



Palliative care for patients dying in the hospital

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ABSTRACT

For hospitalized patients whose death is imminent, palliative care can alleviate distressing symptoms that are common during the last few days or weeks of life. The essentials of such care that are presented in this review are intended to provide both generalists and specialists in fields other than palliative care with a practical, evidence-based approach to alleviating these symptoms in patients who are dying in a hospital [1]. Communication skills that are essential to personalized care and goal setting are described briefly; the alleviation of the psychosocial and spiritual suffering that is often faced by terminally ill patients and their families is addressed only incidentally. The term “comfort care” is used here to describe a set of the most basic palliative care interventions that provide immediate relief of symptoms in a patient who is very close to death. Typically, these measures are used to achieve comfort for the patient rapidly; diagnostic or therapeutic maneuvers that might be appropriate for palliation in earlier stages of the illness are usually not considered in this context [2]. Many elements of this approach can be used to ease patients’ distress in other phases of a life-threatening illness and in nonhospital settings, and they can also be applied to relieve symptoms in patients with less grave conditions.

THE NEED FOR COMFORT-CARE SKILLS IN HOSPITAL PRACTICE

The goal of palliative care is, therefore, to improve the quality of life of both patients and families by responding to pain and other distressing physical symptoms, as well as to provide nursing care and psycho-social and spiritual support [3].

Multiple distressing symptoms affect hospitalized patients who have advanced, life-threatening illnesses, [2, 3] and some of these

symptoms worsen as the patient approaches death.⁴ Poorly controlled symptoms have been documented in patients with advanced cancer, congestive heart failure, chronic obstructive pulmonary disease (COPD), and many other life-threatening conditions. [5, 6] The meticulous management of distressing symptoms is important in any phase of illness, but it becomes a primary focus near the end of life [7].

Palliative care services can reduce the distress caused by symptoms and improve the quality of life of patients near the end of life.⁸ However, the

current scarcity of board-certified palliative care specialists — a workforce shortage that is projected to continue far into the future — means that the responsibility for ensuring excellent end-of-life care for dying patients will continue to fall primarily on generalists and on specialists in areas other than palliative care. [9, 10] Thus, familiarity with basic comfort measures is an essential skill for all clinicians who are caring for patients whose death is imminent. [7, 11]

SETTING GOALS AT THE END OF LIFE

The broad goals and methods of comfort care near the end of life should reflect the informed patient's wishes. The plan of care can then be aligned with the patient's wishes. [12] Such conversations about goals of care are essential when the withholding or withdrawing of life-sustaining interventions (e.g., dialysis or cardiopulmonary resuscitation) is being considered and as an aid in choosing appropriate diagnostic tests (e.g., positron-emission tomography-computed tomography or monitoring of vital signs). Discussions about setting goals at the end of life are associated with greater congruence between patients' wishes and the care that they receive during that time, and such discussions are correlated with the use of fewer aggressive, life-extending interventions (e.g., mechanical ventilation and resuscitation), as well as with end-of-life care that is consistent with the patient's preferences, fewer deaths in the intensive care unit, and earlier referral to a hospice. [17, 18]

UNDERSTANDING COMFORT CARE

Comfort care requires the meticulous palliation of troubling symptoms and offering of skilled psychosocial and spiritual support to the patient and the patient's family. However, the term is often used in a misleading or imprecise manner — for example, when such care is automatically considered equivalent to a do-not-resuscitate order and, perhaps even without discussion with the patient, [23] is extrapolated to mean the exclusion of a full range of palliative measures appropriate for a dying patient. Rather than simply writing orders for “comfort care” (or “intensive comfort measures,” the term that we prefer), the medical

team should review the entire plan of care and enter explicit orders to promote comfort and prevent unnecessary interventions.

Infrequently, a focus on comfort care may include the use of potentially life-sustaining measures, when these are consistent with a patient's goals (e.g., when the patient wants to be kept alive with mechanical ventilation until a loved one can visit from afar or when withdrawing a treatment conflicts with the patient's religious beliefs or cultural norms). [11] In addition, the use of invasive interventional procedures, such as thoracentesis for the treatment of symptomatic pleural effusions, can promote comfort.

EVIDENCE-BASED SYMPTOMS MANAGEMENT IN DYING PATIENTS

Evidence based Symptoms Management, primarily pharmacologic, clinical guide should feature only a few essential, relatively inexpensive drugs that the clinician can become familiar with and learn to use confidently. Intravenous drug therapy is emphasized, since most hospitalized dying patients have an intravenous catheter, but suggestions for oral medications, which may be quite adequate in the hospital setting, are also included. If intravenous access is difficult to obtain, opioids and many other drugs can be administered conveniently by other routes, including through a subcutaneously placed butterfly needle that provides easy access for continuous or intermittent infusion. [24]

Pain

Pain is the symptom most feared by patients who have cancer and many other terminal conditions. Patients with mild pain (scores of 1 to 3 on a 10-point verbal reporting scale) should initially be treated with acetaminophen or a Non-steroidal anti-inflammatory drug (NSAID). If treatment with these agents fails to control pain, a low dose of an opioid can be added.

Opioids are first-line agents for the treatment of moderate-to-severe pain (pain score, 4 to 10 on a 10-point verbal reporting scale). [31] Morphine sulfate is commonly used; hydromorphone is an alternative. Oxycodone is a valuable oral agent, but there is no intravenous preparation. Various

long-acting formulations, such as transdermal fentanyl patches, are appropriate for patients receiving stable opioid doses. Intravenous fentanyl has a number of advantages, primarily in critical care and perioperative settings. Methadone should be used only by clinicians who are familiar with its unique pharmacologic properties. Constipation is a frequent side effect of opioid therapy and should be anticipated and treated prophylactically.

Neuropathic pain should be distinguished from somatic or visceral pain, since opioids alone may not provide adequate analgesia for patients with neuropathic pain. [37] For patients with only a few days to live, adjuvant analgesics used for neuropathic pain may not have time to take effect; however, glucocorticoids may be of benefit in treating acute neuropathic pain. [38]

Dyspnea

Dyspnea can be a debilitating symptom and may lead to substantial anxiety in the patient about the possibility of suffocating. Opioids, given either orally or intravenously, are the treatment of choice for dyspnea and have been studied thoroughly in patients with COPD [40,41] and patients with cancer [42]; they have been found to be effective in alleviating dyspnea and, when used carefully, not to have serious side effects, such as respiratory depression.

Psychosocial support, relaxation, and breathing training can decrease breathlessness and distress. [48] Facial cooling with a fan reduces breathlessness.⁴⁹ In addition, patients may report benefiting from open windows, a reduction in ambient room temperature, breathing humidified air, and elevation of the head of the bed [50].

When the withholding or withdrawal of mechanical ventilation is being considered for a patient with progressive dyspnea and this measure would be expected to lead quickly to death, patients and their families need to be reassured that the patient will not experience a sense of suffocation.

Cough

Cough occurs at the end of life in up to 70% of patients with cancer and has been reported in 60% to nearly 100% of dying patients with various nonmalignant diseases. [53] Opioids, which act

centrally to suppress the cough center, have been shown to be effective antitussive agents⁵⁴ and may work well at low doses. [55] Studies have also shown that gabapentin is effective for chronic cough. [26]

Xerostomia

Dry mouth, or xerostomia, is a common issue among patients at the end of life. Its causes include medications (e.g., anticholinergic agents, opioids, and antihistamines), radiotherapy to the head and neck, and dehydration. Strategies to minimize dry mouth include the discontinuation of unnecessary treatment with drugs that may contribute to the problem and the use of saliva stimulants, saliva substitutes, and other treatments. Parasympathomimetic medications (e.g., pilocarpine and cevimeline) are effective for improving xerostomia but are administered orally, so their use may not be practical for many dying patients. [57]

Excessive Oral and Pharyngeal Secretions

The inability to clear oral and tracheobronchial secretions is typically observed in the final days of life and can lead to gurgling sounds in the throat, sometimes referred to as a “death rattle.” Although family members and staff are often distressed by these sounds, they are unlikely to be disturbing to the dying patient, [18] since they typically occur when the patient is unresponsive and lacks an effective cough reflex. No convincing evidence beyond clinical reports supports the commonly recommended use of antimuscarinic agents (e.g., atropine and glycopyrrolate) in patients with noisy breathing due to terminal respiratory secretions. Rather, clinicians should reassure and counsel family members and staff about the unlikelihood that the patient is experiencing discomfort from excessive secretions and about the lack of benefit and potential harm of treatment.

Nausea and Vomiting

[24] The evidence supporting the efficacy of various antiemetics or of a single preferred agent in dying patients is limited. Haloperidol is recommended in much of the literature on palliative care, but metoclopramide is also favored. [61] Serotonin antagonists (e.g., ondansetron) are

first-line agents in chemotherapy-related nausea and vomiting, and they may also be used alone or added to other dopamine-receptor antagonists, such as haloperidol, metoclopramide, and first-generation or second-generation antipsychotics (e.g., prochlorperazine and olanzapine).²¹ Glucocorticoids are used in many situations, although a randomized, controlled trial comparing metoclopramide alone with metoclopramide plus glucocorticoids did not show a greater benefit in association with the latter regimen. [65]

Constipation

Constipation is often multifactorial in terminal illness and typically results from dehydration, immobility, the effects of drugs, or the effects of a tumor on the bowel. Constipation is a predictable side effect of opioid use and needs to be managed prophylactically with a laxative regimen along with the opioid. Patients who can swallow oral medications are typically prescribed a stimulant laxative (such as senna) with a stool softener (such as docusate). No significant benefit has been found with the addition of docusate to senna alone. [26] Methyl naltrexone, an expensive drug that is indicated for opioid-induced constipation, is given subcutaneously and can be used to treat patients who are unable to swallow or whose conditions do not respond to the usual agents. [27,28]

Anorexia and Cachexia and the Role of Hydration and Nutrition

No drugs effectively treat anorexia and cachexia near the end of life, although glucocorticoid treatment can transiently improve appetite and energy. [30] The evidence from clinical studies does not support the use of artificial hydration or nutrition to improve symptoms of dehydration, quality of life, or survival in patients at the end of life. [36, 37] Attempts to alleviate dehydration can result in fluid overload in these patients.

Even when this information is presented to patients and families, there may be considerable individual, cultural, or religious variation in their views of the acceptability of withholding fluids and nutrition. The physician should respect these personal values when making a recommendation,

which must be tailored to the individual patient's situation; compromises are common (e.g., giving small amounts of parenteral water with dextrose despite the lack of evidence of benefit).

Fever

Dying patients may have troubling fevers in the final days or weeks of life. The cause is often unknown, but they may be due to infection, neoplasm, medication, or neurologic injury. Acetaminophen and NSAIDs are the first-line agents for the treatment of these fevers. Dexamethasone also has antipyretic properties and should be tried when treatment with the first-line agents fails. Antibiotics may have a role when a specific infection is being treated and when their use is consistent with the patient's goals (e.g., for alleviating a cough due to bronchitis), but they have not been shown to be generally effective in relieving fevers in the final week of life. [33]

Anxiety and Insomnia

Ensuring the patient's comfort will reduce his or her anxiety, but the primary treatment entails eliciting and addressing concerns and providing reassurance and support. Complementary therapies, such as relaxation exercises, may have a role, and mental health consultation should be considered.

Sleep disorders are also common in patients near the end of life. [36] Physical discomfort is an important remediable cause. Strategies for managing insomnia include non-pharmacologic interventions, such as ensuring that the patient's room is quiet and comfortable at night. Various shorter-acting benzodiazepines improve sleep for terminally ill patients in whom anxiety is a principal cause of sleeplessness, among other groups of dying patients. [28] Non benzodiazepine hypnotic agents may also be useful.

Delirium

Clinicians often overlook subtler forms of delirium, whereas family members unfortunately may misinterpret even moderately aberrant behavior by the patient as a reflection of normal cognitive processing (e.g., they may rationalize the patient's behavior as resulting from a lack of sleep).

There is insufficient evidence to recommend benzodiazepines for delirium, [34] except in cases of alcohol or sedative-hypnotic withdrawal. Benzodiazepines can cause paradoxical reactions that worsen delirium, but they may be added cautiously if treatment with neuroleptic drugs fails to relieve agitation or if more sedation is desired. [37] Non pharmacologic treatments for delirium include frequent reorientation to the environment and hospital routine, modification of factors that may precipitate delirium (such as sensory deprivation and pain), [38] and reductions in noise and other bothersome or stimulating environmental factors.

Palliative Sedation to Unconsciousness at the End of Life

Palliative sedation to the point of unconsciousness is a treatment of last resort when distressing symptoms cannot be controlled despite expert consultation. [33] It is widely recognized as an ethically appropriate approach in end-of-life care. [34] The goal is to relieve refractory suffering, not to hasten death, and it should not be

confused with physician-assisted dying or voluntary euthanasia. The patient or a legal surrogate must be in agreement that such an approach is justified. Consultation with specialists in palliative care, ethics, psychiatry, or other areas should be considered before a decision to initiate palliative sedation is made.

CONCLUSIONS

Considerable advances have been made during that time in our knowledge of the management of symptoms in terminal illnesses — advances that deserve widespread incorporation into the clinical practice of both generalists and specialists. The information presented here should provide clinicians in fields other than palliative care with a framework for delivering basic comfort care to hospitalized patients who are near death. A systematic approach towards the management of the Patients with appropriate palliative care has been illustrated here, which can be incorporated in the practice for the better Palliative management Outcomes.

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