InforMed
Continuing Medical Education
By Colibri Healthcare

State Specific Continuing Medical Education

# 2023 New Jersey Medical Licensure Program

- 1 Credit
  Opioids*
- 2 Credits
  End-of-Life Care*

ACCME ACCREDITED

## *Mandatory CME Requirements:

1 credit on opioids and 2 credits on end-of-life care required prior to license renewal

**CME FOR:** *AMA PRA CATEGORY 1 CREDITS™* MIPS MOC STATE LICENSURE

**NJ.CME.EDU**

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# 2023 NEW JERSEY

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## CME that counts for MOC

Participants can earn MOC points equivalent to the amount of CME credits claimed for designated activities (see page iii for further details). InforMed currently reports to the following specialty boards: the American Board of Internal Medicine (ABIM), the American Board of Anesthesiology (ABA), the American Board of Pediatrics (ABP), the American Board of Ophthalmology (ABO), the American Board of Otolaryngology–Head and Neck Surgery (ABOHNS), and the American Board of Pathology (ABPath). To be awarded MOC points, you must obtain a passing score, complete the corresponding activity evaluation, and provide required information necessary for reporting.

**$55.00** **PROGRAM PRICE (3 CREDITS)**

**DATA REPORTING:** Federal, State, and Regulatory Agencies require disclosure of data reporting to all course participants. InforMed abides by each entity's requirements for data reporting to attest compliance on your behalf. Reported data is governed by each entity's confidentiality policy. To report compliance on your behalf, it's mandatory that you must achieve a passing score and accurately fill out the learner information, activity and program evaluation, and the 90-day follow up survey. Failure to accurately provide this information may result in your data being non-reportable and subject to actions by these entities.

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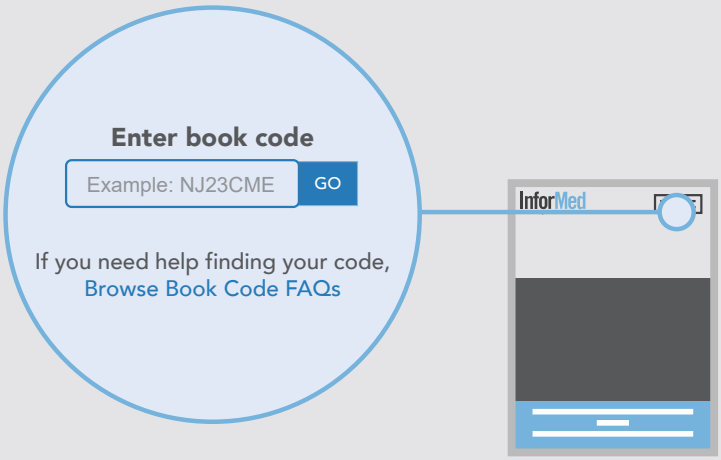


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- Fill out the answer sheet and evaluation found in the back of this booklet. Please include a check or credit card information and e-mail address. Mail to **InforMed, PO Box 2595, Ormond Beach, FL 32175-2595**.
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- Submissions without a valid e-mail will be mailed to the address provided.

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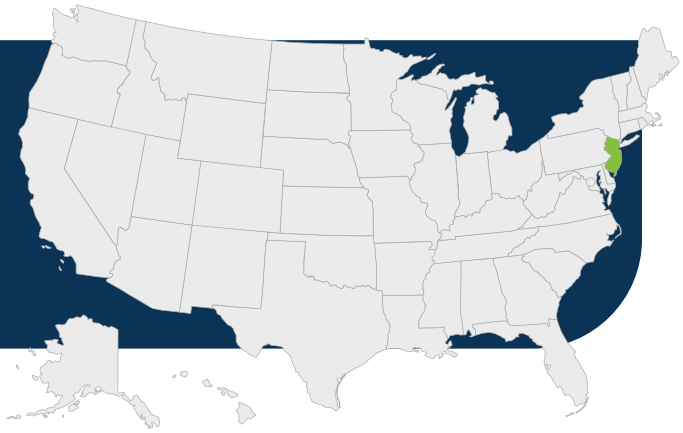

# New Jersey Professional License Requirements

### PHYSICIANS (MD/DO) & PODIATRISTS

Unless exempt, a licensee applying for biennial license renewal shall complete 100 continuing medical education credits in Category I or Category II courses, of which at least 40 of such credits shall be in Category I.

## MANDATORY CME REQUIREMENT ON OPIOIDS

### PHYSICIANS (MD/DO) & PODIATRISTS

The State Board of Medical Examiners shall require that the number of credits of continuing medical education required of each person licensed as a physician, as a condition of biennial registration pursuant to section 1 of P.L.1971, c.236 (C.45:9-6.1), include one (1) credit of educational programs or topics concerning prescription opioid drugs, including responsible prescribing practices, alternatives to opioids for managing and treating pain, and the risks and signs of opioid abuse, addiction, and diversion. The continuing medical education requirement in this subsection shall be subject to the provisions of section 10 of P.L.2001, c.307 (C.45:9-7.1).

### PHYSICIAN ASSISTANTS

The State Board of Medical Examiners shall require that the number of credits of continuing medical education required of each person licensed as a physician assistant, as a condition of biennial renewal pursuant to section 4 of P.L.1991, c.378 (C.45:9-27.13), include one credit of educational programs or topics concerning prescription opioid drugs, including responsible prescribing practices, alternatives to opioids for managing and treating pain, and the risks and signs of opioid abuse, addiction, and diversion. The continuing medical education requirement in this subsection shall be subject to the provisions of section 16 of P.L.1991, c.378 (C.45:9-27.25).

## MANDATORY CME REQUIREMENT ON END-OF-LIFE CARE

### PHYSICIANS (MD/DO) & PODIATRISTS

The State Board of Medical Examiners requires that the number of credits of continuing medical education required of each person licensed as a physician or podiatrist include two (2) credits of educational programs or topics related to end-of-life care as a condition of biennial renewal.

*We are a nationally accredited CME provider.*
*For all board-related inquiries please contact:*

**New Jersey State Board of Medical Examiners**
P.O. Box 183
Trenton, NJ 08625
E: bme@dca.lps.state.nj.us
P: (609) 826-7100
F: (404)-656-9723

**RENEWAL DEADLINES:**

**MD/DO: 6/30/2023**
**PA: 8/31/2023**
**DPM: 10/31/2023**

**LICENSE TYPES:**

**MD/DO,**
**PA & DPM**

# MOC/MIPS CREDIT INFORMATION

**In addition to awarding *AMA PRA Category 1 Credits™*, the successful completion of enclosed activities may award the following MOC points and credit types. To be awarded MOC points, you must obtain a passing score and complete the corresponding activity evaluation.**

| Table 1. MOC Recognition Statements | | |
|---|---|---|
| Successful completion of certain enclosed CME activities, which includes participation in the evaluation component, enables the participant to earn up to the amounts and credit types shown in Table 2 below. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting MOC credit. | | |
| **Board Programs** | | |
| MOCA® | **ABA** | American Board of Anesthesiology's redesigned Maintenance of Certification in Anesthesiology™ (MOCA®) program, known as MOCA 2.0® |
| ABIM CME MOC ACCREDITED | **ABIM** | American Board of Internal Medicine's Maintenance of Certification (MOC) program |
| | **ABO** | American Board of Ophthalmology's Maintenance of Certification (MOC) program |
| ABOHNS | **ABOHNS** | American Board of Otolaryngology – Head and Neck Surgery's Continuing Certification program (formerly known as MOC) |
| CME for ABPath CC | **ABPath** | American Board of Pathology's Continuing Certification Program |
| PART 2 MOC THE AMERICAN BOARD of PEDIATRICS | **ABP** | American Board of Pediatrics' Maintenance of Certification (MOC) program. |

| Table 2. Credits and Type Awarded | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Activity Title** | ***AMA PRA Category 1 Credits™*** | **ABA** | **ABIM** | **ABO** | **ABOHNS** | **ABPath** | **ABP** |
| Responsible Opioid Prescribing Practices | 1 *AMA PRA Category 1 Credit™* | 1 Credit LL | 1 Credit MK | 1 Credit LL & SA | 1 Credit SA | 1 Credit LL | 1 Credit LL+SA |
| Compassionate Care at the End-of-Life | 2 *AMA PRA Category 1 Credits™* | 2 Credits LL | 2 Credits MK | 2 Credits LL & SA | 2 Credits SA | 2 Credits LL | 2 Credits LL+SA |
| **Legend:** LL = Lifelong Learning, MK = Medical Knowledge, SA = Self-Assessment, LL+SA = Lifelong Learning & Self-Assessment, PS = Patient Safety | | | | | | | |

| Table 3. CME for MIPS Statement |
|---|
| Completion of each accredited CME activity meets the expectations of an Accredited Safety or Quality Improvement Program (IA PSPA_28) for the Merit-based Incentive Payment Program (MIPS). Participation in this Clinical Practice Improvement Activity (CPIA) is optional for eligible providers. |

# RESPONSIBLE OPIOID PRESCRIBING PRACTICES

| COURSE DATES: | MAXIMUM CREDITS: | FORMAT: |
|---|---|---|
| Release Date: 10/2022<br>Exp. Date: 9/2025 | *1 AMA PRA Category 1 Credit*™ | Enduring Material<br>(Self Study) |

## TARGET AUDIENCE

This course is designed for all physicians (MD/DO), physician assistants, nurse practitioners and other health care professionals who seek to successfully manage pain.

## HOW TO RECEIVE CREDIT:

- Read the course materials.
- Complete the self-assessment questions at the end. A score of 70% is required.
- Return your customer information/ answer sheet, evaluation, and payment to InforMed by mail, phone, fax or complete online at program website.

## COURSE OBJECTIVE

This CME learning activity is designed to increase physician knowledge and skills about topics concerning responsible prescribing practices for managing and treating pain, including opioids and alternative treatments. Aspects of opiate misuse will be explored including opiate use disorder.

## LEARNING OBJECTIVES

**Completion of this course will better enable the course participant to:**

1. Explain the physiology of opioids
2. Discuss the potential side effects of opioid use
3. Discuss how to recognize and treat opioid use disorder.
4. Describe treatments for opiate overdose.

## ACCREDITATION STATEMENT

InforMed is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

## DESIGNATION STATEMENT

InforMed designates this enduring material for a maximum of 1 *AMA PRA Category 1 Credit*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

## FACULTY

**Brad Bendesky, MD**
Associate Professor
Department of Emergency Medicine
Drexel University College of Medicine

## ACTIVITY PLANNER

**Michael Brooks**
CME Director
InforMed

## DISCLOSURE OF INTEREST

In accordance with the ACCME Standards for Integrity and Independence in Accredited Continuing Education, InforMed implemented mechanisms, prior to the planning and implementation of this CME activity, to identify and resolve conflicts of interest for all individuals in a position to control content of this CME activity.

## COURSE SATISFIES


### SPECIAL DESIGNATION

This course satisfies one (1) credit hour relative to opioids.

The New Jersey State Board of Medical Examiners requires one (1) credit hour of educational programs or topics concerning prescription opioid drugs, including responsible prescribing practices, alternatives to opioids for managing treatment of pain, and the risks and signs of opioid abuse, addiction, and diversion as a condition of biennial renewal.

## FACULTY/PLANNING COMMITTEE DISCLOSURE

The following faculty and/or planning committee members have indicated they have no relevant financial relationship(s) to disclose with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients:

- Brad Bendesky, MD
- Michael Brooks

## STAFF AND CONTENT REVIEWERS

InforMed staff, input committee and all content validation reviewers involved with this activity have reported no relevant financial relationships with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.

## DISCLAIMER

## Introduction

Both "opiate" and "opioid" have commonly been used interchangeably in the past, but current accepted practice is to specifically use the term opioids to refer to all natural, semisynthetic, and synthetic forms of this centuries old agent of pain control. Fentanyl, the most prevalent synthetic opioid today, is included in this category along with naturally occurring opioid formulations such as heroin, morphine, and codeine. The popularity of this drug class stems from its powerful ability to control pain and induce euphoria. Naturally occurring forms can be referred to as "opiates" and these drugs are derived from the opium extracted from the Poppy plant and dried to form a power. Some of the most famous people in history have been associated with the use of this drug. Hippocrates prescribed poppy for the treatment of pain.[1] Roman emperor Marcus Aurelius, Benjamin Franklin and Thomas Jefferson all used opiates for various conditions. Opioids have a unique ability to treat pain from almost any source because of their effect on the brain's ability to process signals related to noxious stimuli. It has been observed that "Though it could cure little, it could relieve anything," and "Doctors and patients alike were tempted to overuse."[2] The potential benefits related to the action of opioids are matched only by its significant risk when used improperly. It is vital that all who use opioids in any capacity understand these effects to allow for responsible use.

## History of Opioids in Modern Medicine and Society

Modern medicine's journey with opioids began with German pharmacist F.W. Serturner's "discovery" of morphine in 1805. Serturner was the first to successfully isolate and extract crystals from the tarry poppy seed juice. Serturner named the sleep inducing agent morphium (in English, morphine), after Morpheus, the god of dreams in ancient Greece.[3] Parenteral Morphine treatments began in the mid 1800s following the development of the hypodermic needle in 1856. Morphine played an even greater role after the use increased significantly in the United States during the Civil War as a treatment for the pain associated with the injuries of war. Heroin was then synthesized in the late 1800s and marketed as a "heroic", non-addictive cough medicine by the Friedrich Bayer & Co. in 1898.[4] During this time opium was one of the main ingredients in many elixirs sold as a remedy for pain, cough, and colic. Laudanum, an alcoholic herbal mixture containing 10% opium, was a common preparation during the Victorian era. The public's use of these elixirs increased in popularity and resulted in an epidemic of overuse that necessitated government action to attempt to limit the availability of these agents. In 1914 the US Congress passed the Harrison Narcotics Act, which ultimately did little to control the availability of these agents.

Morphine was widely used medically to treat injuries during both world wars. During World War II, U.S. soldiers were even issued medical kits with morphine syringes to self-administer to treat the pain of combat wounds while waiting for the medics. At the time, it was known that morphine could be habit forming and warning labels were placed on the packaging.[5] Despite the known risks, the illicit use of opioids continued steadily after the war and through the 1960s, when use increased and heroin addiction became to be understood as a psychiatric illness that required treatment.[6] During most of the late 20th century, accepted medical opioid therapy was limited to the treatment of acute traumatic pain and cancer. It was the widely held perception among professionals in the United States that the long-term use of opioid therapy to treat chronic pain was contraindicated by the risk of addiction, increased disability and lack of efficacy over time.[7] The use of opioid use by health providers did not significantly expand past those narrow indications until the late 1970s in response to published literature, including the 1973 manuscript from Marks and Sachar in the Annals of Internal Medicine. This report described the failure of physicians to treat patients in severe pain with adequate doses of opioid analgesics and claimed that many physicians overestimated the dangers of addiction.[8] This report, along with a much-referenced letter in the New England Journal of Medicine in 1980, was used by those supporting expanded use of opioids. The NEJM letter claimed that the addiction rates related to the treatment of patients with acute pain using opioids was extraordinarily low in patients without a history of addition. The authors claimed review of almost 40,000 hospitalized patients with an addiction rate of 0.03%. This claim was made in the context of a letter to the editor, but notably without detailed scientific evidence to allow for peer review.[9]

Support for the medical use of opioid medication continued to expand through the 1990s. At that time, multiple agencies, including the Joint Commission, advocated for the improved treatment of acute and chronic pain in patients. This campaign of increasing focus on the importance of pain control coincided with Purdue Pharma's introduction of a long-acting oral opioid pill, Oxycontin, in 1996. This company, along with others, spent millions of dollars promoting the notion of sustained pain control.[10] The widespread marketing and use of oral opioid medication, including Oxycontin, helped fuel the current opioid epidemic. The early part of this century saw significant increases in the complications related to liberal opioid use and prescribing, leading to public policy changes by health organizations to appropriately address the risk-benefit paradigm for the use of opioids for pain.[11] Currently, recommendations related to the use of opiate medications are closely regulated as a result of that analysis.

## Opioid Overdose Statistics

The overdose deaths involving opioids, including prescription medications, heroin, and synthetic opioids such as fentanyl, have steadily and dramatically increased over the last 2 decades. Drug overdose deaths spiked during the COVID-19 pandemic despite the increased attention and attempted regulation. Fentanyl is the main driver of drug overdose deaths and accounts for 80% of all opioid related fatalities.[12] Fentanyl is also currently responsible for the majority of illicit use complications in general.[13] Fentanyl is a short acting, but potent opioid and is widely used by providers for treatment of pain using multiple formulations. However, it is also found in illegal, adulterated samples of illicit drugs in various concentrations, making overdose common. Studies estimate that over 150 people die per day from Fentanyl related overdoses.[14] This number of overdose deaths continues to increase primarily due to the presence of inexpensive production of synthetic opioids and psychostimulants such as methamphetamine.[15] Most recently, estimates from the Centers for Disease Control and Prevention show that more than 105,000 lives were lost to drug overdose in 2021 alone, an increase from 2020.[16,17,18,19] Modeling studies predict overdose deaths to reach over half a million cases in the next decade. [20]

## Physiology

Opioid receptor stimulation can be achieved from both exogenous and endogenous sources. Exogenous opioids like morphine, heroin, and fentanyl are substances that are introduced into the body and will bind to the same receptors as the endogenous opioids, commonly referred to as endorphins. These opioid medications closely mimic the structure of natural endorphins that are released within the body and therefore produce a physiological effect of decreased pain perception. Endogenous stimulation of opiate receptors occurs naturally within the body via release of endorphins in response to multiple stimuli including pain, stress, exercise, eating, and sex.[21] The physiology of opioid pathways is well, but not completely, understood. Stimulation of these opiate receptors share multiple effects on the human body other than just pain control and can include sedation, nausea, euphoria, respiratory depression, pupillary miosis, cough suppression, constipation and pruritus. The intensity and duration of these effects vary with different formulations. Multiple types of endorphins with various subtypes have been discovered and act on opioid receptors that are located not only in the brain, but throughout the body. They are located peripherally in the carotid bodies and vagal receptors in the lungs and account for the respiratory depression, hypoxia and sometimes death related to opioid overdose. Constipation is very common and is induced through inhibition of acetylcholine decreasing motility and by decreasing chloride secretion, limiting passive movement of water into the gut.

Histamine release is triggered through non-allergic mast cell activation resulting in pruritis, vasodilatation and occasionally hypotension. Hypotension can also be triggered by vagal nerve stimulation causing bradycardia. Other effects include SIADH, immune dysfunction, sleep and mood changes.[22] Nausea and vomiting are also very common side effects and occur in over one third of patients using opioids.[23] It has been observed that opioid induced nausea and vomiting related to the vestibule-ocular reflex can be reduced by limiting head movement.[24]

It is also understood that secondary effects of opioids, through GABA secretion, modulate the release of dopamine which has significant effects on these substances' ability to positively reinforce its use.[22] This dopaminergic stimulation associated with opioid use is a major factor in the behavior exhibited in patients that suffer from Opioid Use Disorder (OUD). In fact, apart from the LSD- and mescaline-like hallucinogens, functional dopamine agonism is the single pharmacological property that all addictive drugs share.[25] Opioid stimulation of dopamine is part of a complex system of addiction within the brain's reward centers. Understanding of the physiology of addiction and OUD requires one to recognize the incredibly strong positive reinforcement exerted by these pathways. Studies in the 1950s demonstrated that rats that had electrical stimulation to the mesolimbic dopamine system would repeatedly cross a highly electrified grid that was painful in order to repeatedly stimulate the release of dopamine in the brain. Starving rats, in contrast, would not cross that same grid despite the presence of food in sight.[26] It is this behavior in response to dopamine that puts the sometimes-desperate actions of those patients suffering from OUD into perspective. In contrast to endogenous endorphins, which are quickly metabolized, exogenous use of agents that bind to opioid receptors have longer half-lives. Continued use of these drugs lead to down regulation of natural endorphins and up regulation of opiate receptors leading to increased pain sensitivity and dysphoria when those receptors are not activated.

The primary analgesic effect of administered exogenous opioids proved useful in the treatment of painful conditions across many disciplines, but led to increased use of this type of medicine by many practitioners, which then led to unintended side effects and complications such as dependence. Many patients that become habituated to these drugs do not use the drugs recreationally or for pleasure, but use them increasingly to avoid pain and dysphoria related to withdrawal in an attempt to feel "normal". Recent initiatives have sought to better educate all practitioners on the effects of opioid medicines and to define strategies that are considered responsible and effective for patients. Multiple programs and processes have been created to treat substance use disorder(SUD) and opioid use disorder(OUD) specifically. The development of pain management programs has led to new strategies to address pain of all types in patients across multiple disciplines.

## Opioids and Pain Control

Acute and chronic pain exacerbation is the cause for a large percentage of ED and primary care visits and it is estimated that over 40% of ED visits are related to pain.[27] Recent studies showed that one in five adults have chronic pain with 7.4% of adults describing chronic pain that frequently limited life or work activities (referred to as high impact chronic pain) in the past 3 months.[28] Opioids play an important role in the management of pain despite the potential dangers of use and still remains an integral tool in modern medicine. Multiple medications and non-medication regimens have been proposed for various types of acute and non-acute pain. Recent evidence suggests that non-opioid pain regimens may be as effective for moderate to severe pain as opioids.[29, 30] Opioids are commonly prescribed for pain, with approximately 20% of patients presenting with non-cancer acute or chronic pain receiving an opioid in any given year, and nearly two thirds of the public reporting being prescribed an opioid for pain at some point in their lives.[31, 32]

Guidelines from the Centers for Disease Control and other organizations strongly recommend that only short-acting opioids be prescribed for acute pain because they reach peak effect more quickly than extended-release formulations and decrease the risk of unintentional overdose.[33] This recommendation recognizes that overdose was 5 times more likely in patients prescribed extended-release opioids compared to immediate-release opioids.[34] According to the American Medical Association (AMA), an estimated 3 to 19 percent of people who take prescription pain medications develop an addiction to them.[35] Physical dependence can readily occur after use of opioids for a few days. Up to 20% of opioid naïve patients develop long-term opioid use after just 10 days of treatment.[36]

Despite the known dangers, significant variability exists in the literature as to the exact level of risk posed by the use of prescribed opioids when prescribed by licensed professionals. A recent review even questions the severity of opioid risk in patients treated for severe chronic pain. The authors contend that there are no scientific grounds for considering alternative non-pharmacologic treatments as an adequate substitute for opioid therapy. They do believe that these alternative treatments might serve to augment opioid therapy, thereby reducing the necessary dosage of the opioid to achieve appropriate pain control.[37]

The CDC Guideline for Prescribing Opioids for Chronic Pain was published in 2016 and is expected to be updated soon. This guide strongly suggests that opioids are not first line therapy and suggests establishing goals for pain and function and discussion of risks and benefits for patients seeking chronic pain relief. If use of an opioid is thought to be appropriate based on the clinician's evaluation, certain cautions must be exercised to decrease risk of complications. The patient that continues to use controlled medications for chronic pain control should be drug tested at least annually. Concurrent sedating medication use should be limited when possible. Use of a combination of opioids and benzodiazepines are thought to be particularly dangerous due to the sedative effects.[38] The practitioner should review the prescription drug monitoring program (PDMP) data for each patient. Prescription drug monitoring programs are active in every state and are designed to facilitate the collection, analysis, and reporting of information on the prescribing, dispensing, and use of prescription drugs within each state. An overriding goal of PDMPs is to uphold both the state laws ensuring access to appropriate pharmaceutical care by citizens and the state laws deterring diversion. More information regarding PDMPs can be found at the CDC website at https://www.cdc.gov/opioids/providers/pdmps.html.

### Opioid dosing

Calculating a patient's total daily dose of opioids is important to avoid potential complication. Dosing must be considered in relation to the drug's specific pharmacokinetics, the patient's unique circumstance including age, activity level, and other medication interactions. Evaluation of the patient's tolerance and expected duration of use is also necessary. The CDC offers an Opioid Guidance Mobile App that assists the provider to apply these recommendations. (https://www.cdc.gov/opioids/providers/prescribing/app.html) The app includes a Morphine Milligram Equivalent (MME) calculator. It is reported that MME dosages above 50 MME/day doubles the overdose risk.[39] A summary graphic related to MME dosing can be found on the CDC website at https://www.cdc.gov/drugoverdose/pdf/calculating_total_daily_dose-a.pdf. Providers must be cautious when using calculators alone because dose is not the only relevant variable when measuring potential risk. It is beyond the scope of this review to recommend specific treatments for pain control, although many guidelines exist. It is accepted that only enough opioids should be prescribed to address the expected duration and severity of pain from an injury or procedure (or to cover pain relief until a follow-up appointment). Due to the large number of patients evaluated for acute pain in the emergency department, many articles address opioid prescribing in this particular setting.[40,41] Other resources that focus on various other clinical settings have generally recommended prescribing ≤3 days of opioids in most cases. Some have recommended ≤7 days, with some suggesting an even longer duration of treatment.[42,43,44,45] The surgical societies have adopted Enhanced Recovery After Surgery (ERAS) strategies, which are system processes involving each aspect of the surgical journey that could affect recovery.[46] An important part of ERAS is multi-modal analgesia therapy to treat the pain related to surgical procedures.[47] Guidelines from an expert consensus panel provide specific recommendations for dosing oxycodone 5mg tablets for pain following common surgical procedures.[48]

CDC guidelines suggest that for most painful conditions (barring major surgery or trauma) a 3-day supply should be enough, although many factors must be taken into account (for example, some patients in very rural areas might live so far away from a health care facility or pharmacy that somewhat larger supplies might be justified).[49] The CDC provides resources for healthcare providers that are easily accessed on their website, https://www.cdc.gov/opioids/providers/prescribing/index.html.

**Non-Opioid Pain Treatment**

Non-opioid pain management is an important tool in the war against both acute and chronic pain. The Alternatives to Opiates (ALTO) program was launched in 2016 at St. Joseph's Regional Medical Center in Paterson, NJ. This program was novel at the time and used targeted nonopioid medications, trigger-point injections, nitrous oxide, and ultrasound-guided nerve blocks to tailor its patients' pain management needs and avoid opioids when possible. According to their website, the hospital reduced opioid use by 50% since the inception of the program.[50] The ALTO program has matured, and other institutions have implemented similar programs. The Colorado ALTO project has a toolkit with specific recommendations for the treatment of acute and non-acute pain. (https://cha.com/wp-content/uploads/2018/04/Colorado-ALTO-Project-Clinician-Toolkit.pdf) This project, initially designed and tested on patients presenting to the ED, has categories of patients organized by pain type within the toolkit. It can be used by all providers to treat various types of pain in the ED, inpatient and outpatient setting. Other clinical applications guides are available and include specific recommendations for treatment regimens depending on the acute complaint in the ED. The use of NSAIDs, skeletal muscle relaxants and topical medications are very common. More recent additions include the use of low dose ketamine and haloperidol in the treatment of acute pain in the Emergency Department setting.[51] The American Academy of Pain Medicine developed a clinical practice guideline for use in the treatment of pain and can be reviewed on their website. https://painmed.org/clinical-guidelines/. A comprehensive report on pain management practices can be found on the US Department of Health and Human Services website: https://www.hhs.gov/opioids/prevention/pain-management-options/index.html.

## Patient Education and Safety

Patient education about the effects of these medications is critical and necessary when prescribing opioids to treat acute or chronic pain. Advise both patient and family about the common side effects and best practices related to dosing. Planning should include provision of prescriptions or distribution of naloxone to use in the event of overdose or respiratory depression. In addition, whenever an opioid is prescribed, the patient and family should be educated about the safe use and storage of the medications. Safe use refers to adherence to clinician instructions about dosing, avoiding potentially dangerous drug interactions, and preventing diversion. Remind patients that opioid pain medications are frequently diverted, and opioids should be stored in a locked cabinet or other secure storage unit. If a locked unit is not available, patients should be advised to not keep opioids in an open place that is easily accessed by others, since theft by friends, relatives, and guests is a known route by which opioids become diverted.[52] Discuss the effects that opioids might have on ability to operate a vehicle, particularly when opioids are first stared, when dosages are increased, or when other central nervous system depressants, such as benzodiazepines or alcohol, are used concurrently. Proper disposal methods should be explained. Common instructions include the recommendation to not flush medications down the sink or toilet unless the prescribing information specifically instructs to do so. Many pharmacies, health centers, police stations and other organizations have take back programs, including tamper proof drop off containers. Mixing the medicine with an undesirable substance such as coffee grounds or kitty litter for disposal in the trash is another option.[53] Commercial disposal systems such as *DisposeRX* have been developed and is a safe way to dispose of these medications.

## Substance Use Disorder (SUD) and Opioid Use Disorder (OUD)

Increased awareness and attention have been placed on the identification and treatment of patients who develop addiction to opioids. Substance Use Disorder (SUD) and Opioid Use Disorder (OUD) are preferred terms for patients with dependence to these drugs. This disorder was previously classified as Opioid Abuse or Opioid Dependence in DSM-IV.[54] The DSM V recognizes substance-related disorders resulting from the use of 10 separate classes of drugs, including opioids. Opioid use disorder consists of an overpowering desire to use opioids, increased opioid tolerance, and withdrawal syndrome when discontinued. Opioid use disorder includes dependence and addiction with addiction representing the most severe form of the disorder. To confirm a diagnosis of OUD, at least two of the following should be observed within a 12-month period:[55]

1. Opioids are often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control opioid use.
3. A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects.
4. Craving, or a strong desire or urge to use opioids.
5. Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school, or home.
6. Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.
7. Important social, occupational, or recreational activities are given up or reduced because of opioid use.
8. Recurrent opioid use in situations in which it is physically hazardous.
9. Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
10. Exhibits tolerance
11. Exhibits withdrawal

**Treatment of OUD and SUD**

Treatment options for OUD are improving as better understanding of this disease process increases. Buprenorphine, methadone and naltrexone are the most popular medications used in the treatment of OUR.[56] Historically, pharmacological treatment for opioid use disorder was referred to as Medications for Addiction Treatment (MAT). Medications for Opioid Use Disorder (MOUD) has since replaced this terminology and is considered a more appropriate description of this treatment. MOUD involves a combination of medications that target the physical dependence on opioids and includes psychosocial interventions such as counseling and skills development to improve treatment outcomes. Linking people with OUD to successful treatment can occur in many settings. Outpatient care programs, hospital departments (including emergency departments), harm reduction and syringe services programs, and criminal justice settings all present opportunities for linkage to care. Access to medications used to treat OUD have been closely regulated in the past. Due to the extraordinary increase in the number of patients requiring treatment, efforts have been made to expand and promote the use of these medications by various providers.

The Substance Abuse and Mental Health Services Administration (SAMHSA) is the agency within the U.S. Department of Health and Human Services that leads public health efforts to advance the behavioral health of the nation. This agency regulates the safe use of these medications for the treatment of OUD. (https://www.samhsa.gov/.) SAMHSA's mission is to reduce the impact of substance abuse and mental illness on America's communities and promotes MOUD treatment. SAMHSA also facilitates and guides practitioners in treatment and regulates access to specific medications. The Providers Clinical Support System (PCSS) (https://pcssnow.org/) is a national training and clinical mentoring project developed in response to the prescription opioid misuse epidemic and the availability of pharmacotherapies to treat opioid use disorder. PCSS trains health professionals to provide effective, evidence-based, medication-assisted treatments to patients with opioid use disorder in primary care, psychiatric care, substance use disorder treatment, and pain management settings.

Research shows that medications and therapy together may be more successful than either treatment method alone.[57]

Health care professionals often miss opportunities to engage patients about OUD. Few providers consider how to address OUD within their practice, and still fewer offer MOUD. Unfortunately, many people seeking treatment for OUD cannot access MOUD resources. Significant disparities in access to MOUD persist, and many Americans live in areas where MOUD programs are not available. Social workers, medical professionals and family can all assist patients with finding resources related to the treatment of OUD. Peer support workers, if available, increase the likelihood of engagement with a warm handoff and treatment plan for OUD. Peer support workers are specially trained individuals that can interact with patients suffering from OUD. These workers are individuals that have successfully recovered from SUD in the past. Peer support workers engage in a wide range of activities, including advocacy, linkage to resources, sharing of experience, community and relationship building, group facilitation, skill building, mentoring, goal setting, and more.[58] Linking those living with OUD to effective treatments will reduce substance use in communities, lower rates of infectious disease, and prevent early death from overdose of opioids and other drugs.[59] Additional resources related to MOUD can be found on the CDC website at https://www.cdc.gov/drugoverdose/featured-topics/linkage-to-care.html.

## MOUD- Medications for Opioid Use Disorder

### Methadone

Methadone is one of the most common medicines to treat OUD. It is an opioid agonist and can only be prescribed and dispensed in licensed methadone clinics. Methadone therapy for OUD typically requires frequent visits in conjunction with an established opioid treatment program and may be inconvenient or feel stigmatizing for some patients. Methadone was first developed and used as a pain reliever in 1947. Methadone maintenance has been evaluated since its development in 1964 as a medical response to the post-World War II heroin epidemic in New York City.[60] Prior to the release of buprenorphine, methadone was the gold standard for treatment of opiate addiction. Methadone is a full opioid agonist and retains most of the undesirable effects associated with opioids, including respiratory depression, thereby making it necessary to be managed by a trained health professional. Currently, methadone is typically dosed daily and through an approved clinic. In limited cases patients may be allowed to take methadone at home between program visits. The length of methadone treatment should be a minimum of 12 months with some patients requiring long-term maintenance.[61]

### Buprenorphine

Buprenorphine is an increasingly popular treatment for OUD. It was approved in 2002 for the treatment of OUD and differs from methadone in that buprenorphine is only a partial agonist and has less potential for side effects and overdose injury as compared to methadone. One of the most important advantages of buprenorphine is its ceiling effect on respiratory depression. As described earlier, respiratory depression frequently leads to hypoxia and arrest in many opioid overdoses. Buprenorphine has very little risk for respiratory depression, and this has made it increasingly favored and more suitable for its initiation in the outpatient arena. Unlike methadone, the lack of required daily visits to a treatment center can also be an advantage. Another advantage of buprenorphine is the availability of long-acting injectable or implantable formulations that carry a low risk of diversion and can be managed as a monthly visit. Some patients still prefer methadone over buprenorphine. Both methadone and buprenorphine are first line agents for the treatment of OUD in pregnancy.[62]

Buprenorphine can only be prescribed and dispensed by a certified provider who has a Drug Enforcement Agency license and has undergone training and/or qualifies for a Drug Addiction Treatment Act of 2000 (DATA 2000) waiver. This list includes physicians, nurse practitioners (NPs), physician assistants (PAs), clinical nurse specialists (CNSs), certified registered nurse anesthetist (CRNAs) and certified nurse-midwifes (CNMs). This license is commonly referred to an "x-waiver" as, after a successful application is submitted, a new DEA card is provided with an "x" before the number, designating the provider as approved to prescribe buprenorphine. Important to note that any DEA licensed practitioner can order Buprenorphine during treatment of OUD during inpatient hospitalization, as the x-waiver is only necessary for prescription authority. Practitioners can apply for a buprenorphine waiver through the SAMHSA website at: https://www.samhsa.gov/medication-assisted-treatment/become-buprenorphine-waivered-practitioner. In an attempt to recruit more practitioners to treat OUD with MOUD, SAMHSA has recently allowed acquisition of an x-waiver license without the traditional training course. The submission of a Notice of Intent (NOI) to treat using buprenorphine is required and is limited to the care of 30 patients at a time. Treatment of more than 30 patients concurrently requires additional training and approval.

### Naltrexone

Different in mechanism from methadone or buprenorphine, naltrexone is an opioid antagonist medication available in both PO and IM formulation. It can be prescribed by any licensed provider without the need for special requirements linked to buprenorphine or methadone. There is no abuse potential. It is currently approved for the treatment of both OUD and for the treatment of alcohol abuse. As opposed to methadone and buprenorphine, naltrexone is not a controlled substance, so it can be prescribed by any healthcare provider who is licensed to prescribe medications. However, as an opioid antagonist, use of Naltrexone must be monitored closely to prevent serious acute withdrawal symptoms.

## Acute Treatment Of Overdose: Naloxone (Narcan)

Overdose involving opioids continues to be common and acute treatment of opioid overdose typically utilizes naloxone (*Narcan*) to reverse the dangerous respiratory depression and sedation associated with severe toxicity. Scientists looking to treat constipation caused by chronic opioid use first patented naloxone in New York in 1961. In 1971, the Food and Drug Administration approved naloxone for treating opioid overdoses by intravenous or intramuscular injection. In 1996, piloted use of take-home naloxone kits started in 15 states. Naloxone is a strong opioid antagonist. Dosing of naloxone in medical settings should start low to reverse severe respiratory depression but with the intent of avoiding full withdrawal. Acute withdrawal results in dysphoria, insomnia, pupillary dilation, piloerection, yawning, muscle aches, lacrimation, rhinorrhea, nausea, fever, sweating, vomiting and diarrhea.[63] Currently, intranasal (IN) naloxone kits are widely distributed throughout the United States and can be used by laypersons to revive individuals that are unresponsive due to opioid overdose. Naloxone is combined with oral buprenorphine in some formulations like Suboxone (buprenorphine + naloxone) to discourage intravenous injection. When a combination medication like Suboxone is ingested, the buprenorphine gets absorbed in the stomach while the naloxone is inactivated by stomach acid and does not result in opiate withdrawal. Administration of naloxone in the setting of overdose or suspected overdose presents little to no risk to the patient if the overdose or alteration in mental status is not from opiates. It is important to communicate this to families or friends and the public to encourage the use of naloxone. Naloxone distribution campaigns vary between states with some states providing free naloxone kits from pharmacies, distribution events and even vending machines.

### Opioid Withdrawal

Successful treatment of opioid overdose frequently results in withdrawal symptoms for the patient habituated to opioids. Treatment of opioid withdrawal symptoms can be complex. In the acute care setting the withdrawal can be abrupt and severe following the use of naloxone or due to precipitated withdrawal related to the inappropriate use of buprenorphine. Clinical evaluation of withdrawal should utilize the Clinical Opiate Withdrawal Scale COWS score to assist in decisions related to treatment. This 11-item scale can be used in both inpatient and outpatient settings to reproducibly rate common signs and symptoms of opiate withdrawal and monitor these symptoms over time.

A template of this scale can be found at this site: (https://www.asam.org/docs/default-source/education-docs/cows_induction_flow_sheet.pdf)

Some adjunct medications can serve to lessen the symptoms and bridge the patient to more definitive therapy, or past the duration of action of the naloxone. It is important to note that the duration of action of naloxone is typically less than one hour, while the duration of action of the opioid agent that was responsible for the overdose initially may be multiple hours. This is important when creating a treatment plan for those that are treated in the ED or on the street and refuse to be monitored or evaluated after they wake from their sedation.

Opioid medications and drugs continually impact society. The pain-relieving effects are useful in the setting of acute pain, but the risks associated with prolonged use are well documented. The modern practitioner would be advised to continue to educate themselves about the risks and benefits of these agents and seek counsel from experts when appropriate to assist in the care of patients with conditions that are associated with opioid use.

**PLEASE COMPLETE CASE STUDIES 1 & 2.**

## Case Study 1

**Instructions: Spend 5-10 minutes reviewing the case below and considering the questions that follow.**

*Mrs. Smith brings in her 18-year-old son, Bobby, for evaluation of his substance use disorder (SUD). He has been using unprescribed oxycodone and buying pills off the street. She asks for help getting assistance.*

**What are some of resources and options available for treatment of Bobby's OUD?**

1. Referral to a peer support work.
2. Referral to social worker.
3. Referral to local recovery center.
4. Referral to Emergency Department.
5. Do a COWS score and consider initiating buprenorphine (if x-waivered).

**As the practitioner, this is not the first time you are asked to assist with treatment of OUD. You have APPs in your practice that are interested in helping patients with OUD. Which qualified practitioners are eligible to obtain an x-waiver?**

1. Physicians.
2. Nurse Practitioners (NPs).
3. Physician Assistants (PAs).
4. Clinical Nurse Specialists (CNSs).
5. Certified Registered Nurse Anesthetist (CRNAs).
6. Certified Nurse-Midwifes (CNMs).

**One of the physician partners want to assist in this treatment but is concerned about the cost and time commitment of becoming x-waivered. What could you tell them regarding these concerns?**_____

Recent Practice Guidelines have allowed for an alternative NOI for those seeking to treat up to 30 patients: The customary NOI requires eligible providers to undertake required training activities prior to their application to prescribe buprenorphine; the alternative type of NOI allows those providers who wish to treat up to 30 patients to forego the training requirement, as well as certification to counseling and other ancillary services (i.e., psychosocial services). Practitioners utilizing this training exemption are limited to treating no more than 30 patients at any one time (time spent practicing under this exemption will not qualify the practitioner for a higher patient limit). This exemption applies only to the prescription of Schedule III, IV, and V drugs or combinations of such drugs, covered under the CSA, such as buprenorphine.

**Which resource would be useful to explore to find out more information regarding becoming x-waivered?**
https://buprenorphine.samhsa.gov/forms/select-practitioner-type.php
https://www.samhsa.gov/medication-assisted-treatment/become-buprenorphine-waivered-practitioner

**Practice Guidelines for the Administration of Buprenorphine for Treating Opioid Use Disorder**
A Notice by the Health and Human Services Department
https://www.federalregister.gov/agencies/health-and-human-services-department
**Publication Date:** 04/28/2021
**Agency:** Department of Health and Human Services
**Dates:** This guidance takes effect April 28, 2021.
**Effective Date:** 04/28/2021
**Document Type:** Notice
**Document Citation:** 86 FR 22439
**Page:** 22439-22440 (2 pages)
**Document Number:** 2021-08961
**Publication Date:** 04/28/2021
**Agency:** Department of Health and Human Services

## Case Study 2

**Instructions: Spend 5-10 minutes reviewing the case below and considering the questions that follow.**

(ANSWER KEY IS DISPLAYED AT THE BOTTOM OF THIS EXERCISE)

*Mrs Jones is a new patient to you and is presenting for acute pain from arthritis and is requesting something stronger to treat her pain. She has been using acetaminophen with only partial relief. Her friend gave her an oxycodone pill and she states that this helped her pain and wants to discuss whether this would be a good medicine to use for her arthritis.*

1. **Consider the options you have to augment the medicine she is already taking.** _____

2. **What cautions would you discuss with Mrs. Jones before considering using an opioid for pain?** _____

3. **If you were committed to using an opioid preparation, which resource would you check to ensure that she is not already taking a controlled substance?** _____

Answer Key:

1. (ALTO medications and therapies)
   https://www.cdc.gov/drugoverdose/pdf/nonopioid_treatments-a.pdf
   https://www.choosingwisely.org/patient-resources/treatments-to-relieve-chronic-pain/
2. Side effects, risk for dependence.
3. (PDMP) https://www.cdc.gov/drugoverdose/pdmp/index.html

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# RESPONSIBLE OPIOID PRESCRIBING PRACTICES

*Choose the best possible answer for each question and mark your answers on the self-assessment answer sheet at the end of this book. There is a required score of 70% or better to receive a certificate of completion.*

1. **Recent statistics report the number of drug overdose deaths in 2021 to be:**
   A. About 10,000.
   B. About 30,000.
   C. Almost 70,000.
   D. Over 100,000.

2. **Side effects of opioid medications include all of the following EXCEPT:**
   A. Respiratory Depression.
   B. Pruritis.
   C. Constipation.
   D. Agitation.

3. **Opioids have indirect effects on the body that stimulate which physiologic systems?**
   A. Estrogen receptors.
   B. Pancreatic enzyme secretion.
   C. Histamine.
   D. Melanin production.

4. **Regarding opioid medication:**
   A. Overdose was 5 times more likely in patients prescribed extended-release opioids compared to immediate-release opioids.
   B. Opioids are far superior than non-opioid medications in the treatment of all types of pain.
   C. Chronic pain should be treated primarily with short-acting opioids.
   D. The risks of developing opioid use disorder occurs only after months of use.

5. **This agency within the U.S. Department of Health and Human Services leads public health efforts to advance the behavioral health of the nation and regulates the safe use of medications for the treatment of OUD.**
   A. DEA.
   B. CDC.
   C. SAHMSA.
   D. Joint Commission.

6. **Buprenorphine is an opioid _____.**
   A. Full Agonist.
   B. Partial Agonist.
   C. Antagonist.
   D. Receptor.

7. **Benefits of using buprenorphine in the treatment of OUD include:**
   A. Daily evaluation of patients is required for treatment with buprenorphine.
   B. Low risk for respiratory depression.
   C. Permission for prescribing is automatically granted for all individuals upon activation of a state medical license.
   D. It is available only in short acting formulations.

8. **What is considered first line treatment of opiate use disorder (OUD) in pregnant females?**
   A. Naloxone.
   B. Only Buprenorphine.
   C. Only Methadone.
   D. Either Buprenorphine or Methadone.

9. **Physician practitioners must complete _____ to be certified to prescribe buprenorphine?**
   A. 4 hours of in-person training.
   B. 8 hours of virtual training.
   C. 12 hour of either in-person/virtual training.
   D. A buprenorphine waiver application though SAMHSA.

10. **When administering naloxone to a suspected opioid overdose patient:**
    A. Risk for cardiac complications are high and administration must be delayed until patient is on a cardiac monitor.
    B. The half-life of naloxone is several hours and frequently outlasts the opioid that caused the overdose side effects.
    C. Anyone, including family members, can administer intra-nasal (IN) naloxone safely in the context of a suspected opioid overdose.
    D. Individuals unconscious due to illness NOT related to opioid overdose are risk for severe complications from the unnecessary administration of naloxone.

# NOTES

# COMPASSIONATE CARE AT THE END-OF-LIFE

| COURSE DATES: | MAXIMUM CREDITS: | FORMAT: |
|---|---|---|
| Release Date: 10/2020<br>Review Date: 9/2022<br>Exp. Date: 8/2024 | 2 *AMA PRA Category 1 Credits*™ | Enduring Material (Self Study) |

## TARGET AUDIENCE

This course is designed for all physicians (MD/DO), physician assistants, nurse practitioners and other healthcare professionals who seek to improve palliative/end-of-life care for their patients.

## HOW TO RECEIVE CREDIT:

- Read the course materials.
- Complete the self-assessment questions at the end. A score of 70% is required.
- Return your customer information/ answer sheet, evaluation, and payment to InforMed by mail, phone, fax or complete online at program website.

## COURSE OBJECTIVE

Physicians and other healthcare professionals are constantly striving to improve care for patients in their final phase of life. This educational activity addresses the major dimensions of end-of-life care that clinicians are likely to encounter as they care for, and comfort, patients in their final phase of life.

## LEARNING OBJECTIVES

**Completion of this course will better enable the course participant to:**

1. Explain general trends in the preferences that patients typically have for care at the end of life.
2. Discuss the appropriate role of physicians in managing patients in hospice programs.
3. Describe the advantages and the disadvantages of opioid pain medications in the context of end-of-life pain management.
4. Employ both non-pharmacologic and pharmacologic therapies to treat common symptoms associated with the end of life.

## ACCREDITATION STATEMENT

InforMed is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

## DESIGNATION STATEMENT

InforMed designates this enduring material for a maximum of 2 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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## DISCLOSURE OF INTEREST

In accordance with the ACCME Standards for Integrity and Independence in Accredited Continuing Education, InforMed implemented mechanisms, prior to the planning and implementation of this CME activity, to identify and resolve conflicts of interest for all individuals in a position to control content of this CME activity.

## COURSE SATISFIES

**2**
**END-OF-LIFE CARE**

### SPECIAL DESIGNATION

This course satisfies two (2) credit hours related to end-of-life care.

The New Jersey Board of Medical Examiners requires each licensed physician (MD/DO) and podiatrist to complete two credits related to end-of-life care.

## FACULTY/PLANNING COMMITTEE DISCLOSURE

The following faculty and/or planning committee members have indicated they have no relevant financial relationship(s) to disclose with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients:

- John Makopoulos, MD
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- Paul J. Christo, MD, MBA has received honoraria from GlaxoSmithKline and Daiichi Sankyo.

## STAFF AND CONTENT REVIEWERS

InforMed staff, input committee and all content validation reviewers involved with this activity have reported no relevant financial relationships with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.

## DISCLAIMER

## Introduction

In the United States, dying at home in the care of family—the norm for centuries—has been largely replaced by death in hospitals, nursing homes, and other institutions, often with highly technological care delivered by specialist health providers. Although not without benefits, this process of dying can result in isolation of the patient from their loved ones, as well as isolation from familiar and comforting surroundings.

Because Americans, on average, live much longer now than they did in the past, a much larger proportion of the population dies at an advanced age. More than 70 percent of those who die each year are age 65 or over, and those who die in old age tend to die of different causes than those who die young.[1] The dying process today tends to be more extended, in part because medical treatments can manage pneumonia, infections, kidney failure, and other immediate causes of death that come in the wake of cancer or chronic disease.

The field of palliative care is one response to the changing profile of death in the 21st century. It focuses on the prevention and relief of suffering by carefully managing symptoms and by paying close attention to the emotional, spiritual, and practical needs of patients and those close to them. Other community and professional responses include the development of hospice programs, bereavement support groups, and policies and programs that encourage communication about people's goals and preferences as they approach death.

Palliative care is both a general approach to patient care (integrated with disease-modifying therapies) as well as a growing practice specialty. Primary care physicians are often expected to provide basic elements of palliative care (e.g., pain and symptom assessment and management, advance care planning), but complex cases may be best handled by palliative care specialists.

Decisions about the use of life-sustaining treatment when a person is seriously ill or near death have profound consequences for that person, for his or her family and loved ones, and, often, for health care providers. Such decisions may determine the time and circumstances of the person's death and may shape the person's experience of remaining life—where it is lived, with whom, and with what degree of comfort or suffering. Physicians thus have a compelling responsibility to be as compassionate and competent in their care of dying patients as with patients at any other phase of their lives.

Unfortunately, the education and training of physicians and other health care professionals often fail to provide them the attitudes, knowledge, and skills required to care well for the dying patient.[2]

Many deficiencies in practice stem from fundamental insufficiencies in professional education. Undergraduate, graduate, and continuing education programs often do not sufficiently prepare health professionals to recognize the final phases of illnesses, to understand and manage their own emotional reactions to death and dying, to construct effective strategies for care, and to communicate sensitively with patients and those close to them.

This CME learning activity summarizes the major dimensions of end-of-life (EOL) care that clinicians are likely to encounter as they care for, and comfort, patients in their final phase of life.

## Patient preferences for EOL care

Predicting what treatments patients will want at the end of life is complicated by factors such as the patient's age, the nature of the illness, the ability of medicine to sustain life, and the emotions families endure when a loved one is sick or dying. When seriously ill patients are nearing the end of life, they and their families sometimes find it difficult to decide whether to continue medical treatment and, if so, how much treatment and for how long. In these instances, patients rely on their physicians or other trusted health professionals for guidance.

In the best circumstances, the patient, the family, and the physician have discussed treatment options, including the length and invasiveness of treatment, chances of success, overall prognosis, and the patient's quality of life during and after the treatment. Ideally, these conversations would continue as the patient's condition changes. Frequently, however, such discussions are not held. If the patient becomes incapacitated due to illness, the patient's family and physician must make decisions based on what they think the patient would want.

While no one can predict exactly what patients will want or need when they are sick or dying, current research can help providers offer end-of-life care based on preferences (both real and hypothetical) held by the majority of patients under similar circumstances.[3] Research indicates that most patients have not participated in advance care planning, yet many are willing to discuss end-of-life care. One way to determine patients' preferences for end-of-life care is to discuss hypothetical situations and find out their opinions on certain treatment patterns. These opinions can help clarify and predict the preferences they would be likely to have it if they should become incapacitated and unable to make their own decisions.

The Patient Self-Determination Act guarantees patients the right to accept or refuse treatment and to complete advance medical directives.[4]

However, despite patients' rights to determine their future care, research reveals that:[3,5]

- Only one in three American adults have created an advance directive expressing their wishes for end-of-life care.
- 28% of home healthcare patients, 65% of nursing home residents, and 88% of hospice care patients have created advance directives.
- Only 12 percent of patients with an advance directive received input from their physician in its development.
- As many as three-quarters of physicians whose patients had an advance directive were not aware that it existed.
- Having an advance directive did not increase documentation in the medical chart regarding patient preferences.
- Advance directives helped make end-of-life decisions in less than half of the cases where a directive existed.
- Advance directives usually were not applicable until the patient became incapacitated and "absolutely, hopelessly ill."
- Providers and patient surrogates had difficulty knowing when to stop treatment and often waited until the patient was actively dying before the advance directive was invoked.
- Language in advance directives was usually too vague and general to provide clear instruction.
- Surrogates named in the advance directive often were not present to make decisions or were too emotionally distraught to offer guidance.
- Physicians were only about 65 percent accurate in predicting patient preferences and tended to make errors of under-treatment, even after reviewing the patient's advance directive.
- Surrogates who were family members tended to make prediction errors of overtreatment, even if they had reviewed or discussed the advance directive with the patient or assisted in its development.

Research also shows that care at the end of life is sometimes inconsistent with the patients' preferences to forgo life-sustaining treatment, and that patients may receive care they do not want. For example, one study found that patient preferences to decline cardiopulmonary resuscitation (CPR) were not translated into do-not-resuscitate (DNR) orders.[6] Another study found that patients received life-sustaining treatment at the same rate regardless of their desire to limit treatment.[7]

Because physicians are in the best position to know when to bring up the subject of end-of-life care, they are the ones who need to initiate and guide advance care planning discussions.

Such discussions are usually reserved for people who are terminally ill or whose death is imminent, yet research indicates that people suffering from chronic illness also need advance care planning. Most people who die in the United States (80 to 85 percent) are Medicare beneficiaries age 65 and over, and most die from chronic conditions such as heart disease, cancer, chronic lower respiratory diseases, stroke, diabetes, Alzheimer's disease, and renal failure.[8]

Only about 22 percent of deaths in people age 65+ are from cancer, which generally follows an expected course, or "trajectory," leading to death.[8] Many maintain their activities of daily living until about 2 months prior to death, after which most functional disability occurs. In contrast, people with chronic diseases such as heart disease or COPD go through periods of slowly declining health marked by sudden severe episodes of illness requiring hospitalization, from which the patient recovers.

This pattern may repeat itself, with the patient's overall health steadily declining, until the patient dies. For these individuals there is considerable uncertainty about when death is likely to occur. Patients who suffer from chronic conditions such as stroke, dementia, or the frailty of old age go through a third trajectory of dying, marked by a steady decline in mental and physical ability that finally results in death. Patients are not often told that their chronic disease is terminal, and estimating a time of death for people suffering from chronic conditions is much more difficult than it is for those dying of cancer.

When patients are hospitalized for health crises resulting from their chronic incurable disease, medical treatment cannot cure the underlying illness, but it is still effective in resolving the immediate emergency and thus possibly extending the patient's life. At any one of these crises the patient may be close to death, yet there often is no clearly recognizable threshold between being very ill and actually dying.

**Patients value advance care planning discussions**

According to patients who are dying and their families who survive them, lack of communication with physicians and other health care providers causes confusion about medical treatments, conditions and prognoses, and the choices that patients and their families need to make.[2] One study indicated that about one-third of patients would discuss advance care planning if the physician brought up the subject and about one-fourth of patients had been under the impression that advance care planning was only for people who were very ill or very old.[9] Only 5 percent of patients in this study stated that they found discussions about advance care planning too difficult. Other studies have shown that discussing advance care planning and directives with their doctor increased patient satisfaction among patients age 65 years and over.[10]

Patients who talked with their families or physicians about their preferences for end-of-life care had less fear and anxiety, felt they had more ability to influence and direct their medical care, believed that their physicians had a better understanding of their wishes, and indicated a greater understanding and comfort level than they had before the discussion. Compared to surrogates of patients who did not have an advance directive, surrogates of patients with an advance directive who had discussed its content with the patient reported greater understanding, better confidence in their ability to predict the patient's preferences, and a stronger belief in the importance of having an advance directive.

Finally, patients who had advance planning discussions with their physicians continued to discuss and talk about these concerns with their families. Such discussions enabled patients and families to reconcile their differences about end-of-life care and could help the family and physician come to agreement if they should need to make decisions for the patient.

***Opportunities for advance planning discussions***

Research indicates that physicians can conduct advance care planning discussions with many patients during routine outpatient office visits. Hospitalization for a serious and progressive illness offers another opportunity. The Patient Self-Determination Act requires facilities such as hospitals that accept Medicare and Medicaid money to provide written information to all patients concerning their rights to refuse or accept treatment and to complete advance directives. Patients often send cues to their physicians that they are ready to discuss end-of-life care by talking about wanting to die or asking about hospice. Certain situations, such as approaching death or discussions about prognoses or treatment options that have poor outcomes, also lend themselves to advance care planning discussions. Predicting when patients are near death is difficult, but providers can ask themselves the question: are the patients "sick enough today that it would not be surprising to find that they had died within the next year (or few months, or 6 months)"?

A five-part process has been suggested to guide structured discussions about end-of-life care:[2]

1. **Initiate a guided discussion**. During this discussion, the physicians should share their medical knowledge of hypothetical scenarios and treatments applicable to a patient's particular situation and find out the patient's preferences for providing or withholding treatments under certain situations. The hypothetical scenarios should cover a range of possible prognoses and any disability that could result from treatment. By presenting various hypothetical scenarios and probable treatments and noting when the patient's preferences change from "treat" to "do not treat," the physician can begin to identify the patient's personal preferences and values.
   The physician can also determine if the patient has an adequate understanding of the scenario, the treatment, and possible outcomes. One study indicated that elderly patients have enough knowledge about advance directives, CPR, and artificial nutrition/hydration on which to base decisions for treatment at the end of life, but they do not always understand their realistic chances for a positive outcome.[11] Other research indicates that patients significantly overestimate their probability of survival after receiving CPR and have little or no understanding of mechanical ventilation.[12] After patients were told their probability of survival, over half changed their treatment preference from wanting CPR to refusing CPR. Patients also may not know of the risks associated with the use of mechanical ventilation, such as neurological impairment or cardiac arrest.
2. **Introduce the subject of advance care planning and offer information.** Patients should be encouraged to complete both an advance directive and durable power of attorney. The patient should understand that when no advance directive or durable power of attorney exists, patients essentially leave treatment decisions to their physicians and family members. Physicians can provide this information themselves; refer the patient to other educational sources, including brochures or videos; or recommend that the patient talk with clergy or a social worker to answer questions or address concerns.
3. **Prepare and complete advance care planning documents.** Advance care planning documents should contain specific instructions. The standard language contained in advance directives often is not specific enough to be effective in directing care. Many times, instructions do not state the cutoff point of the patient's illness that should be used to discontinue treatment and allow the person to die. Terms such as "no advanced life support" are too vague to guide specific treatments. If a patient does not want to be on a ventilator, the physician should ask the patient if this is true under all circumstances or only specific circumstances.
4. **Review the patient's preferences on a regular basis and update documentation.** Patients should be reminded that advance directives can be revised at any time. Although studies show that patient preferences are stable over time when considering hypothetical situations, patients often change their minds when confronted with an actual situation or as their health status changes.[13] Some patients who stated that they would rather die than endure a certain condition did not choose death once that condition occurred. Other research shows that patients who had an advance directive maintained stable treatment preferences 86 percent of the time over a 2-year period, while patients who did not have an advance directive changed their preferences 59 percent of the time.[14] Both patients with and without a living will were more likely to change their preferences and desire increased treatment once they became hospitalized, suffered an accident, became depressed, or lost functional ability or social activity. Another study linked changes in depression to changes in preferences for CPR.[15] Increased depression was associated with patients' changing their initial preference for CPR to refusal of CPR, while less depression was associated with patients' changing their preference from refusal of CPR to acceptance of CPR. It is difficult for people to fully imagine what a prospective health state might be like. Once they experience that health state, they may find it more or less tolerable than they imagined.

During reviews of advance directives, physicians should note which preferences stay the same and which change. Preferences that change indicate that the physician needs to investigate the basis for the change.

5. **Apply the patient's desires to actual circumstances.** Conflicts sometimes arise during discussions about end-of-life decision-making. If patients desire non-beneficial treatments or refused beneficial treatments, most physicians state that they would negotiate with them and try to educate and convince them to either forgo a non-beneficial treatment or to accept a beneficial treatment.[16] If the treatment was not harmful, expensive, or complicated, about one-third of physicians would allow the patient to receive a non-beneficial treatment. Physicians stated that they would also enlist the family's help or seek a second opinion from another physician. Many patients do not lose their decision making capacity at the end of life. Physicians and family members can continue discussing treatment preferences with these patients as their condition changes. However, physicians and families may encounter the difficulty of knowing when an advance directive should become applicable for patients who are extremely sick and have lost their decision making capacity but are not necessarily dying. There is no easy answer to this dilemma. Even if patients require a decision for a situation that was not anticipated and addressed in their advance directive, physicians and surrogates still can make an educated determination based on the knowledge they have about the patients' values, goals, and thresholds for treatment.

***Legalities of the Advance Directive & POLST:***

An advance directive in general is not a legally binding document. While a succinct advance directive can be a description of a patient's wishes, the patient's family is not legally bound to follow it in case of the patient's incapacitation. A Physicians Orders for Life Sustaining Treatment (POLST) which has various names in various states, is in general designed as a legally binding series of medical orders that the patients primary healthcare provider puts in writing after discussion with the patient. This allows for the patient's wishes to be more easily accepted by putting the wishes into a simple to read, standardized for the state form, that carries the weight of physician orders. Each state's rules vary, however generally speaking the POLST can be amended by the signatory or other legally authorized individuals. If planning for a patient's end of life wishes a POLST or similar document is likely a better choice than a typical advance directive. While data about the POLST is generally limited, and focused mostly on Oregon, it is suggested from the current data that there is likely benefit to using a structured form like the POLST. [109]

***The importance of shared decision making***

Effective patient-provider communication and shared decision making is achieved in part through *active listening, facilitation, and empathetic comments.*[17] These skills lead to an engaged, dynamic relationship between patients, their families, and health care providers. This partnership should be grounded in mutuality, which includes the sharing of information, creation of consensus, and other components of the shared decision making paradigm.[18]

***Reflective listening***

An effective communication strategy in any patient-physician relationship is *reflective listening.* This means listening carefully and non-judgmentally to what your patient is saying, then reflecting it back in a slightly modified or re-framed manner.[19] This lets the clinician confirm the accuracy of their understanding of the patient and gives the patient both the indication that they are being heard (an all-too-rare experience for many patients with chronic illness) and a chance to correct mistaken beliefs or perceptions that could affect their care.

Using a reflective listening strategy can take practice. If a patient says something at odds with the evidence, for example, or uses threatening or hostile language, one's natural reaction is to immediately defend oneself, rebut the charges, or deny the underlying assumptions. This can quickly create confrontation or a power-struggle that can be difficult to reverse. In these situations it's important to pause before speaking, and then to consciously try to simply re-state what the patient just said. For example, a patient may say, "Doctor, those pills you gave me don't work—I told you before that I need something stronger." A directly confrontational response will probably be ineffective. A better response would be something like "You seem to be irritated with me because you don't think the medications I prescribed are working for you."

In summary, reflective listening techniques provide several advantages:[19]

- They are less likely to evoke or exacerbate patient defensiveness
- They encourage the patient to keep talking and reveal more about their true feelings
- They communicate respect and caring, and encourage a therapeutic alliance
- They open an opportunity for the patient to clarify exactly what he or she means

**BEFORE MOVING ONTO THE NEXT SECTION, PLEASE COMPLETE CASE STUDY 1 ON THE NEXT PAGE.**

***Preference patterns for hypothetical situations***

Evidence suggests that patients are more likely to accept treatment for conditions they consider better than death and to refuse treatment for conditions they consider worse than death. Patients also were more likely to accept treatments that were less invasive such as CPR than invasive treatments such as mechanical ventilation (see Table 1). Patients were more likely to accept short-term or simple treatments such as antibiotics than long-term invasive treatments such as permanent tube feeding.

**Table 1. Treatment preferences among patients age 64 and over, from most- to least-preferred[21]**

| |
|---|
| Antibiotics |
| Blood transfusion |
| Temporary tube feeding |
| Temporary respirator |
| Radiation |
| Amputation |
| Dialysis |
| Chemotherapy |
| Resuscitation |
| Permanent respirator |
| Permanent tube feeding |

It is telling that physicians, who are in a better position than others to judge the likely value of EOL services, often choose much less aggressive treatments for themselves than they offer to their patients. A study comparing 78 primary care faculty and residents with 831 of their patients found that the physicians were much less likely than the patients to want five of six specific treatments if they were terminally ill.[20] And 59% of the physicians chose "least aggressive" EOL treatment preferences for themselves.

Acceptance or refusal of invasive and noninvasive treatments under certain circumstances can predict what other choices the patient would make under the same or different circumstances. Refusal of noninvasive treatments such as antibiotics strongly predicted that invasive treatments such as major surgery would also be refused. Research also reveals that patients were more likely to refuse treatment under hypothetical conditions as their prognosis became worse. For example, more adults would refuse both invasive and noninvasive treatments for a scenario of dementia with a terminal illness than for dementia only. Adults were also more likely to refuse treatment for a scenario of a persistent vegetative state than for a coma with a chance of recovery. More patients preferred treatment if there was even a slight chance for recovery from a coma or a stroke. Fewer patients would want complicated and invasive treatments if they had a terminal illness. Finally, patients were more likely to want treatment if they would remain cognitively intact rather than impaired.

## Case Study 1

**Instructions: Spend 5 minutes reviewing the case below and considering the questions that follow.**

*Janet is an 83-year-old woman with amyotrophic lateral sclerosis (ALS). Her speech has become very slurred, she is having difficulty chewing and swallowing, and has lost 40 pounds over the course of the past 18 months. She has never liked what she calls the "medical establishment," takes no prescription drugs, and prefers natural and alternative methods of dealing with health issues.*

*Her neurologist and her three grown children are all concerned about her weight loss and growing frailty and have suggested she have a percutaneous endoscopic gastrostomy (PEG) tube placed so she can get more adequate nutrition and hydration. Janet, however, is not cooperating. She has delayed making a decision and appears unwilling to discuss the matter with anybody. She is now sitting in your office, with one of her sons present, and has just replied angrily to your statement that further delays in getting a feeding tube will hasten her death. "What if I don't see the point in continuing to live, doctor?" she says, struggling to enunciate the words. "Has it crossed your mind that I might not enjoy living under these horrible conditions?"*

1. **What would be a possible response to Janet's outburst that would employ the technique of reflective listening?**_____

2. **How could you work with Janet to establish a set of care goals that would be appropriate for either course of action (i.e., having, or not having, the PEG placed)?**_____

3. **If Janet refuses the PEG, what steps could you take to make her final weeks more comfortable?**_____

4. **If Janet continues to feel as though her quality of life is not what she'd want to continue with, are there standardized approaches that could help you address her goals of care in a succinct, state-wide applicable document?**_____

***Advance planning helps physicians provide care that patients want***

Most people will eventually die from chronic conditions. These patients require the same kind of advance care planning as those suffering from predictably terminal conditions such as cancer. Understanding preferences for medical treatment in patients suffering from chronic illness requires that physicians and other health care providers consider patients' concerns about the severity of prospective health states, length and invasiveness of treatments, and prognosis. While predicting what patients might want is difficult, research offers some insights into treatment patterns and preferences under hypothetical situations that can give providers more insight into their patients' desires under similar circumstances. By discussing advance care planning during routine outpatient visits, during hospitalization for exacerbation of illness, or when the patient or physician believes death is near, physicians can improve patient satisfaction with care and provide care at the end of life that is in accordance with the patient's wishes. Suggested components of an individualized approach to EOL care are summarized in Table 2.

### Communicating life-altering news

"*The best way to convey meaning is to tell people what the information means to you yourself. And there are three words to do that: "I am worried." They were such simple words, but it wasn't hard to sense how much they communicated. I had given her the facts. But by including the fact that I was worried, I'd not only told her about the seriousness of the situation, I'd told her that I was on her side—I was pulling for her. The words also told her that, although I feared something serious, there remained uncertainties—possibilities for hope within the parameters nature had imposed.*"[22]

--Atul Gawande, MD

Delivering bad or life-altering news to a patient is one of the most difficult tasks physicians encounter.[23] Ultimately, the determination of what is bad news lies not with the physician, but with the person receiving the news. Although classically related to cancer or a terminal diagnosis, bad or serious news may also include information related to diagnosis of a chronic disease (e.g., diabetes mellitus), a life-altering illness (e.g., multiple sclerosis), or an injury leading to a significant change (e.g., a season-ending knee injury). Most of the research into the delivery of bad news, however, has focused on patients with cancer and subsequently applied to the delivery of bad or serious news in non-oncologic settings.

Patients prefer to receive such news in person, with the physician's full attention, and in clear, easy-to-understand language with adequate time for questions. Most patients prefer to know their diagnosis, but the amount of desired details varies among different cultures and by education level, age, and sex. The physician should respect the patient's unique preferences for receiving bad news.

Physicians may experience stress related to providing bad news that extends beyond the actual conversation. For example, physicians may be afraid of eliciting an emotional reaction, being blamed for the bad news, and expressing their emotions during the process. Physicians often withhold information or are overly optimistic regarding prognosis, but this can lead to confusion for patients regarding their condition. There are several algorithms available to help guide the physician in the delivery of bad news, including the SPIKES protocol (see Table 3, pg. 19). Skillful delivery of bad news can provide comfort for the patient and family.

**BEFORE MOVING ONTO THE NEXT SECTION, PLEASE COMPLETE CASE STUDY 2 ON PG 19.**

| Table 2. Components of individualized EOL care[2] | |
|---|---|
| **Component** | **Rationale** |
| Frequent assessment of the patient's physical, emotional, social, and spiritual well-being | Interventions and care should be based on accurately identified needs. |
| Management of emotional distress | All clinicians should be able to identify distress and direct its initial and basic management. This is part of the definition of palliative care, a basic component of hospice, and clearly of fundamental importance. |
| Offer referral to expert-level palliative care | People with palliative needs beyond those that can be provided by non-specialist-level clinicians deserve access to appropriate expert-level care. |
| Offer referral to hospice if the patient has a prognosis < 6 months. | People who meet the hospice eligibility criteria deserve access to services designed to meet their end-of-life needs. |
| Management of care and direct contact with patient and family for complex situations by a specialist level palliative care physician | Care of people with serious illness may require specialist-level palliative care physician management, and effective physician management requires direct examination, contact, and communication. |
| Round-the-clock access to coordinated care and services | Patients in advanced stages of serious illness often require assistance, such as with activities of daily living, medication management, wound care, physical comfort, and psychosocial needs. Round-the-clock access to a consistent point of contact that can coordinate care obviates the need to dial 911 and engage emergency medical services. |
| Management of pain and other symptoms | All clinicians should be able to identify and direct the initial and basic management of pain and other symptoms. This is part of the definition of palliative care, a basic component of hospice, and clearly of fundamental importance. |
| Counseling of patient and family | Even patients who are not emotionally distressed face problems in such areas as loss of functioning, prognosis, coping with diverse symptoms, finances, and family dynamics, and family members experience these problems as well, both directly and indirectly. |
| Family caregiver support | A focus on the family is part of the definition of palliative care; family members and caregivers both participate in the patient's care and require assistance themselves. |
| Attention to the patient's social context and social needs | Person-centered care requires awareness of patients' perspectives on their social environment and of their needs for social support, including at the time of death. Companionship at the bedside at time of death may be an important part of the psychological, social, and spiritual aspects of end-of-life care for some individuals. |
| Attention to the patient's spiritual and religious needs | The final phase of life often has a spiritual and religious component, and research shows that spiritual assistance is associated with quality of care. |
| Regular personalized revision of the care plan and access to services based on the changing needs of the patient and family | Care must be person-centered and fit current circumstances, which may mean that not all the above components will be important or desirable in all cases. |

**Culturally Sensitive Communication**

Communicating effectively with both patients and their loved ones requires an awareness of some of the cultural differences that can create unexpected barriers or misunderstandings. End-of-life discussions are particularly challenging because of their emotional and interpersonal intensity. Many physicians are unfamiliar with common cultural variations regarding physician-patient communication, medical decision making, and attitudes about formal documents such as code status guidelines and advance directives.[25]

Although cultural differences certainly exist, generalizations about specific cultures are not always applicable to specific patients because there is wide variation in the ways that individuals adhere or adopt the stereotypical beliefs, values, or attitudes of a particular culture. In fact, research suggests that when compared with whites of European descent, ethnic minorities exhibit greater variability in their cultural beliefs and preferences.[26]

Clinicians should be aware that different cultures may place different emphasis—or disagree completely—with principles of medical conduct that they take for granted. For example, in the United States, legal documents such as advance directives and durable powers of attorney are strategies to prolong autonomy in situations in which patients can no longer represent themselves. Other cultures, however, de-emphasize autonomy, perceiving it as isolating rather than empowering. These non-Western cultures believe that communities and families, not individuals alone, are affected by life-threatening illnesses and the accompanying medical decisions.[27]

Cultures valuing non-malfeasance (doing no harm) may try to protect patients from the emotional and physical harm caused by directly addressing death and end-of-life care. Many Asian and Native American cultures value beneficence (physicians' obligation to promote patient welfare) by encouraging patient hope, even in the face of terminal illness. Patient or family member preferences for nondisclosure of medical information and family-centered decision making may also be surprising to American-trained physicians.

Physicians may improve their rapport with ethnically diverse patients simply by showing interest in their cultural heritage, and more importantly, in each individual's respective approach to both suboptimal news, and approach to death and dying.

Here are some example questions and situations that reflect a culturally sensitive approach to patient interactions:[25]

"*Some people want to know everything about their medical condition, and others do not. What is your preference*?"

"*Do you prefer to make medical decisions about future tests or treatments for yourself, or would you prefer that someone else make them for you?*"

To patients who request that the physician discuss their condition with family members: "Would you be more comfortable if I spoke with your (brother, son, daughter) alone, or would you like to be present?" If the patient chooses not to be present: "If you change your mind at any point and would like more information, please let me know. I will answer any questions you have.

| Table 3. SPIKES protocol for delivering life-altering news[24] | | |
|---|---|---|
| **Step** | **Key Points** | **Example Phrases** |
| Setting | Arrange for a private room or area. Have tissues available. Limit interruptions and silence electronics. Allow the patient to dress (if after examination). Maintain eye contact (defer charting). Include family or friends as patient desires. | "Before we review the results, is there anyone else you would like to be here?"<br>"Would it be okay if I sat on the edge of your bed?" |
| Perception | Use open-ended questions to determine the patient's understanding. Correct misinformation and misunderstandings. Identify wishful thinking, unrealistic expectations, and denial. | "When you felt the lump in your breast, what was your first thought?"<br>"What is your understanding of your test results thus far?" |
| Invitation | Determine how much information and detail a patient desires. Ask permission to give results so that the patient can control the conversation. If the patient declines, offer to meet him or her again in the future when he or she is ready (or when family is available) | "Would it be okay if I give you those test results now?"<br>"Are you someone who likes to know all of the details, or would you prefer that I focus on the most important result?" |
| Knowledge | Briefly summarize events leading up to this point. Provide a warning statement to help lessen the shock and facilitate understanding, although some studies suggest that not all patients prefer to receive a warning. Use nonmedical terms and avoid jargon. Stop often to confirm understanding. | "Before I get to the results, I'd like to summarize so that we are all on the same page."<br>"Unfortunately, the test results are worse than we initially hoped."<br>"I know this is a lot of information; what questions do you have so far?" |
| Emotions | Stop and address emotions as they arise. Use empathic statements to recognize the patient's emotion. Validate responses to help the patient realize his or her feelings are important. Ask exploratory questions to help understand when the emotions are not clear. | "I can see this is not the news you were expecting."<br>"Yes, I can understand why you felt that way."<br>"Could you tell me more about what concerns you?" |
| Strategy and summary | Summarize the news to facilitate understanding. Set a plan for follow-up (referrals, further tests, treatment options). Offer a means of contact if additional questions arise. Avoid saying, "There is nothing more we can do for you." Even if the prognosis is poor, determine and support the patient's goals (e.g., symptom control, social support). | "I know this is all very frightening news, and I'm sure you will think of many more questions. When you do, write them down and we can review them when we meet again."<br>"Even though we cannot cure your cancer, we can provide medications to control your pain and lessen your discomfort." |

## Case Study 2

**Instructions: Spend 5 minutes reviewing the case below and considering the questions that follow.**

*Terry is the oldest of five siblings. He has been the primary caregiver for his father, Ralph, who is 87 and lives alone following the death of his wife four years previous. Ralph has congestive heart failure, hearing loss, and type 2 diabetes. He was recently admitted to the hospital for pneumonia. While in the hospital, he had a transient ischemic attack, which caused him to become easily confused. Then, possibly due to a micro-stroke, he lost his ability to swallow.*

*Ralph's attending physician advised the placement of a percutaneous endoscopic gastrostomy (PEG) tube to supply nutrition and hydration. But Ralph had made it clear in his advance directive that he did not want a feeding tube, and he reiterated that desire to Terry. "I'm not afraid to die," he said. "It's time to call it quits."*

*Terry was torn. Some of his siblings were unhappy with the prospect of refusing the tube placement—they were afraid Ralph would die before they got a chance to see him. But Terry knew his father would fight any efforts to force him to change his mind, and Terry didn't want his last days with his father marred by conflict.*

1. **What would be a possible response to Ralph's expression about not being afraid to die that would employ the technique of reflective listening?** _____

2. **How could you work with Ralph to establish a set of care goals that would be appropriate for either course of action (i.e., having, or not having, the PEG placed)?** _____

3. **If Ralph refuses the PEG, what steps could you take to make his final weeks more comfortable?** _____

When discussing medical issues with family members, particularly through a translator, it is often helpful to confirm their understanding: "I want to be sure that I am explaining your mother's treatment options accurately. Could you explain to me your understanding about your mother's condition and the treatment that we are recommending?"

*"Is there anything that would be helpful for me to know about your family or religious views about serious illness and treatment?"*

"*Sometimes people are uncomfortable discussing these issues with a doctor who is of a different race or cultural background. Are you comfortable with me treating you? Will you please let me know if there is anything about your background that would be helpful for me to know in working with you or your (mother, father, sister, brother)?*"

## The physician's role in managing hospice patients

Hospice is based on the idea that the dying patient has physical, psychological, social, and spiritual aspects of suffering. Hospice is a philosophy, not a specific place, and can be provided in any setting, including patients' homes, nursing homes, and hospitals.[28] Hospice typically involved an interdisciplinary team providing access to a wide range of services to support the primary caregiver, who is responsible for the majority of the patient care. In 2017 about 1.5 million Medicare beneficiaries received hospice care, a 4.5% increase from the previous year and nearly 200,000 more people than used hospice in 2012.[29]

To be eligible for hospice, a patient must have a terminal illness and an estimated prognosis of less than six months. Patients with non-cancer diagnoses (e.g., congestive heart failure, chronic obstructive pulmonary disease, stroke, dementia) currently represent about 70% percent of all hospice decedents.[29] The responsibility for hospice referral in a non-cancer diagnosis often falls to the primary care physician, facilitating continuity of care for the patient in his or her final days and months. In making an appropriate referral, physicians should be aware of some common misconceptions about hospice care (see Table 4).

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### Determining prognosis

Deciding whether a patient has a life expectancy < 6 months is an unavoidably imprecise exercise, however the following scales or tools provide clinicians with some quasi-objective criteria to help guide decisions:

- Karnofsky Performance Scale[32]
- National Hospice Organization Medical Guidelines for Determining Prognosis in Selected Non-Cancer Diseases[33]
- Palliative Performance Scale[34]
- Palliative Prognosis Score[35]

### Referral patterns

Continuity of care and multigenerational relationships allow a family physician to guide a patient and family through the hospice referral process with a unique knowledge of the patient's values, family issues, and communication style. (In general, most hospice referrals come from physicians, although social workers, nurses, and patients' families can also make a hospice referral.) The majority of caregivers and families of patients who have received hospice care report that they would have welcomed more information about hospice from their primary care physician at the time the diagnosis was labeled terminal.

**Table 4. Common misconceptions about hospice care[30]**

| Misconception | Clarification |
|---|---|
| Patients will be discharged from hospice if they do not die within six months. | There used to be a six-month regulation that penalized hospices and patients when a patient lived too long, but it was revised and there is no longer any penalty for an incorrect prognosis if the disease runs its normal course. |
| Patients in hospice must have a DNR order. | Medicare does not require a DNR order to enroll in hospice, but it does require that patients pursue palliative, not curative, treatment; individual hospice organizations may require a DNR order before enrolling a patient. |
| Patients in hospice must have a primary caregiver. | Medicare does not require a primary caregiver, but this may be a requirement of some hospice organizations. |
| The primary physician must transfer control of his or her patients to hospice. | Most hospice organizations encourage primary physician involvement; the primary physician becomes a part of the team and contributes to the hospice plan of care. |
| Only patients with cancer are appropriate candidates for hospice. | Anyone with a life expectancy of less than six months and who chooses a palliative care approach is appropriate for hospice. |
| Only Medicare-eligible patients may enroll in hospice. | Most commercial insurance companies have benefits that mimic the Medicare Hospice Benefit; individual hospices vary in their willingness to take uninsured patients. |
| Patients in nursing homes are not eligible for hospice. | This was once true, but Medicare now covers patients in nursing homes. |
| Patients are not eligible for hospice again if they revoke the hospice benefits. | Patients who want to return to hospice care can be readmitted as long as hospice conditions of participation are met. |
| Only physicians can refer patients to hospice. | Anyone (e.g., nurse, social worker, family member, friend) can refer a patient to hospice. |
| Hospice care precludes patients from being able to receive chemotherapy, blood transfusions, or radiation. | Medicare requires that hospice must cover all care related to the terminal illness; individual hospice agencies are allowed to determine whether a specific treatment is palliative (providing symptom relief), which will guide what treatments they are willing to cover. |
| Patients who have elected the hospice benefit can no longer access other health insurance benefits. | Each insurer has rules defining eligibility for covered services; medical problems unrelated to the terminal illness continue to be covered under regular Medicare insurance. |
| Patients in hospice cannot be admitted to the hospital. | While the patient is enrolled in hospice, most insurance companies, including Medicare, will still cover hospital admissions for unrelated illnesses, as well as for the management of symptoms related to the terminal diagnosis, and respite care. |
| Hospice care ends when a patient dies. | All hospice programs must provide families with bereavement support for up to one year following the death of the patient. |

## Case Study 3

**Instructions: Spend 5 minutes reviewing the case below and considering the questions that follow. Note: This is an excerpt from an article by Yoojin Na, an emergency room physician at a hospital in metropolitan New York, which appeared in the New York Times.**

*A woman held her grandfather's hand as he lay in intensive care. The patient in question was in his 90s with progressive dementia and multiple chronic conditions. Since December, he hadn't been able to make it more than a few weeks without a fall. The palliative-care assessment from his last admission gave him an estimated life expectancy of "weeks to months." Everything I saw on examining him told me it was now days. Soon he wouldn't be able to breathe on his own.*

*I described to his granddaughter the discomfort of having a ventilator pump air into one's lungs. I explained that such measures would only prolong his suffering. Still, she insisted that her grandfather be kept "full code" and have "everything done."*

*Three days later, the patient went into respiratory distress. Since he was full code, his sudden decline activated a rapid response, which meant all nearby personnel — doctors, nurses, respiratory therapists and techs — rushed to the room to resuscitate him. The inpatient doctor called the family again. This time, they agreed to make his code status D.N.R., for do not resuscitate. But the patient had turned out to have Covid-19, and the family's DNR decision came only after many staff members were exposed reviving him.*

*He died the next morning.*

*The whole ordeal made me wonder why people insist on futile care even when it comes at a risk to others.*

1. **Why do you think the family initially insisted on having doctors use "full code" procedures for their grandfather?**_____

2. **How would you have handled the conversations with family members when communication was limited to telephones?**_____

3. **If the patient had a POLST, stating they were DNR/DNI, would that have been able to be used to refuse the insistence of full code status by the family, assuming the patient had made the decisions for the POLST? What if it was an advance directive?**_____

Most hospices expect the referring physician to remain in charge of the patient's care and to be available by phone or other means for consultation, although expectations for availability vary by hospice. In some cases, the local hospice medical director may be willing to cover the attending physician on weekends and during vacations. In general, the attending physician is expected to be the primary physician of record, be available by telephone or have coverage arranged, write admission orders, and handle the routine decisions for patient care. Some hospices provide attending physicians with standing orders that have broad parameters for the control of common symptoms, such as pain and dyspnea. The attending physician and the hospice medical director are expected to provide certification to Medicare that the patient continues to meet hospice eligibility criteria on a regular basis. The attending physician is also expected to provide medication refills when needed.

### Essential drugs for quality care in dying patients

Effective management of symptoms at the end of life is challenging but often can be achieved with fewer than for six key medications. Clinicians can help support patients and family by using these medications judiciously with the assurance that it will provide a death that is as safe, dignified, and comfortable as medically possible. Table 5 summarizes the most common EOL medication classes. Later sections of this activity will explore some of these options in greater detail.

**Table 5. Common medications in a "hospice comfort kit"[36]**

| Medication class | Example medications | Common indications |
|---|---|---|
| Antipsychotics | Haloperidol or risperidone | Delirium, agitation |
| Antipyretics | Acetaminophen (oral or suppository) | Fever |
| Benzodiazepines | Lorazepam, alprazolam, diazepam | Anxiety, nausea |
| Opioids | Morphine, oxycodone, hydrocodone | Dyspnea, Nociceptive pain (not generally effective for neuropathic pain) |
| Secretion medications | Hyoscyamine, atropine | Excessive oropharyngeal secretions |
| Laxatives | Docusate, lactulose, senna with docusate | Constipation |

### Pain Management

Although pain relief is often considered—and may sometimes be—an end unto itself, it is particularly important for clinicians to recognize that, at the end of life, pain management and control of symptoms may be more appropriately viewed as *means* of achieving the more primary goal of improving or maintaining a patient's overall quality of life. The meaning of "quality of life" varies, not just from patient to patient, but even between the phases of an illness experienced by a single patient. A focus on quality of life is important because sometimes a patient may have priorities that compete with, or supersede, the relief of pain. For example, the end of life can be an extremely important and meaningful time.[37] For some patients, mental alertness sufficient to allow maximal interactions with loved ones may be more important than physical comfort. Optimal pain management, in such cases, may mean lower doses of an analgesic and the experience, by the patient, of higher levels of pain. The point is that, at the end of life, decisions about pain relief must be more than usually balanced with a mindful consideration of the patient's own values and desires.

The types of pain syndromes arising at the end of life include most of the acute and chronic pain syndromes clinicians confront in other patients, and many of the same diagnostic and therapeutic strategies and skills are the same or similar. But pain management at the end of life does raise some unique clinical and ethical issues and, hence, these issues are appropriate for a focused consideration.

In addition, the prospect of severe, unrelieved pain at the end of life ranks very high among patient fears. Indeed many people consider the experience of severe pain to be worse than death, which underscores the importance of a thorough clinical understanding this issue.[38]

Managing pain and other symptoms at the end of life is just one component of a wider effort to relieve suffering and help a patient cope with the emotional and psychological aspects of dying. Nonetheless, a failure to manage pain and other symptoms may make it impossible for the patient to attend to these important dimensions. Uncontrolled pain can push all other priorities aside and sap a person's energy and motivation to focus on potentially positive goals or meaningful experiences. A patient's perception that his or her pain cannot be controlled may also contribute to a broader feeling that he or she has lost control over their lives in general, which can precipitate a downward spiral of depression and/or hopelessness. Effective pain control, on the other hand, not only directly reduces suffering but may allow a patient the energy and positive attitude needed to engage with the emotional and psychological aspects of dying.

**Assessing Pain at the End of Life**

The end of life is often characterized by a reduced level of consciousness or complete lack of consciousness. This can make assessments of pain very challenging. If a patient is not alert enough to communicate, then nonverbal signs or cues must be used to determine if the patient is experiencing pain and to what degree an analgesic approach is effective. In general, even ambiguous signs of discomfort should usually be treated, although caution must be exercised in interpreting such signs.[39] Patients who are actively dying may groan or grunt in ways that suggest they are in pain, although such sounds may, in fact, be the normal expressions attendant to the last moments or hours of life.

Signs of discomfort that are accompanied by more rapid breathing or heart rate should be taken more seriously. Likewise, if physical stimulation of the patient (i.e., during bathing) causes signs of discomfort, increased analgesia may be warranted. Prolonged rapid breathing (> 20/min.) may be uncomfortable because of muscle fatigue and it may therefore be reasonable, even in the absence of other evidence of discomfort, to titrate a pain medication with a target respiratory rate of 15 to 20/minute.[39]

**Opioids**

Opioid formulations are available in such variety in the US that, typically, a pain regimen can be tailored to each patient.[40] Because there is great variability in how individual patients respond to particular opioid agents, no specific agent is superior to another as first-line therapy. Although morphine was previously considered the "gold standard," it is now recognized that the most appropriate agent is the opioid that works for an individual patient.[41] Morphine and other opioids are generally available in a wide range of formulations and routes of administration, including oral, transmucosal, transdermal, parenteral, and rectal delivery. Both rectal and transdermal routes can be especially valuable at the end of life when the oral route is precluded because of reduced or absent consciousness, difficulty swallowing, or to reduce the chances of nausea and vomiting.[42] When selecting an opioid, clinicians should also consider cost, since expensive agents can place undue burden on patients and families.

Some opioids may not be appropriate in the end-of-life setting. For example, meperidine is not recommended in cancer pain management due to the neurotoxic effects of its metabolites.[43] In addition, mixed agonist-antagonist opioid analgesics, including butorphanol, nalbuphine, and pentazocine, are not recommended in cancer pain management because they are more likely to cause psychotomimetic effects and they can precipitate the abstinence syndrome if given to a patient who is physically dependent on a pure opioid agonist.[43]

Opioid-related side effects must be considered in advance of treatment and steps must be taken to minimize these effects to the extent possible, since adverse effects contribute significantly to analgesic nonadherence. This is particularly true for constipation and sedation. Tolerance rarely develops to constipation and therefore it must be prevented and, if unsuccessful, treated aggressively. A prophylactic bowel regimen that includes a laxative and stool softener, such as senna and docusate, should be used, although a recent study suggested that senna alone was just as effective.[44] Bulking agents, such as psyllium, are ineffective and may exacerbate gastrointestinal distress unless the patient can drink significant amounts of fluids. Methylnaltrexone, an opioid antagonist that works on receptors in the GI system and is given subcutaneously, can be used as a rescue when constipation is clearly related to opioid therapy.[45] Two, more recently-approved opioid antagonists are naldemedine and naloxegol.

Sedation is often attributed to opioid therapy given at the end of life, although many other drugs used at this time may be sedating, including benzodiazepines, antiemetics, and other agents. Tolerance to opioid-induced sedation may develop within a few days of regular use; however, in some cases this may persist and opioid rotation may be warranted. A psychostimulant, such as methylphenidate or dextroamphetamine, might be added to offset sedative effects, typically starting at a dose of 5 to 10 mg once or twice daily. One study found that with proper timing, the administration of methylphenidate did not disrupt sleep.[46] Other drugs to be considered for similar indications are modafinil (Provigil) and armodafinil (Nuvigil).

Nausea and vomiting are relatively common in opioid-naive individuals. Around-the-clock antiemetic therapy instituted at the beginning of opioid therapy may prevent this adverse effect.[41] The antiemetic can be weaned in most cases after 2 to 3 days. The itching that can occur early in the course of opioid treatment may be at least partially alleviated with antihistamines. Opioid rotation to a more synthetic agent or an agent with a different route of administration, such as oxymorphone or transdermal fentanyl has also been reported to be helpful.

The potential adverse effect of respiratory depression may lead to clinician under-prescribing of opioids or the reluctance by patients to take the medication.[41] Despite this fear, studies have revealed no correlation between opioid dose, timing of opioid administration, and time of death.[47,48]

Even when a medication, such as an opioid, that is intended to relieve pain and symptoms but does pose a possible risk of hastening death, it is considered ethical for health care providers to prescribe and to administer the medication following the rule of "double effect."[49] This rule distinguishes between practices that are intended to relieve pain but which may have an unintended effect of hastening death vs. practices that are actually intended to hasten death. When an action has both potentially good and bad effects, it is considered ethically acceptable to pursue the action if four conditions are satisfied:[49]

1. The action itself (e.g., administering a pain medication) is not morally wrong.
2. The action is undertaken with the sole intention of bringing about the good effect.
3. The action does not bring about the good effect by means of the bad effect (e.g., in the case of EOL pain medications, such medications do not achieve their effect by ending life).
4. The reason for undertaking the action is clear and urgent.

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**Non-steroidal Anti-inflammatory (NSAID) Analgesics and Acetaminophen**

NSAIDs or acetaminophen may be useful in the treatment of pain conditions mediated by inflammation, including those caused by cancer, such as bone metastases.[41] NSAIDs typically cause less nausea than opioids, though this is most true with low doses. NSAIDS also do not cause constipation, sedation, or adverse effects on mental functioning. NSAIDs may, therefore, be useful for the control of moderate to severe pain, usually as an adjunct to opioid analgesic therapy.[50] The addition of NSAIDs to an opioid may allow a reduction in the opioid dose, although such combinations must be used with care. Typically, the non-opioid co-analgesic agent, such as acetaminophen or an NSAID, has a ceiling dose above which efficacy will plateau as risk for adverse effects increases. Thus, combining these products, either as separately-administered agents or in combination products, are typically used for patients who are not expected to need substantial dose escalations.[19]

Using a combination product when dose escalation is required risks increasing adverse effects from the non-opioid co-analgesic, even if an increase of the opioid dose is appropriate.

## Case Study 4

**Instructions: Spend 5 minutes reviewing the case below and considering the questions that follow.**

*Samuel is a 94-year-old man in the late stages of metastatic prostate cancer. The cancer was initially treated 16 years earlier with a radical prostatectomy and adjuvant radiation therapy, but it has recurred with infiltration to his pelvic bones. He has been under home hospice care for the past month. His pain is being treated with transdermal fentanyl which has reduced the nausea he was experiencing with oral ER/LA oxycodone. Now, however, he says he often feels "fuzzy" and "out of it" to the point that he can't remember conversations he has had with his wife or daughter. On a visit by the hospice nurse, Sam complains about this, saying "I want to be able to say goodbye to people, and thank them, but I just feel like a zombie half the time."*

1. **How might Sam's competing desires for pain relief and mental clarity be addressed?**_____

2. **Are there any alternative pharmacological or non-pharmacological analgesic options that might be appropriate for Sam?**_____

3. **What other types of health care professionals might be called on to help Sam achieve the kinds of end-of-life communication he desires?**_____

In such cases, using a pure opioid may be preferable. (Single-agent formulations are available for many types of opioids, such as morphine, oxycodone, and hydromorphone.) The FDA has limited to 325 mg the amount of acetaminophen allowed in prescription opioid combination products in an attempt to limit liver damage and other ill effects primarily due to excessive doses of combined products.[51]

Contraindications for NSAIDs include decreased renal function (relatively common at the end of life) and liver failure. Platelet dysfunction or other potential bleeding disorders, common due to cancer or its treatment, are also contraindications to non-selective NSAIDS because of their inhibitory effects on platelet aggregation, with resultant prolonged bleeding time.[52] Concurrent use of anticoagulants (Coumadin for example) is also a contraindication. Proton pump inhibitors or misoprostol may be considered to prevent GI bleeding.[53]

Attention has recently been focused on the potential limited efficacy of acetaminophen in older patients. Although it has been considered a viable co-analgesic with opioids, and to be first-line therapy in elderly patients with musculoskeletal pains or pain associated with osteoarthritis, the relative limited efficacy and significant adverse effects of this agent, particularly hepatic and renal toxicity, have raised concerns.[54] Reduced doses of 2000 mg/day or the avoidance of acetaminophen is recommended in the face of renal insufficiency or liver failure, and particularly in individuals with a history of significant alcohol use.[55]

### Adjuvant Analgesics

Although opioid medications are a mainstay of pain management at the end-of-life, many other classes of medications have proven effective and, in some cases, preferable to opioids (see Table 6). Some exert a direct analgesic effect mediated by non-opioid receptors centrally or peripherally. Other adjuvant "analgesics" have no direct analgesic qualities but may provide pain relief indirectly by affecting organs or body systems involved in painful sensations.

Some antidepressant agents appear to exert analgesic properties and may be particularly helpful for neuropathic pain conditions. Tricyclic antidepressants inhibit reuptake of norepinephrine and serotonin, which appears to exert analgesic effects, either directly or indirectly. These agents have been shown to provide clinically relevant effects in a review of analgesic studies conducted in neuropathic pain conditions, primarily diabetic neuropathy and other non-cancer conditions.[57] Potential side effects include cardiac arrhythmias, conduction abnormalities, narrow-angle glaucoma, and clinically significant prostatic hyperplasia. On the other hand, the sleep-enhancing and mood-elevating effects of these antidepressants may benefit some patients.

Although little evidence supports an analgesic effect for SSRIs, some newer antidepressants, such as the serotonin-norepinephrine reuptake inhibitors have been shown to be effective in relieving neuropathic pain, including venlafaxine and duloxetine.[58] These have the added advantage of alleviating hot flashes, a common and disturbing symptom, particularly in breast cancer patients undergoing hormonal therapy. Care must be taken in such situation, however, because duloxetine reduces the bioavailability of tamoxifen, potentially reducing its therapeutic efficacy.[59]

The anti-epilepsy drugs gabapentin and pregabalin have undergone extensive testing in many non-cancer neuropathy syndromes, and a recent review concluded that these drugs have a clinically meaningful effect.[57] The most common adverse effects reported by patients are dizziness; some patients also develop fluid retention. Although the data for the efficacy of other anticonvulsants are not as conclusive as those for gabapentin and pregabalin, existing reports suggest potential efficacy. As with most adjuvant analgesics, antiepileptic agents are commonly used in combination with opioid therapy, particularly when pain is moderate to severe. A review of cancer trials found that adjuvant analgesics added to opioids provide additional relief, usually within 4 to 8 days, with the strongest evidence for gabapentin.[60]

Corticosteroids can play a valuable role in treating end-of-life pain related to neuropathic pain syndromes, pain associated with stretching of the liver capsule due to metastases, for treating bone pain (due to their anti-inflammatory effects) as well as for relieving malignant intestinal obstruction.[61] Dexamethasone produces the least amount of mineralocorticoid effect and is available in a variety of delivery forms, including oral, intravenous, subcutaneous, and epidural.[41]

Local anesthetics may be useful in preventing procedural pain and in relieving neuropathic pain. Local anesthetics can be given topically, intravenously, subcutaneously, or intraspinally. Both gel and patch versions of lidocaine have been shown to reduce the pain of postherpetic neuralgia and cancer-related neuropathic pain.[62]

Intravenous or subcutaneous lidocaine at 1 to 5 mg/kg administered over 1 hour, followed by a continuous infusion of 1 to 2 mg/kg/hour, has been reported to reduce intractable neuropathic pain in patients in inpatient palliative care and home hospice settings.[63]

| Table 6. Adjuvant Analgesics for End-of-Life Pain Management[56] | | | | |
|---|---|---|---|---|
| **Drug Class** | **Agent** | **Route of Administration** | **Potential adverse effects** | **Indications** |
| Antidepressants | Nortriptyline | Oral | Anticholinergic effects | Neuropathic pain |
| | Desipramine | Oral | Cardiac arrhythmia | |
| | Venlafaxine | Oral | Nausea, dizziness | |
| | Duloxetine | Oral | Nausea | |
| Anti-epilepsy drugs | Gabapentin | Oral | Dizziness | Neuropathic pain |
| | Pregabalin | Oral | Dizziness | |
| | Clonazepam | Oral | Sedation | |
| Corticosteroids | Dexamethasone | Oral/IV/Sq | "Steroid psychosis" | Neuropathic pain, cerebral edema, spinal cord compression, bone pain, visceral pain |
| Lidocaine | Lidocaine patch | Topical | Erythema (rare) | Neuropathic pain |
| | Lidocaine infusion | IV/sq | Perioral numbness, cardiac changes | Intractable neuropathic pain |
| NMDA antagonists | Ketamine | Oral/IV/intranasal/ topical | Hallucinations | Unrelieved neuropathic pain; need to reduce opioid dose |
| Bisphosphonates | Pamidronate<br>Clondronate<br>Alendronate<br>Zoledronic acid | IV<br>IV | Pain flare, osteonecrosis | Osteolytic bone pain |
| Cannabinoids | Dronabinol (Marinol®) | Oral | Dizziness, nausea, tachycardia, euphoria | Pain, nausea, loss of appetite, spasticity |
| | Nabilone (Cesamet® and Syndros®) | Oral | | |

NMDA antagonists (dextromethorphan, amantadine, and ketamine) are believed to exert their analgesic effects by blocking receptors for glutamate and other excitatory amino acids at the level of the spinal cord. Ketamine is the most commonly-used agent, and can be administered intravenously, intramuscularly, subcutaneously, intranasally, sublingually, rectally, and topically. A general recommendation is to reduce the opioid dose by approximately 25% to 50% when starting ketamine to avoid sedation.[41] Psychotomimetic reactions consisting of hallucinations, vivid imagery delirium, confusion, and irrational behavior have been reported to occur in approximately 12% of individuals receiving the drug systemically.[42] Adverse effects, including hallucinations and unpleasant cognitive sensations, responded to diazepam at a dose of 1 mg intravenously.[42]

In recent years there has been a resurgence of interest in the use of cannabinoids for the relief of pain and the end of life. Like opioids, cannabinoids produce their pharmacological effects via actions at specific receptors in the body that are designed for endogenously produced compounds with normal regulatory, homeostatic properties.[64] Unlike opioids, however, there has never been a documented case of death from cannabis overdose—indeed, cannabis has no known lethal dose.[65]

The CB1 and CB2 receptors have been shown to mediate the analgesic effects of cannabinoids.[66] This has allowed for the development of more selective agents that may provide analgesia while minimizing cognitive or perceptual side effects. Two oral cannabinoid preparations are FDA-approved and available in the US (dronabinol and nabilone). These routes of administration avoid the potential hazards and dosing uncertainties involved with inhaled or edible forms of cannabis. A review of the existing literature evaluating the role of cannabinoids currently approved for human use suggests that these agents are moderately effective for neuropathic pain with adverse effects that are less than or comparable to existing analgesics.[67]

Cannabinoids have been shown to exert no appreciable effects on opioid plasma levels and may even augment the efficacy of oxycodone and morphine in patients suffering from a variety of chronic pain conditions, potentially allowing a reduction in the opioid doses used in such patients.[68] The authors of a review of the role of cannabinoids in hospice and palliative care concluded: "Many patients in a palliative care setting who are currently on long-term opioids for chronic pain could potentially be treated with either cannabis alone or in combination with a lower dose of opioids. From a pharmacological perspective, cannabinoids are considerably safer than opioids and have broad applicability in palliative care."[64]

**Complementary/alternative strategies**

A wide range of complementary and alternative therapies (CAT) are commonly used in end-of-life care.[69] More than half of providers that offered CAT offered massage, supportive group therapy, music and pet therapy, guided imagery, and relaxation techniques.[70]

Behaviors likely to respond to CAT interventions include: aggression, disruption, shadowing, depression, and repetitive behaviors (Table 7).

Interventions should be matched to the specific needs and capabilities of the patient, and they can be used concurrently with any medications that might be employed.[71,72]

CAT interventions are aimed at reducing pain, inducing relaxation, and enhancing a sense of control over the pain or the underlying disease. Breathing exercises, relaxation, imagery, hypnosis, and other behavioral therapies are among the modalities shown to be potentially helpful to patients.[41]

Physical modalities such as massage, use of heat or cold, acupuncture, acupressure, and other physical methods may be provided in consultation with physical or occupational therapy. These treatments can enhance patients' sense of control as well as greatly reduce the family caregivers' sense of helplessness when they are engaged in pain relief. One study found that both massage and "simple touch" induced statistically significant improvements in pain, quality of life, and physical and emotional symptom distress over time without increasing analgesic medication use.[79]

Psychosocial interventions for end-of-life pain may include cancer pain education, hypnosis and imagery based methods, and coping skills training.[80] Educational programs are one of the most common interventions to address cancer pain barriers, and current studies provide high-quality evidence that pain education is feasible, cost-effective, and practical in end-of-life settings.[80]

Coping skills training may be beneficial for patients and family caregivers dealing with chronic cancer pain, although the dose and components of a coping skills training regimen remain uncertain.

| Table 7. Potentially helpful alternative interventions for EOL symptoms[72] | |
|---|---|
| **Intervention** | **Applications/indications** |
| Environmental modifications[73,74] | Support normal sleep/wake cycles<br>Structure activities to reduce boredom<br>Reduce unnecessary stimulation<br>Create home-like environment |
| Music therapy[75] | Receptive music therapy (listening to music by a therapist who sings or selects recorded music for the recipients).<br>Active music therapy (recipients engage in music-making by playing small instruments, with possible encouragement to improvise with instruments, voice, or dance.) Also music played when doing routine daily care etc. |
| Bright light therapy[76] | Exposure to simulated or natural lighting to promote circadian rhythm synchronization. |
| Aromatherapy[77] | Use of plant and herb-based essential oils (indirect inhalation via room diffuser, direct inhalation, aromatherapy massage, or applying essential oils to the skin) |
| Pet therapy[76,78] | Several small studies suggest that the presence of a dog reduces aggression and agitation, as well as promoting social behavior in people with dementia. |

Other integrative and behavioral approaches found to be helpful for managing end-of-life pain are massage therapy and acupuncture.[81]

### Managing Pain in Intensive Care Units

Several studies show that most US adults wish to die at home.[82] And yet more than half of deaths occur in hospitals, most with ICU care.[83] When curative approaches are not expected to be successful, a transition to primary comfort-focused care and the withdrawal of ineffective or burdensome therapies is often the compassionate course. Although guidelines and detailed strategies have been developed for analgesic therapy during the removal of life-sustaining interventions, communication about what to expect and how things may proceed remain paramount to negotiating this care transition.[84] Some patients and families may be able to have meaningful interactions at the end of life, and thus brief interruption of sedatives and analgesics may be reasonable.

Rarely are dying ICU patients able to self-report information about their pain.[84] Thus it is incumbent on the critical care health professionals, perhaps with the assistance of the patient's family members, to assess pain without self-report input from the patient. Two pain assessment instruments have been validated for use in the ICU setting: the Behavioral Pain Scale[85] and the Critical-Care Pain Observation Tool.[86] Both tools describe specific observations that the patient's ICU care providers (including family members or loved ones) can make that, when present, could indicate the patient is experiencing pain such as grimacing, rigidity, wincing, shutting of eyes, clenching of fists, verbalization, and moaning.[87]

Reports by family members or other people close to a patient should not be overlooked. In the Study to Understand Prognosis and Preference for Outcomes and Risks of Treatment (SUPPORT) study, surrogates for patients who could not communicate verbally had a 73.5% accuracy rate in estimating presence or absence of the patient's pain.[88]

## Managing common EOL symptoms

Effective symptom control can allow patients at the end of their lives to pass through the dying process in a safe, dignified, and comfortable manner. When possible, proactive regimens to prevent symptoms should be used since it is generally easier to prevent symptoms than treat acute symptoms. Because disrupted swallowing function and changes in levels of consciousness can affect patients' ability to swallow pills, medications must be provided in formulations that are safe and feasible for administration. Concentrated sublingual medications, dissolvable tablets, transdermal patches, creams or gels, and rectal suppositories can be used in patients with impaired swallowing or decreased responsiveness.

### Nutrition and Hydration

The provision of nutrition and hydration can become a clinical challenge at the end of life and can be directly related to the use of analgesics, particularly in decisions about the preferred route of analgesic administration. As with decisions about analgesia itself, the fundamental question regarding various alternatives for nutrition or hydration is whether the potential benefits outweigh the burdens from the patient's perspective. The patient's own expression of interest should be the primary guide.

If a dying patient shows interest in either food or fluids, they should never be withheld unless providing them clearly causes greater suffering (i.e., in patients for whom oral feeding causes significant discomfort).[39] In most cases, patients either do not show an active interest in food or are satisfied with very small amounts of specific foods (such as sweet custards or ice cream) which are well-tolerated. The forced administration of nutrients, either parenterally or through a nasogastric or gastrostomy tube, has little or no benefit to most patients in the last days or weeks of life, and the placement or continuation of an intravenous line or enteral feeding tube can be burdensome. Enteral feeding tubes used during the terminal phase of illness are often more useful as a means of administering medications than nutrients.

Concerns about adequate hydration are frequently misplaced. Relative dehydration can be beneficial during the terminal phase for the following reasons:[39]

- By decreasing urine output urinary incontinence or difficulties of using a bedpan or commode are reduced
- Reduced gastrointestinal secretions may reduce nausea and vomiting
- In cancer patients, pain may be improved by a reduction in tumor edema
- Reduction in oropharyngeal and pulmonary secretions may lead to reduced airway congestion and diminished pooling of secretions the patient cannot clear on his or her own

### Nausea and vomiting

Multiple neurotransmitter pathways in the brain and gastrointestinal tract mediate nausea and vomiting, both of which are common in EOL care. Some therapies for nausea (e.g., haloperidol, risperidone, metoclopramide, and prochlorperazine) target dopaminergic pathways to inhibit receptors in the brain's chemoreceptor trigger zone.[89] Serotonin 5-$HT_3$ receptor antagonists such as ondansetron and palonosetron have been used to treat chemotherapy and radiation therapy related nausea, although in studies of patients with EOL-related nausea, these agents have not been shown superior to older dopaminergic agents.[36] Anticholinergic medications such as meclizine or transdermal scopolamine can be added if a vestibular component of nausea is present or suspected. Synthetic cannabinoid agents (e.g., dronabinol) and medical marijuana (in states where it is approved for medical use) may be considered as second-line agents for nausea control, although they should be used with caution because they can provoke delirium and dosing of medical marijuana may be imprecise.

Vomiting can occur due to mechanical bowel obstruction, which is common with pelvic and gastrointestinal cancers. Management with an antiemetic (e.g., haloperidol) as well as corticosteroids and analgesics is recommended.[90]

**Dyspnea**

Dyspnea is common among patients at the end of life and is associated with many diseases or conditions including end-stage pulmonary and cardiac disease, cancers, cerebrovascular disease, and dementia. A number of mechanisms can be involved in dyspnea including pneumonia, airway hyperreactivity, pulmonary edema, pleural effusions, and simple deconditioning. Assessing the severity of dyspnea can be challenging because most dyspnea scales rely on patient self-report, although the Respiratory Distress Observation Scale (eight variables, 0-16 score) is based solely on observers' clinical assessments.[91] Regardless of a patient's measured oxygen saturation, tachypnea, increased difficulty breathing, restlessness, and grunting are clinical signs of dyspnea.

Opioids are first-line agents for treating dyspnea at the end of life.[36] Opioids help reduce the sense of "air hunger" and, when administered at appropriate doses, do not compromise respiratory status or hasten dying.[92]

Opioids should be selected and administered based on patient's comorbidities, previous opioid exposure, and ease of administration (see Table 8 for initial doses). Morphine and oxycodone are available in concentrated forms and sublingual formulations, which allow rapid administration regardless of a patient's level of wakefulness or swallowing ability.

**Delirium and agitation**

Delirium and agitation are commonly associated with dementia, but may also occur in patients without diagnosed dementia due to physiological or psychological changes at the end of life. Manifestations can include calling out, screaming, verbal and physical aggression, agitation, apathy, hostility, sexual disinhibition, defiance, wandering, intrusiveness, repetitive behavior and/or vocalizations, hoarding, nocturnal restlessness, psychosis (hallucinations or delusions), emotional lability, and paranoid behaviors.[93,94] When a patient presents with delirium or agitation, the first course of action should be to perform a comprehensive assessment of the symptom(s):

- Antecedents: What are the triggers for the behavior(s)?
- Behavior: Which behavior, or behaviors, are targets for intervention?
- Consequences: What are the consequences of the behavior(s) for the patient and others?

Family, caregivers, and nurses are often in the best position to answer these questions. Understanding these factors may reveal simple and effective interventions. Complex, expensive management strategies and interventions may not be required.

A patient's medical condition or a medication the patient is taking may be the primary trigger for delirium or agitation. Although identifying a trigger through patient history and/or physical examination can be challenging if the patient's cognitive impairment is severe, clinicians should persist and include family and caregivers in the process, if possible. Treatment of a reversible medical problem can be much more effective and safe than deploying either non-pharmacologic or pharmacologic interventions. Reversible causes of new-onset behavioral disorders in the elderly include:

- Acute infection (e.g., urinary tract infection, sepsis)
- Delirium (an acute state of confusion which itself can be the result of a new-onset medical condition)
- Depression
- Dehydration
- Hypoxia (e.g., congestive heart failure, pneumonia, anemia due to gastrointestinal hemorrhage)
- Pain (e.g., vertebral or hip fracture, or acute abdominal pain)
- Medication side effect
- Emotional stress
- Reactions to changes in care, caregivers, or caregiver behaviors
- Boredom

Many medications routinely used by older adults can cause or worsen behavioral and psychological problems. For example, anticholinergic agents increase the risk of visual hallucinations, agitation, irritability, delirium, and aggressiveness. Psychotropics, such as benzodiazepines, can impair cognition, be disinhibiting, and may contribute to falls. Adverse drug effects are one of the most common reversible conditions in geriatric medicine. They present an opportunity to effect a cure by stopping the offending drug or lowering the dose. This has led to the recommendation that "any new symptom in an older patient should be considered a possible drug side effect until proven otherwise."[95]

***Non-pharmacologic management options for delirium and agitation***

Evidence suggests that non-pharmacologic approaches to delirium or agitation can produce equivalent outcomes, in a much shorter time and at less overall risk and cost, than pharmacologic therapies.[96,97] A meta-analysis of community-based non-pharmacologic interventions for delirium or agitation found significant reductions in symptoms as well as improvements in caregiver's reactions to these symptoms.[97] Behaviors more likely to respond to such interventions are: agitation, aggression, disruption, shadowing, depression, and repetitive behaviors. Non-pharmacologic interventions should always be matched to the specific needs and capabilities of the patient, and they can be used concurrently with any pharmacologic therapies that might be employed.[71,72,98]

Behavioral and psychological symptoms often arise in response to a wide range of factors that can make life uncomfortable, frightening, worrisome, irritating, or boring for people with dementia. Paying close attention to such environmental factors, and eliminating or correcting them, should be the first priority for caregivers.[930]

This may require patience, diligence, and a willingness to see the world through the eyes and other senses of the person whose behaviors are challenging. Because sensory deficits are common in older adults, and because vision and hearing deficits, in particular, can increase fearfulness, anxiety, and agitation, any patient displaying delirium or agitation should be assessed for these deficits, and, if any are found, they should be corrected promptly with glasses, improved lighting, magnifying devices, hearing aids, or other techniques.

Other environmental factors that can increase agitation include: temperature (too hot or too cold), noise (in or outside the room or dwelling unit), lighting (too much, too little, or quality), unfamiliarity (new people, new furniture, new surroundings), disrupted routines, needing assistance but not knowing how to ask, being uncomfortable from sitting or lying on one position for too long, or inability to communicate easily because of language difficulties.

Dietary and eating-related issues should be carefully assessed. An inability to chew properly or swallow easily can increase agitation, hence a patient's dental integrity, use of false teeth or other orthodontia, and swallowing ability should be considered. If a patient's appetite or cycle of hunger/satiety is not synchronized with the timing of meals provided by an institution, consider options to individualize the availability of food and/or food choice. Difficulty preparing or eating meals, confusion about mealtimes, apathy, agitation, and paranoid ideation about food and fluids may all contribute to weight loss, which is common in patients with dementia. Avoidance of alcohol and caffeine can promote good sleep hygiene and may help stabilize mood.[99]

**Pharmacologic management options**

Although pharmacologic interventions may be necessary in some circumstances, they should only be considered if the patient is not responding to appropriate, sustained, patient-tailored non-pharmacologic interventions. Two classes of medications should be used very cautiously: benzodiazepines and antipsychotics.

**Table 8. Initial opioid doses for dyspnea or pain in opioid-naïve EOL patients[36]**

| Medication | Oral dose | IV or subcutaneous dose | Initial dosing frequency |
|---|---|---|---|
| Fentanyl | Transmucosal 100-200 mcg | 25-100 mcg | Every 2-3 hrs. |
| Hydromorphone | 2-4 mg | 0.5-2 mg | Every 3-4 hrs. |
| Morphine | 2.5-10 mg | 2-10 mg | Every 3-4 hrs. |
| Oxycodone | 2.5-10 mg | NA | Every 3-4 hrs. |

Although benzodiazepines may help treat anxiousness or agitation in the last hours or days of life, use across longer time frames should be avoided in the treatment of delirium or agitation because they may cause or exacerbate a range of problems including:[98,100,101]

- Cognitive impairment
- Rebound insomnia (i.e., if taken as needed, patients sleep worse on the nights that they omit it)
- Risk of falls
- Paradoxical agitation
- Physical dependence with regular use[102]
- Aspiration and its consequences

Antipsychotic medications, while of potential utility in patients with severe or uncontrollable delirium or agitation, should be avoided until other reasonable medications have been tried because of their relatively high risk of side effects and adverse events, including possible death. In June 2008, the US Food and Drug Administration (FDA) determined that both conventional and atypical antipsychotics increase the risk of death in elderly patients, and reiterated that antipsychotics are not indicated for the treatment of dementia-related psychosis.[103]

Initiation of any medication for delirium or agitation should be at the lowest possible dose, with slow titration upwards if needed to the lowest effective dose. Patients must be monitored closely for both adverse effects and drug-drug interactions. If a medication is demonstrated to be effective, the patient should be reassessed frequently, since delirium or agitation symptoms are inherently unstable and subject to remission.

**Constipation**

Constipation is common at the end of life (because of low oral intake of food and fluids and the adverse effects of opioids) and should be closely managed because it can lead to pain, vomiting, restlessness, and delirium. Prevention generally involves a stimulant laxative (e.g., senna) with a stool softener (e.g., docusate or polyethylene glycol). If constipation does not resolve with these measures, stronger laxatives, suppositories, or enemas are indicated. Methylnaltrexone, naldemedine, and naloxegol can be used to treat opioid-related constipation that does not respond to traditional preventive or treatment regimens.

**Caring for a Person Near Death: Tips for Family Caregivers[104]**

- Continue to talk to the person and say the things you need or want to say. Remember that the person may be able to hear, even when not able to respond
- Allow the person to sleep as much as he or she wishes
- Reposition the person if it makes him or her more comfortable
- Moisten the person's mouth with a damp cloth
- If the person has a fever or is hot, apply a cool cloth to the forehead
- Give medications as ordered to decrease symptoms such as anxiety, restlessness, agitation or moist breathing
- Keep a light on in the room, it may be comforting
- Play the person's favorite music softly
- Encourage visitors to identify themselves when talking to the person
- Keep things calm in the environment
- Open a window or use a fan in the room if the person is having trouble breathing
- Continue to touch and stay close to your loved one

**Ethical Considerations**

A potential barrier to good pain management at the end of life is the misconception on the part of providers, family members, or both, that an escalation of pain medications or other palliative therapies will unethically hasten or cause death. Although ethical and legal consensus upholds the appropriateness of withdrawing unwanted or unhelpful therapies to avoid the prolongation of the dying process and the administration of medications with the intent of relieving suffering, such concerns may mitigate optimal administration of therapies.[105] When providers administer pain medications and other palliative therapies to a dying patient, the intent should explicitly be on relief of symptoms, and communication with the family must stress this goal, even if the possibility exists that such treatments could hasten death.[84]

The doctrine of double effect draws a clear distinction between the aggressive palliation of pain with the intent to relieve suffering and the active and purposeful hastening of death. The doctrine asserts that the alleviation of pain is ethically justifiable as long as the caregiver's primary intent is alleviating suffering.[39] (The doctrine of double effect holds that an act that might have a good or bad effect is ethical if the nature of the act is morally good or neutral and the intent of the act is good even if there is potential for bad effect.)[39] Health-care providers should communicate this strategy with patient and families and document the rationale for any dose escalation used for the alleviation of pain.

Contrary to fears among patient and their families, research suggests that aggressive pain management at the end of life does not necessarily shorten life. In fact, pain management may be life-prolonging by decreasing the systemic effects of uncontrolled pain that can compromise vital organ function.[106]

If a patient experiences intense pain, discomfort or other undesirable states at the end of life despite the best efforts of pain management providers, palliative sedation (also known as terminal, continuous, controlled, or deep-sleep sedation) is an option.[84] Palliative sedation is the intentional sedation of a patient suffering uncontrollable refractory symptoms in the last days of life to the point of almost, or complete, unconsciousness and maintaining sedation until death—but not intentionally causing death.[107]

Although palliative sedation may bring intolerable suffering to an end and allow people to die peacefully, it nonetheless can be challenging to put into practice and has been criticized as "slow euthanasia."[93]

Acknowledging the inherently complex and subjective nature of decisions about palliative sedation, guidelines have nonetheless been developed to help guide responsible use of this alternative. Many guidelines state that palliative sedation should only be considered when:[94,108]

- The patient is terminally ill
- Death is expected within hours or days
- The patient is suffering acute symptoms unresponsive to therapy
- Consent is obtained from the patient or his/her proxy
- The withdrawal of food and water is discussed
- Families are informed that the patient will likely not regain consciousness and will die
- Causing death is not the intention even though it may not be possible to achieve adequate symptom control except at the risk of shortening the patient's life

The degree to which palliative sedation is used, and the manner in which it is used, must, in the end, be a matter of clinical judgment on the part of individual physicians.

## Conclusion

Compassionate care for patients who are dying requires clinicians to employ the full range of their therapeutic skills to holistically care for the physical, psychological, and emotional needs of both their patients and loved ones. This is a time when diagnostic skills and medical knowledge may be less important that emotional intelligence and communication skills. It may also entail a shift away from previous goals of aggressive treatment with advanced medical technology, and toward a realistic assessment of what such technology can actually provide in terms of comfort, dignity, and peace of mind at the end of life.

Ongoing pain assessment is critical in order to detect changes in pain such as the development of painful bone metastasis, resolution of treatable causes such as infections, or worsened neuropathic or visceral pain due to tumor growth. Careful refinement of pain management regimens is often required at the end of life and may include changes in the route of analgesics if patients can no longer take oral medications, the need to rotate opioids, or the addition of adjunctive or integrative therapies.

Clinicians should seek expert consultation from pain services or palliative care teams for complex cases or when pain appears to be refractory to all efforts. Early referral to hospice care may allow time for a carefully planned pain regimen to ensure comfort at the end of life. The other symptoms that can accompany the end of life, such as dyspnea, agitation, delirium, and anxiety, each need to be carefully assessed and treated with coordinated interventions. Fortunately, a wide array of analgesics, interventional strategies, adjuvant medications, varied routes of administration, and complementary and alternative therapies exist that, if used cooperatively and effectively, can greatly improve the chances that patients and their families will experience death without trauma, suffering, or unrelieved pain.

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*Choose the best possible answer for each question and mark your answers on the self-assessment answer sheet at the end of this book. There is a required score of 70% or better to receive a certificate of completion.*

**11. Roughly how many American adults have created an advance directive?**
- A. One in two.
- B. One in three.
- C. One in four.
- D. One in five.

**12. How accurate are physicians, generally, in predicting patient preferences for end-of-life care?**
- A. About 55% accurate.
- B. About 65% accurate.
- C. About 75% accurate.
- D. About 85% accurate.

**13. In the United States, what term is generally used for care of people who are not expected to live more than 6 months?**
- A. Palliative care.
- B. Nursing home care.
- C. Hospice care.
- D. Terminal care.

**14. The Karnofsky Scale may be useful for what clinical task?**
- A. Assessing patient's cognitive ability.
- B. Determining level of adverse effects associated with chemotherapy.
- C. Determining patient pain level.
- D. Determining patient life expectancy.

**15. Which statement is true about the typical role of a referring physician relative to patients in hospice care?**
- A. Hospice staff are expected to be in charge of patient care, with a referring physician consulted only for prescription refills.
- B. The referring physician is expected to remain in charge of care and be available by phone or other means.
- C. The referring physician transfers responsibility for patient care to the hospice medical director.
- D. The hospice team assumes responsibility for all patient care, including the ordering and administration of prescription medications as needed.

**16. What condition do many older well adults consider as being "worse than death"?**
- A. Alzheimer Disease.
- B. Severe pain.
- C. Heart attack.
- D. Stroke.

**17. The opioids butorphanol, nalbuphine, and pentazocine, are not recommended in cancer pain management because _____.**
- A. They are likely to cause psychotomimetic effects.
- B. They are associated with an increased risk of pruritus.
- C. They commonly cause severe constipation.
- D. Their metabolites may be neurotoxic in the context of chemotherapy.

**18. Unwarranted fear of what potential side effect of opioid analgesics can lead to underprescribing by clinicians and/or under use by patients?**
- A. Respiratory depression.
- B. Sedation.
- C. Nausea.
- D. Constipation.

**19. Which class of adjuvant analgesic has received increasing attention in recent years as a possible way to control neuropathic pain?**
- A. Tricyclic antidepressants.
- B. Cannabinoids.
- C. Psychostimulants.
- D. Ketamine.

**20. Which class of medications are first-line for treating dyspnea in end-of-life settings?**
- A. Corticosteroids.
- B. Benzodiazepines.
- C. Bronchodilators.
- D. Opioids.

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**Responsible Opioid Prescribing Practices**

| | A | B | C | D |
|---|---|---|---|---|
| 1 | ○ | ○ | ○ | ○ |
| 2 | ○ | ○ | ○ | ○ |
| 3 | ○ | ○ | ○ | ○ |
| 4 | ○ | ○ | ○ | ○ |
| 5 | ○ | ○ | ○ | ○ |
| 6 | ○ | ○ | ○ | ○ |
| 7 | ○ | ○ | ○ | ○ |
| 8 | ○ | ○ | ○ | ○ |
| 9 | ○ | ○ | ○ | ○ |
| 10 | ○ | ○ | ○ | ○ |

**Compassionate Care at the End-of-Life**

| | A | B | C | D |
|---|---|---|---|---|
| 11 | ○ | ○ | ○ | ○ |
| 12 | ○ | ○ | ○ | ○ |
| 13 | ○ | ○ | ○ | ○ |
| 14 | ○ | ○ | ○ | ○ |
| 15 | ○ | ○ | ○ | ○ |
| 16 | ○ | ○ | ○ | ○ |
| 17 | ○ | ○ | ○ | ○ |
| 18 | ○ | ○ | ○ | ○ |
| 19 | ○ | ○ | ○ | ○ |
| 20 | ○ | ○ | ○ | ○ |

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# LEARNER RECORDS: EVALUATION

You must complete the program evaluation and applicable activity evaluation(s) in order to earn *AMA PRA Category 1 Credits*™, MOC points, or participation in MIPS. For each of the objectives determine if the activity increased your:

**A Competence B Performance C Outcome D No Change**

## COURSE 1 - RESPONSIBLE OPIOID PRESCRIBING PRACTICES:

| | | A | B | C | D |
|---|---|---|---|---|---|
| 1. | Utilize opioid and non-opioid treatment strategies for patients with pain. | ○ | ○ | ○ | ○ |
| 2. | Apply appropriate treatment strategies for opiate use disorder and opiate overdose | ○ | ○ | ○ | ○ |

3. Please identify a specific change, if any, you will make in your practice related to prescribing opioids.

_____

_____

4. What do you see as a barrier to making these changes?

_____

_____

## COURSE 2 - COMPASSIONATE CARE AT THE END-OF-LIFE:

| | | A | B | C | D |
|---|---|---|---|---|---|
| 5. | Manage patients at the end-of-life in ways consistent with their stated preferences and appropriately manage patients in hospice. | ○ | ○ | ○ | ○ |
| 6. | Use both non-pharmacological and pharmacological treatment modalities to manage pain and other symptoms common in patients at the end-of-life. | ○ | ○ | ○ | ○ |

7. Please identify a specific change, if any, you will make in your practice related to end-of-life care.

_____

_____

8. What do you see as a barrier to making these changes?

_____

_____

## OVERALL PROGRAM:

| | | Yes | No | If no, please explain: |
|---|---|---|---|---|
| 9. | The program was balanced, objective & scientifically valid | ○ | ○ | _____ |
| 10. | Do you feel the program was scientifically sound & free of commercial bias or influence? | ○ | ○ | _____ |

11. How can this program be improved? _____

_____

12. Based on your educational needs, please provide us with suggestions for future program topics & formats. _____

_____

13. For which activities would you like to use your participation as a clinical practice improvement activity (CPIA) for MIPS?

○ Course 1 ○ Course 2 ○ None

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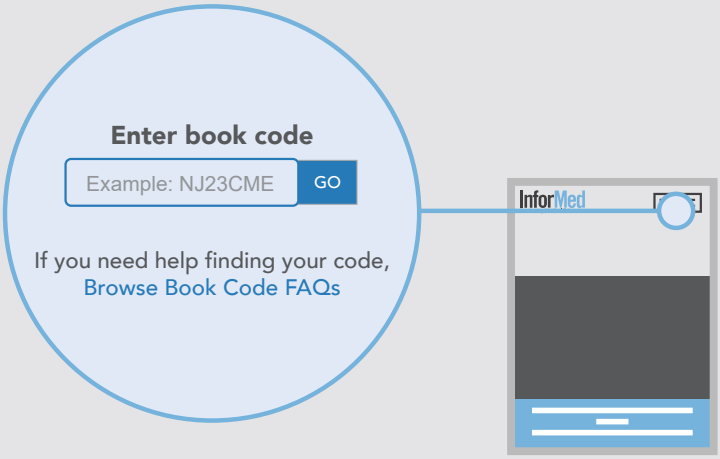


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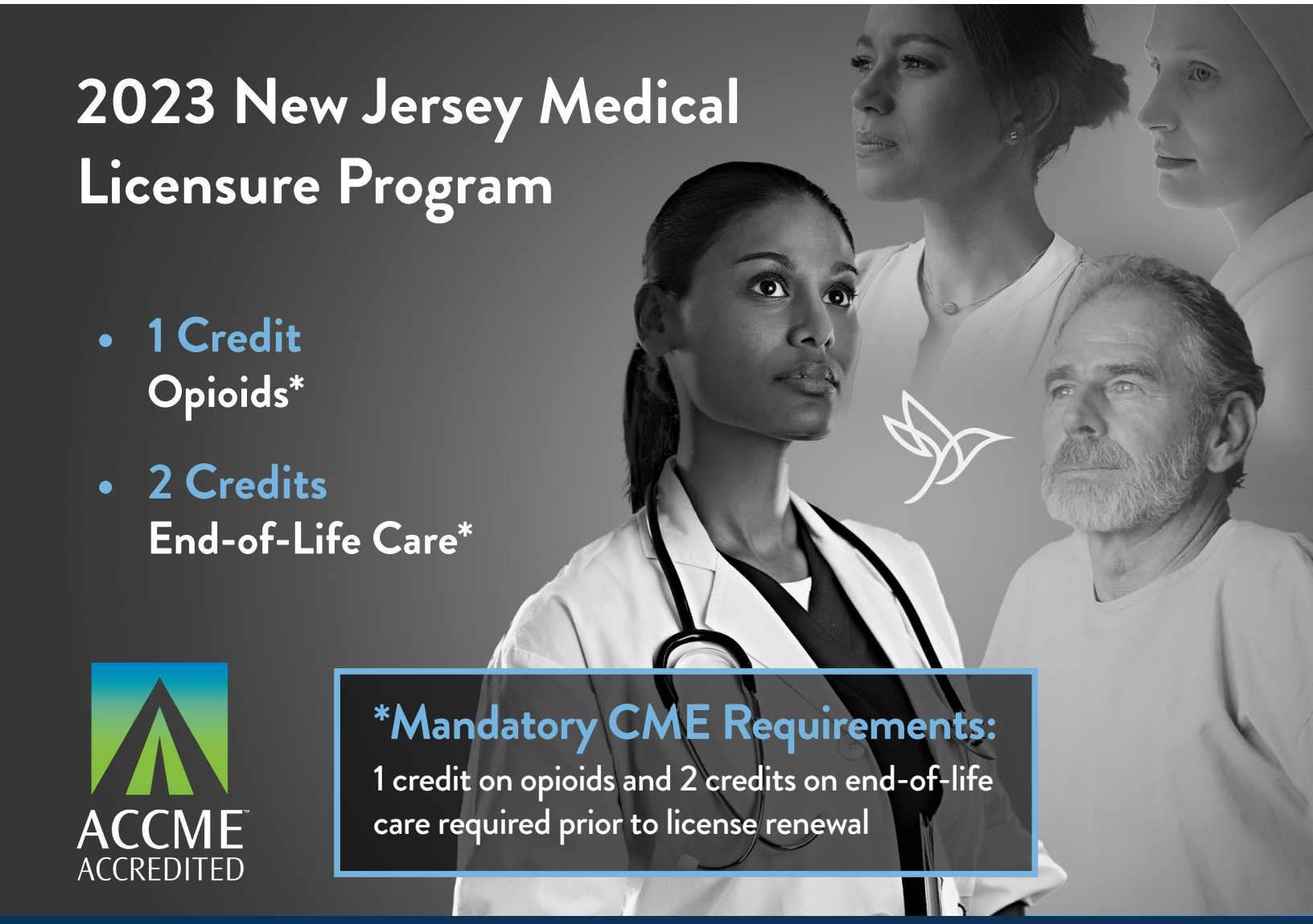

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