Communication between patients, their relatives, and health care staff is very important when administered palliative sedation.

Palliative Sedation in Patients With Cancer
Marco Maltoni, MD, and Elisabetta Setola, MD

Background: Palliative sedation involves the use of sedative medication to relieve refractory symptoms in patients by reducing their level of consciousness. Although it is considered an acceptable clinical practice from most ethical points of view, palliative sedation is still a widely debated procedure and merits better understanding.

Methods: The relevant medical literature pertaining to palliative sedation was analyzed and reviewed from various technical, relational, and bioethical perspectives.

Results: Proportionate palliative sedation is considered to be the most clinically appropriate modality for performing palliative sedation. However, guidelines must be followed to ensure that it is performed correctly. Benzodiazepines represent the first therapeutic option and careful monitoring of dosages is essential to avoid oversedation or undersedation.

Conclusions: Proportionate palliative sedation is used to manage and relieve refractory symptoms in patients with cancer during their last days or hours of life. Evidence suggests that its use has no detrimental effect on survival. A different decision-making process is used to manage the withdrawal of hydration than the process used to determine whether proportionate palliative sedation is appropriate. Communication between patients, their relatives, and the health care staff is important during this medical intervention.

Introduction
Within the context of palliative medicine, the practice of drug-induced sedation for symptom control — the use of all possible antisymptomatic treatments notwithstanding — is called palliative sedation. Historically, palliative sedation was often known as terminal sedation because it was considered a last resort in the final phase of a patient’s life. However, terminal sedation is a confusing and inappropriate term because it implies that the practice is designed to shorten life; thus, more appropriate terminology was needed and, hence, the term palliative sedation. Its implementation into everyday clinical practice has led to the use of the term in the majority of studies focusing on this topic.1

By reducing the level of consciousness, palliative sedation uses sedative medication to control refractory symptoms in patients with cancer.2 As this approach became more widespread and was acknowledged as an important part of palliative care, procedural principles were needed to avoid malpractice. The guidelines created clarified the definition and practice of palliative sedation, also underlining its inherent and intrinsic difference from euthanasia.3-10 Various guidelines

Photo courtesy of Lisa Scholder. Organic Walk, 16” × 24".
state that sedation in palliative care is a therapy mainly performed in the last days or hours of life, with an unambiguous aim, a precise procedure, and well-defined results — all of which are in contrast to those of euthanasia.9-12 In addition, use of palliative sedation does not hasten death when conducted in accordance with standard guidelines.13-15

Methods and Types
Some adjunctive characteristics of palliative sedation have been included in more detailed definitions of the practice.16 For example, the definition of palliative sedation as the “intentional administration of sedative drugs in dosages and in combinations required to reduce the consciousness of a terminal patient as much as necessary to adequately relieve one or more refractory symptoms,” considers a number of specific parameters, including short-term prognosis, proportionality of the intervention, effectiveness of the sedation through adequate monitoring, and refractoriness of symptoms.16 This definition also implies that palliative sedation is not a fixed intervention; rather, it is a dynamic process that can be adapted to the needs of the patient.16

Palliative sedation can vary in terms of depth of sedation and correlated level of unconsciousness, continuity, drugs used, and rapidity of implementation (Table 1). In that sense, palliative sedation is not necessarily deep continuous sedation or continuous sedation until death, which is the last step of a progressive process.

“Proportionality” Theme
When symptom-guided, dose-titrated, and result-assessed, palliative sedation can be a progressive or sudden procedure (see Table 1). Choice of sedation has a clinical basis and is oriented toward different clinical needs: rapid palliative sedation for catastrophic and acute symptoms compared with proportional sedation for progressively worsening symptoms. Thus, implementing palliative sedation is based on the suddenness of symptom appearance.

Different methods of palliative sedation exist, namely, the proportional method of palliative sedation (also called proportionate palliative sedation), and sustained, deep and continuous palliative sedation from the onset, regardless of the intensity of symptoms.17-21 The latter suggests that relational continuity between patients and relatives is not necessarily a value, that the concept of hastening or not hastening death is irrelevant (given the patient’s condition), and that the process of drug titration may delay the clinical effect of sedation. We consider that the supporters of this view are in favor of administering drugs in a “standardized” way, which leads to deep sedation, and interrupting all forms of hydration and nutrition. Taking this concept to an extreme, many patients in this setting would be candidates for deep continuous sedation or continuous sedation until death. In our opinion, those in favor of using palliative sedation in this way do not consider that this view is a departure from the original practice; indeed, such an approach could be counterproductive to its large-scale implementation.

By contrast, some proportional palliative sedation supporters view proportionality as a fundamental characteristic of palliative sedation and maintain that relational continuity is an important issue.6,14 They also argue that the effects of palliative sedation on refrac-

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
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<tbody>
<tr>
<td><strong>Depth</strong></td>
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<tr>
<td>Superficial</td>
<td>Patient conserves (at least partially) the ability to communicate with family or caregivers</td>
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<tr>
<td>Deep</td>
<td>Patient enters a state of total unconsciousness</td>
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<tr>
<td><strong>Continuity</strong></td>
<td></td>
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<tr>
<td>Intermittent</td>
<td>Sedation is performed for a limited period of time for a specific symptom and discontinued if a reduction (albeit slight) in the distress caused by the symptom has been obtained</td>
</tr>
<tr>
<td>Continuous</td>
<td>Drugs are administered without interruption to obtain a persistent effect, which more frequently occurs near death and in severe cases</td>
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<tr>
<td><strong>Use of Drugs</strong></td>
<td></td>
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<tr>
<td>Primary palliative sedation</td>
<td>Sedatives are used to lower the level of consciousness</td>
</tr>
<tr>
<td>Secondary palliative sedation</td>
<td>Dosage of drugs primarily used for symptom control (ie, morphine for pain or dyspnea) is increased to make use of an adverse event (eg, somnolence) to reduce the level of consciousness (not recommended)</td>
</tr>
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<td><strong>Rapidity of Administration and Effect</strong></td>
<td></td>
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<tr>
<td>Progressive</td>
<td>Most common method in which the dose of sedative drugs is monitored and modified according to patient needs</td>
</tr>
<tr>
<td>Sudden, rapid intervention method</td>
<td>Also called “emergency” sedation; required for a catastrophic event such as massive bleeding, severe dyspnea, agitated delirium, or acute pain</td>
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Palliative sedation must be carefully monitored to avoid undersedation or oversedation and that the drug dosage should be individually titrated to the minimum effective dose level. Not every palliative sedation is deep continuous sedation or continuous sedation until death, and the latter approach is required in patients for whom a lower level of sedation is insufficient to control refractory symptoms. A survey carried out by Putman et al on intention and practice in US physicians reported that many of these physicians preferred the proportional method, because they did not wish to pursue full unconsciousness in patients without monitoring the effect of such sedation.

Moreover, some of the first articles published on palliative sedation were based on the use of a proportional, clinical, symptom-guided form of sedation. This form of palliative sedation is accepted by most ethical points of view, cultural perspectives, and procedural guidelines. ten Have and Welie used the term mission creep to describe the intention of shortening life — however small — by using deep sedation, concluding that such an approach cannot be considered palliative sedation. In a clinical context, mission creep occurs when a specific practice considered appropriate in a given situation is gradually extended for use with different indications, groups of patients, and different intentions.

Prevalence and Settings

The debates about the characteristics and how to define palliative sedation are reflected in the wide-ranging prevalence of the practice observed in the literature (1%–88%), which can be attributed to a number of factors:

- Different health care settings
  Higher prevalence in inpatient acute tertiary palliative care units compared with home-care hospice programs
- Different case mixes in similar settings
  In a comparison between 2 Italian hospices, a statistically significant difference in prevalence of sedation initially observed in the 2 populations disappeared when the groups were corrected for age and duration of stay in hospice. This was interpreted as an indication that younger patients and those admitted for acute symptoms required more palliative sedation interventions than older patients admitted to the hospice for psychosocial reasons.
- Degree of adherence to palliative sedation guidelines or level of competence and expertise of health care professionals
  Little experience in managing difficult symptoms may increase the prevalence of palliative sedation. The decision to initiate palliative sedation should be taken together with a palliative care specialist to ensure that all other options have been explored. In the event of insufficient psychological support, the palliative care team may be at risk of burn out and, thus, might perform unnecessary palliative sedation.

- Adoption of wider or narrower definition of palliative sedation may influence prevalence

However, the real frequency of palliative sedation has also been suggested to vary: possibly between 25% and 35% of all patients admitted to a hospice or palliative care unit. In home-care hospice programs, palliative sedation may be a feasible option. Mercadante et al reported that 13.2% of patients with cancer were sedated in their homes.

Symptoms and Refractoriness

Management of refractory symptoms is the single indication for use of palliative sedation. The definition of a refractory symptom, which was first proposed by Cherny and Portenoy, is still widely accepted: “Symptom for which all possible treatment has failed, or it is estimated that no methods are available for palliation within the time frame and the risk:benefit ratio that the patient can tolerate.” The concept of refractoriness has been associated with that of unbearable suffering, multidisciplinary evaluation, and a prognosis of short-term survival.

Prior to offering sedation, all other available medications, procedures, and interventions should be considered and offered as appropriate. When possible, discussions should take place with patients, their relatives, and their caregivers so that an agreement can be made about the action to be taken. All dimensions of the symptom (physical, psychological, social, emotional, existential/spiritual) must be taken into account and help offered for each component. Physical symptoms that are most prone to refractoriness include delirium and dyspnea; both are frequently present as death approaches, and their timely management is crucial. Pain and emesis may also become refractory, albeit this occurs less frequently. Palliative sedation

![Fig 1. Main refractory symptoms requiring palliative sedation in 774 patients from 10 studies with a total of 1,003 symptoms (some patients had > 1 refractory symptom). From Maltoni M, Scarpi E, Rosati M, et al. Palliative sedation in end-of-life care and survival: a systematic review. J Clin Oncol. 2012;30(12):1378-1383. Reprinted with permission. © 2012, American Society of Clinical Oncology. All rights reserved.](https://example.com/fig1.png)
is occasionally used for intractable seizures or terminal hemorrhage (Fig 1).44,42

Psychological distress and existential suffering are complex and challenging. These terms encompass issues such as meaninglessness of life, sense of hopelessness, perception of self as a burden to others, feeling dependent on others, feeling isolated, grieving, loss of dignity and purpose, fear of death of self, or fear of the unknown. Multidimensional management directed at the physical, psychological, and existential aspects is recommended, with support provided by psychologists, psychiatrists, chaplains, ethicists, or palliative care specialists.5,10

Psychological distress and existential suffering have many peculiarities.5,8,27 Psychological distress can occur at any time during the course of a disease, and supportive interventions, psychological interventions, or both types of interventions may be ineffective and do not completely resolve the problem; however, this does not mean that the distress is refractory.13 Rather, psychological distress may not have a progressive course similar to that associated with physical symptoms; its course is often unpredictable. For these reasons, frequent meetings with the palliative care team are needed; the same may be true of spiritual assistance. Intermittent or relief sedation, rather than continuous sedation, may also be beneficial.5,8,27

Some authors have focused on the search for early determinants for continuous palliative sedation so that patients at risk can be identified in a timely manner and their symptoms managed by other strategies.5,44-46 Information on determinants that more frequently lead to use of palliative sedation could also be used to assess the need for advanced care planning. However, study results have suggested that implementing palliative sedation is more often linked to the attitudes and beliefs of physicians and to organizational settings than to the clinical needs of patients.44 Other studies found a correlation between palliative sedation and treatment duration (the longer the treatment, the higher the dose).47 Midazolam has a rapid onset of action and short half-life, and both of these pharmacokinetic features facilitate the titration procedure during the first phase of sedation. When an adequate minimum dose (or, in some settings, a loading dose) has been identified for symptom control, a maintenance dose should be started by continuous intravenous or subcutaneous infusion. Because midazolam has anticonvulsant, muscle-relaxant, hypnotic, and anxiolytic properties, it can be added to other sedative classes to achieve control of these specific symptoms.

Some studies advocate use of neuroleptics for delirium (eg, haloperidol).35-37 Haloperidol has less sedating power than midazolam, so it is typically used to attenuate delirium; thus, it is not the most appropriate choice of drug for achieving continuous sedation. Other drugs used for palliative sedation have included levomepromazine, chlorpromazine (especially when profound sedation is needed for acute agitated delirium), propofol, ketamine, and dronabinol.39,48-51 If a patient undergoing sedation is treated with an opioid for pain or dyspnea, then the opioid must not be interrupted. By contrast, opioids should not be used for sedation, because doing so would make use of their secondary effect (somnolence) and would be considered secondary palliative sedation, which is not recommended.5,5,8-10

### Duration

The mean or median length of palliative sedation ranges from 0.8 to 12.6 days.12 One study observed an even larger range (0–43 days), despite mean and median times in line with the literature (4 and 2 days, respectively).13 In this study, 10.8% of patients underwent palliative sedation for more than 10 days and 3.4% of patients for more than 20 days.13 Patients requiring sedation for more than 10 days had fewer rates of delirium and dyspnea, milder and more frequent use of secondary palliative sedation, and higher rates of psychological distress than their counterparts.13

### Drugs

The most widely used drug for palliative sedation in the context of palliative care is midazolam, which is a benzodiazepine prescribed in 9 of the 11 studies evaluated (Fig 2).5,11 Midazolam is prescribed in a wide dose range; for example, in 1 study, 61% of patients used doses no more than 30 mg and 8% of patients used doses of at least 120 mg.52 The highest final daily dose of midazolam was correlated with age (the younger the patient, the higher the dose) and treatment duration (the longer the treatment, the higher the dose).37 Midazolam has a rapid onset of action and short half-life, and both of these pharmacokinetic features facilitate the titration procedure during the first phase of sedation. When an adequate minimum dose (or, in some settings, a loading dose) has been identified for symptom control, a maintenance dose should be started by continuous intravenous or subcutaneous infusion. Because midazolam has anticonvulsant, muscle-relaxant, hypnotic, and anxiolytic properties, it can be added to other sedative classes to achieve control of these specific symptoms.

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Monitorings
Guidelines for palliative sedation recommend close surveillance of patients with respect to the management and relief symptoms and suffering, depth of sedation (level of consciousness), and potential adverse events of sedation.1-10 Family members of patients and their health care team should be monitored for psychological and spiritual distress.3,5,6,8 Vital signs should be assessed in nonimminently dying patients undergoing short-term, intermittent, or light sedation.

Evaluating symptom relief or relief of suffering in unconscious patients can be difficult. Some scores monitoring verbal or facial expression, body movements, and response to nonpainful stimuli may be useful when deep sedation is performed, and some authors have suggested using the level of sedation as a proxy for evaluating symptoms.3,25,31

Depth of sedation is a common theme in studies and the tools used to assess it can vary. For example, guidelines from the European Association for Palliative Care recommend the Critical-Care Pain Observation Tool or the Richmond Agitation-Sedation Scale (RASS).52,53 A prospective study performed by Arevalo et al54 evaluated the validity and reliability of 4 scales: the Minnesota Sedation Assessment Tool, the RASS, the Vancouver Interaction and Calmness Scale, and a sedation score proposed by the Royal Dutch Medical Association. The RASS was as reliable as the score proposed by the Royal Dutch Medical Association and study results claimed that the RASS was the least time consuming, clearest, and easiest to use of the 4 tools.54,55 Another study tested a modified form of RASS (RASS-PAL) for use in patients in the palliative care unit, observing that the tool was useful for assessing sedation; however, further validation studies are needed to confirm these results.56

More objective methods to evaluate depth of sedation have been proposed because some sedated patients may continue to experience symptoms without being able to communicate their distress.57,58 Descheppeper59 proposed a mixed-evaluation method that combined use of a scale, a subjective assessment by professionals, as well as neuroimaging, electrophysiological techniques, or both. However, such an approach is impractical in end-of-life care and may be more suited to a research setting.57 A systematic review of the literature revealed that 5 clinical studies and 1 guideline-based article included use of a validated scale to evaluate the results of palliative sedation.58 During the titration phase of sedation, clinical parameters should be evaluated every 15 to 30 minutes, but the exact interval should be calculated on the basis of the drugs, doses used, and clinical conditions of the patient; once an appropriate level of sedation has been achieved, the frequency of assessment can be reduced to once every 24 hours.3 One Cochrane review evaluated the impact of palliative sedation on quality of life and participant well-being.15 None of the 14 studies included in the review took any of the above issues into consideration.15 The impact on symptoms was partially reported and with different methods, thus making data pooling impossible.15 Furthermore, the studies reviewed had numerous biases, with the authors concluding that the data are insufficient and the evidence is of poor quality with regard to the qualitative effectiveness of palliative sedation.15 They also recommended that studies on palliative sedation focus on qualitative, rather than quantitative, end points (ie, length of survival from the start of palliative sedation).15

Impact on Survival
For some, the impact of palliative sedation on survival is not an issue that merits much attention, given that the priority of palliative sedation in the end-of-life setting is quality of life; thus, even a detrimental effect on survival may not be considered of particular relevance.59 By contrast, some physicians may consider it fundamental to know whether the sedation proposed has a high, medium, or low risk of hastening the death of their patient.14 However, this question cannot be studied with the highest evidence-based methodology. Although the authors of the Cochrane review were unable to pool data on qualitative outcomes of palliative sedation, they did provide reasonably good, quantitative evidence that palliative sedation does not have a detrimental impact on survival.15 The authors looked at 14 studies involving 4,167 adults — nearly one-third of whom were sedated.15 Survival time measured from admission or referral to death was not statistically significant between those who were sedated and those who were not.15 A prospective study of patients admitted to hospices matched patients who were sedated and those who were not for sex, age, reason for admission, performance status, and prognostic score.13 Survival from admission to death was compared between the 2 groups and no detrimental effect of palliative sedation on survival was found.13 Of note, even intensive procedures, deep continuous sedation or continuous sedation until death, did not hasten death when performed in a proportional, step-by-step manner.13 A subsequent systematic review also identified 11 studies totalling approximately 2,000 patients.14 No difference in survival was seen between patients receiving hospice care who underwent sedation (median, 7–27 days) and those who did not (median, 4–40 days).14

Such results confirm that palliative sedation can be considered a legitimate clinical intervention from most ethical viewpoints and that the principle of double effect is unnecessary to justify its practice. This ethical criterion is appropriate in a small percentage of patients receiving sedation in whom respiratory or circulatory function depression is recorded following...
palliative sedation (3%-4%) and hypothesized as having potentially hastened death. 60 In that sense, it may be appropriate to consider this effect a serious adverse event, which could occur after any medical or surgical procedure.

**Ethical Considerations**

If a survival impact of palliative sedation was ever demonstrated, then palliative sedation might have been equated with “slow” or “soft” physician-assisted suicide; however, absence of a detrimental impact on survival is sufficient to distinguish palliative sedation from physician-assisted suicide. The European Association for Palliative Care has identified 3 areas in which palliative sedation differs from euthanasia11:

- The intention of palliative sedation is to provide relief from unbearable suffering caused by a refractory symptom, whereas euthanasia is designed to end the life of someone who is suffering.
- Palliative sedation is a proportionate and symptom intensity–guided procedure using the minimum useful dose of a sedative drug (eg, a benzodiazepine); it is individually oriented and monitored. Conversely, euthanasia uses neuromuscular relaxants and barbiturates and is not monitored on the basis of the symptom relief obtained. 61,62
- Success of palliative sedation is measured in terms of the relief it provides from distress.

Although palliative sedation does not play a role in hastening death, its use prevents many patients from maintaining verbal contact with their relatives, which makes it unique among medical interventions. 53 Injudicious uses of palliative sedation include inadequate assessment of potentially reversible causes of severe symptoms, lack of involvement of specialists in the condition underlying the presenting symptoms, excessive use by overwhelmed health care professionals, performing the procedure at the request of the relatives, and untimely start (ie, too early, too late). 6,12,60

Although some may view palliative sedation, deep continuous sedation, or continuous sedation until death as bringing patients to a sort of “living dead-like” state in which they are no longer considered persons, it is our opinion that patients who are sedated can be talked to, wanted, cared for, and loved by their relatives, sometimes “answering” with their presence in surprising and unexpected ways. 12,38 The “innate” core of personhood (“individual component”) has been suggested to persist even after relational and societal components are severely reduced. 29

**Communication and Decision-Making Process**

Talking about death with patients and their families is a delicate and challenging aspect of palliative care. Ideally, discussions of this kind should be initiated when a patient’s prognosis is years to months and then reevaluated when the patient’s life expectancy decreases to months to weeks. 2 The conversation should be a balance between maintaining hope and realistic and achievable goals. 6,67 Health care professionals must plan these end-of-life interventions by taking into account the goals, values, needs, and wishes of the patient. Patients should be asked where they prefer to die so that adequate plans can be made to respect their request. All decisions should be documented in the patient’s medical records. 9 When a health care professional recognizes the imminence of suffering, he or she should discuss the possibility of sedation with the patient, outlining the aims, risks, and benefits of the procedure. The patient may not want to broach the subject and may authorize the health care professional to make decisions on his or her behalf or delegate a caregiver to do so. If the patient is no longer capable of making an autonomous decision, then the health care professional may approach a family member or a surrogate decision maker to clarify the patient’s wishes. 6
A multidisciplinary team of oncologists, palliative care specialists, psychologists, psychiatrists, nurses, chaplains, or spiritual advisors, among others, may also form the decision-making group, together with the patient and his or her family. In particular, such a team can help ensure that all conditions have been met for palliative sedation, that informed consent is obtained, that the type of intervention has been planned, and then modify any plans, when and if necessary, during the course of sedation. Further therapeutic interventions may also be performed if other conditions arise (eg, urinary retention, constipation, myoclonus, “death rattle”).

Keeping an open dialog with relatives and the patient’s loved ones throughout the palliative sedation process is fundamental so that they understand the characteristics of this medical intervention (ie, it is performed in the absence of other means to manage refractory and unbearable symptoms; it neither hastens nor postpones death; it reduces or eliminates the possibility of verbal communication with patients; clinical conditions permitting, it is reversible in nature; it is carefully monitored to avoid oversedation or undersedation; it is performed for the well-being of patients).68,69

Although some relatives experience psychological distress, Bruinsma et al69 reported that most are comfortable with palliative sedation if they are appropriately informed about the procedure and actively involved in the decision-making process. A study of Swiss caregivers of patients who died while undergoing palliative sedation found that most caregivers agreed about the timing of the initiation of palliative sedation and confirmed that it led to a substantial improvement in refractory symptoms.70 In a small study of Dutch relatives of patients receiving palliative sedation until death, many of the relatives acknowledged that palliative sedation was indicated, but they felt that communication between the health care professionals and the relatives was poor.71

Although an open dialog between the health care team, the patient, and his or her family members and loved ones is important, we do not feel that such open communication is always respected. In an Italian study of communicative behavior in 2 different hospice settings, family involvement in the decision-making process with regard to palliative sedation was 100% in both hospices, but the rate of patient participation in such decision-making varied from 24% to 59%.35 Another study of Dutch and US physicians revealed that open discussion among physicians, patients, and families was more diffuse in The Netherlands than in the United States.72 However, the study involved too few cases to conclude that an international difference exists when communication about sedation due to different cultural approaches.72 In a group of 27 sedated patients, a Portuguese case study determined that the decision to begin sedation was made by health care professionals alone in 21 cases.80 The authors attributed this result to the fact that 76% of study patients required urgent and nonpostponable sedation.58

Nurses also play an essential role in the decision-making process. A survey of 576 nurses from The Netherlands showed that most responders had cared for at least 1 patient who received palliative sedation.73 Nearly all of the nurses indicated that they had been involved in the decision to perform palliative sedation and were present when palliative sedation was started, unlike the physicians who were present in fewer than 50% of cases.73 A study of Flemish nurses also revealed that the majority of the nurses supported use of palliative sedation for refractory symptoms.74 Patel et al75 studied the attitudes and perspectives of nurses working with patients receiving palliative sedation in 3 different settings (oncology, intensive care, and hospice), highlighting their ability to define palliative sedation, their skill set for administering palliative sedation, policy, and procedural guidelines, and their education on palliative sedation and end-of-life care.

Guidelines

Many clinical associations and international agencies have produced procedural guidelines for use of palliative sedation so as to provide health care professionals with a framework on which to base the clinical decision-making process.5-10 Key issues in palliative sedation were also addressed in a 10-item framework created by the European Association for Palliative Care (Table 2).5,6 An audit performed in a single center to assess adherence to guidelines on palliative sedation in

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<thead>
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<th>Table 2. — European Association for Palliative Care 10-Item Framework for Guidelines in Palliative Sedation</th>
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<tbody>
<tr>
<td><strong>Need for preemptive discussion of potential role of sedation in end-of-life care and contingency planning</strong></td>
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<tr>
<td><strong>Description of when sedation is indicated</strong></td>
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<tr>
<td><strong>Description of necessary evaluation and consultation procedures</strong></td>
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<tr>
<td><strong>Indications for informed consent requirements</strong></td>
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<tr>
<td><strong>Indications for need to discuss decision-making process with patient’s family</strong></td>
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<td><strong>Indications for selecting method of sedation</strong></td>
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<td><strong>Indications for dose titration, patient monitoring, and care</strong></td>
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<td><strong>Indications for decisions regarding hydration, nutrition, and concomitant medications</strong></td>
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<td><strong>Indications for needs of the patient’s family</strong></td>
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<td><strong>Support for medical and nursing staff</strong></td>
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a palliative care unit confirmed an adherence rate of 100%. Conversely, a survey of Dutch general practitioners revealed a high resistance to following guidelines, and this was particularly true with regard to the inadvisability of using palliative sedation without previous expert consultation and to the recommendation of the involvement of a multidisciplinary palliative care team. Without such an approach, misconceptions about palliative sedation may be further misconstrued and perpetuated.

Conclusions

Some patients with cancer experience refractory symptoms during the last hours or days of their life and are no longer responsive to antisymptomatic treatments. Managing such symptoms is the objective of palliative sedation, a proportional medical approach that must be individually tailored to each patient and closely monitored. Undersedation and oversedation can be avoided by titrating the level of sedating drugs to the minimum useful dose (termed proportionate palliative sedation). A different approach involving standardized drug dosages and deep continuous sedation or continuous sedation until death risks being performed with the total or partial intention to hasten death. However, palliative sedation should only be used in a proportional way; such a view has been accepted by many bioethical viewpoints. Although evidence suggests that proportionate palliative sedation does not have a detrimental impact on survival, further research is needed to monitor the qualitative results of the procedure. Benzodiazepines — in particular, midazolam — are the first choice of drugs for this type of sedation. The decision-making process to initiate proportionate palliative sedation is complex and should involve patients, their relatives and loved ones, and the health care team. This process varies from those used for other clinical decisions such as maintenance or withdrawal of artificial nutrition and hydration. Proportionate palliative sedation is a universally accepted medical intervention that differs from physician-assisted suicide in terms of intention, procedure, and results.

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