed to Palliative Care Access

Study	Methods	Results
May et al. (2015)	Prospective, observational design using clinical and cost data collected for patients with advanced cancer in the United States from 2007–2011	Earlier palliative care consultation within 6 days of admission was associated with an estimated reduction by \$1,312 (14%) in total direct costs in hospital stay compared with no intervention. Furthermore, palliative care intervention within 2 days yielded a cost reduction of \$2,280 (24%). The authors concluded that earlier palliative care consultation is associated with lower cost of hospital stay for patients with advanced cancer.
McCarthy et al. (2015)	Analysis matching palliative care patients to nonpalliative care patients using propensity score methods	Overall cost savings from palliative care were \$3,426 per patient for those patients dying in the hospital. The authors concluded that appropriately selected and timed palliative care consults result in hospital cost savings.
Morrison et al. (2008)	Analysis matching palliative care to usual care using administrative data from 8 hospitals from 2002–2004	Palliative care patients who were discharged alive had an adjusted net savings of \$1,696 in direct costs per admission, including reduction in laboratory and intensive care costs, compared to usual care patients. Palliative care patients who died had an adjusted net savings of \$4,908 in direct costs per admission compared to usual care patients.
Starks et al. (2013)	Analysis of data for 1,815 palliative care patients and 1,790 comparison patients from 2 academic hospitals from 2005–2008 matched on discharge dispositions, length of stay (LOS), and propensity for palliative care consultation	Significant savings per admission were associated with shorter LOS. LOS of 1–7 days indicated lower palliative care patient costs by 13% (\$2,141) and for survivors by 19.1% (\$2,946). Stays of 8–30 days were associated with reductions in cost for palliative care patients by 4.9% (\$2,870) and for survivors by 6%. Extrapolating the per-admission cost across the palliative care patient groups with lower costs showed savings of about \$1.46 million for LOS under a week and about \$2.5 million for LOS of 8–30 days. There was no difference in costs for patients with LOS > 30 days, suggesting that earlier involvement in palliative care results in cost savings.

9. No hierarchy of care exists in the palliative care setting—the patient and family are at the core and are central in the shared decision making of the patient’s care.
10. Shared decision making among the patient, family, and healthcare team should be an ongoing dialogue to ensure comprehensive, coordinated, and cost-effective care that demonstrates patient-centered outcomes (Agency for Healthcare Research and Quality, 2015).
11. Members of the interdisciplinary team should integrate and apply real-life data gained from comparative effectiveness research to determine best patient outcomes.

12. Management of symptoms, promotion of ongoing physical functioning, and tailoring of the patient's care plan should accommodate the physical, emotional, and spiritual changes that occur along the trajectory of MCCs.
 13. The chronic care reimbursement model in the primary care setting is an ideal opportunity to integrate the use and implementation of palliative care into the management of patients with MCCs.
 14. Collecting outcomes through the use of psychometrically sound assessment tools is key in determining value versus volume as the United States moves toward a non-fee-for-service healthcare delivery model.
- C. Individualized patient care plans that focus on effective palliative care are used to reduce a crisis-like approach to dying and use a coordinated approach to support the patient and family in the face of advanced disease and ensuing death.
1. The patient's care plan should accommodate disease management based on the patient's physical changes and presenting symptoms.
 2. The interdisciplinary healthcare team should rely on patient self-report of symptoms versus diagnostic criteria explicitly.
 3. The healthcare team should implement advance directives long before the patient begins to dramatically decline. Advance care planning should be an ongoing discussion and perpetually updated to meet the care needs of the patient and family as disease progresses.
 4. The healthcare team also should engage the patient and family in shared decision making about advanced disease goals and approaching debility and death.
- D. The IOM (2014) report *Dying in America: Improving Quality and Honoring Individual Preferences Near the End of Life* recognized the high cost of care in patients aged 65 years and older and the economic burden that this will have on the American population.
1. The burden of serious illnesses among the nation's Medicare-eligible (65 and older) and old-old (85 and older) populations has risen markedly.
 2. Currently, two-thirds of people aged 65 years and older suffer from serious MCCs (Centers for Disease Control and Prevention, 2013).
 3. By contrast, 31% of those aged 45–64 years and only 6% of those aged 18–44 years were treated for two or more chronic conditions in 2009 (Machlin & Soni, 2013).

Table 1-2. Average Medicare Expenditures per Fee-for-Service Beneficiary by Number of Chronic Conditions, 2010

Number of Chronic Conditions	Cost of Care
0–1	\$2,025
2–3	\$5,698
4–5	\$12,174
6 or more	\$32,658

The 15 chronic conditions included in this analysis are high blood pressure, high cholesterol, ischemic heart disease, arthritis, diabetes, heart failure, chronic kidney disease, depression, chronic obstructive pulmonary disease, Alzheimer disease, atrial fibrillation, cancer, osteoporosis, asthma, and stroke.

Note. Based on information from Centers for Medicare and Medicaid Services, 2012; Institute of Medicine, 2014.

4. Medicare spending rises dramatically with increases in the number of chronic conditions. Medicare beneficiaries with five or more such conditions accounted for nearly two-thirds of Medicare dollars spent in 2007 (Anderson, 2010).
- V. Role of the advanced practice registered nurse (APRN)
- A. In combination with our nation's aging crisis, the prevalence of MCCs continues to increase.
 1. This combination provides opportunities to demonstrate improved patient outcomes.
 2. Close to half of Americans aged 65 years or older have three or more chronic conditions, with slightly more than 20% suffering with five or more chronic conditions (Norris et al., 2008).
 - B. In 2000, 24.5% of hospitals with more than 50 beds reported having a palliative care program, whereas in 2013, that number had grown to 72.3% (CAPC, 2015). Based on this growth, the realization of palliative care programs is primarily identified in the acute care setting.
 - C. APRNs understand the clinical value of keen assessment and the use and implementation of best evidence to direct a standard of care that promotes optimal patient-centered outcomes.
 - D. According to the *Clinical Practice Guidelines for Quality Palliative Care* (NCP, 2013), current palliative care delivery models limit the ability to integrate palliative care into the management of common chronic conditions but have separated and specialized routine interdisciplinary care and management into isolated settings to include the following:
 1. Hospice care—a program to provide end-of-life care for patients with terminal illness with a life expectancy of six months or less
 2. Palliative care—institution-based programs that provide skilled physical, psychosocial, and spiritual distress management for patients with serious or life-threatening illnesses that can include consultative services, fixed-bed units, or swing beds
 3. Outpatient palliative care—programs that provide continuity of care to patients in ambulatory care settings
 4. Community palliative care—programs consisting of consultant teams who collaborate with hospice and home health agencies to support seriously ill patients who are not enrolled in hospice services
 - E. The critical decision making that is required in the patient's care management along the trajectory of disease, such as determining physical performance status, performing concomitant disease and symptom management, understanding complex pathophysiology, interfacing with different disciplines, and using specialized referrals, sets APRNs in the primary care setting apart from those with specialized focus on only palliative care.
 - F. Existing barriers to implementing palliative interventions
 1. Health professionals' understanding of palliative care as separate and different than end-of-life care
 2. Acceptance and understanding of implementing sound symptom management based on current evidence-based practice
 3. Patient–caregiver willingness or understanding
 4. Access to palliative care resources or interdisciplinary team accessibility
 5. Association of palliative care with end-of-life care and dying
 6. Poor reimbursement for lengthy patient–provider communication

- G. Examples of outcomes that palliative care APRNs are uniquely positioned to provide
 1. Has an advanced understanding of MCCs, pathophysiology, associated symptoms, and diagnostics to determine disease progression
 2. Is skilled in implementing best evidence to promote optimal outcomes for symptomatic conditions that interfere with physical functioning
 3. Demonstrates knowledge of drug–drug interactions and the implications of ethnicity on the cytochrome P450 enzyme system, which is responsible for metabolizing the majority of medications used in the palliative care setting
 4. Understands and appreciates the role of coordinated care for the patient and family
 5. Provides a conduit for the patient to ensure appropriate referrals and management from multiple health professional disciplines
 6. Participates in demonstrating optimal patient-centered outcomes that will and can be used for reimbursement mechanisms
 7. Recognizes the dynamics of health policy on the changing landscape of patient care and remains flexible and dynamic in the era of the ACA
- H. NQF provides quality measures designed to measure the quality of care provided by nurses who work in hospitals. The National Database of Nursing Quality Indicators® provides the largest nursing registry for measuring and comparing data for hospital performance and provides an incentive for continuous quality improvement.

Case Study

L.J., a 62-year-old woman, comes to the clinic with complaints of progressive dyspnea and exercise intolerance. She has a past medical history of hypertension, hyperlipidemia, chronic obstructive pulmonary disease (forced expiratory volume in one second, or FEV₁, less than 70% predicted), sleep apnea, morbid obesity (body mass index greater than 35), type 2 diabetes, depression, and osteoporosis. She complains of peripheral edema, productive cough, and lethargy. Her symptoms have worsened over the past two days and she is having difficulty sleeping in her bed.

On physical examination, L.J. appears morbidly obese, deconditioned, and dyspneic while ambulating in orthopedic position and using pursed-lip breathing. She has dry oral mucosa, crowded uvula 3+, and bilateral cervical lymphadenopathy and is febrile with a temperature of 101.5°F (38.6°C). She is tachycardic with a heart rate of 112 and irregular thready pulse. Examination also found bilateral diminished lower lung sounds, rales and rhonchi bilateral mid and upper lobes, increased anterior and posterior diameter, and increased jugular vein distension bilaterally. Her abdomen was too obese to examine. Peripheral extremities show brisk patellar reflexes bilaterally 3/4 and symmetrical. Office diagnostics showed pulse oximetry in room air of 87% and nonfasting glucose finger stick of 288 mg/dl.

The differentials from this clinical encounter include chronic obstructive pulmonary disease exacerbation, dehydration, hyperglycemia, fever, hypoxemia, morbid obesity, dyspnea, exercise intolerance, orthopnea, productive cough, and lethargy. The APRN recognizes the fragile status of this patient and institutes the following interventions: oxygen at 2 L per nasal cannula, IV hydration of normal saline, azithromycin, and 3 units of regular insulin subcutaneous injection.

During the clinical encounter, the APRN learns that the patient has not been adherent with her home medications and diabetic management. She provides the patient with information on the importance of maintaining her medication regimen (long-acting anticholinergic

gic and short-acting beta-2 agonist, metformin 1,000 mg every 12 hours, bupropion extended release 150 mg daily, celecoxib 200 mg daily, lisinopril 20 mg daily, and simvastatin 20 mg at bedtime) and the pulmonary symptoms that lead to an exacerbation.

The APRN stabilized L.J. in the clinic and sent her home with APRN home visits to ensure that she stabilizes and regains her medical management. L.J. was referred to a community-based self-management program to help reinforce and empower her disease management practices. The APRN ensured that L.J. was scheduled for a clinic appointment at the end of the week and encouraged her to contact the clinic if her symptoms worsen. L.J. will continue to receive symptom management to reduce exacerbation development and will work with her healthcare team in shared decision making to ensure that she reduces the physical and psychological burdens associated with her concomitant conditions influenced largely by lifestyle.

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