

## Assessing and Managing Depression in the Terminally Ill Patient

Susan D. Block, MD, for the ACP–ASIM End-of-Life Care Consensus Panel

Psychological distress often causes suffering in terminally ill patients and their families and poses challenges in diagnosis and treatment. Increased attention to diagnosis and treatment of depression can improve the coping mechanisms of patients and families. This paper reviews the clinical characteristics of normal grief and clinical depression and explains strategies for differential diagnosis.

Although some literature discusses the psychological issues facing elderly patients and terminally ill patients with cancer, less is known about patients with end-stage pulmonary, cardiac, renal, and neurologic disease. Data on the effectiveness of interventions in terminally ill patients are lacking. Treatment recommendations in this paper represent extrapolations from existing literature and expert opinion.

Diagnosing and treating depression in terminally ill patients involve unique challenges. Evidence of hopelessness, helplessness, worthlessness, guilt, and suicidal ideation are better indicators of depression in this context than neurovegetative symptoms. Although terminally ill patients often have suicidal thoughts, they are usually fleeting. Sustained suicidal ideation should prompt a comprehensive evaluation.

Clinicians should have a low threshold for treating depression in terminally ill patients. Psychostimulants, because of their rapid onset of action, are useful agents and are generally well tolerated. Selective serotonin reuptake inhibitors and tricyclic antidepressants may also be used. Psychological interventions—including eliciting concerns and conveying the potential for connection, meaning, reconciliation, and closure in the dying process—can also facilitate coping.

*Ann Intern Med.* 2000;132:209-218.

For the current author address, see end of text.

This paper was written by Susan D. Block, MD, and was developed for the American College of Physicians–American Society of Internal Medicine (ACP–ASIM) End-of-Life Care Consensus Panel. Members of the ACP–ASIM End-of-Life Care Consensus Panel were Bernard Lo, MD (*Chair*); Janet Abraham, MD; Susan D. Block, MD; William Breitbart, MD; Ira R. Byock, MD; Kathy Faber-Langendoen, MD; Lloyd W. Kitchens Jr., MD; Paul Lan-ken, MD; Joanne Lynn, MD; Diane Meier, MD; Timothy E. Quill, MD; George Thibault, MD; and James Tulsky, MD. Primary staff to the Panel were Lois Snyder, JD (*Project Director*), and Jason Karlawish, MD. This paper was reviewed and approved by the Ethics and Human Rights Committee, although it does not represent official ACP–ASIM policy. Members of the Ethics and Human Rights Committee were Risa Lavizzo-Mourey, MD (*Chair*); Joanne Lynn, MD; Richard J. Carroll, MD; David A. Fleming, MD; Steven H. Miles, MD; Gail J. Povar, MD; James A. Tulsky, MD; Alan L. Gordon, MD; Siang Y. Tan, MD; Vincent Herrin, MD; and Lee J. Dunn Jr., LL.M.

Physicians who care for terminally ill patients confront a range of complex medical and psychosocial challenges, and treating patients who are experiencing psychosocial distress is often a particularly troublesome clinical task. Although it is difficult to imagine any patient facing the end of life without emotional distress, physicians may not immediately be able to differentiate between “normal,” appropriate, inevitable distress and more severe disturbances. In this paper, I use three cases to illustrate assessment and management of normal distress and grieving, clinical depression, and the wish to hasten death in the presence of psychological distress.

### Why Should Physicians Treat Psychological Distress in Terminally Ill Patients?

Psychological distress impairs the patient’s capacity for pleasure, meaning, and connection; erodes quality of life; amplifies pain and other symptoms (1–3); reduces the patient’s ability to do the emotional work of separating and saying good-bye; and causes anguish and worry in family members and friends. Finally, psychological distress, particularly depression, is a major risk factor for suicide and for requests to hasten death (4).

### What Are the Barriers to the Recognition and Treatment of Psychological Distress in Terminally Ill Patients?

Although psychological distress is well documented in dying patients (5), it tends to be under-recognized and undertreated (6). Numerous factors act as barriers to recognition and treatment of psychological symptoms. First, both patients and clinicians frequently believe that psychological distress is a normal feature of the dying process and fail to differentiate natural, existential distress from clinical depression. Second, physicians may lack the clinical knowledge and skills to identify such problems as depression, anxiety, and delirium; this may be especially true for the challenging clinical context of terminal illness, in which many of the usual diagnostic clues are confounded by coexisting medical

**Table 1. Grief Compared with Depression in Terminally Ill Patients\***

Characteristics of Grief	Characteristics of Depression
Patients experience feelings, emotions, and behaviors that result from a particular loss (16)	Patients experience feelings, emotions, and behaviors that fulfill criteria for a major psychiatric disorder; distress is usually generalized to all facets of life
Almost all terminally ill patients experience grief, but only a minority develop full-blown affective disorders requiring treatment	Major depression occurs in 1%–53% of terminally ill patients (17–22)
Patients usually cope with distress on their own	Medical or psychiatric intervention is usually necessary
Patients experience somatic distress, loss of usual patterns of behavior, agitation, sleep and appetite disturbances, decreased concentration, social withdrawal	Patients experience similar symptoms, plus hopelessness, helplessness, worthlessness, guilt, and suicidal ideation (23–27)
Grief is associated with disease progression	Depression has an increased prevalence (up to 77%) in patients with advanced disease (28); pain is a major risk factor (29–31)
Patients retain the capacity for pleasure	Patients enjoy nothing
Grief comes in waves	Depression is constant and unremitting
Patients express passive wishes for death to come quickly	Patients express intense and persistent suicidal ideation
Patients are able to look forward to the future	Patients have no sense of a positive future

\* Numbers in parentheses are reference numbers.

illness and appropriate sadness (7). Third, many patients and physicians are reluctant to consider psychiatric causes of distress because of the stigma associated with such diagnoses. Fourth, patients and clinicians often avoid exploration of psychological issues because of time constraints and concerns that such exploration will cause further distress (8, 9). Fifth, physicians are sometimes reluctant to prescribe psychotropic agents, which can cause additional adverse effects, and therefore may hesitate to diagnose a condition that they do not feel they can treat successfully. Finally, when caring for dying patients, physicians may feel a sense of hopelessness that can lead to therapeutic nihilism (10). These factors are reflected in the fact that antidepressants account for only 1% to 5% of all psychotropic agents prescribed for patients with cancer (11, 12).

### How Prevalent Is Psychological Distress in Terminally Ill Patients?

Psychological distress is a major cause of suffering among terminally ill patients and is highly cor-

related with poor quality of life (13). More than 60% of patients with cancer report experiencing distress. Differentiating the distress associated with normal grieving from that associated with psychiatric disorders requires an appreciation of the clinical characteristics and prevalence of these entities.

Derogatis and colleagues (14) found that 47% of patients with varying stages of cancer fulfilled diagnostic criteria for psychiatric disorders. Of this 47%, 68% had adjustment disorders with depressed or anxious mood, 13% had major depression, and 8% had organic mental disorders (for example, delirium). Research has shown that patients with other terminal illnesses also have a greater incidence of psychiatric disorders than healthy persons (15).

### Case One: Sadness, Grief, or Depression?

*Mr. Roberts, a 53-year-old man with end-stage pulmonary disease, is cared for at home by his wife and the local hospice program. He receives long-term oxygen therapy, is bedridden, and has been hospitalized twice in the past year for respiratory failure that required ventilatory support. Mr. Roberts is concerned about becoming a burden to his wife and children. The family's income is barely enough to meet their needs. Recently, the hospice nurse has expressed concern about Mr. Roberts's mental state because he has been asking repeatedly why he has to wait around to die. When directly questioned, he states that he has no intention of ending his life but that he is distressed by his helplessness and dependence. He says he feels like "a time bomb ticking." He spends his time watching television and trying to complete two woodworking projects, one for each of his two sons.*

The physician who hears this report must assess the severity of and the possible interventions for Mr. Roberts's distress. Is he depressed, or is he experiencing normal grieving that is part of the dying process? What is the appropriate threshold for diagnosing depression? In addition, the physician must confront the challenge of bearing with the patient's distress and remaining present as a witness and an ally while the patient traverses this difficult passage. The clinical features of grief and depression are contrasted in **Table 1**.

Our knowledge of psychological disorders in terminally ill patients is derived predominantly from patients with AIDS and cancer and from geriatric patients. Relatively little published literature is available about psychological issues affecting patients with end-stage pulmonary, cardiac, renal, and neurologic disease. Therefore, the recommendations in this paper represent extrapolations from existing literature and expert opinion but lack specific evidence of efficacy in some patient populations.

## How Is Depression Diagnosed in Terminally Ill Patients?

The physician makes a house call to further assess Mr. Roberts's condition. Throughout the visit, Mr. Roberts makes cheerful jokes about his condition—"Hey, Doc, not dead yet!"—and repeatedly refers to his death in a joking manner. Through questioning, the physician learns that Mr. Roberts is not sleeping well because he is short of breath and anxious about not waking up, that his appetite is poor, and that he has little energy. He reports that he does not want to see anyone except his family and that he lacks the concentration and focus to read. When asked whether he is depressed, Mr. Roberts replies, "Depressed? That word holds no meaning for me. Angry, yes. Fed up, yes. Worried about my family, yes. But depression? Never." He remarks on how much he enjoys his wood-working projects and how he worries that he will not have time to complete them. He speaks about his pleasure in visiting with his sons. Then he says, "This dying thing can't be over quick enough or last long enough for me." Mr. Roberts reports that he is realistic about his prognosis, hopes for a few more good months, is trying to do as much as possible for himself, and is not suicidal. He says that joking has always been his way of coping with difficult situations.

Mr. Roberts's case presents many of the common challenges in diagnosing depression (32). He has several of the neurovegetative symptoms of depression (difficulty sleeping, poor appetite, loss of energy, and diminished concentration). However, these symptoms may be caused or exacerbated by underlying disease. Mr. Roberts is also grieving as he anticipates his death. His withdrawal from persons other than his family is probably part of the normal grieving process, particularly because he continues to enjoy his visits with his children. Like other terminally ill patients, he expresses ambivalence about the prospect of death, simultaneously accepting and denying it (33).

The clinical interview is the gold standard for the diagnosis of depression (34, 35). Chochinov and coworkers (36) found that the single question "Are you depressed?" provides a sensitive and specific assessment of depression in terminally ill patients. A patient who responds affirmatively to such an inquiry is likely to receive a diagnosis of depression after a comprehensive diagnostic interview. The busy physician can use this question as a screening tool; for example, Mr. Roberts's negative response is important evidence against a diagnosis of depression. **Table 2** summarizes the indicators of depression that are most useful in the diagnosis of patients with terminal illness. The criteria in **Table 2** differ from the traditional criteria outlined in *Diagnostic and Statistical Manual of Mental Disorders*, 4th edi-

**Table 2. Indicators of Depression in Terminally Ill Patients\***

Psychological symptoms
Dysphoria
Depressed mood
Sadness
Tearfulness
Lack of pleasure
Hopelessness
Helplessness
Worthlessness
Social withdrawal
Guilt
Suicidal ideation
Other indicators
Intractable pain or other symptoms
Excessive somatic preoccupation
Disproportionate disability
Poor cooperation or refusal of treatment (37)
Hopelessness, aversion, lack of interest on the part of the clinician (38, 39)
Treatment with corticosteroids, interferon, or similar agents
History-related indicators
Personal or family history of substance abuse, depression, or bipolar illness
Pancreatic cancer (40)

\* Numbers in parentheses are reference numbers.

tion (DSM-IV) (41), because the usual diagnostic features of depression do not specifically apply to patients with terminal illness.

When assessing these psychological symptoms, physicians must put the patient's responses in context. For example, the patient's illness may be grounds for realistic hopelessness. The patient may be helpless because of his or her physical condition. His or her role in life may have changed drastically because of illness and may result in a loss of self-esteem. A patient whose illness is related to behavior (for example, smoking) may feel a sense of guilt for causing the illness. However, when these symptoms are out of proportion to the patient's actual situation, they are useful indicators of major depression.

The physician can also use his or her own emotional responses to patients as a diagnostic clue. Patients with depression often engender feelings of boredom, hopelessness, aversion, and lack of interest in their caregivers, mirroring the dysphoria, hopelessness, and self-criticism that are hallmarks of the patient's experience of depression (42). Mr. Roberts's physician notes that he enjoys his patient's mordant sense of humor and is amused by his delight in shocking the hospice nurse with his jokes (further evidence that Mr. Roberts is not depressed).

Mr. Roberts's distress is focused on real issues related to his illness—the burden of care on his family, uncertainty, and distress about loss of control. He retains the capacity to laugh, to be involved in his hobbies, and to enjoy his family. Therefore, the physician concludes that Mr. Roberts is not depressed and that his distress seems to fall within

the rubric of what the DSM-IV calls “adjustment disorders” (41). The physician suggests that the hospice nurse continue to monitor Mr. Roberts’s mood and recommends a trial of an antidepressant only if he demonstrates new depressive symptoms.

Because no “bright line” separates depression from grief or adjustment reactions, the physician must assess whether the patient’s symptoms have reached the threshold for treatment. Psychological distress requires treatment even when it does not constitute a psychiatric diagnosis. Many treatments—listening, exploring concerns, reinforcing the patient’s coping strengths, and facilitating dialogue with family members—are part of the clinician’s responsibility. These interventions, which involve the physician as a healing agent (43), can markedly improve the patient’s adaptation. In general, because treatments for depression have become easier to use and tend to have fewer side effects than older medications, a strong case can also be made for a therapeutic trial of antidepressant medication when a diagnosis is in question. Treatment with psychostimulants (see the following discussion) can provide a relatively quick test of whether antidepressants are likely to be effective.

*Although Mr. Roberts frequently expresses worry about the effect of his illness on his family, he continues to use black humor to cope with his illness and approaching death. He dies peacefully at home 3 months later.*

## **Case Two: The Assessment and Management of Depression**

*Ms. Ferrone is a 78-year-old woman with metastatic breast cancer and bone and liver metastases who is receiving palliative chemotherapy. She is Roman Catholic and lives with her husband and 40-year-old retarded daughter. In the past 6 months, she has fractured two vertebrae and has been hospitalized for pulmonary embolism. She and her family have always wanted aggressive treatment, primarily so that she could continue to care for her daughter. Recently, however, she said that she is too sick to be of help to anyone and that she does not want further treatment. Her pain is poorly controlled with pamidronate, naproxen, and morphine; on a 10-point scale, her current pain level is at best a 3 and at worst a 7. She notes that pain often interferes with her sleep and that she cannot sleep past 4:00 a.m. Her appetite is poor, and she has lost interest in her hobbies.*

*Because of the change in her status, the physician carries out a depression assessment. When asked about her future, Ms. Ferrone responds: “My future is over. There is nothing good ahead for me. I worry about how much suffering is ahead, about my daugh-*

*ter, and about how my husband will manage. If it weren’t for my religion, I would call that doctor who kills people. I used to feel proud of being a good mother and wife. But I’ve lost that. All I can see is how much suffering I am putting people through. I can’t forgive myself for that.” When asked whether she thinks she is depressed, Ms. Ferrone says that she is nervous and sad and that she feels that anyone would be depressed in her circumstances.*

Several factors indicate that Ms. Ferrone is depressed. Physicians caring for terminally ill patients should consider the diagnosis of depression when a patient unexpectedly elects to discontinue treatment, is experiencing unrelieved pain, or demonstrates any of the neurovegetative or psychological symptoms of depression. In particular, the diagnosis of depression should be considered in geriatric patients who complain about memory problems or who demonstrate increased levels of somatic concern. A clinician can fully evaluate depressive symptoms in this clinical context by asking such questions as “How do you see your future?”, “What do you imagine is ahead for you with this illness?”, “What aspects of your life do you feel most proud of? Most troubled by?”, and “Are you depressed?”

Ms. Ferrone’s responses to her physician’s questions suggest that she is feeling hopeless and depressed. She is unable to imagine anything positive in her future, feels unable to contribute, and believes that her presence is only a burden to others. Although her religious beliefs make suicide unlikely, she clearly has some wish to end her life. Although many patients and clinicians believe that depression is a normal feature of terminal illness, most terminally ill patients do not become depressed (44). Suicide ideation and feelings of hopelessness, helplessness, worthlessness, and guilt—all of which are present in Ms. Ferrone—are among the best indicators of depression in terminally ill patients. Anxiety usually coexists with depression, and some patients experience an anxious depression (45, 46). In addition, organic mental disorders (for example, delirium) caused by metastatic disease or paraneoplastic syndromes may mimic depression (47). A medical evaluation should be completed to assess possible organic contributors to depressed mood. Components of the appropriate medical evaluation will vary depending on the patient’s clinical situation.

## **How Should Depression Be Treated in a Terminally Ill Patient?**

The first step in assessing and treating depression is controlling pain. Uncontrolled pain is a major risk factor for depression and suicide among patients with cancer (48, 49). Sixty percent to 90% of pa-

tients with cancer experience pain during the last year of life (50–52), and more than 90% of patients with cancer pain respond to simple analgesic measures (53, 54). The Study To Understand Prognoses and Preferences for Outcomes and Risks of Treatments demonstrated that even hospitalized patients who had diseases that are not usually considered painful (for example, cardiac disease) were reported to experience moderate to severe pain (55).

*The doses of Ms. Ferrone's analgesic agents were increased, and her pain control improved. Although her mood brightened slightly, she continued to express hopelessness about the future and her other mood symptoms did not improve.*

Major depression is a treatable condition, even in persons who are terminally ill. Because treatments are usually relatively benign, experts recommend that clinicians have a low threshold for initiating treatment. Trials of individual interventions demonstrate the effectiveness of psychotherapeutic interventions in relieving distress (56, 57), improving quality of life (58–60), and even prolonging life (61). The effectiveness of psychopharmacologic interventions in relieving depressive symptoms and alleviating psychological distress has been demonstrated in as many as 80% of patients (62). Although no controlled clinical trials have evaluated the efficacy of combined interventions, most experts recommend an approach that combines supportive psychotherapy, patient and family education, and antidepressants (63). However, few of the reported trials, including those involving psychopharmacologic agents, meet the most rigorous standards for evidence-based practice. In addition, most research has been done in patients with cancer and few of these interventions have been systematically evaluated in terminally ill patients.

### Psychotherapy and Counseling

When developing a treatment strategy, the clinician must actively question the patient to elicit concerns about death and the dying process, fears about the effect of illness on family members, and past experiences with loss. By addressing these concerns, the physician can help the patient connect with past strengths and assets and spiritual and religious resources, thereby enhancing self-esteem and coping ability. Sometimes, supportive therapy alone is enough to treat depression. Supportive therapy can be provided by a psychiatrist, psychologist, social worker, hospice nurse, or primary care physician, depending on time, interest, training, and the severity of the patient's condition.

Terminally ill patients benefit from an approach that combines emotional support, flexibility, appreciation of the patient's strengths, and elements of life review. This helps the patient develop a sense of

closure and completion. The physician's ability to convey the potential for connection, meaning, reconciliation, and closure in the dying process is thought to facilitate the patient's ability to come to terms with impending death (64). However, patients with severe depressive symptoms may be too immobilized, hopeless, and dysphoric to effectively engage in psychotherapy; they may first need to receive appropriate antidepressant medication.

### Psychopharmacology

Psychostimulants, selective serotonin reuptake inhibitors (SSRIs), and tricyclic antidepressants are the mainstay of treatment for depressed, terminally ill patients (65). They are particularly useful for patients who are seriously ill and may be unable to engage in psychotherapy (66). Characteristics of these agents are described in **Table 3**. Although various new antidepressants have been introduced in recent years, they have not yet been evaluated for use in terminally ill patients.

Psychostimulants (dextroamphetamine, methylphenidate, and pemoline) deserve special consideration in treating depression near the end of life because they take effect quickly. In patients with a limited life span, these agents can reduce the distress of the patient and family and create opportunities for them to cope more effectively with the challenges of the dying process. Even patients who are extremely debilitated and fatigued may experience an improvement in mood and energy within 24 hours of starting treatment.

However, psychostimulants are not the drugs of choice for terminally ill patients who have relatively long projected life spans; they are best used in patients who have weeks or several months to live. For patients with severe depression who require urgent treatment but are expected to survive for several months or longer, it is often useful to begin treatment with a psychostimulant, add an SSRI after the patient has a therapeutic response, gradually decrease the dose of the psychostimulant, and increase the dose of the SSRI to a therapeutic level over 1 to 2 weeks. Despite psychostimulants' efficacy and relative lack of side effects, many physicians are reluctant to prescribe them because of concerns about side effects and about liability under the Controlled Substances Act. However, these agents are well-accepted in the psychiatric literature for treatment of depressed, medically ill patients.

Selective serotonin reuptake inhibitors (fluoxetine, paroxetine, and sertraline) are often the first-line agents for treatment of depression in terminally ill patients when immediate onset of action is not essential. In general, paroxetine and sertraline are better tolerated by terminally ill patients because

**Table 3. Antidepressants Used To Treat Terminally Ill Patients\***

Agent	Quality of Evidence	Advantages	Disadvantages	Onset of Action
Psychostimulants† Methylphenidate Dextroamphetamine	Anecdotal reports, retrospective case reviews, small controlled, prospective trials (67, 68)	Act rapidly; are well tolerated in elderly and debilitated patients; are effective adjuvant analgesic agents (69, 70); counter opioid-induced fatigue; improve appetite (71) and energy; are effective in 70% (72) to 82% of patients (73); are useful in treating cognitive impairment in patients with AIDS (74)	Cardiac decompensation can occur in elderly patients and patients with heart disease; can cause confusion in old or cognitively impaired patients (75); infrequently, tolerance may develop	<24 h <24 h
Pemoline			Pemoline can cause hepatocellular injury and choreoathetosis; hepatic function must be monitored regularly; should be used with caution in patients with renal failure	1–2 d
SSRIs Sertraline  Fluoxetine Paroxetine	Controlled, double-blind studies demonstrate superiority compared with placebo in patients with depression (76), HIV-related depression (77), and depression and heart disease (78); SSRIs are as safe and effective as tricyclics for depression (79, 80); no controlled studies in terminal illness	Are safe and effective with few side effects; cause little orthostatic hypotension, urinary retention, and sedation; have no effect on cardiac conduction; are easy to titrate	Inhibit cytochrome P4502D6, causing interactions with other drugs  Fluoxetine has a long half-life; not tolerated as well as paroxetine and sertraline (81)	2–4 wk
Tricyclics Amitriptyline‡  Imipramine  Doxepin‡ Desipramine Nortriptyline	Many studies have demonstrated efficacy in depressed, medically ill patients (82), but none were controlled	Therapeutic response often seen at low dose; are effective for treatment of neuropathic pain (83); can be given parenterally or compounded for rectal administration; drug levels can be monitored (84)	Not tolerated as well as nortriptyline and desipramine (85)  Not tolerated as well as nortriptyline and desipramine (85)	2–4 wk

\* Numbers in parentheses are reference numbers. SSRI = selective serotonin reuptake inhibitor.

† Physician should first prescribe a low dose, then increase dose gradually every 1–2 days until a therapeutic response or side effects occur or until the maximum dosage is reached.

‡ Can be used in patients who have difficulty sleeping.

they have fewer active metabolites, which can accumulate and cause toxicity.

Although tricyclic antidepressants are still used in terminally ill patients, they are not as well tolerated as SSRIs because of their sedating and autonomic effects. As a result of the proliferation of new antidepressants, including many not mentioned here, the internist is best served by becoming familiar with the risks and benefits of a small subset of available antidepressants in each class, using them when clinically indicated, and referring patients who do not improve on these agents for psychiatric consultation.

*Although Ms. Ferrone is reluctant to start medication because she feels that she should be “glad to go to God,” she agrees to start oral methylphenidate, 2.5 mg, taken daily at 8:00 a.m. and 12:00 p.m. In 2 days, her family notes that that she has more energy, is sleeping better, and reports less pain. The methylphenidate dose is increased. Several days later, Ms. Ferrone reports that she is feeling less downhearted and that although she does not want any more aggressive treat-*

*ment, she is looking forward to the holidays. In 10 days, Ms. Ferrone’s family feels that she has fully recovered from her depression. She enters a hospice program, and methylphenidate is maintained without recurrence of depressive symptoms. After her death, Ms. Ferrone’s family expresses their gratitude that “she remained herself until the very end.”*

In understanding and treating depression, the clinician must recognize that meanings and expression of depressive symptoms may vary across cultures (85). Some patients who strongly believe in an after-life may struggle to view death as an opportunity to be closer to God, and others may fear hell and damnation. These beliefs influence the patient’s response to the crisis of terminal illness. Furthermore, because some cultures stigmatize psychiatric disorders, patients and their families may be reluctant to acknowledge depressive symptoms and to accept treatment. Often, the additional expertise of respected leaders from the patient’s cultural or religious background can be helpful in encouraging a patient to accept treatment.

**Table 3—Continued**

Starting Dose	Usual Daily Dose	Maximum Dosage	Side Effects	Schedule
	mg	mg/d		
2.5–5 2.5	10–20 5–10	60–90 60–90	A mean of 11% of patients experience restlessness, dizziness, nightmares, insomnia, palpitations, arrhythmia, tremor, and dry mouth; psychosis is rare	8:00 a.m. and 12:00 noon 8:00 a.m. and 12:00 noon
18.75	37.5	150	Produces minimal cardiac stimulation	Twice daily
12.5–25	50–100	200	Nausea, gastrointestinal distress, insomnia, headache, sexual dysfunction, and anorexia	Once daily
5–10 10	20–40 20–40	60 60		Once daily Once daily
10–25	25–100	150	Adverse effects occur in as many as 34% of patients with cancer (62); not well tolerated in terminally ill patients because of anticholinergic side effects (dry mouth, delirium, constipation)	At bedtime
10–25	25–100	150		At bedtime
10–25	25–100	150		At bedtime
10–25	25–75	125		At bedtime

### Case Three: Assessment and Management of Suicidal Ideation in Terminally Ill Patients

Mr. Wyznyski is a 36-year-old man with AIDS who recently stopped receiving antiretroviral treatment because of side effects. He lives with his partner near his family. Mr. Wyznyski recently stopped working because he was too ill but has remained active in AIDS education. Ten years ago, he cared for his former partner, who was dying of AIDS. Mr. Wyznyski has been open with his partner, family, and physician about his intention to end his life if his suffering becomes unbearable. He has a severe peanut allergy and intends to consume a nut-filled candy bar if he becomes intolerably ill.

Over the past several months, Mr. Wyznyski has become blind because of cytomegalovirus-related retinitis and is wheelchair-bound because of peripheral neuropathy. His Kaposi sarcoma has proliferated, and he has lost 35 pounds. Nonetheless, he has continued to be active in his teaching activities. One day, Mr. Wyznyski comes to his regularly scheduled visit to say

*good-bye and to thank his physician for the care that he has received. He says that he plans to kill himself within a few days. Although Mr. Wyznyski has considered suicide as a theoretical option, he now seems to have an immediate plan.*

When assessing a patient's risk for suicide, the physician must keep in mind that rates of suicide are higher in patients with medical illness than in healthy persons and increase as illness progresses (86). Additional risk factors for suicide in terminally ill patients include advanced age, male sex, a diagnosis of cancer or AIDS, depression, hopelessness, delirium, exhaustion, pain, preexisting psychopathology, and a personal or family history of suicide (87–89).

Mr. Wyznyski, like many patients with life-threatening illnesses, has had frequent suicidal thoughts. Such thoughts occur in as many as 45% of terminally ill patients with cancer, are usually fleeting, and are associated with feelings of loss of control and anxiety about the future. However, in a small study of terminally ill patients with cancer, 8.5%

**Table 4. Assessing Suicidal Thoughts in Terminally Ill Patients**

---

Examine patient's reasons for wanting to end his or her life now
Explore the meanings of patient's desire to die
Assess pain and symptom control
Is untreated or undertreated pain contributing to the desire to die?
Are untreated or undertreated symptoms contributing to the desire to die?
Are fears about the dying process contributing to the desire to die?
Is the patient experiencing side effects from medication that can be ameliorated?
Review patient's social supports
Has there been a recent loss, conflict, or rejection?
Are there new fears about abandonment, rejection, or financial burden?
With whom has patient spoken about his or her plan?
How do these persons feel about the patient's plan?
Assess cognitive status
Are there cognitive deficits?
Are there new neurologic signs or symptoms?
Does patient understand his or her condition, its implications, and the implications of suicide?
Is the patient's judgment distorted by hopelessness and other symptoms of depression?
Assess psychological condition
Does the patient have untreated or undertreated anxiety, depression, panic disorder, delirium, or other psychiatric diagnosis?
How is the patient dealing with issues of loss of control, dependency, uncertainty, and grief?
Explore religious, spiritual, and existential concerns
Are there unresolved or distressing questions or concerns in these areas?

---

expressed a sustained and pervasive wish for death to come quickly. Fifty-nine percent of these patients received a diagnosis of depression (4) and were found to have increased levels of pain and limited social support. It is not known whether treatment of depression results in a diminished desire for early death. However, in a study of depressed geriatric patients' preferences for life-sustaining therapy, Ganzini and colleagues (90) found that more than 25% of severely depressed patients who initially refused treatment showed an increased desire for life-sustaining treatment after depressive symptoms improved. **Table 4** outlines an approach to the assessment of suicidal thoughts. Even patients who present the desire for suicide as a "rational" choice should receive a comprehensive assessment. The approach to patients who want to hasten death has been reviewed elsewhere (91, 92).

### **Involving Other Health Professionals in Assessment and Treatment**

When assessing the likelihood of depression in a terminally ill patient, the physician must both remain involved and rely on the expertise of other members of an interdisciplinary team. Several circumstances should prompt a referral to a psychiatrist (**Table 5**). Psychiatrists who are experts in the assessment and management of patients with severe medical illness can be found in most major medical centers as part of medical psychiatry departments or consultation-liaison psychiatry services. A psychia-

trist can provide an in-depth assessment of the patient's judgment, decision-making capacity, and mood. A social worker can provide critical information about the patient's social network and coping. A chaplain can provide insight into the patient's spiritual concerns.

Some clinicians believe that exploration of suicidal thoughts may exacerbate them; however, no evidence supports this theory. The current standard of practice suggests that patients who show pervasive hopelessness or a persistent desire to die should be referred to a psychiatrist for assessment and treatment because of their high risk for suicide (93). Hallucinations or delusions in depressed patients should be viewed as indicators of high risk for suicide (94). Organic mental disorders are also risk factors, especially among patients with AIDS (95). Although psychiatric hospitalization is rarely indicated for terminally ill patients, mobilization of social supports, attention to sources and meaning of suffering, affirmation of the person's value, and treatment with antidepressants or antipsychotic agents can often help the patient want to carry on.

*The physician explores Mr. Wyznyski's decision to end his life now and asks the social worker and chaplain for their input. Although Mr. Wyznyski is initially angry that the physician questions his intention to kill himself, his anger dissipates and he begins to cry when his physician says, "We've been through this whole rotten disease together. I am not going to abandon you now. We both know that your time is short, but I want to help you have the best possible death you can have." Mr. Wyznyski says that he is tired of fighting and trying to be a role model. He is afraid of letting people down by giving up. He says, "I never thought I would say this, but death has become my friend. I don't have the energy to get up and get dressed and try to put on a good face."*

*With Mr. Wyznyski's agreement, the physician and social worker arrange a family meeting where these concerns are shared. Mr. Wyznyski's family and partner explain that they have recognized how exhausted he has become but have been afraid to encourage him to slow down because they do not want to demoralize him. After the meeting, Mr. Wyznyski says that he feels relieved that he does not have to work so hard to keep up appearances. He gives up his teaching engage-*

**Table 5. Indications for Psychiatric Referral**

---

Physician is uncertain about psychiatric diagnosis
Patient has a history of major psychiatric disorder
Patient is suicidal
Patient is requesting assisted suicide or euthanasia
Patient is psychotic or confused
Patient is unresponsive to therapy with first-line antidepressants
Patient's family is dysfunctional

---



ments, spending his days in bed, and dies 1 month later.

## Discussion

In this paper, I review three cases that illustrate the assessment and management of normal or appropriate grieving, the diagnosis and treatment of depression, and the assessment and management of suicidal ideation in terminally ill patients. Skillful management of depression relieves suffering and is a core element of the provision of comprehensive end-of-life care. Although treatment of pain and other symptoms at the end of life has improved, depression and other psychological symptoms and disorders remain troublesome for terminally ill patients. Many of these conditions can be easily controlled with state-of-the-art psychosocial treatments. Physicians who care for dying patients must be competent in this critical area of clinical practice.

*Acknowledgments:* The author thanks Cheryl Adamick for secretarial support.

*Grant Support:* By National Institutes of Health grant CA66818-05, the Project on Death in America, the Robert Wood Johnson Foundation, and the Nathan Cummings Foundation. The Greenwall Foundation provided support to the End-of-Life Care Consensus Panel.

*Requests for Reprints:* Lois Snyder, JD, Center for Ethics and Professionalism, American College of Physicians—American Society of Internal Medicine, 190 North Independence Mall West, Philadelphia, PA 19106.

*Current Author Address:* Susan D. Block, MD, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115.

## References

1. **Massie MJ, Holland JC.** The cancer patient with pain: psychiatric complications and their management. *Med Clin North Am.* 1987;71:243-58.
2. **Dean C.** Psychiatric morbidity following mastectomy: preoperative predictors and types of illness. *J Psychosom Res.* 1987;31:385-92.
3. **Breitbart W, Bruera E, Chochinov H, Lynch M.** Neuropsychiatric syndromes and psychological symptoms in patients with advanced cancer. *J Pain Symptom Manage.* 1995;10:131-41.
4. **Chochinov HM, Wilson KG, Enns M, Mowchun N, Lander S, Levitt M, et al.** Desire for death in the terminally ill. *Am J Psychiatry.* 1995;152:1185-91.
5. **Kaasa S, Malt U, Hagen S, Wist E, Moum T, Kvikstad A.** Psychological distress in cancer patients with advanced disease. *Radiother Oncol.* 1993;27:193-7.
6. **Stiefel FC, Kornblith AB, Holland JC.** Changes in the prescription patterns of psychotropic drugs for cancer patients during a 10-year period. *Cancer.* 1990;65:1048-53.
7. **McCartney CF, Cahill P, Larson DB, Lyons JS, Wada CY, Pincus HA.** Effect of a psychiatric liaison program on consultation rates and on detection of minor psychiatric disorders in cancer patients. *Am J Psychiatry.* 1989;146:898-901.
8. **Comaroff J, Maguire P.** Ambiguity and the search for meaning: childhood leukaemia in the modern clinical context. *Soc Sci Med.* 1981;158:115-23.
9. **Maguire P.** The recognition and treatment of affective disorders in cancer patients. *International Review of Applied Psychology.* 1984;33:479-91.
10. **Block SD, Billings JA.** Patient requests to hasten death. Evaluation and management in terminal care. *Arch Intern Med.* 1994;154:2039-47.
11. **Derogatis LR, Feldstein M, Morrow G, Schmale A, Schmitt M, Gates C, et al.** A survey of psychotropic drug prescriptions in an oncology population. *Cancer.* 1979;44:1919-29.
12. **Jaeger H, Morrow GR, Carpenter PJ, Brescia F.** A survey of psychotropic drug utilization by patients with advanced neoplastic disease. *Gen Hosp Psychiatry.* 1985;7:353-60.
13. **Portenoy RK, Thaler HT, Kornblith AB, Lepore JM, Friedlander-Klar H, Coyle N, et al.** Symptom prevalence, characteristics and distress in a cancer population. *Qual Life Res.* 1994;3:183-9.
14. **Derogatis LR, Morrow GR, Fetting J, Penman D, Piasetsky S, Schmale AM, et al.** The prevalence of psychiatric disorders among cancer patients. *JAMA.* 1983;249:751-7.
15. **Cassem EH.** Depressive disorders in the medically ill. An overview. *Psychosomatics.* 1995;36:S2-S10.
16. **Osterweis M, Solomon F, Green M, eds.** Bereavement: Reactions, Consequences, and Care. Washington, DC: National Academy Pr; 1984.
17. **Breitbart W.** Suicide in cancer patients. *Oncology.* 1987;1:49-54.
18. **Weisman AD.** Coping behavior and suicide in cancer. In: Cullen JW, Fox BH, Isom RN, eds. *Cancer: The Behavioral Dimensions.* New York: Raven Pr; 1976.
19. **Bolund C.** Suicide and cancer. I. Demographic and social characteristics of cancer patients who committed suicide in Sweden, 1973-1976. *Journal of Psychosocial Oncology.* 1985;3:17-30.
20. **Bolund C.** Suicide and cancer. II. Medical and care factors in suicides by cancer patients in Sweden, 1973-1976. *Journal of Psychosocology Oncology.* 1985;3:31-52.
21. **Chochinov HM, Wilson KG, Enns M, Lander S.** Prevalence of depression in the terminally ill: effects of diagnostic criteria and symptom threshold judgments. *Am J Psychiatry.* 1994;151:537-40.
22. **DeFlorio M, Massie MJ.** Review of depression in cancer: gender differences. *Depression.* 1995;2:66-80.
23. **Plumb MM, Holland J.** Comparative studies of psychological function in patients with advanced cancer—I. Self-reported depressive symptoms. *Psychosom Med.* 1977;39:264-76.
24. **Plumb MM, Holland J.** Comparative studies of psychological function in patients with advanced cancer. II. Interviewer-rated current and past psychological symptoms. *Psychosom Med.* 1981;43:243-54.
25. **Lindemann E.** Symptomatology and management of acute grief. *Am J Psychiatry.* 1944;101:141-8.
26. **Brown JT, Stoudemire GA.** Normal and pathological grief. *JAMA.* 1983;250:378-82.
27. **Clayton PJ, Herjanic M, Murphy GE, Woodruff R Jr.** Mourning and depression: their similarities and differences. *Can Psychiatr Assoc J.* 1974;19:309-12.
28. **Bukberg J, Penman D, Holland JC.** Depression in hospitalized cancer patients. *Psychosom Med.* 1984;43:199-212.
29. **Ahles TA, Blanchard EB, Ruckdeschel JC.** The multidimensional nature of cancer-related pain. *Pain.* 1983;17:277-88.
30. **Woodforde JM, Fielding JR.** Pain and cancer. *J Psychosom Res.* 1970;14:365-70.
31. **Spiegel D, Sands S, Koopman C.** Pain and depression in patients with cancer. *Cancer.* 1994;74:2570-8.
32. **Kathol RG, Noyes R, Williams J, Mutgi A, Carroll B, Perry P.** Diagnosing depression in patients with medical illness. *Psychosomatics.* 1990;31:434-40.
33. **Weisman A.** On Dying and Denying: A Psychiatric Study of Terminality. New York: Behavioral Publications; 1972.
34. **Koenig HG, Cohen HJ, Blazer DG, Meador KG, Westlund R.** A brief depression scale for use in the medically ill. *Int J Psychiatry Med.* 1992;22:183-95.
35. **Gerety MG, Williams JW, Mulrow CD, Cornell JE, Kadri AA, Rosenberg J, et al.** Performance of case-finding tools for depression in the nursing home: influence of clinical and functional characteristics and selection of optimal threshold scores. *J Am Geriatr Soc.* 1994;42:1103-9.
36. **Chochinov HM, Wilson KG, Enns M, Lander S.** "Are you depressed?" Screening for depression in the terminally ill. *Am J Psychiatry.* 1997;154:674-6.
37. **Goldberg RJ.** Systematic understanding of cancer patients who refuse treatment. *Psychother Psychosom.* 1983;39:180-9.
38. **Maltsberger JT, Buile DH.** Countertransference hate in the treatment of suicidal patients. *Arch Gen Psychiatry.* 1974;30:625-33.
39. **Burt R.** Taking Care of Strangers. New York: Free Pr; 1979.
40. **Holland JC, Korzun AH, Tross S, Silberfarb P, Perry M, Comis R, et al.** Comparative psychological disturbance in patients with pancreatic and gastric cancer. *Am J Psychiatry.* 1986;143:982-6.
41. **Diagnostic and Statistical Manual of Mental Disorders.** 4th ed. Washington, DC: American Psychiatric Assoc; 1994.
42. **Groves JE.** Taking care of the hateful patient. *N Engl J Med.* 1978;298:883-7.
43. **Balint M.** The Doctor, His Patient, and the Illness. London: Pitman Medical Publishers; 1964.
44. **Breitbart W, Krivo S.** Suicide. In: Holland JC, ed. *Psychooncology.* New York: Oxford Univ Pr; 1998.
45. **Zinberg RE, Barlow DH.** Mixed anxiety-depression: a new diagnostic category. In: Rapee RM, Barlow DH, eds. *Chronic Anxiety: Generalized Anxiety Disorder and Mixed Anxiety-Depression.* New York: Guilford; 1991:136-52.
46. **Liebowitz MR.** Mixed anxiety and depression: should it be included in DSM-IV? *J Clin Psychiatry.* 1993;54(Suppl):4-7.
47. **Levine PM, Silberfarb PM, Lipowski ZJ.** Mental disorders in cancer patients: a study of 100 psychiatric referrals. *Cancer.* 1978;42:1385-91.
48. **Breitbart W.** Cancer pain and suicide. In: Foley KM, Bonica JJ, Ventafridda V, eds. *Advances in Pain Research and Therapy.* New York: Raven; 1990.
49. **Helig S.** The San Francisco Medical Society euthanasia survey. Results and analysis. *San Francisco Medical Medicine.* 1988;61:24-34.
50. **Twycross RG, Lack SA.** Symptom Control in Far Advanced Cancer: Pain Relief. London: Pitman; 1983.
51. **Cleeland CS.** The impact of pain on the patient with cancer. *Cancer.* 1984;54:235-41.

52. **Portenoy RK.** Cancer pain: pathophysiology and syndromes. *Lancet.* 1992; 339:1026-31.
53. **Ventafriidda V, Tamburini M, Caraceni A, De Conno F, Naldi F.** A validation study of the WHO method for cancer pain relief. *Cancer.* 1987;59: 850-6.
54. **Grond S, Zech D, Schug SA, Lynch J, Lehmann KA.** Validation of World Health Organization guidelines for cancer pain relief during the last days and hours of life. *J Pain Symptom Manage.* 1991;6:411-22.
55. A controlled trial to improve care for seriously ill hospitalized patients. The Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments (SUPPORT). The SUPPORT Principal Investigators. *JAMA.* 1995; 274:1591-8.
56. **Greer S, Moorey S, Baruch JD, Watson M, Robertson BM, Mason A, et al.** Adjuvant psychological therapy for patients with cancer: a prospective randomised trial. *BMJ.* 1992;304:675-80.
57. **Spiegel D, Bloom JR, Yalom I.** Group support for patients with metastatic cancer. A randomized outcome study. *Arch Gen Psychiatry.* 1981;38:527-33.
58. **Fallowfield LJ, Hall A, Maguire GP, Baum M.** Psychological outcomes of different treatment policies in women with early breast cancer outside a clinical trial. *BMJ.* 1990;301:575-80.
59. **Fawzy FI, Cousins N, Fawzy NW, Kemeny ME, Elashoff R, Morton D, et al.** A structured psychiatric intervention for cancer patients. I. Changes over time in methods of coping and affective disturbance. *Arch Gen Psychiatry.* 1990;47:720-5.
60. **Fawzy FI, Kemeny ME, Fawzy NW, Elashoff R, Morton D, Cousins N, et al.** A structured psychiatric intervention for cancer patients. II. Changes over time in immunological measures. *Arch Gen Psychiatry.* 1990;47:729-35.
61. **Spiegel D, Bloom JR, Kraemer HC, Gotthel E.** Effect of psychosocial treatment on survival of patients with metastatic breast cancer. *Lancet.* 1989; 2:888-91.
62. **Chaturvedi SK, Maguire P, Hopwood P.** Antidepressant medications in cancer patients. *Psychooncology.* 1994;3:57-60.
63. **Massie MJ, Holland JC.** Depression and the cancer patient. *J Clin Psychiatry.* 1990;51:12-7.
64. **Byock I.** *Dying Well: The Prospect for Growth at the End of Life.* New York: Riverhead Books; 1997.
65. **Katon W, Sullivan MD.** Depression and chronic medical illness. *J Clin Psychiatry.* 1990;51(Suppl):3-11.
66. **Maguire P, Hopwood P, Tarrier N, Howell T.** Treatment of depression in cancer patients. *Acta Psychiatr Scand Suppl.* 1985;320:81-4.
67. **Masand PS, Tesar GE.** Use of stimulants in the medically ill. *Psychiatr Clin North Am.* 1996;19:515-47.
68. **Fernandez F, Adams F, Holmes VF, Levy JK, Neidhart M.** Methylphenidate for depressive disorders in cancer patients. An alternative to standard antidepressants. *Psychosomatics.* 1987;28:455-62.
69. **Bruera R, Fainsinger R, MacEachern T, Hanson J.** The use of methylphenidate in patients with incident cancer pain receiving regular opiates. A preliminary report. *Pain.* 1992;50:75-7.
70. **Forrest WH, Brown BW, Brown CR, Defalque R, Gold M, Gordon HE, et al.** Dextroamphetamine with morphine for the treatment of postoperative pain. *N Engl J Med.* 1977;296:712-5.
71. **Silverstone T.** The clinical pharmacology of appetite—its relevance to psychiatry. *Psychol Med.* 1983;13:251-3.
72. **Woods SW, Tesar GE, Murray GB, Cassem NH.** Psychostimulant treatment of depressive disorders secondary to medical illness. *J Clin Psychiatry.* 1986;47:12-5.
73. **Masand P, Pickett P, Murray GB.** Psychostimulants for secondary depression in medical illness. *Psychosomatics.* 1991;32:203-8.
74. **Fernandez F, Adams F, Levy JK, Holmes VF, Neidhart M, Mansell PW.** Cognitive impairment due to AIDS-related complex and its response to psychostimulants. *Psychosomatics.* 1988;29:38-46.
75. **Angrist B, d'Hollosy M, Sanfilippo M, Satriano J, Diamond G, Simberkoff M, et al.** Central nervous system stimulants as symptomatic treatments for AIDS-related neuropsychiatric impairment. *J Clin Psychopharmacol.* 1992;12:268-72.
76. **Kasper S, Fuger J, Moller HJ.** Comparative efficacy of antidepressants. *Drugs.* 1992;43(Suppl 2):11-22.
77. **Elliot AJ, Uldall KK, Bergam K, Russo J, Claypoole K, Roy-Byrne PP.** Randomized, placebo-controlled trial of paroxetine versus imipramine in depressed HIV-positive outpatients. *Am J Psychiatry.* 1998;155:367-72.
78. **Roose SP, Laghrissi-Thode F, Kennedy JS, Nelson JC, Bigger JT, Pollock BG, et al.** Comparison of paroxetine and nortriptyline in depressed patients with ischemic heart disease. *JAMA.* 1998;279:287-91.
79. **Preskorn SH, Burke M.** Somatic therapy for major depressive disorder: selection of an antidepressant. *J Clin Psychiatry.* 1992;53(Suppl):5-18.
80. **Mendels J.** Clinical experience with serotonin reuptake inhibiting antidepressants. *J Clin Psychiatry.* 1987;48(Suppl):26-30.
81. **Rifkin A, Reardon G, Siris S, Karagji B, Kim YS, Hackstaff L, et al.** Trimipramine in physical illness with depression. *J Clin Psychiatry.* 1985;46: 4-8.
82. **France RD.** The future for antidepressants: treatment of pain. *Psychopathology.* 1987;20:99-113.
83. **Preskorn SH, Jerkovich GS.** Central nervous system toxicity of tricyclic antidepressants: phenomenology, course, risk factors, and role of therapeutic drug monitoring. *J Clin Psychopharmacol.* 1990;10:88-95.
84. **Preskorn SH.** Recent pharmacologic advances in antidepressant therapy for the elderly. *Am J Med.* 1993;94(5A):25-125.
85. **Lewis-Fernandez R, Kleinman A.** Cultural psychiatry. Theoretical, clinical, and research issues. *Psychiatr Clin North Am.* 1995;18:433-48.
86. **Farberow NL, Banzler S, Cutter F, Reynolds D.** An eight-year survey of hospital suicides. *Suicide and Life-Threatening Behavior.* 1971;1:184-201.
87. **Marzuk PM, Tierney H, Tardiff K, Gross EM, Morgan EB, Hsu MA, et al.** Increased risk of suicide in persons with AIDS. *JAMA.* 1988;259:1333-7.
88. **Blazer DG, Bachar JR, Manton KG.** Suicide in late life. Review and commentary. *J Am Geriatric Soc.* 1986;34:519-25.
89. **Rabins PV.** Prevention of mental disorder in the elderly: current perspectives and future prospects. *J Am Geriatric Soc.* 1992;40:727-33.
90. **Ganzini L, Lee MA, Heintz RT, Bloom JD, Fenn DS.** The effect of depression treatment on elderly patients' preferences for life-sustaining medical therapy. *Am J Psychiatry.* 1994;151:1631-6.
91. **Block SD, Billings JA.** Patient requests to hasten death. Evaluation and management in terminal care. *Arch Intern Med.* 1994;154:2039-47.
92. **Quill TE, Meier DE, Block SD, Billings JA.** The debate over physician-assisted suicide: empirical data and convergent views. *Ann Intern Med.* 1998; 128:552-8.
93. **Vachon MLS.** The emotional problems of the patient. In: Doyle D, Hanks GW, MacDonald N, eds. *Oxford Textbook of Palliative Medicine.* Oxford: Oxford Medical Publications; 1998.
94. **Endicott J.** Measurement of depression in patients with cancer. *Cancer.* 1984;53(10 Suppl):2243-9.
95. **Mackenzie TB, Popkin MK.** Suicide in the medical patient. *Int J Psychiatry Med.* 1987;17:3-22.